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Special Applications

Eaton Quick Disconnect Couplings – Customizing Solutions for the Future... Hydraulics and Beyond

For over 90 years, Eaton has continued to manufacture and supply the highest performing quick disconnect couplings globally for customers serving many industries including agriculture, construction, transportation, and fire and rescue just to name a few. Eaton's quality and performance are never compromised when it comes to engineering and manufacturing its full line of quick disconnect couplings. From traditional industry standards to custom couplings for the next generation of emerging markets and new advanced technologies, Eaton continues to provide quick disconnect coupling solutions to meet your demands.

Custom Design Capability – One Application at a Time

Eaton continues the tradition of developing custom quick disconnect couplings for customers who need a product to perform above and beyond industry standards. Whether it is a custom coupling for the world's most powerful and sophisticated super computers that use electronic cooling or a self-contained breathing apparatus coupling for first responders, Eaton has the ability to work directly with you on a solution. Contact Eaton to see how our dedicated and experienced design engineering team will work with you to develop a quick disconnect coupling solution.

Safety Information for Eaton Quick Disconnect Couplings

1.0 General Instructions.

1.1 Scope. The scope of this safety bulletin is to warn against improper selection, use, installation, etc. of Eaton coupling products.

1.2 Distribution. A copy of this safety bulletin should be distributed to all individuals responsible for using and/or selecting Eaton coupling products.

1.3 Fail-Safe. Design all systems and equipment for fail-safe operation such that failure of any component does not result in personal injury and/or property damage.

1.4 User Responsibility. It is the sole responsibility of the user to select and determine that the Eaton product is compatible with the end use application. The user is responsible for reading and following this safety bulletin as well as any instructions or literature on the Eaton product being used. The user must provide necessary product warnings for Eaton couplings products, used with systems or equipment, to the operators of the systems or equipment.

1.5 Usage with other Manufacturers' Products. When using Eaton coupling products with other manufacturers' adapters, hoses, etc., do not exceed the lowest pressure rating of any of the components being used or rupture may result.

2.0 Selection of Eaton Couplings.

2.1 Pressure. Ensure that the maximum operating pressure of the system or equipment does not exceed the rated operating pressure of the Eaton coupling product or rupture may result.

2.2 Fluid Compatibility. Verify that all components (seals, metals, etc.) are compatible with the fluid being conveyed. Failure to do so may result in high speed fluid discharge and/or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.

2.3 Temperature. Ensure that the maximum operating temperature of the system or equipment does not exceed the rated operating temperature of the Eaton coupling product (including seals) or rupture may result.

2.4 Coupling Size. Use properly sized couplings such that there is not a large pressure drop across them thus avoiding system damage due to excessive heat generation or failure of internal components.

2.5 Sleeve Lock. Use sleeve locks or threaded couplings where there is the possibility of accidental disconnection. Failure to utilize sleeve locks or threaded couplings in these applications may result in hose whip, expelled components, high speed fluid discharge, system damage, or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.

2.6 Connect or Disconnect Under Pressure.

If connection and/or disconnection of couplings under pressure is a requirement, only use couplings designed for connection/disconnection under pressure. Failure to utilize this type of coupling in that application may result in hose whip, expelled components, high speed fluid discharge, and/or system damage. Be certain not to confuse the rated operating pressure with the rated connect/disconnect under pressure.

2.7 Environment. Ensure that Eaton couplings are compatible with the surrounding environment. The surrounding environment may be heat, salt water, moisture, chemicals, and the like. Failure to protect against an adverse environment may cause system damage, premature failure, and/or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.

2.8 External Loads. Avoid any external loads such as side loads, tensile loads, vibration, etc. Failure to do so may result in accidental disconnection, premature failure, system damage, and/or leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful.

2.9 Welding & Brazing. Extreme heating of plated products above +450°F (+232°C) such as welding, brazing, baking, etc., where the plating is burned off, may result in the release of deadly gases.

3.0 Installation of Eaton Couplings.

3.1 Inspection of Product. Prior to installation, ensure that the Eaton product meets all of the requirements of the system and/or equipment it is to be used on. Ensure you have the correct part number, function test the coupling by connecting it with a mating half. The function test should result in smooth, non-binding operation or premature failure may result.

3.2 Cleanliness. Use end caps and plugs to reduce the risk of system contamination or damage to critical sealing surfaces. Failure to do so may result in leakage of fluids which may be flammable, toxic, at extreme temperatures, or otherwise harmful. Caps and plugs are not a secondary seal unless explicitly noted.

3.3 Location. Place Eaton couplings in a safe location such as not to expose the user to personal injury (slippage, tripping, falling, etc.) during installation, connection, disconnection and maintenance.

4.0 Product Maintenance. A maintenance schedule should be put in place to ensure that Eaton couplings are functioning properly. Eaton is not responsible for product failures resulting from modification or improper maintenance.

4.1 Inspection. Visually inspect to ensure that there is no leakage, cracked components, corrosion build-up, contamination build-up, wear, etc. If any abnormality is encountered, the coupling should be replaced immediately.

Fluid Compatibility

This chart indicates the suitability of various elastomers and metals for use with fluids to be conveyed. It is intended for use with Eaton couplings and should not be used to determine compatibility for other products. It is intended as a guide only and is not a guarantee. Final selection of the proper seal or material of metal components is further dependent on many factors including pressure, fluid and ambient temperature, concentration, duration of exposure, etc.

How to Use the Chart

- Both the elastomer and the metal must be considered when determining suitability of combination for a coupling.
- Locate the fluid to be conveyed and determine the suitability of the elastomeric and metal components according to the resistance rating shown for each.
- Dimensional and operation specifications for each coupling can be found on the catalog pages.
- Information on seal options for couplings, and how to specify them, are shown in the respective sections of this catalog.
- Be sure to check the table below for maximum operating temperature range of the elastomer desired.
- For further details on the products shown in this catalog, and their applications, consult your Eaton Sales Representative or Eaton Technical Support.
- Coupling component materials may differ from body material. Refer to specific catalog pages.

Seal Elastomer Data*

| Seal Elastomer** | Max. Operation Temperature Range |
|------------------|--------------------------------------|
| Buna-N | -40°F to +250°F (-40°C to +121°C) |
| Neoprene | -65°F to +212°F (-54°C to +100°C) |
| EPDM | -65°F to +300°F (-54°C to +149°C) |
| FKM | -15°F to +400°F (-29°C to +204°C) |

*For reference only, based on Eaton recommended temperatures.

**For seals not listed, contact Eaton.

Contact Eaton technical support for further information.

Resistance Rating Key

E = Excellent – Fluid has little or no effect

G = Good – Fluid has minor to moderate effect

C = Conditional – Service conditions should be described to Eaton for determination of suitability for application

U = Unsatisfactory

The differences between ratings “E” and “G” are relative. Both indicate satisfactory service. Where there is a choice, the materials rated “E” may be expected to give better or longer service than those rated “G”.

The charts below are intended for reference use only. The information in this chart pertains strictly to material compatibility and is not intended to be used as an application guide.

E=Excellent
G=Good
C=Conditional
U=Unsatisfactory

| Fluid | Seals | | | | Metal | | | |
|---------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Acetaldehyde | U | C | C | U | G | E | E | E |
| Acetic Acid, 10% | U | U | E | G | U | U | C | C |
| Acetic Acid, Glacial | U | U | C | U | U | U | C | C |
| Acetone | U | U | G | U | E | E | E | E |
| Acetophenone | U | U | E | U | E | E | E | C |
| Acetyl Acetone | U | U | G | U | U | C | C | C |
| Acetyl Chloride | U | U | U | E | C | C | C | U |
| Acetylene (1) | G | U | G | E | E | E | E | E |
| Air, Hot (Up to +160°F) | E | E | E | E | E | E | E | E |
| Air, Hot (161°F – 200°F) | C | G | E | E | E | E | E | E |
| Air, Hot (201°F – 300°F) | U | U | G | E | E | E | E | E |
| Air Wet, below 160°F | E | E | E | E | U | G | E | E |
| Aluminum Chloride, 10% aq | E | E | E | E | U | U | U | U |
| Aluminum Fluoride, 10% aq | E | E | E | E | U | U | U | E |
| Aluminum Nitrate, 10% aq | E | E | E | E | U | U | C | C |

| Fluid | Seals | | | | Metal | | | |
|----------------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Aluminum Sulfate, 10% aq | E | E | E | E | U | C | E | C |
| Alums, 10% aq | E | E | E | E | U | C | E | C |
| Ammonia, Cold | E | E | E | U | E | U | E | E |
| Ammonia, Hot | U | G | G | U | E | U | E | E |
| Ammonia, Anhydrous | G | G | E | U | E | U | E | E |
| Ammonia, Aqueous | E | E | E | U | E | U | E | E |
| Ammonium Carbonate, 10% aq | U | E | E | U | C | U | C | C |
| Ammonium Chloride, 10% aq | E | E | E | U | U | U | C | U |
| Ammonium Hydroxide, 10% aq | C | C | E | C | G | U | C | C |
| Ammonium Nitrate, 10% aq | E | G | E | U | G | U | G | G |
| Ammonium Phosphate, 10% aq | E | E | E | - | U | C | G | U |
| Ammonium Sulfate/Sulfide, 10% aq | E | E | E | U | U | U | G | U |
| Amyl Acetate | U | U | G | U | E | E | E | E |
| Amyl Alcohol | G | C | E | G | G | G | E | U |
| Aniline, Aniline Oil | U | U | G | U | E | U | E | G |

Fluid Compatibility

E=Excellent
G=Good
C=Conditional
U=Unsatisfactory

| Fluid | Seals | | | | Metal | | | |
|------------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Aniline Dyes | U | G | G | G | U | C | G | C |
| Asphalt, < 200°F | G | C | U | E | E | G | E | C |
| IRM 901 Oil | E | E | C | E | E | E | E | E |
| IRM 902 Oil | E | G | U | E | E | E | E | E |
| IRM 903 Oil | E | C | U | E | E | E | E | E |
| Automatic Trans. Fluid | E | C | U | E | E | E | E | E |
| Barium Chloride, 10% aq | E | E | E | E | U | G | G | G |
| Barium Hydroxide, 10% aq | E | E | E | E | G | U | G | U |
| Barium Sulfide, 10% aq | E | E | E | E | C | U | G | U |
| Benzene, Benzol | U | U | U | E | G | E | E | G |
| Benzoic Acid | U | U | U | E | U | G | G | G |
| Benzyl Alcohol | U | G | G | E | E | G | E | G |
| BioDiesel (<B20) | G | C | U | E | | | | |
| BioDiesel (>B20) | G | C | U | E | | | | |
| Black Sulfate Liquor | C | C | C | E | E | C | E | U |
| Blast Furnace Gas | U | U | U | E | E | C | E | U |
| Borax, 10% aq | G | G | E | E | E | E | E | G |
| Boric Acid, 10% aq | G | G | G | E | U | G | C | C |
| Brine | E | G | E | E | U | G | G | U |
| Bromine, Dry | U | U | U | E | U | C | U | C |
| Butane | E | C | U | E | E | E | E | E |
| Butyl Acetate | U | U | G | U | E | E | E | E |
| Butyl Alcohol | E | E | G | E | G | G | G | G |
| Butyl Cellosolve | U | U | G | U | E | E | E | E |
| Butylene (Butene) | C | U | U | E | E | E | E | E |
| Butyl Stearate | G | U | U | E | G | G | G | G |
| Butyraldehyde | U | U | G | U | E | E | E | E |
| Calcium Acetate, 10% aq | G | G | E | U | G | G | G | C |
| Calcium Bisulfate, 10% aq | E | E | U | E | U | C | C | U |
| Calcium Chloride, 10% aq | E | E | E | E | G | G | G | C |
| Calcium Hydroxide, 10% aq | E | E | E | E | G | G | G | U |
| Calcium Hypochlorite, 10% aq | U | U | E | E | U | G | C | U |
| Calcium Nitrate, 10% aq | E | E | E | E | G | G | G | G |
| Carbitol | G | G | G | G | E | E | E | E |
| Carbolic Acid (Phenol) | U | U | G | E | U | E | E | - |
| Carbonic Acid | G | E | E | E | U | C | E | G |
| Carbon Dioxide, Dry Gas | G | G | E | E | E | E | E | E |
| Carbon Disulfide | U | U | U | E | G | G | G | E |
| Carbon Monoxide | G | G | E | E | E | E | E | E |
| Carbon Tetrachloride | U | U | U | E | U | G | G | U |
| Castor Oil | E | E | G | E | E | E | E | E |
| Cellosolve Acetate | U | U | G | U | U | U | E | G |
| China Wood Oil (Tung Oil) | G | G | U | E | E | G | E | E |
| Chlorine Gas, Dry | U | U | U | G | C | C | C | C |
| Chloroacetic Acid | U | U | G | U | U | U | U | U |
| Chloroacetone | U | U | E | U | G | G | G | U |
| Chlorobenzene | U | U | U | G | G | G | G | G |
| Chloroform | U | U | U | E | G | G | G | G |
| O-Chlorophenol | U | U | U | E | G | G | G | U |
| Chlousulfonic Acid | U | U | U | U | G | U | G | G |
| Chrome Plating Solution | U | U | G | E | C | U | U | U |

| Fluid | Seals | | | | Metal | | | |
|---------------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Chromic Acid | U | U | C | E | C | U | U | U |
| Citric Acid | E | E | E | E | C | C | C | C |
| Coke Oven Gas | U | U | U | E | E | C | E | U |
| Copper Chloride, 10% aq | E | E | E | E | U | U | U | U |
| Copper Cyanide, 10% aq | E | E | E | E | E | U | G | U |
| Copper Sulfate, 10% aq | E | E | E | E | U | C | G | U |
| Cotton Seed Oil | E | G | C | E | E | E | E | E |
| Creosote (Coal Tar) | G | C | U | E | E | C | E | E |
| Crude Oil | E | G | U | E | G | U | G | U |
| Cyclohexanol | E | G | U | E | E | E | E | C |
| Cyclohexanone | U | U | G | U | E | E | E | C |
| Detergent/Water Solution | E | E | E | E | G | E | E | E |
| Diacetone Alcohol (Acetol) | U | U | E | U | E | E | E | E |
| Dibenzyl Ether | U | U | G | U | G | G | G | G |
| Diesel Oil | E | C | U | E | E | E | E | E |
| Diethylamine | G | G | G | U | E | U | E | - |
| Diocetyl Phthalate (DOP) | U | U | G | G | E | E | E | E |
| DOT #3 / #4 Brake fluid | C | U | E | U | E | C | E | E |
| Dowtherm A&E | U | U | U | E | G | U | E | E |
| Ethyl Alcohol (Ethanol) | E | E | E | E | E | E | E | G |
| Ethyl Acetate | U | U | G | U | E | E | E | E |
| Ethyl Benzene | U | U | U | E | E | G | G | G |
| Ethyl Cellulose | G | G | G | U | E | G | G | G |
| Ethyl Chloride | U | U | U | E | E | E | E | G |
| Ethylene Dichloride | U | U | U | G | G | C | G | G |
| Ethylene Glycol | E | E | E | E | U | G | E | E |
| Ferric Chloride, 10% aq | E | G | E | E | U | U | U | U |
| Ferric Nitrate, 10% aq | E | E | E | E | U | U | G | U |
| Ferric Sulfate, 10% aq | G | G | G | E | U | U | E | U |
| Formaldehyde | C | C | G | G | E | E | E | G |
| Formic Acid | C | G | E | U | U | C | C | C |
| Fuel Oil | E | C | U | E | E | E | E | E |
| Furfural | C | C | G | U | G | G | G | G |
| Gallic Acid, Solution | G | G | G | E | U | - | G | C |
| Gasoline | E | U | U | E | E | E | E | E |
| Gasohol | G | U | U | E | E | E | E | G |
| Glycerine/Glycerol | E | E | E | E | E | G | E | E |
| Green Sulfate Liquor | G | G | E | E | U | U | E | U |
| Helium (1) | E | E | E | E | E | E | E | E |
| Heptane | E | G | U | E | E | E | E | E |
| Hexaldehyde | U | G | G | U | G | G | E | E |
| Hexane | E | G | U | E | E | E | E | E |
| Hydraulic Oils, petroleum based | G | C | U | E | E | E | E | E |
| Ester Blend | E | U | U | E | E | E | E | E |
| Phos. Ester/Petroleum Blend | U | U | U | C | E | E | E | E |
| Silicone Oils | E | E | E | E | E | E | E | E |
| Straight Petroleum Base | E | C | U | E | E | E | E | E |
| Straight Phosphate Ester | U | U | G | C | E | E | E | E |
| Water Glycol | E | E | E | E | E | E | E | G |
| Water Petroleum Emulsion | E | G | U | E | C | E | E | G |
| Hydrobromic Acid | U | U | E | E | E | U | E | E |

Fluid Compatibility

E=Excellent
G=Good
C=Conditional
U=Unsatisfactory

| Fluid | Seals | | | | Metal | | | |
|-----------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Hydrochloric Acid, Cold | U | U | G | E | U | U | U | U |
| Hydrocyanic Acid | C | C | E | E | E | E | G | E |
| Hydrofluoric Acid | U | U | C | U | U | U | U | U |
| Hydrofluorosilic Acid | G | G | E | E | U | U | U | U |
| Hydrogen | E | E | E | E | E | E | E | E |
| Hydrogen Peroxide | G | G | G | E | U | U | G | E |
| Hydrogen Sulfide, Dry | U | G | E | U | E | G | G | G |
| Isocyanate | U | U | G | E | G | - | G | - |
| Iso Octane | E | G | U | E | E | E | E | E |
| Isopropyl Acetate | U | U | G | U | E | - | E | E |
| Isopropyl Alcohol | G | G | E | E | E | E | E | G |
| Isopropyl Ether | G | U | U | U | G | G | G | - |
| JP-4, JP-5 | E | U | U | E | E | E | E | E |
| Kerosene | E | U | U | E | E | E | E | E |
| Lacquer/Lacquer Solvents | U | U | U | U | U | E | E | E |
| Lime Sulfur | U | E | E | E | G | U | G | - |
| Linseed Oil | E | G | U | E | E | E | E | E |
| LPG | E | G | U | E | E | E | E | E |
| Magnesium Chloride, 10% aq | E | E | E | E | E | C | C | G |
| Magnesium Hydroxide, 10% aq | G | G | E | E | E | G | E | G |
| Magnesium Sulfate, 10% aq | E | E | E | E | E | E | E | E |
| Maleic Acid | U | U | U | E | E | G | G | G |
| Maleic Anhydride | U | U | U | E | G | U | E | G |
| Malic Acid | G | G | U | G | U | - | E | G |
| Mercuric Chloride | E | E | E | E | U | U | U | U |
| Mercury | E | E | E | E | E | U | E | U |
| Methanol | G | G | E | U | G | G | E | C |
| Methyl Bromide | G | U | U | E | E | E | G | U |
| Methyl Chloride | U | U | U | E | E | E | E | U |
| Methyl Butyl Ketone | U | U | E | U | E | E | E | - |
| Methyl Ethyl Ketone | U | U | E | U | G | G | G | G |
| Methylene Chloride | U | U | U | G | G | G | G | G |
| Methyl Isobutyl Ketone | U | U | U | U | G | G | G | G |
| Methyl Isopropyl Ketone | U | U | U | U | G | G | G | G |
| Methyl Salicylate | U | U | C | U | E | G | G | E |
| MIL-L-2104 | E | G | U | E | E | E | E | - |
| MIL-H-5606 | E | G | U | E | E | E | E | E |
| MIL-H-6083 | E | E | U | E | E | E | E | - |
| MIL-L-7808 | G | U | U | E | G | G | E | - |
| MIL-L-23699 | G | U | U | E | E | E | E | E |
| MIL-H-46170 | E | G | U | E | E | E | E | - |
| MIL-H-83282 | E | U | U | E | E | E | E | - |
| Mineral Oils | E | C | U | E | E | E | E | E |
| Naphtha | C | U | U | E | - | - | - | - |
| Naphthalene | U | U | U | E | E | G | E | G |
| Naphthenic Acid | C | U | U | E | - | G | E | G |
| Natural Gas | E | E | U | E | G | G | G | G |
| Nickel Acetate, 10% aq | C | C | E | G | G | C | E | G |
| Nickel Chloride, 10% aq | E | G | E | E | U | U | G | U |
| Nickel Sulfate, 10% aq | E | E | E | E | U | G | G | U |
| Nitric Acid, to 10% | U | U | U | E | U | U | E | U |

| Fluid | Seals | | | | Metal | | | |
|-------------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Nitric Acid, over 10% | U | U | U | G | U | U | E | C |
| Nitrobenzene | U | U | U | G | E | G | E | E |
| Nitrogen | E | E | E | E | E | E | E | E |
| Octyl Alcohol | E | E | E | E | E | E | E | E |
| Oleic Acid | U | U | C | G | C | E | G | C |
| Oleum, fuming sulfuric acid | U | U | U | E | E | E | E | E |
| Ortho-Dichlorobenzene | U | U | U | E | G | G | G | G |
| Oxalic Acid, 10% aq | G | G | E | E | U | C | C | C |
| Oxygen | - | - | E | E | G | G | G | G |
| Palmitic Acid | E | G | G | E | G | - | E | G |
| Para-Dichlorobenzene | U | U | U | E | G | G | G | G |
| Pentane | E | E | U | E | G | G | G | E |
| Perchloric Acid | E | G | G | E | U | U | U | U |
| Perchloroethylene | U | U | U | E | C | G | G | G |
| Petroleum Base Oils | E | G | U | E | E | E | E | E |
| Phenol (Carbolic Acid) | U | U | G | E | U | E | E | E |
| Phosphate Ester | U | U | G | C | E | E | E | E |
| Phosphoric Acid 20% | U | U | G | E | U | E | U | C |
| Phosphorous Trichloride | U | U | E | E | C | U | C | E |
| Potassium Acetate, 10% aq | G | G | E | U | C | G | C | U |
| Potassium Chloride, 10% aq | E | E | E | E | E | C | E | U |
| Potassium Cyanide, 10% aq | E | E | E | E | C | U | G | U |
| Potassium Dichromate, 10% aq | E | E | E | E | C | C | C | C |
| Potassium Hydroxide, to 10% | G | G | E | G | G | G | G | U |
| Potassium Hydroxide, over 10% | C | C | E | U | G | G | G | U |
| Potassium Nitrate, 10% aq | E | E | E | E | G | G | E | G |
| Potassium Sulfate, 10% aq | E | E | E | E | - | - | - | - |
| Propane (Liquified) | C | G | - | E | E | E | E | E |
| Propyl Acetate | U | U | G | U | E | - | E | E |
| Propyl Alcohol | E | E | E | E | E | E | E | E |
| Propylene | U | U | U | E | E | E | E | E |
| Rapeseed oil (B100) | G | C | U | E | | | | |
| Refrigerant R-12 | G | E | C | E | E | E | E | E |
| Refrigerant R-13 | G | E | C | E | E | E | E | E |
| Refrigerant R-22 | U | E | C | U | E | E | E | E |
| Refrigerant R-134a | E | C | G | U | E | E | E | E |
| Sewage | E | E | E | E | G | G | G | G |
| Silicone Oils | E | E | E | E | E | E | E | E |
| Soap (Water Solutions) | E | E | E | E | E | E | E | U |
| Sodium Acetate, 10% aq | G | G | E | U | E | E | G | E |
| Sodium Bicarbonate, 10% aq | E | E | E | E | G | G | E | G |
| Sodium Borate, 10% aq | E | E | E | E | E | E | E | G |
| Sodium Carbonate, 10% aq | E | E | E | E | E | G | E | U |
| Sodium Chloride, 10% aq | E | E | E | E | U | C | C | C |
| Sodium Cyanide, 10% aq | E | E | E | E | E | - | C | U |
| Sodium Hydroxide, to 10% | U | G | E | E | C | G | C | U |
| Sodium Hydroxide, over 10% | U | U | G | E | C | C | C | U |
| Sodium Hypochlorite, 10% aq | C | C | E | C | U | U | U | U |
| Sodium Metaphosphate, 10% aq | E | E | E | E | E | G | G | U |
| Sodium Nitrate, 10% aq | G | G | E | - | E | C | E | E |
| Sodium Perborate, 10% aq | G | G | E | E | C | U | C | U |

Fluid Compatibility

E=Excellent
G=Good
C=Conditional
U=Unsatisfactory

| Fluid | Seals | | | | Metal | | | |
|----------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Sodium Peroxide, 10% aq | G | G | E | E | U | U | C | C |
| Sodium Phosphates, 10% aq | E | E | E | E | U | E | G | U |
| Sodium Silicate, 10% aq | E | E | E | E | E | E | E | E |
| Sodium Sulfate, 10% aq | E | E | E | E | C | G | G | G |
| Sodium Sulfide, 10% aq | E | E | E | E | C | U | C | U |
| Sodium Thiosulfate, 10% aq | G | E | E | E | U | U | C | G |
| Soy Bean Oil (B100) | E | C | U | E | E | E | E | E |
| Stannic Chloride | E | G | E | E | U | U | U | U |
| Steam (up to 388°F) | U | U | C | C | E | E | E | G |
| Stearic Acid | G | G | G | E | C | C | E | C |
| Stoddard Solvent | E | G | U | E | E | E | E | E |
| Styrene | U | U | U | G | E | E | E | E |
| Sulfur, Slurry | U | E | E | E | E | U | G | E |
| Sulfur Chloride, Wet | U | U | U | E | G | – | G | G |
| Sulfur Dioxide, Dry | U | U | G | E | E | G | G | E |
| Sulfur Trioxide | U | U | G | E | G | C | G | G |
| Sulfuric Acid, to 10% | U | G | U | E | U | G | C | – |
| Sulfuric Acid, over 10% | U | U | U | G | C | C | C | U |
| Sulfurous Acid | C | C | U | G | U | C | C | C |
| Tannic Acid | G | E | E | E | E | E | E | C |
| Tar (Bituminous) | G | U | U | E | E | G | E | E |

| Fluid | Seals | | | | Metal | | | |
|--------------------------|--------|----------|-----------|-----|-------|-------|-----------------|----------|
| | Buna-N | Neoprene | FPDM/EPDM | FKM | Steel | Brass | Stainless Steel | Aluminum |
| Tartaric Acid | E | G | G | E | U | C | C | E |
| Tertiary Butyl Alcohol | G | G | G | E | G | G | G | G |
| Titanium Tetrachloride | C | U | U | E | E | U | G | U |
| Toluene (Toluol) | U | U | U | E | E | E | E | E |
| Trichlorethylene | U | U | U | E | E | G | E | E |
| Tricresyl Phosphate | U | U | E | G | E | – | C | – |
| Triethanolamine | E | U | E | U | E | U | E | E |
| Tung Oil | G | G | U | E | E | G | E | E |
| Turpentine | G | U | U | E | G | G | G | G |
| Varnish | G | U | U | E | E | G | E | E |
| Vinyl Chloride | U | U | U | E | E | U | C | E |
| Water (to +150°F) | E | E | E | E | C | G | E | G |
| Water (+151°F to +200°F) | E | E | E | E | C | G | E | G |
| Water (+201°F to +350°F) | U | U | G | G | C | G | E | G |
| Water Glycol | E | E | E | E | E | E | E | G |
| Water Petroleum Emulsion | E | G | U | E | C | E | E | G |
| Xylene | U | U | U | E | E | E | E | E |
| Zinc Chloride, 10% aq | E | E | E | E | E | U | U | C |
| Zinc Sulfate, 10% aq | E | E | E | E | U | C | G | C |

Seal Information for Eaton Hansen and Gromelle Products

| Dash Number | Compound |
|-------------|-----------------------|
| –*** | Buna-N – 90 Durometer |
| –115 | PTFE |
| –118 | Neoprene |
| –143 | FKM |
| –146 | Buna-N – 70 Durometer |
| –192* | EPDM |
| –235† | Kalrez® |
| –236* | EPDM |

***No Dash Number required for standard seal material.

*–192 and –236 compounds are not compatible with mineral-based greases or oils.

†Kalrez seals available by special quotation.

HK Series (Steel) ISO 7241-1 B Interchange



Eaton's HK Series coupling sets the industry standard for ISO B Couplings. The HK Series features a rugged ball latch mechanism with automatic self-sealing poppet valves in a wide array of port configurations and multiple valved and non-valved configurations.

Product Features

- Meets dimensional requirements to ISO standard 7241-1 Series B
- The coupling that sets the industry standard
- Self-sealing poppet valve design provides excellent high and low pressure sealing
- Standard seal material: Buna-N
- Seal options available in PTFE, Neoprene, FKM, EPDM, and Kalrez®
- Standard body material: Zinc trivalent plated steel with stainless steel springs, balls and retaining rings.
- PTFE back up rings in sockets (females)

Physical Characteristics

| Series | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Max. Operating Pressure | | Rated Flow* | | Air Inclusion cc. max. | Fluid Loss cc. max. |
|--------|-------------------|------------------|-------------------------------|--|--|--|--|-------------|-------|---------------------------|------------------------|
| | | | | Non hazardous liquids & gases Group 2 (bar) | Non hazardous liquids & gases Group 2 (psi) | Hazardous liquids & gases Group 1 (bar) | Hazardous liquids & gases Group 1 (psi) | (lpm) | (gpm) | | |
| 1HK | 1/8 | 5 | 4.4 | 275 | 4,000 | 275 | 4,000 | 3 | 0.8 | 0.6 | 0.5 |
| 2HK | 1/4 | 6.3 | 5.9 | 345 | 5,000 | 345 | 5,000 | 12 | 3 | 1.2 | 0.9 |
| 3HK | 3/8 | 10 | 7.8 | 275 | 4,000 | 275 | 4,000 | 23 | 6 | 2.9 | 2.1 |
| 4HK | 1/2 | 12.5 | 10 | 345 | 5,000 | 345 | 5,000 | 45 | 12 | 3.6 | 3.5 |
| 6HK | 3/4 | 20 | 17 | 275 | 4,000 | 275 | 4,000 | 100 | 26 | 11.5 | 9.3 |
| 8HK | 1 | 25 | 19.6 | 275 | 4,000 | 275 | 4,000 | 189 | 50 | 18.0 | 16.9 |
| 10HK | 1 1/4** | — | 26.7 | 200 | 2900 | 37 | 537 | 288 | 76 | 48.0 | 48.0 |
| 12HK | 1 1/2 | 40 | 35.1 | 150 | 2175 | 29 | 421 | 375 | 99 | 91.3 | 91.3 |
| 20HK | 2 1/2 | 50 | 46 | 100 | 1450 | 21 | 305 | 757 | 200 | 209.9 | 209.9 |

* For questions related to vacuum please contact Eaton.

** No ISO Standard available for the 10HK

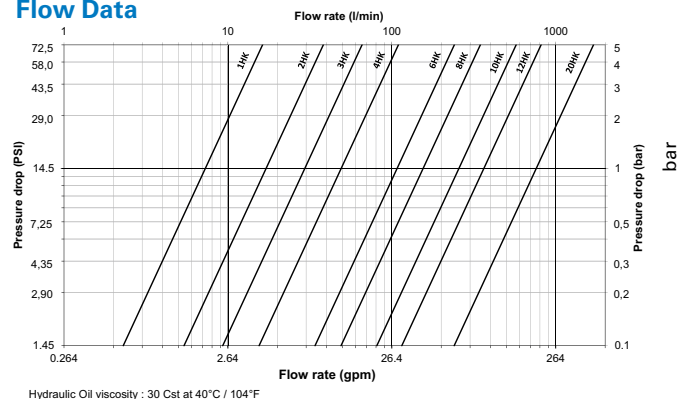
Applications & Markets

- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Transportation
- Military
- Law Enforcement/Rescue
- Chemical
- Oil and Gas
- Consumer Products
- HVAC
- Food and Beverage
- Trucks
- Aerospace
- Medical

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases.
Group 1 = Hazardous media / Group 2 = Other media

Flow Data



Seal Elastomer Data*

| Seal Elastomer** | Max. Operation Temperature Range |
|------------------|----------------------------------|
| Buna-N | -40°C to +121°C/40°F to +250°F |
| Neoprene | -54°C to +100°C/-65°F to +212°F |
| EPDM | -54°C to +149°C/-65°F to +300°F |
| FKM | -29°C to +204°C/-15°F to +400°F |

* For reference only, based on Eaton recommended temperatures.

** For seals not listed contact Eaton.

Contact Eaton technical support for further information on fluid compatibility.

HK Series (Steel) ISO 7241-1 B Interchange

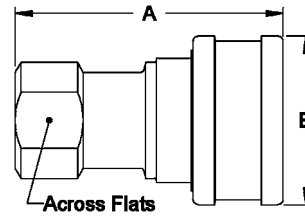


Figure 1

Sockets (Female)

| Part Number HK1-8 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | | Fig. | Dimensions | | | | | |
|-----------------------------|-------------------|------------------|----------------------|--------|-----------|------|------------|-----------|----------------------|-----------|-----------|----------------------|
| | | | NPTF | BSPP | SAE | | A (in) | B (in) | Across Flats (in) | A (mm) | B (mm) | Across Flats (mm) |
| 1H11 | 1/8 | 5 | 1/8-27 | - | - | 1 | 1.91 | 0.98 | 0.56 | 48.5 | 24.9 | 14.2 |
| 1H4 | 1/8 | 5 | - | - | 7/16-20 | 1 | 2.06 | 0.98 | 0.69 | 52.3 | 24.9 | 17.5 |
| 2H16 | 1/4 | 6.3 | 1/4-18 | - | - | 1 | 2.26 | 1.14 | 0.75 | 57.4 | 29.0 | 19.1 |
| 2H16BS | 1/4 | 6.3 | - | 1/4-19 | - | 1 | 2.31 | 1.14 | 0.75 | 58.7 | 29.0 | 19.1 |
| 2H6 | 1/4 | 6.3 | - | - | 9/16-18 | 1 | 2.40 | 1.14 | 0.88 | 61.0 | 29.0 | 22.4 |
| 3H21 | 3/8 | 10 | 3/8-18 | - | - | 1 | 2.56 | 1.42 | 0.88 | 65.0 | 36.1 | 22.4 |
| 3H21BS | 3/8 | 10 | - | 3/8-19 | - | 1 | 2.56 | 1.42 | 0.88 | 65.0 | 36.1 | 22.4 |
| 3H8 | 3/8 | 10 | - | - | 3/4-16 | 1 | 2.74 | 1.42 | 1.00 | 69.6 | 36.1 | 25.4 |
| 4HP26 | 1/2 | 12.5 | 1/2-14 | - | - | 1 | 2.96 | 1.86 | 1.13 | 75.2 | 47.2 | 28.7 |
| 4HP26BS | 1/2 | 12.5 | - | 1/2-14 | - | 1 | 2.96 | 1.86 | 1.13 | 75.2 | 47.2 | 28.7 |
| 4HP10 | 1/2 | 12.5 | - | - | 7/8-14 | 1 | 3.05 | 1.86 | 1.25 | 77.5 | 47.2 | 31.8 |
| 6HP31 | 3/4 | 20 | 3/4-14 | - | - | 1 | 3.48 | 2.22 | 1.31 | 88.4 | 56.4 | 33.3 |
| 6HP31BS | 3/4 | 20 | - | 3/4-14 | - | 1 | 3.48 | 2.22 | 1.31 | 88.4 | 56.4 | 33.3 |
| 6HP12 | 3/4 | 20 | - | - | 1 1/16-12 | 1 | 3.67 | 2.22 | 1.38 | 93.2 | 56.4 | 35.1 |
| 8HP36 | 1 | 25 | 1-11 1/2 | - | - | 1 | 4.13 | 2.61 | 1.75 | 104.9 | 66.3 | 44.5 |
| 8HP36BS | 1 | 25 | - | 1-11 | - | 1 | 4.13 | 2.61 | 1.75 | 104.9 | 66.3 | 44.5 |
| 8HP16 | 1 | 25 | - | - | 1 1/8-12 | 1 | 4.13 | 2.61 | 1.88 | 104.9 | 66.3 | 47.8 |

A=Overall Length, B=Maximum Diameter

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.

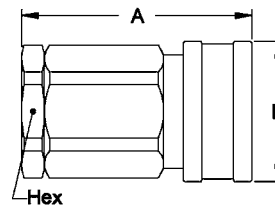


Figure 2

Sockets (Female)

| Part Number HK10/12/20 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | Fig. | Dimensions | | | | | |
|----------------------------------|-------------------|------------------|----------------------|----------|------|------------|-----------|-------------|-----------|-----------|-------------|
| | | | NPTF | BSPP | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) |
| 10H41* | 1 1/4 | - | 1 1/4-11 1/2 | - | 2 | 4.51 | 2.73 | 2.38 | 114.6 | 69.3 | 60.5 |
| 10H41BS* | 1 1/4 | - | - | 1 1/4-11 | 2 | 4.51 | 2.73 | 2.38 | 114.6 | 69.3 | 60.5 |
| 12H41 | 1 1/2 | 40 | 1 1/4-11 1/2 | - | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| 12H41BS | 1 1/2 | 40 | - | 1 1/4-11 | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| 12H46 | 1 1/2 | 40 | 1 1/2-11 1/2 | - | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| 12H46BS | 1 1/2 | 40 | - | 1 1/2-11 | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| 20H51 | 2 1/2 | 50 | 2-11 1/2 | - | 2 | 5.55 | 4.11 | 3.75 | 141.0 | 104.4 | 95.3 |
| 20H51BS | 2 1/2 | 50 | - | 2-11 | 2 | 5.55 | 4.11 | 3.75 | 141.0 | 104.4 | 95.3 |
| 20H56 | 2 1/2 | 50 | 2 1/2-8 | - | 2 | 6.14 | 4.11 | 3.75 | 156.0 | 104.4 | 95.3 |
| 20H56BS | 2 1/2 | 50 | - | 2 1/2-11 | 2 | 6.14 | 4.11 | 3.75 | 156.0 | 104.4 | 95.3 |
| 20H61 | 2 1/2 | 50 | 3-8 | - | 2 | 7.00 | 4.11 | 4.00 | 177.8 | 104.4 | 101.6 |
| 20H61BS | 2 1/2 | 50 | - | 3-11 | 2 | 7.00 | 4.11 | 4.00 | 177.8 | 104.4 | 101.6 |

A=Overall Length, B=Maximum Diameter

* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard

To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

HK Series (Steel) ISO 7241-1 B Interchange

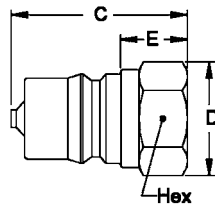


Figure 3

Plugs (Male)

| Part Number HK1-8 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | | Fig. | Dimensions | | | | | | | |
|-----------------------------|-------------------|------------------|----------------------|--------|----------|------|------------|--------|--------|----------|--------|--------|--------|----------|
| | | | NPTF | BSPB | SAE | | C (in) | D (in) | E (in) | Hex (in) | C (mm) | D (mm) | E (mm) | Hex (mm) |
| 1K11 | 1/8 | 5 | 1/8-27 | - | - | 3 | 1.26 | 0.65 | 0.44 | 0.56 | 32.0 | 16.5 | 11.2 | 14.2 |
| 1K4 | 1/8 | 5 | - | - | 7/16-20 | 3 | 1.41 | 0.79 | 0.59 | 0.69 | 35.8 | 20.1 | 15.0 | 17.5 |
| 2K16 | 1/4 | 6.3 | 1/4-18 | - | - | 3 | 1.52 | 0.87 | 0.56 | 0.75 | 38.6 | 22.1 | 14.2 | 19.1 |
| 2K16BS | 1/4 | 6.3 | - | 1/4-19 | - | 3 | 1.52 | 0.87 | 0.56 | 0.75 | 38.6 | 22.1 | 14.2 | 19.1 |
| 2K6 | 1/4 | 6.3 | - | - | 9/16-18 | 3 | 1.66 | 1.01 | 0.70 | 0.88 | 42.2 | 25.7 | 17.8 | 22.4 |
| 3K21 | 3/8 | 10 | 3/8-18 | - | - | 3 | 1.76 | 1.01 | 0.61 | 0.88 | 44.7 | 25.7 | 15.5 | 22.4 |
| 3K21BS | 3/8 | 10 | - | 3/8-19 | - | 3 | 1.76 | 1.01 | 0.61 | 0.88 | 44.7 | 25.7 | 15.5 | 22.4 |
| 3K8 | 3/8 | 10 | - | - | 3/4-16 | 3 | 1.94 | 1.15 | 0.79 | 1.00 | 49.3 | 29.2 | 20.1 | 25.4 |
| 4KP26 | 1/2 | 12.5 | 1/2-14 | - | - | 3 | 2.03 | 1.30 | 0.76 | 1.13 | 51.6 | 33.0 | 19.3 | 28.7 |
| 4KP26BS | 1/2 | 12.5 | - | 1/2-14 | - | 3 | 2.03 | 1.30 | 0.76 | 1.13 | 51.6 | 33.0 | 19.3 | 28.7 |
| 4KP10 | 1/2 | 12.5 | - | - | 7/8-14 | 3 | 2.11 | 1.37 | 0.84 | 1.19 | 53.6 | 34.8 | 21.3 | 30.2 |
| 6KP31 | 3/4 | 20 | 3/4-14 | - | - | 3 | 2.36 | 1.52 | 0.71 | 1.31 | 59.9 | 38.6 | 18.0 | 33.3 |
| 6KP31BS | 3/4 | 20 | - | 3/4-14 | - | 3 | 2.36 | 1.52 | 0.71 | 1.31 | 59.9 | 38.6 | 18.0 | 33.3 |
| 6KP12 | 3/4 | 20 | - | - | 1 1/8-12 | 3 | 2.54 | 1.59 | 0.89 | 1.38 | 64.5 | 40.4 | 22.6 | 35.1 |
| 8KP36 | 1 | 25 | 1-11 1/2 | - | - | 3 | 2.85 | 1.88 | 0.97 | 1.63 | 72.4 | 47.8 | 24.6 | 41.4 |
| 8KP36BS | 1 | 25 | - | 1-11 | - | 3 | 2.85 | 1.88 | 0.97 | 1.63 | 72.4 | 47.8 | 24.6 | 41.4 |
| 8KP16 | 1 | 25 | - | - | 1 1/8-12 | 3 | 2.85 | 2.17 | 0.97 | 1.88 | 72.4 | 55.1 | 24.6 | 47.8 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected
To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.

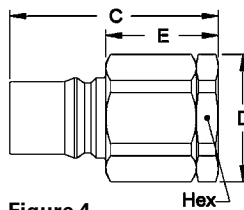


Figure 4

Plugs (Male)

| Part Number HK10/12/20 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | Fig. | Dimensions | | | | | | | |
|----------------------------------|-------------------|------------------|----------------------|----------|------|------------|--------|--------|----------|--------|--------|--------|----------|
| | | | NPTF | BSPB | | C (in) | D (in) | E (in) | Hex (in) | C (mm) | D (mm) | E (mm) | Hex (mm) |
| 10K41* | 1 1/4 | - | 1 1/4-11 1/2 | - | 4 | 4.25 | 2.74 | 2.33 | 2.38 | 108.0 | 69.6 | 59.2 | 60.5 |
| 10K41BS* | 1 1/4 | - | - | 1 1/4-11 | 4 | 4.25 | 2.74 | 2.33 | 2.38 | 108.0 | 69.6 | 59.2 | 60.5 |
| 12K41 | 1 1/2 | 40 | 1 1/4-11 1/2 | - | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| 12K41BS | 1 1/2 | 40 | - | 1 1/4-11 | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| 12K46 | 1 1/2 | 40 | 1 1/2-11 1/2 | - | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| 12K46BS | 1 1/2 | 40 | - | 1 1/2-11 | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| 20K51 | 2 1/2 | 60 | 2-11 1/2 | - | 4 | 5.49 | 4.33 | 2.97 | 3.75 | 139.4 | 110.0 | 75.4 | 95.3 |
| 20K51BS | 2 1/2 | 60 | - | 2-11 | 4 | 5.49 | 4.33 | 2.97 | 3.75 | 139.4 | 110.0 | 75.4 | 95.3 |
| 20K56 | 2 1/2 | 60 | 2 1/2-8 | - | 4 | 6.08 | 4.33 | 3.56 | 3.75 | 154.4 | 110.0 | 90.4 | 95.3 |
| 20K56BS | 2 1/2 | 60 | - | 2 1/2-11 | 4 | 6.08 | 4.33 | 3.56 | 3.75 | 154.4 | 110.0 | 90.4 | 95.3 |
| 20K61 | 2 1/2 | 60 | 3-8 | - | 4 | 6.94 | 4.62 | 4.42 | 4.00 | 176.3 | 117.3 | 112.3 | 101.6 |
| 20K61BS | 2 1/2 | 60 | - | 3-11 | 4 | 6.94 | 4.62 | 4.42 | 4.00 | 176.3 | 117.3 | 112.3 | 101.6 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected
* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard
To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

Dust Plugs and Dust Caps Accessories

| Coupling Series | Plug Dust Cap Part No. | | Socket Dust Plug Part No. | |
|-----------------|------------------------|----------------|---------------------------|----------------|
| | Metal | Vinyl | Metal | Vinyl |
| 1HK | PDC1HK* | PPDC1HK | SDC1HK* | PSDC1HK |
| 2HK | PDC2HK* | PPDC2HK | SDC2HK* | PSDC2HK |
| 3HK | PDC3HK* | PPDC3HK | SDC3HK* | PSDC3HK |
| 4HK | PDC4HK** | PPDC4HK(RD)*** | SDC4HK** | PSDC4HK(RD)*** |
| 6HK | PDC6HK** | PPDC6HK(RD)*** | SDC6HK** | PSDC6HK(RD)*** |
| 8HK | PDC8HK** | PPDC8HK(RD)*** | SDC8HK** | PSDC8HK(RD)*** |
| 12HK | PDC12HK* | | SDC12HK* | |
| 20HK | PDC20HK* | | SDC20HK* | |

*Brass **Aluminum ***Offered in red by adding RD to end of part number



HK Series (Brass)

ISO 7241-1 B Interchange



Product Features

- Meets dimensional requirements to ISO standard 7241-1 Series B
- Brass construction with stainless steel springs for greater corrosion resistance and fluid compatibility
- Self-sealing poppet valves provide excellent high and low pressure sealing
- Standard seal material: Buna-N
- Seal options available in PTFE, Neoprene, FKM, EPDM, and Kalrez®

Physical Characteristics

| Series | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | | | Rated Flow* | | Air Inclusion | Fluid Loss |
|--------|-------------------|------------------|-------------------------------|---------------------------------------|-------|-----------------------------------|-------|-------------|-------|---------------|------------|
| | | | | Non hazardous liquids & gases Group 2 | | Hazardous liquids & gases Group 1 | | (lpm) | (gpm) | cc. max. | cc. max. |
| | | | | (bar) | (psi) | (bar) | (psi) | | | | |
| 1HK | 1/8 | 5 | 4.4 | 207 | 3,000 | 207 | 3,000 | 3 | 0.8 | 0.6 | 0.5 |
| 2HK | 1/4 | 6.3 | 5.9 | 186 | 2,700 | 186 | 2,700 | 12 | 3 | 1.2 | 0.9 |
| 3HK | 3/8 | 10 | 7.8 | 152 | 2,200 | 152 | 2,200 | 23 | 6 | 2.9 | 2.1 |
| 4HK | 1/2 | 12.5 | 10 | 155 | 2,250 | 155 | 2,250 | 45 | 12 | 3.6 | 3.5 |
| 6HK | 3/4 | 20 | 17 | 138 | 2,000 | 138 | 2,000 | 100 | 26 | 11.5 | 9.3 |
| 8HK | 1 | 25 | 19.6 | 103 | 1,500 | 103 | 1,500 | 189 | 50 | 18.0 | 16.9 |
| 10HK | 1 1/4** | — | 26.7 | 83 | 1,200 | 37 | 537 | 288 | 76 | 48.0 | 48.0 |
| 12HK | 1 1/2 | 40 | 35.1 | 104 | 1,500 | 29 | 421 | 375 | 99 | 91.3 | 91.3 |
| 20HK | 2 1/2 | 50 | 46 | 49 | 700 | 21 | 305 | 757 | 200 | 209.9 | 209.9 |

* For questions related to vacuum please contact Eaton.

** No ISO Standard available for the 10HK

Applications & Markets

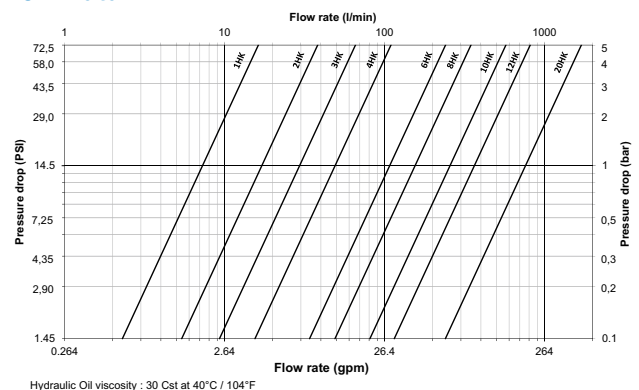
- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Chemical
- Oil and Gas
- Transportation
- Food and Beverage
- Trucks
- Nuclear

Eaton's HK brass is a general purpose industrial interchange coupling available in valved or non-valved designs, offered in brass for excellent corrosion resistance in rugged applications where stainless steel is unacceptable. The HK Series features a ball latch mechanism with automatic self-sealing poppet valves.

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Group 1 = Hazardous media / Group 2 = Other media

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|----------------|----------------------------------|
| Buna-N | -40°C to +121°C/40°F to +250°F |
| Neoprene | -54°C to +100°C/-65°F to +212°F |
| EPDM | -54°C to +149°C/-65°C to +300°F |
| FKM | -29°C to +204°C/-15°F to +400°F |

* For reference only, based on Eaton recommended temperatures. Contact Eaton technical support for further information on fluid compatibility.

HK Series (Brass) ISO 7241-1 B Interchange

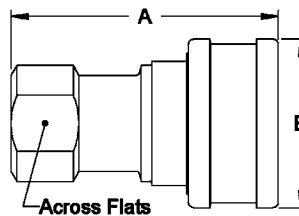


Figure 1

Sockets (Female)

| Part Number HK1-8 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | Fig. | Dimensions | | | | | |
|-----------------------------|-------------------|------------------|----------------------|--------|------|------------|-----------|----------------------|-----------|-----------|----------------------|
| | | | NPTF | BSPP | | A (in) | B (in) | Across Flats (in) | A (mm) | B (mm) | Across Flats (mm) |
| B1H11 | 1/8 | 5 | 1/8-27 | - | 1 | 1.91 | 0.98 | 0.56 | 48.5 | 24.9 | 14.2 |
| B2H16 | 1/4 | 6.3 | 1/4-18 | - | 1 | 2.26 | 1.14 | 0.75 | 57.4 | 29.0 | 19.1 |
| B2H16BS | 1/4 | 6.3 | - | 1/4-19 | 1 | 2.31 | 1.14 | 0.75 | 58.7 | 29.0 | 19.1 |
| B3H21 | 3/8 | 10 | 3/8-18 | - | 1 | 2.56 | 1.42 | 0.88 | 65.0 | 36.1 | 22.4 |
| B3H21BS | 3/8 | 10 | - | 3/8-19 | 1 | 2.56 | 1.42 | 0.88 | 65.0 | 36.1 | 22.4 |
| B4HP26 | 1/2 | 12.5 | 1/2-14 | - | 1 | 2.96 | 1.86 | 1.13 | 75.2 | 47.2 | 28.7 |
| B4HP26BS | 1/2 | 12.5 | - | 1/2-14 | 1 | 2.96 | 1.86 | 1.13 | 75.2 | 47.2 | 28.7 |
| B6HP31 | 3/4 | 20 | 3/4-14 | - | 1 | 3.48 | 2.22 | 1.31 | 88.4 | 56.4 | 33.3 |
| B6HP31BS | 3/4 | 20 | - | 3/4-14 | 1 | 3.48 | 2.22 | 1.31 | 88.4 | 56.4 | 33.3 |
| B8HP36 | 1 | 25 | 1-11 1/2 | - | 1 | 4.13 | 2.61 | 1.75 | 104.9 | 66.3 | 44.5 |
| B8HP36BS | 1 | 25 | - | 1-11 | 1 | 4.13 | 2.61 | 1.75 | 104.9 | 66.3 | 44.5 |

A=Overall Length, B=Maximum Diameter

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.

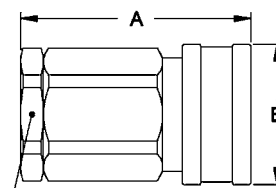


Figure 2

Sockets (Female)

| Part Number HK10/12/20 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | Fig. | Dimensions | | | | | |
|----------------------------------|-------------------|------------------|----------------------|----------|------|------------|-----------|-------------|-----------|-----------|-------------|
| | | | NPTF | BSPP | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) |
| B10H41* | 1 1/4 | - | 1 1/4-11 1/2 | - | 2 | 4.51 | 2.73 | 2.38 | 114.6 | 69.3 | 60.5 |
| B12H41 | 1 1/2 | 40 | 1 1/4-11 1/2 | - | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| B12H41BS | 1 1/2 | 40 | - | 1 1/4-11 | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| B12H46 | 1 1/2 | 40 | 1 1/2-11 | - | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| B12H46BS | 1 1/2 | 40 | - | 1 1/2-11 | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| B20H51 | 2 1/2 | 50 | 2-11 1/2 | - | 2 | 5.55 | 4.11 | 3.75 | 141.0 | 104.4 | 95.3 |
| B20H51BS | 2 1/2 | 50 | - | 2-11 | 2 | 5.55 | 4.11 | 3.75 | 141.0 | 104.4 | 95.3 |
| B20H56 | 2 1/2 | 50 | 2 1/2-8 | - | 2 | 6.14 | 4.11 | 3.75 | 156.0 | 104.4 | 95.3 |
| B20H56BS | 2 1/2 | 50 | - | 2 1/2-11 | 2 | 6.14 | 4.11 | 3.75 | 156.0 | 104.4 | 95.3 |
| B20H61 | 2 1/2 | 50 | 3-8 | - | 2 | 7.00 | 4.11 | 4.00 | 177.8 | 104.4 | 101.6 |
| B20H61BS | 2 1/2 | 50 | - | 3-11 | 2 | 7.00 | 4.11 | 4.00 | 177.8 | 104.4 | 101.6 |

A=Overall Length, B=Maximum Diameter

* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard

To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.



HK Series (Brass) ISO 7241-1 B Interchange

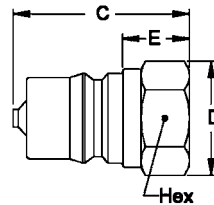


Figure 3

Plugs (Male)

| Part Number HK1-8 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | Fig. | Dimensions | | | | | | | |
|-----------------------------|-------------------|------------------|----------------------|--------|------|------------|--------|--------|----------|--------|--------|--------|----------|
| | | | NPTF | BSPP | | C (in) | D (in) | E (in) | Hex (in) | C (mm) | D (mm) | E (mm) | Hex (mm) |
| B1K11 | 1/8 | 5 | 1/8-27 | - | 3 | 1.26 | 0.65 | 0.44 | 0.56 | 32.0 | 16.5 | 11.2 | 14.2 |
| B2K16 | 1/4 | 6.3 | 1/4-18 | - | 3 | 1.52 | 0.87 | 0.56 | 0.75 | 38.6 | 22.1 | 14.2 | 19.1 |
| B2K16BS | 1/4 | 6.3 | - | 1/4-19 | 3 | 1.52 | 0.87 | 0.56 | 0.75 | 38.6 | 22.1 | 14.2 | 19.1 |
| B3K21 | 3/8 | 10 | 3/8-18 | - | 3 | 1.76 | 1.01 | 0.61 | 0.88 | 44.7 | 25.7 | 15.5 | 22.4 |
| B3K21BS | 3/8 | 10 | - | 3/8-19 | 3 | 1.76 | 1.01 | 0.61 | 0.88 | 44.7 | 25.7 | 15.5 | 22.4 |
| B4K26 | 1/2 | 12.5 | 1/2-14 | - | 3 | 2.03 | 1.30 | 0.76 | 1.13 | 51.6 | 33.0 | 19.3 | 28.7 |
| B4K26BS | 1/2 | 12.5 | - | 1/2-14 | 3 | 2.03 | 1.30 | 0.76 | 1.13 | 51.6 | 33.0 | 19.3 | 28.7 |
| B6K31 | 3/4 | 20 | 3/4-14 | - | 3 | 2.36 | 1.52 | 0.71 | 1.31 | 59.9 | 38.6 | 18.0 | 33.3 |
| B6K31BS | 3/4 | 20 | - | 3/4-14 | 3 | 2.36 | 1.52 | 0.71 | 1.31 | 59.9 | 38.6 | 18.0 | 33.3 |
| B8K36 | 1 | 25 | 1-11 1/2 | - | 3 | 2.85 | 1.88 | 0.97 | 1.63 | 72.4 | 47.8 | 24.6 | 41.4 |
| B8K36BS | 1 | 25 | - | 1-11 | 3 | 2.85 | 1.88 | 0.97 | 1.63 | 72.4 | 47.8 | 24.6 | 41.4 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected
To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.

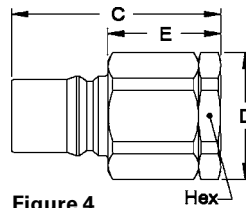


Figure 4

Plugs (Male)

| Part Number HK10/12/20 Series | Body Size (in) | ISO Size (mm) | Thread Size (Female) | | Fig. | Dimensions | | | | | | | |
|----------------------------------|-------------------|------------------|----------------------|----------|------|------------|--------|--------|----------|--------|--------|--------|----------|
| | | | NPTF | BSPP | | C (in) | D (in) | E (in) | Hex (in) | C (mm) | D (mm) | E (mm) | Hex (mm) |
| B10K41* | 1 1/4 | - | 1 1/4-11 1/2 | - | 4 | 4.25 | 2.74 | 2.33 | 2.38 | 108.0 | 69.6 | 59.2 | 60.5 |
| B12K41 | 1 1/2 | 40 | 1 1/4-11 1/2 | - | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| B12K41BS | 1 1/2 | 40 | - | 1 1/4-11 | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| B12K46 | 1 1/2 | 40 | 1 1/2-11 1/2 | - | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| B12K46BS | 1 1/2 | 40 | - | 1 1/2-11 | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| B20K51 | 2 1/2 | 50 | 2-11 1/2 | - | 4 | 5.49 | 4.33 | 2.97 | 3.75 | 139.4 | 110.0 | 75.4 | 95.3 |
| B20K51BS | 2 1/2 | 50 | - | 2-11 | 4 | 5.49 | 4.33 | 2.97 | 3.75 | 139.4 | 110.0 | 75.4 | 95.3 |
| B20K56 | 2 1/2 | 50 | 2 1/2-8 | - | 4 | 6.08 | 4.33 | 3.56 | 3.75 | 154.4 | 110.0 | 90.4 | 95.3 |
| B20K56BS | 2 1/2 | 50 | - | 2 1/2-11 | 4 | 6.08 | 4.33 | 3.56 | 3.75 | 154.4 | 110.0 | 90.4 | 95.3 |
| B20K61 | 2 1/2 | 50 | 3-8 | - | 4 | 6.94 | 4.62 | 4.42 | 4.00 | 176.3 | 117.3 | 112.3 | 101.6 |
| B20K61BS | 2 1/2 | 50 | - | 3-11 | 4 | 6.94 | 4.62 | 4.42 | 4.00 | 176.3 | 117.3 | 112.3 | 101.6 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected
* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard
To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

Dust Plugs and Dust Caps Accessories

| Coupling Series | Plug Dust Cap Part No. | | Socket Dust Plug Part No. | |
|-----------------|------------------------|----------------|---------------------------|----------------|
| | Metal | Vinyl | Metal | Vinyl |
| 1HK | PDC1HK* | PPDC1HK | SDC1HK* | PSDC1HK |
| 2HK | PDC2HK* | PPDC2HK | SDC2HK* | PSDC2HK |
| 3HK | PDC3HK* | PPDC3HK | SDC3HK* | PSDC3HK |
| 4HK | PDC4HK** | PPDC4HK(RD)*** | SDC4HK** | PSDC4HK(RD)*** |
| 6HK | PDC6HK** | PPDC6HK(RD)*** | SDC6HK** | PSDC6HK(RD)*** |
| 8HK | PDC8HK** | PPDC8HK(RD)*** | SDC8HK** | PSDC8HK(RD)*** |
| 12HK | PDC12HK* | | SDC12HK* | |
| 20HK | PDC20HK* | | SDC20HK* | |

*Brass **Aluminum ***Offered in red by adding RD to end of part number



FLUID TRANSFER AND HYDRAULIC
PNEUMATIC
SPECIAL APPLICATIONS
DIAGNOSTIC
AGRICULTURE
REFRIGERANT

HK Series Series (Stainless Steel) ISO 7241-1 B Interchange



Eaton's HK stainless steel is a general purpose industrial interchange coupling available in valved or non-valved designs, offered in 303/316 grades of stainless steel for excellent corrosion resistance in rugged applications. The HK Series features a ball latch mechanism with automatic self-sealing poppet valves.

Product Features

- Meets dimensional requirements to ISO standard 7241-1 Series B
- 303/316 Stainless steel construction for greater corrosion resistance and fluid compatibility
- Self-sealing poppet valves provide excellent high and low pressure sealing
- Standard body material: 303 or 316 Stainless Steel
- Standard seal material: Buna-N
- Seal options available in PTFE, Neoprene, FKM, EPDM, and Kalrez®

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Group 1 = Hazardous media / Group 2 = Other media

Physical Characteristics

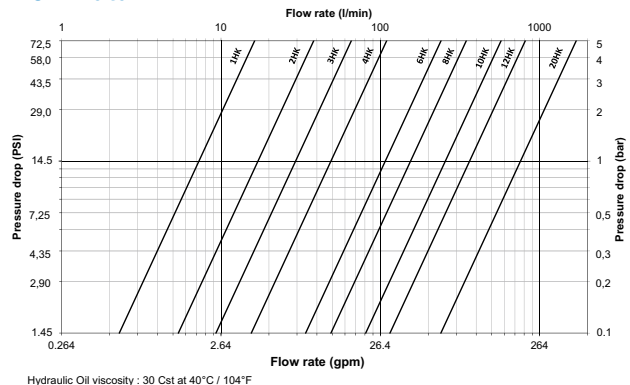
| Series | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Max. Operating Pressure | | Rated Flow* | | Air Inclusion cc. max. | Fluid Loss cc. max. |
|--------|-------------------|------------------|-------------------------------|--|--|--|--|-------------|-------|---------------------------|------------------------|
| | | | | Non hazardous liquids & gases Group 2 (bar) | Non hazardous liquids & gases Group 2 (psi) | Hazardous liquids & gases Group 1 (bar) | Hazardous liquids & gases Group 1 (psi) | (lpm) | (gpm) | | |
| 1HK | 1/8 | 5 | 4.4 | 344 | 5,000 | 344 | 5,000 | 3 | 0.8 | 0.6 | 0.5 |
| 2HK | 1/4 | 6.3 | 5.9 | 255 | 3,700 | 255 | 3,700 | 12 | 3 | 1.2 | 0.9 |
| 3HK | 3/8 | 10 | 7.8 | 255 | 3,700 | 255 | 3,700 | 23 | 6 | 2.9 | 2.1 |
| 4HK | 1/2 | 12.5 | 10 | 293 | 4,250 | 293 | 4,250 | 45 | 12 | 3.6 | 3.5 |
| 6HK | 3/4 | 20 | 17 | 242 | 3,500 | 242 | 3,500 | 100 | 26 | 11.5 | 9.3 |
| 8HK | 1 | 25 | 19.6 | 207 | 3,000 | 207 | 3,000 | 189 | 50 | 18.0 | 16.9 |
| 10HK | 1 1/4** | — | 26.7 | 118 | 1,700 | 37 | 537 | 288 | 76 | 48.0 | 48.0 |
| 12HK | 1 1/2 | 40 | 35.1 | 152 | 2,200 | 29 | 421 | 375 | 99 | 91.3 | 91.3 |
| 20HK | 2 1/2 | 50 | 46 | 104 | 1,500 | 21 | 305 | 757 | 200 | 209.9 | 209.9 |

* For questions related to vacuum please contact Eaton.
** No ISO Standard available for the 10HK

Applications & Markets

- Agriculture
- Hydraulic Tool
- General Industry
- Construction
- Fluid Transfer
- Transportation
- Military
- Law Enforcement/Rescue
- Chemical
- Oil and Gas
- Consumer Products
- HVAC
- Food and Beverage
- Trucks
- Aerospace
- Medical

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|----------------|----------------------------------|
| Buna-N | -40°C to +121°C/40°F to +250°F |
| Neoprene | -54°C to +100°C/-65°F to +212°F |
| EPDM | -54°C to +149°C/-65°C to +300°F |
| FKM | -29°C to +204°C/-15°F to +400°F |

*For reference only, based on Eaton recommended temperatures. Contact Eaton technical support for further information on fluid compatibility.

HK Series Series (Stainless Steel)

ISO 7241-1 B Interchange

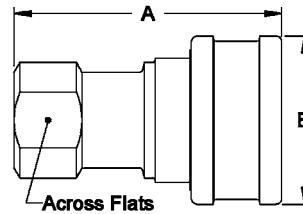


Figure 1

Sockets (Female)

| Part Number HK1-8 Series 303 Stainless Steel | 316 Stainless Steel | Body Size | ISO Size | Thread Size (Female) | | | Fig. | Dimensions | | | | | |
|--|------------------------|--------------|-------------|----------------------|--------|-----------|------|------------|-----------|----------------------|-----------|-----------|----------------------|
| | | | | NPTF | BSPP | SAE | | A (in) | B (in) | Across Flats (in) | A (mm) | B (mm) | Across Flats (mm) |
| LL1H11 | ML1H11 | 1/8 | 5 | 1/8-27 | - | - | 1 | 1.91 | 0.98 | 0.56 | 48.5 | 24.9 | 14.2 |
| LL1H4 | - | 1/8 | 5 | - | - | 7/16-20 | 1 | 2.06 | 0.98 | 0.69 | 52.3 | 24.9 | 17.5 |
| LL2H16 | ML2H16 | 1/4 | 6.3 | 1/4-18 | - | - | 1 | 2.26 | 1.14 | 0.75 | 57.4 | 29.0 | 19.1 |
| LL2H16BS | ML2H16BS | 1/4 | 6.3 | - | 1/4-19 | - | 1 | 2.31 | 1.14 | 0.75 | 58.7 | 29.0 | 19.1 |
| LL2H6 | - | 1/4 | 6.3 | - | - | 9/16-18 | 1 | 2.40 | 1.14 | 0.88 | 61.0 | 29.0 | 22.4 |
| LL3H21 | ML3H21 | 3/8 | 10 | 3/8-18 | - | - | 1 | 2.56 | 1.42 | 0.88 | 65.0 | 36.1 | 22.4 |
| LL3H21BS | ML3H21BS | 3/8 | 10 | - | 3/8-19 | - | 1 | 2.56 | 1.42 | 0.88 | 65.0 | 36.1 | 22.4 |
| LL3H8 | - | 3/8 | 10 | - | - | 3/4-16 | 1 | 2.74 | 1.42 | 1.00 | 69.6 | 36.1 | 25.4 |
| LL4HP26 | ML4HP26 | 1/2 | 12.5 | 1/2-14 | - | - | 1 | 2.96 | 1.86 | 1.13 | 75.2 | 47.2 | 28.7 |
| LL4HP26BS | ML4HP26BS | 1/2 | 12.5 | - | 1/2-14 | - | 1 | 2.96 | 1.86 | 1.13 | 75.2 | 47.2 | 28.7 |
| LL4HP10 | - | 1/2 | 12.5 | - | - | 7/8-14 | 1 | 3.05 | 1.86 | 1.25 | 77.5 | 47.2 | 31.8 |
| LL6HP31 | ML6HP31 | 3/4 | 20 | 3/4-14 | - | - | 1 | 3.48 | 2.22 | 1.31 | 88.4 | 56.4 | 33.3 |
| LL6HP31BS | ML6HP31BS | 3/4 | 20 | - | 3/4-14 | - | 1 | 3.48 | 2.22 | 1.31 | 88.4 | 56.4 | 33.3 |
| LL6HP12 | - | 3/4 | 20 | - | - | 1 1/16-12 | 1 | 3.67 | 2.22 | 1.38 | 93.2 | 56.4 | 35.1 |
| LL8HP36 | ML8HP36 | 1 | 25 | 1-11 1/2 | - | - | 1 | 4.13 | 2.61 | 1.75 | 104.9 | 66.3 | 44.5 |
| LL8HP36BS | ML8HP36BS | 1 | 25 | - | 1-11 | - | 1 | 4.13 | 2.61 | 1.75 | 104.9 | 66.3 | 44.5 |
| LL8HP16 | - | 1 | 25 | - | - | 1 1/16-12 | 1 | 4.13 | 2.61 | 1.88 | 104.9 | 66.3 | 47.8 |

A=Overall Length, B=Maximum Diameter

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.

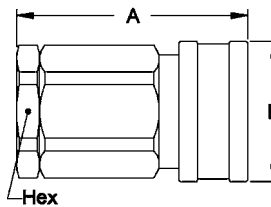


Figure 2

Sockets (Female)

| Part Number HK10/12/20 Series 303 Stainless Steel | Body Size | ISO Size | Thread Size (Female) | | Fig. | Dimensions | | | | | |
|---|-----------|----------|----------------------|----------|------|------------|-----------|-------------|-----------|-----------|-------------|
| | | | NPTF | BSPP | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) |
| LL10H41* | 1 1/4 | - | 1 1/4-11 1/2 | - | 2 | 4.51 | 2.73 | 2.38 | 114.6 | 69.3 | 60.5 |
| LL10H41BS* | 1 1/4 | - | - | 1 1/4-11 | 2 | 4.51 | 2.73 | 2.38 | 114.6 | 69.3 | 60.5 |
| LL12H41 | 1 1/2 | 40 | 1 1/4-11 1/2 | - | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| LL12H41BS | 1 1/2 | 40 | - | 1 1/4-11 | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| LL12H46 | 1 1/2 | 40 | 1 1/2-11 1/2 | - | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| LL12H46BS | 1 1/2 | 40 | - | 1 1/2-11 | 2 | 4.82 | 3.23 | 2.38 | 122.4 | 82.0 | 60.5 |
| LL20H51 | 2 1/2 | 50 | 2-11 1/2 | - | 2 | 5.55 | 4.11 | 3.75 | 141.0 | 104.4 | 95.3 |
| LL20H51BS | 2 1/2 | 50 | - | 2-11 | 2 | 5.55 | 4.11 | 3.75 | 141.0 | 104.4 | 95.3 |
| LL20H56 | 2 1/2 | 50 | 2 1/2-8 | - | 2 | 6.14 | 4.11 | 3.75 | 156.0 | 104.4 | 95.3 |
| LL20H56BS | 2 1/2 | 50 | - | 2 1/2-11 | 2 | 6.14 | 4.11 | 3.75 | 156.0 | 104.4 | 95.3 |
| LL20H61 | 2 1/2 | 50 | 3-8 | - | 2 | 7.00 | 4.11 | 4.00 | 177.8 | 104.4 | 101.6 |
| LL20H61BS | 2 1/2 | 50 | - | 3-11 | 2 | 7.00 | 4.11 | 4.00 | 177.8 | 104.4 | 101.6 |

A=Overall Length, B=Maximum Diameter

* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.

To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

HK Series (Stainless Steel) ISO 7241-1 B Interchange

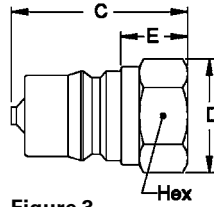


Figure 3

Plugs (Male)

| Part Number HK1-8 Series 303 | Body Size 316 | ISO Size | Thread Size (Female) | | | Fig. | Dimensions | | | | | | | | |
|------------------------------------|------------------|----------|----------------------|----------|--------|-----------|------------|--------|--------|----------|--------|--------|--------|----------|------|
| | | | NPTF | BSPB | SAE | | C (in) | D (in) | E (in) | Hex (in) | C (mm) | D (mm) | E (mm) | Hex (mm) | |
| LL1K11 | ML1K11 | 1/8 | 5 | 1/8-27 | - | - | 3 | 1.26 | 0.65 | 0.44 | 0.56 | 32.0 | 16.5 | 11.2 | 14.2 |
| LL1K4 | - | 1/8 | 5 | - | - | 7/16-20 | 3 | 1.41 | 0.79 | 0.59 | 0.69 | 35.8 | 20.1 | 15.0 | 17.5 |
| LL2K16 | ML2K16 | 1/4 | 6.3 | 1/4-18 | - | - | 3 | 1.52 | 0.87 | 0.56 | 0.75 | 38.6 | 22.1 | 14.2 | 19.1 |
| LL2K16BS | ML2K16BS | 1/4 | 6.3 | - | 1/4-19 | - | 3 | 1.52 | 0.87 | 0.56 | 0.75 | 38.6 | 22.1 | 14.2 | 19.1 |
| LL2K6 | - | 1/4 | 6.3 | - | - | 9/16-18 | 3 | 1.66 | 1.01 | 0.70 | 0.88 | 42.2 | 25.7 | 17.8 | 22.4 |
| LL3K21 | ML3K21 | 3/8 | 10 | 3/8-18 | - | - | 3 | 1.76 | 1.01 | 0.61 | 0.88 | 44.7 | 25.7 | 15.5 | 22.4 |
| LL3K21BS | ML3K21BS | 3/8 | 10 | - | 3/8-19 | - | 3 | 1.76 | 1.01 | 0.61 | 0.88 | 44.7 | 25.7 | 15.5 | 22.4 |
| LL3K8 | - | 3/8 | 10 | - | - | 3/4-16 | 3 | 1.94 | 1.15 | 0.79 | 1.00 | 49.3 | 29.2 | 20.1 | 25.4 |
| LL4KP26 | ML4KP26 | 1/2 | 12.5 | 1/2-14 | - | - | 3 | 2.03 | 1.30 | 0.76 | 1.13 | 51.6 | 33.0 | 19.3 | 28.7 |
| LL4KP26BS | ML4KP26BS | 1/2 | 12.5 | - | 1/2-14 | - | 3 | 2.03 | 1.30 | 0.76 | 1.13 | 51.6 | 33.0 | 19.3 | 28.7 |
| LL4KP10 | - | 1/2 | 12.5 | - | - | 7/8-14 | 3 | 2.11 | 1.37 | 0.84 | 1.19 | 53.6 | 34.8 | 21.3 | 30.2 |
| LL6KP31 | ML6KP31 | 3/4 | 20 | 3/4-14 | - | - | 3 | 2.36 | 1.52 | 0.71 | 1.31 | 59.9 | 38.6 | 18.0 | 33.3 |
| LL6KP31BS | ML6KP31BS | 3/4 | 20 | - | 3/4-14 | - | 3 | 2.36 | 1.52 | 0.71 | 1.31 | 59.9 | 38.6 | 18.0 | 33.3 |
| LL6KP12 | - | 3/4 | 20 | - | - | 1 1/16-12 | 3 | 2.54 | 1.59 | 0.89 | 1.38 | 64.5 | 40.4 | 22.6 | 35.1 |
| LL8KP36 | ML8KP36 | 1 | 25 | 1-11 1/2 | - | - | 3 | 2.85 | 1.88 | 0.97 | 1.63 | 72.4 | 47.8 | 24.6 | 41.4 |
| LL8KP36BS | ML8KP36BS | 1 | 25 | - | 1-11 | - | 3 | 2.85 | 1.88 | 0.97 | 1.63 | 72.4 | 47.8 | 24.6 | 41.4 |
| LL8KP16 | - | 1 | 25 | - | - | 1 1/16-12 | 3 | 2.85 | 2.17 | 0.97 | 1.88 | 72.4 | 55.1 | 24.6 | 47.8 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected
To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 3) together.

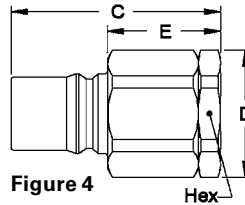


Figure 4

Plugs (Male)

| Part Number HK10/12/20 Series 303 Stainless Steel | Body Size | ISO Size | Thread Size (Female) | | Fig. | Dimensions | | | | | | | |
|---|-----------|----------|----------------------|----------|------|------------|--------|--------|----------|--------|--------|--------|----------|
| | | | NPTF | BSPB | | C (in) | D (in) | E (in) | Hex (in) | C (mm) | D (mm) | E (mm) | Hex (mm) |
| LL10K41* | 1 1/4 | - | 1 1/4-11 1/2 | - | 4 | 4.25 | 2.74 | 2.33 | 2.38 | 108.0 | 69.6 | 59.2 | 60.5 |
| LL10K41BS* | 1 1/4 | - | - | 1 1/4-11 | 4 | 4.25 | 2.74 | 2.33 | 2.38 | 108.0 | 69.6 | 59.2 | 60.5 |
| LL12K41 | 1 1/2 | 40 | 1 1/4-11 1/2 | - | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| LL12K41BS | 1 1/2 | 40 | - | 1 1/4-11 | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| LL12K46 | 1 1/2 | 40 | 1 1/2-11 1/2 | - | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| LL12K46BS | 1 1/2 | 40 | - | 1 1/2-11 | 4 | 4.76 | 2.74 | 2.67 | 2.38 | 120.9 | 69.6 | 67.8 | 60.5 |
| LL20K51 | 2 1/2 | 50 | 2-11 1/2 | - | 4 | 5.49 | 4.33 | 2.97 | 3.75 | 139.4 | 110.0 | 75.4 | 95.3 |
| LL20K51BS | 2 1/2 | 50 | - | 2-11 | 4 | 5.49 | 4.33 | 2.97 | 3.75 | 139.4 | 110.0 | 75.4 | 95.3 |
| LL20K56 | 2 1/2 | 50 | 2 1/2-8 | - | 4 | 6.08 | 4.33 | 3.56 | 3.75 | 154.4 | 110.0 | 90.4 | 95.3 |
| LL20K56BS | 2 1/2 | 50 | - | 2 1/2-11 | 4 | 6.08 | 4.33 | 3.56 | 3.75 | 154.4 | 110.0 | 90.4 | 95.3 |
| LL20K61 | 2 1/2 | 50 | 3-8 | - | 4 | 6.94 | 4.62 | 4.42 | 4.00 | 176.3 | 117.3 | 112.3 | 101.6 |
| LL20K61BS | 2 1/2 | 50 | - | 3-11 | 4 | 6.94 | 4.62 | 4.42 | 4.00 | 176.3 | 117.3 | 112.3 | 101.6 |

C=Overall Length, D=Maximum Diameter, E=Exposed Length when Connected
* ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Series 10HK is not covered by this standard.
To obtain connected length of coupling, add dimensions A (Fig. 2) and E (Fig. 4) together.

Dust Plugs and Dust Caps Accessories

| Coupling Series | Plug Dust Cap Part No. | | Socket Dust Plug Part No. | |
|-----------------|------------------------|----------------|---------------------------|----------------|
| | Metal | Vinyl | Metal | Vinyl |
| 1HK | PDC1HK* | PPDC1HK | SDC1HK* | PSDC1HK |
| 2HK | PDC2HK* | PPDC2HK | SDC2HK* | PSDC2HK |
| 3HK | PDC3HK* | PPDC3HK | SDC3HK* | PSDC3HK |
| 4HK | PDC4HK** | PPDC4HK(RD)*** | SDC4HK** | PSDC4HK(RD)*** |
| 6HK | PDC6HK** | PPDC6HK(RD)*** | SDC6HK** | PSDC6HK(RD)*** |
| 8HK | PDC8HK** | PPDC8HK(RD)*** | SDC8HK** | PSDC8HK(RD)*** |
| 12HK | PDC12HK* | - | SDC12HK* | - |
| 20HK | PDC20HK* | - | SDC20HK* | - |

*Brass **Aluminum ***Offered in red by adding RD to end of part number



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

H15000 Series ISO 7241-1 A Interchange



The H15000 Series is a general purpose industrial interchange coupling that meets the ISO 7241-1 Series A standard. The H15000 Series features a rugged ball latch mechanism with self-sealing poppet valves.

Product Features

- Meets the requirements of ISO 7241-1 Series A
- Designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC
- ½" size available in push-pull version(double acting sleeve, bulkhead-mounted)
- Double shut off valves with ball locking
- Standard body material: Zinc
- trivalent plated steel
- Standard seal material: NBR

Physical Characteristics

| ISO Size | Coupling Size | Nominal Flow Diameter | Max. Operating Pressure | | Rated Flow** | | Fluid Loss |
|----------|---------------|-----------------------|-------------------------|-------|--------------|-------|------------|
| | (in) | | (bar) | (psi) | (lpm) | (gpm) | |
| 6.3 | ¼ | 5.3 | 315 | 4,565 | 10 | 2.6 | 0.35 |
| 10 | ⅜ | 7.3 | 315 | 4,565 | 20 | 5.3 | 1.5 |
| 12.5 | ½ | 10.2 | 250 | 3,625 | 40 | 10.6 | 2.6 |
| 20 | ¾ | 13 | 250 | 3,625 | 75 | 19.8 | 8.5 |
| 25 | 1 | 16.9 | 200 | 2,900 | 140 | 37 | 13 |

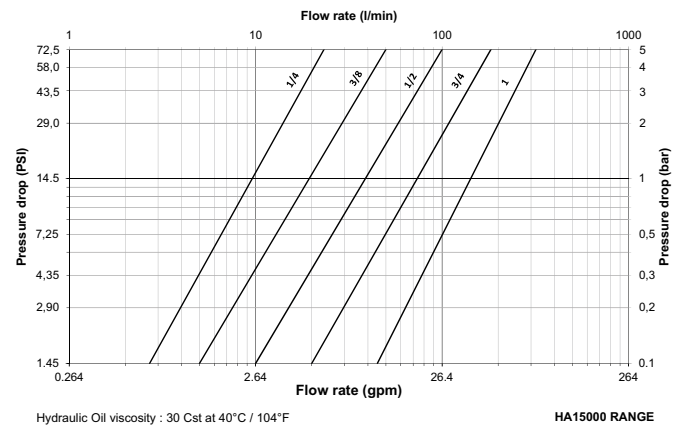
*The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard).

**Indicated values refer to a 1 bar/14.5 psi pressure drop.

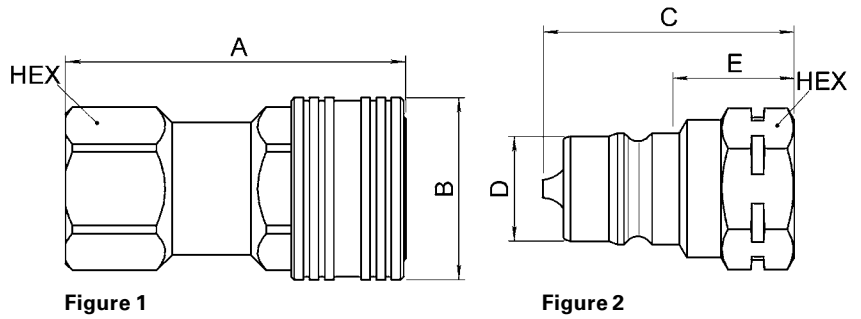
Applications & Markets

- Hydraulic Circuits and Equipment
- Hydraulic Fluids
- Agriculture

Flow Data



H1 5000 Series ISO 7241-1 A Interchange



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

| Part Number | Nominal Flow Diameter (mm) | ISO (mm) | Size (in) | Coupling Type | Thread Size | Fig. | Dimensions | | | | Weight (g) |
|-------------|-------------------------------|-------------|--------------|---------------|---------------|------|------------|-----------|-------------|-----|---------------|
| | | | | | | | A (mm) | B (mm) | Hex (mm) | | |
| HA1501100 | 5.3 | 6.3 | ¼ | Socket/Female | G ¼ | 1 | 48 | 25 | 19 | 94 | |
| HA1521100 | 5.3 | 6.3 | ¼ | Socket/Female | ¼ NPT | 1 | 48 | 25 | 19 | 94 | |
| HA1502100 | 7.3 | 10 | ⅜ | Socket/Female | G ⅜ | 1 | 56 | 30 | 23 | 139 | |
| HA1522100 | 7.3 | 10 | ⅜ | Socket/Female | ⅜ NPT | 1 | 56 | 30 | 23 | 139 | |
| HA1503100 | 10.2 | 12.5 | ½ | Socket/Female | G ½ | 1 | 67 | 38 | 27 | 238 | |
| HA1503600 | 10.2 | 12.5 | ½ | Socket/Female | G ½ push-pull | 1 | 67 | 38 | 27 | 238 | |
| HA1523100 | 10.2 | 12.5 | ½ | Socket/Female | ½ NPT | 1 | 67 | 38 | 27 | 238 | |
| HA1504100 | 13 | 20 | ¾ | Socket/Female | G ¾ | 1 | 83 | 48 | 35 | 484 | |
| HA1524100 | 13 | 20 | ¾ | Socket/Female | ¾ NPT | 1 | 83 | 48 | 35 | 484 | |
| HA1505100 | 16.9 | 25 | 1 | Socket/Female | G 1 | 1 | 98 | 53 | 41 | 670 | |
| HA1525100 | 16.9 | 25 | 1 | Socket/Female | 1 NPT | 1 | 98 | 53 | 41 | 670 | |

| Part Number | Nominal Flow Diameter (mm) | ISO (mm) | Size (in) | Coupling Type | Thread Size | Fig. | Dimensions | | | | Weight (g) |
|-------------|-------------------------------|-------------|--------------|---------------|-------------|------|------------|-----------|-----------|-------------|---------------|
| | | | | | | | C (mm) | D (mm) | E (mm) | Hex (mm) | |
| HA1501200 | 5.3 | 6.3 | ¼ | Plug/Male | G ¼ | 2 | 36 | 11.8 | 20 | 19 | 36 |
| HA1521200 | 5.3 | 6.3 | ¼ | Plug/Male | ¼ NPT | 2 | 36 | 11.8 | 20 | 19 | 36 |
| HA1502200 | 7.3 | 10 | ⅜ | Plug/Male | G ⅜ | 2 | 41.5 | 17.3 | 20 | 23 | 62 |
| HA1522200 | 7.3 | 10 | ⅜ | Plug/Male | ⅜ NPT | 2 | 41.5 | 17.3 | 20 | 23 | 62 |
| HA1503200 | 10.2 | 12.5 | ½ | Plug/Male | G ½ | 2 | 49 | 20.5 | 24 | 27 | 88 |
| HA1523200 | 10.2 | 12.5 | ½ | Plug/Male | ½ NPT | 2 | 49 | 20.5 | 24 | 27 | 88 |
| HA1504200 | 13 | 20 | ¾ | Plug/Male | G ¾ | 2 | 61.5 | 29.1 | 23 | 35 | 194 |
| HA1524200 | 13 | 20 | ¾ | Plug/Male | ¾ NPT | 2 | 61.5 | 29.1 | 27 | 35 | 194 |
| HA1505200 | 16.9 | 25 | 1 | Plug/Male | G 1 | 2 | 71.5 | 34.3 | 30 | 41 | 306 |
| HA1525200 | 16.9 | 25 | 1 | Plug/Male | 1 NPT | 2 | 71.5 | 34.3 | 30 | 41 | 306 |

To obtain connected length of coupling, add dimensions A (Fig. 1) and E (Fig. 2) together.

Dust Caps and Dust Plugs

| Series | Dust Plug | Dust Cap |
|--------|-----------|-----------|
| 6.3 | HP1511100 | HP1511200 |
| 10 | HP1512100 | HP1512200 |
| 12.5 | HP1513100 | HP1513200 |
| 20 | HP1514100 | HP1514200 |
| 25 | HP1515100 | HP1515200 |



5600 Series (Stainless Steel) ISO 7241-1 A Interchange



The Eaton 5600 Series is a rugged poppet style ball locking quick disconnect coupling. As the original manufacturer of the ISO 7241-1 A style coupling, Eaton has reinvented this quick disconnect coupling series to meet your application needs by offering a new stainless steel construction.

Product Features

- Self-sealing poppet valve provides excellent high and low pressure sealing
 - Stainless steel construction offers excellent corrosion resistance in tough environments
 - Standard body material: 303 stainless steel
 - Standard body material: Buna-N. EPDM and FKM seals are available upon request
 - Available sizes include: 3/8", 3/4", 1"*
 - Female NPTF thread ends
- *Additional sizes are available upon request.

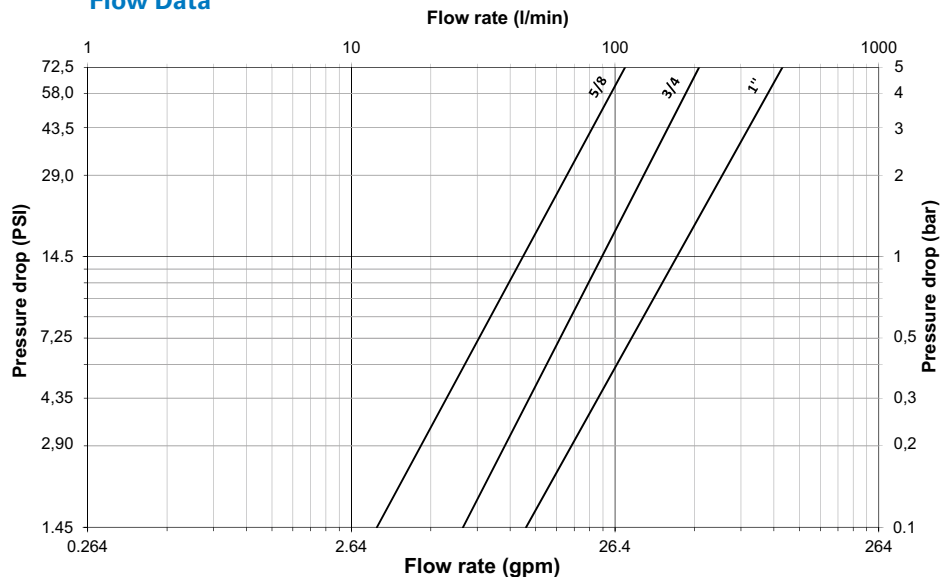
Physical Characteristics

| Body Size (in) | Max. Operating Pressure Connected | | Min. Burst Pressure | | Rated Flow | | Air Inclusion | Fluid Loss |
|----------------|-----------------------------------|-------|---------------------|-------|------------|-------|---------------|------------|
| | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) | cc. max. | cc.max. |
| 3/8 | 207 | 3,000 | 621 | 9,000 | 45 | 12 | 2.8 | 2.8 |
| 3/4 | 207 | 3,000 | 621 | 9,000 | 106 | 28 | 10 | 8.2 |
| 1 | 207 | 3,000 | 621 | 9,000 | 189 | 50 | 14.2 | 14.2 |

Applications & Markets

- Hydraulic and Fluid Transfer
- Agricultural Equipment
- Construction Equipment
- Steel Mills
- Plant Manufacturing and Processing Equipment
- Dump, Snow Plow, and Maintenance Vehicles

Flow Data



Hydraulic Oil viscosity : 30 Cst at 40°C / 104°F

5600 Series

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

5600 Series (Stainless Steel) ISO 7241-1 A Interchange

FLUID TRANSFER
AND HYDRAULIC

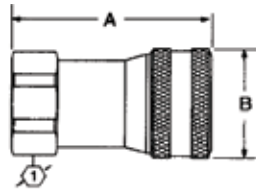


Figure 1

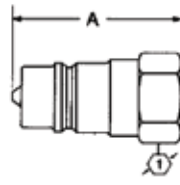


Figure 2

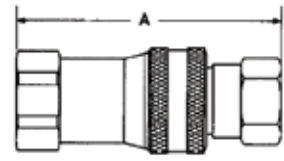


Figure 3

Female End Connections

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | A | B | Hex |
|--------------|---------------|-----------|---------------|------|------------|------|------|------|------|------|
| | | | | | A | B | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 560024-8-10 | Socket/Female | 5/8 | 1/2-14 NPTF | 1 | 2.61 | 1.5 | 1.19 | 66.3 | 38.1 | 30.2 |
| 560024-12-12 | Socket/Female | 3/4 | 3/4-14 NPTF | 1 | 3.25 | 1.81 | 1.50 | 82.6 | 46.0 | 38.1 |
| 560024-16-16 | Socket/Female | 1 | 1 11-1/2 NPTF | 1 | 3.82 | 2.1 | 1.69 | 97.0 | 53.3 | 42.9 |

Plugs (Male)

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | A | B | Hex |
|--------------|---------------|-----------|---------------|------|------------|------|------|------|------|------|
| | | | | | A | B | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 560049-8-10 | Plug/Male | 5/8 | 1/2-14 NPTF | 2 | 2.02 | – | 1.06 | 51.3 | – | 26.9 |
| 560049-12-12 | Plug/Male | 3/4 | 3/4-14 NPTF | 2 | 2.55 | – | 1.38 | 64.8 | – | 35.1 |
| 560049-16-16 | Plug/Male | 1 | 1 11-1/2 NPTF | 2 | 3.1 | – | 1.62 | 78.7 | – | 41.1 |

Complete Sets*

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | |
|-----------------|---------------|-----------|---------------|------|------------|-------|
| | | | | | A | A |
| | | | | | (in) | (mm) |
| FD56-1001-08-10 | Complete | 5/8 | 1/2-14 NPTF | 3 | 3.78 | 96.0 |
| FD56-1001-12-12 | Complete | 3/4 | 3/4-14 NPTF | 3 | 4.56 | 115.8 |
| FD56-1001-16-16 | Complete | 1 | 1 11-1/2 NPTF | 3 | 4.86 | 123.4 |

*Includes one socket/female and one plug/male half in the outlined size.

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

IA Series ISO 7241-1 A Interchange



The IA Series meets ISO 7241-1 A Standard requirements and has a push-pull design, which allows the socket to be bulk-head-mounted. This configuration provides automatic connection or disconnection via a simple push or pull of the plug. Our IA Series is available in 1/2", with female or male end connections such as tube fittings, NPT, metric or SAE threads. It is widely used in agriculture and forestry applications.

Product Features

- ISO size: 12.5 mm (1/2")
- Standard body material: Zinc trivalent plated steel
- Wide offering of end connections, among which metric threads designed in accordance with ISO Standard 8434/1
- Standard seal material: NBR
- Optional PVC dust caps and plugs
- Designed and manufactured in accordance with Article 3.3 of the European Pressure Equipment Directive PED 201468/EU
- Meets dimensional requirements of ISO Standard 7241/1 Series A
- Push-to-connect: the push-pull sleeve on the bulkhead-mounted socket provides automatic connection or disconnection via a simple push or pull of the plug. In the event of pull on the hose, the double-action sleeve gives immediate and automatic disconnection

Physical Characteristics

| Body Size (in) | ISO Size* | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Rated Flow** | | Fluid Loss |
|-------------------|-----------|-------------------------------|-------------------------|-------|--------------|-------|------------|
| | (mm) | (mm) | bar | (psi) | L/min | (gpm) | ml-cc. |
| 1/2 | 12.5 | 6 8 10 10.3 | 250 | 3,625 | 45 | 11.9 | 2.6 |

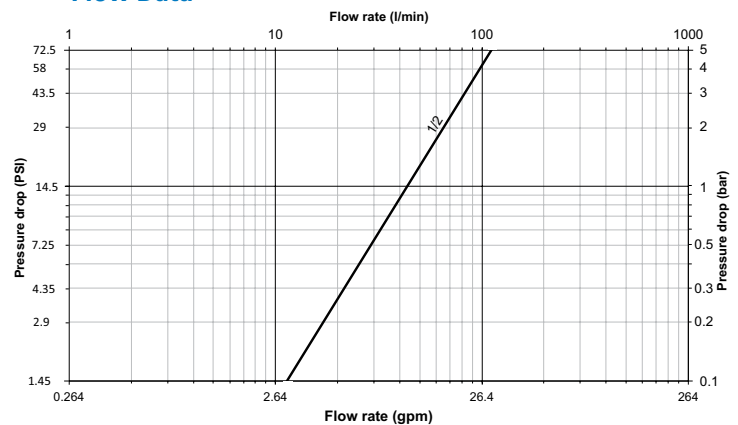
* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard).

** Indicated values refer to a 1 bar/14.5 psi pressure drop.

Applications & Markets

- Agriculture
- Forestry Machinery

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|----------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |

*For reference only, based on Eaton recommended temperatures. Contact Eaton technical support for further information on fluid compatibility.

IA Series ISO 7241-1 A Interchange

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

End Connections

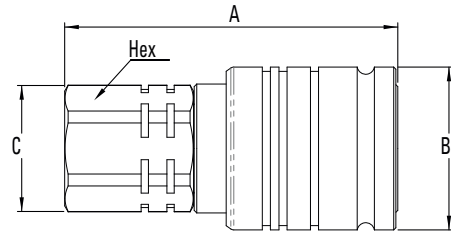
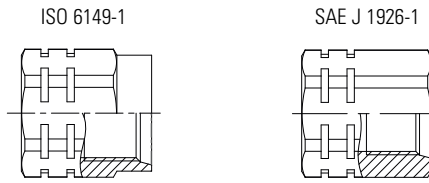


Figure 1

Sockets (Female) with Internal Thread

| Part Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size (Female) | | | Dimensions | | | | | | | Weight | | | | |
|-------------|-----------|----------|-----------------------|----------------------|------|------------|--------------|------|--------|--------|--------|----------|--------|--------|--------|----------|------|-------|
| | | | | NPT | BSP | ISO 6149-1 | SAE J 1926-1 | Fig. | A (in) | B (in) | C (in) | Hex (in) | A (mm) | B (mm) | C (mm) | Hex (mm) | lbs | grams |
| 12IAS37BS | ½ | 12.5 | 10.3 | - | ¾-19 | - | - | 1 | 2.95 | 1.50 | 1.20 | 1.06 | 75 | 38 | 29.5 | 27 | 0.67 | 305 |
| 12IAS37 | | | | ¾-18 | - | - | 1 | 2.95 | 1.50 | 1.20 | 1.06 | 75 | 38 | 29.5 | 27 | 0.67 | 305 | |
| 12IAS50BS | | | | - | ½-14 | - | - | 1 | 3.07 | 1.50 | 1.20 | 1.06 | 78 | 38 | 29.5 | 27 | 0.66 | 300 |
| 12IAS50 | | | | ½-14 | - | - | - | 1 | 3.07 | 1.50 | 1.20 | 1.06 | 78 | 38 | 29.5 | 27 | 0.67 | 305 |
| 12IAS16FMET | | | | - | - | M16x1.5 | - | 1 | 2.95 | 1.50 | 1.20 | 1.06 | 75 | 38 | 29.5 | 27 | 0.66 | 300 |
| 12IAS56UN | | | | - | - | - | ¾ 18f UNF | 1 | 3.07 | 1.50 | 1.20 | 1.06 | 78 | 38 | 29.5 | 27 | 0.71 | 320 |
| 12IAS75UN | | | | - | - | - | ¾ 16f UNF | 1 | 3.07 | 1.50 | 1.20 | 1.06 | 78 | 38 | 29.5 | 27 | 0.67 | 305 |
| 12IAS87UN | | | | - | - | - | ¾ 14f UNF | 1 | 3.19 | 1.50 | 1.30 | 1.18 | 81 | 38 | 33 | 30 | 0.74 | 335 |

To obtain connected length of coupling add dimensions A (Fig. 1) and K (Fig. 3) or P (Fig. 4) together.

End Connections

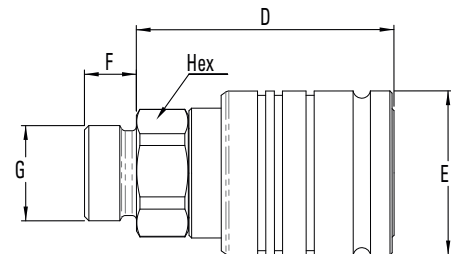
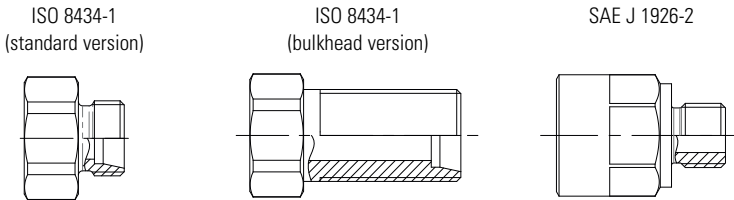


Figure 2

Sockets (Female) with External Thread

| Part Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size (Male) | | | Dimensions | | | | | | | Weight | | | | |
|-------------|-----------|---------------|-----------------------|------------------------|--------------|------|------------|--------|--------|--------|----------|--------|--------|--------|--------|----------|------|-------|
| | | | | ISO 8434-1 | SAE J 1926-2 | Fig. | D (in) | E (in) | F (in) | G (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Hex (mm) | lbs | grams |
| 12IAS56ORM | ½ | 12.5 | 10.3 | - | ¾ 18f UNF | 2 | 2.87 | 1.50 | 0.47 | 0.56 | 0.94 | 73 | 38 | 12 | 14.2 | 23.8 | 0.67 | 305 |
| 12IAS75ORM | | | 10.3 | - | ¾ 16f UNF | 2 | 2.87 | 1.50 | 0.55 | 0.75 | 0.94 | 73 | 38 | 14 | 19 | 23.8 | 0.68 | 310 |
| 12IAS8L | | | 6 | 8L - M14x1.5 | - | 2 | 2.44 | 1.50 | 0.39 | 0.55 | 1.06 | 62 | 38 | 10 | 14 | 27 | 0.61 | 275 |
| 12IAS10L | | | 8 | 10L - M16x1.5 | - | 2 | 2.40 | 1.50 | 0.43 | 0.63 | 1.06 | 61 | 38 | 11 | 16 | 27 | 0.60 | 270 |
| 12IAS10LBH | | | 8 | 10L - M16x1.5 Bulkhead | - | 2 | 2.44 | 1.50 | 1.38 | 0.63 | 1.06 | 62 | 38 | 35 | 16 | 27 | 0.68 | 310 |
| 12IAS12L | | | 10 | 12L - M18x1.5 | - | 2 | 2.40 | 1.50 | 0.43 | 0.71 | 1.06 | 61 | 38 | 11 | 18 | 27 | 0.61 | 275 |
| 12IAS12LBH | | | 10 | 12L - M18x1.5 Bulkhead | - | 2 | 2.40 | 1.50 | 1.42 | 0.71 | 1.06 | 61 | 38 | 36 | 18 | 27 | 0.70 | 316 |
| 12IAS12S | | | 8 | 12S - M20x1.5 | - | 2 | 2.40 | 1.50 | 0.47 | 0.79 | 1.06 | 61 | 38 | 12 | 20 | 27 | 0.62 | 282 |
| 12IAS15L | | | 10.3 | 15L - M22x1.5 | - | 2 | 2.36 | 1.50 | 0.47 | 0.87 | 1.06 | 60 | 38 | 12 | 22 | 27 | 0.61 | 275 |
| 12IAS15LBH | | | 10.3 | 15L - M22x1.5 Bulkhead | - | 2 | 2.40 | 1.50 | 1.50 | 0.87 | 1.06 | 61 | 38 | 38 | 22 | 27 | 0.75 | 340 |
| 12IAS16S | 10.3 | 16S - M24x1.5 | - | 2 | 2.36 | 1.50 | 0.55 | 0.94 | 1.06 | 60 | 38 | 14 | 24 | 27 | 0.62 | 280 | | |

To obtain connected length of coupling add dimensions D (Fig. 2) and K (Fig. 3) or P (Fig. 4) together.

IA Series ISO 7241-1 A Interchange

End Connections

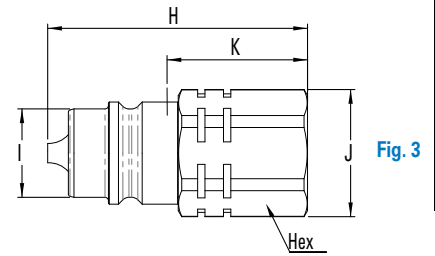
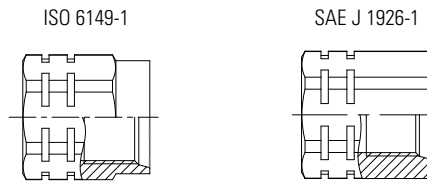


Fig. 3

Plugs (Male) with Internal Thread

| Part Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size (Female) | | | | Dimensions | | | | | | | | | | Weight | | | |
|-------------|-----------|----------|-----------------------|----------------------|--------|------------|--------------|------------|------|------|------|------|------|------|------|------|------|--------|------|-------|--|
| | | | | NPT | BSPP | ISO 6149-1 | SAE J 1926-1 | Fig. | H | I | J | K | Hex | H | I | J | K | Hex | lbs | grams | |
| NBR | (in) | (mm) | (mm) | | | | | | (in) | (in) | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | (mm) | | |
| 12IAP37BS | | | | - | 3/8-19 | - | - | 3 | 2.24 | 0.84 | 1.20 | 1.22 | 1.06 | 57 | 20.5 | 29.5 | 31 | 27 | 0.28 | 125 | |
| 12IAP37 | | | | 3/8-18 | - | - | - | 3 | 2.24 | 0.84 | 1.20 | 1.22 | 1.06 | 57 | 20.5 | 29.5 | 31 | 27 | 0.29 | 130 | |
| 12IAP50BS | | | | - | 1/2-14 | - | - | 3 | 2.36 | 0.84 | 1.20 | 1.34 | 1.06 | 60 | 20.5 | 29.5 | 34 | 27 | 0.28 | 125 | |
| 12IAP50 | | | | 1/2-14 | - | - | - | 3 | 2.36 | 0.84 | 1.20 | 1.34 | 1.06 | 60 | 20.5 | 29.5 | 34 | 27 | 0.28 | 125 | |
| 12IAP16FMET | 1/2 | 12.5 | 10.3 | - | - | M16x1.5 | - | 3 | 2.24 | 0.84 | 1.20 | 1.22 | 1.06 | 57 | 20.5 | 29.5 | 31 | 27 | 0.26 | 120 | |
| 12IAP56UN | | | | - | - | - | 3/8 18f UNF | 3 | 2.36 | 0.84 | 1.20 | 1.34 | 1.06 | 60 | 20.5 | 29.5 | 34 | 27 | 0.31 | 140 | |
| 12IAP75UN | | | | - | - | - | 3/4 16f UNF | 3 | 2.36 | 0.84 | 1.20 | 1.34 | 1.06 | 60 | 20.5 | 29.5 | 34 | 27 | 0.28 | 125 | |
| 12IAP87UN | | | | - | - | - | 7/8 14f UNF | 3 | 2.48 | 0.84 | 1.30 | 1.46 | 1.18 | 63 | 20.5 | 33 | 37 | 30 | 0.34 | 155 | |

To obtain connected length of coupling add dimensions K (Fig. 3) and A (Fig. 1) or D (Fig. 2) together.

End Connections

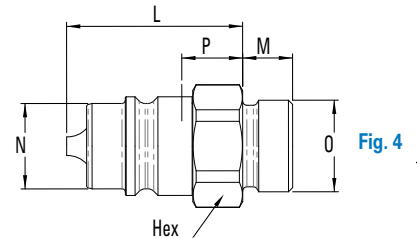
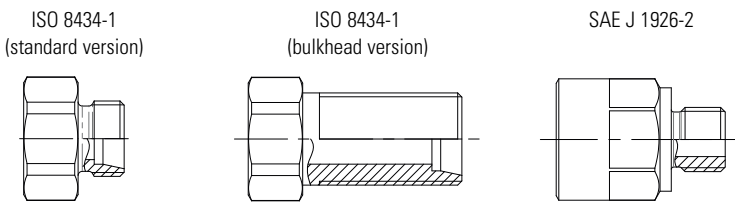


Fig. 4

Plugs (Male) with External Thread

| Part Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size (Male) | | | Dimensions | | | | | | | | | | Weight | | | | |
|-------------|-----------|----------|-----------------------|------------------------|--------------|------|------------|------|------|------|------|------|------|------|------|------|--------|------|------|-------|--|
| | | | | ISO 8434-1 | SAE J 1926-2 | Fig. | L | M | N | O | P | Hex | L | M | N | O | P | Hex | lbs | grams | |
| NBR | (in) | (mm) | (mm) | | | | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | | |
| 12IAP56ORM | | | 10.3 | - | 3/8 18f UNF | 4 | 2.20 | 0.47 | 0.84 | 0.56 | 1.18 | 0.94 | 56 | 12 | 20.5 | 14.2 | 30 | 23.8 | 0.28 | 125 | |
| 12IAP75ORM | | | 10.3 | - | 3/4 16f UNF | 4 | 2.20 | 0.55 | 0.84 | 0.75 | 1.18 | 0.94 | 56 | 14 | 20.5 | 19 | 30 | 23.8 | 0.29 | 130 | |
| 12IAP8L | | | 6 | 8L - M14x1.5 | - | 4 | 1.75 | 0.39 | 0.84 | 0.55 | 0.71 | 1.06 | 44.5 | 10 | 20.5 | 14 | 18 | 27 | 0.21 | 95 | |
| 12IAP10L | | | 8 | 10L - M16x1.5 | - | 4 | 1.71 | 0.43 | 0.84 | 0.63 | 0.67 | 1.06 | 43.5 | 11 | 20.5 | 16 | 17 | 27 | 0.21 | 95 | |
| 12IAP10LBH | | | 8 | 10L - M16x1.5 Bulkhead | - | 4 | 1.75 | 1.38 | 0.84 | 0.63 | 0.71 | 1.06 | 44.5 | 35 | 20.5 | 16 | 18 | 27 | 0.30 | 135 | |
| 12IAP12L | 1/2 | 12.5 | 10 | 12L - M18x1.5 | - | 4 | 1.71 | 0.43 | 0.84 | 0.71 | 0.67 | 1.06 | 43.5 | 11 | 20.5 | 18 | 17 | 27 | 0.21 | 95 | |
| 12IAP12LBH | | | 10 | 12L - M18x1.5 Bulkhead | - | 4 | 1.71 | 1.42 | 0.84 | 0.71 | 0.67 | 1.06 | 43.5 | 36 | 20.5 | 18 | 17 | 27 | 0.30 | 136 | |
| 12IAP12S | | | 8 | 12S - M20x1.5 | - | 4 | 1.71 | 0.47 | 0.84 | 0.79 | 0.67 | 1.06 | 43.5 | 12 | 20.5 | 20 | 17 | 27 | 0.22 | 102 | |
| 12IAP15L | | | 10.3 | 15L - M22x1.5 | - | 4 | 1.67 | 0.47 | 0.84 | 0.87 | 0.63 | 1.06 | 42.5 | 12 | 20.5 | 22 | 16 | 27 | 0.21 | 95 | |
| 12IAP15LBH | | | 10.3 | 15L - M22x1.5 Bulkhead | - | 4 | 1.71 | 1.50 | 0.84 | 0.87 | 0.67 | 1.06 | 43.5 | 38 | 20.5 | 22 | 17 | 27 | 0.35 | 160 | |
| 12IAP16S | | | 10.3 | 16S - M24x1.5 | - | 4 | 1.67 | 0.55 | 0.84 | 0.94 | 0.63 | 1.06 | 42.5 | 14 | 20.5 | 24 | 16 | 27 | 0.22 | 100 | |

To obtain connected length of coupling add dimensions P (Fig. 4) and A (Fig. 1) or D (Fig. 2) together.

Dust Plugs and Dust Caps

| Body Size | Socket Dust Plug Part Number | Plug Dust Cap Part Number |
|-----------|------------------------------|---------------------------|
| (in) | Plastic | Plastic |
| 1/2 | HP1513100 | HP1513200 |



Socket Dust Plug

Plug Dust Cap

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

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H5000 Series (Steel)



Eaton's H5000 Series steel quick disconnect coupling is a pull to connect double shut-off coupling. Featuring the original Eaton's Gromelle™ profile, it remains as the series users prefer when it comes to severe hydraulic applications such as high pressure, pressure impulses, heavy mechanical loads and frequent connection and disconnection cycles. The unique sleeve lock option offers a reliable solution and benefit to the end user when safety is a concern.

Product Features

- Proprietary profile
- Pull-to-connect with double shut-off valving
- Ball-locking
- Optional safety sleeve lock prevents accidental disconnections
- Optional dust caps and plugs (made of anodized aluminum)
- Pressure performance
- Standard body material: Zinc trivalent steel
- Standard seal material: NBR, FKM, EPDM
- The heat treatment of the plug and use of high strength steel for the socket sleeve provide superior mechanical and hydraulic performance. The design of the valve gives the coupling increased robustness when disconnected.

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure* | | Hazardous liquids & gases in Group 1 | | Rated Flow** | | Fluid Loss ml-cc. |
|-------------------|-------------------------------|--------------------------|--------|--------------------------------------|--------|--------------|-------|----------------------|
| | | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) | |
| 1/8 | 3.8 | 1,000 | 14,500 | 1,000 | 14,500 | 6.1 | 1.61 | 0.4 |
| 1/4 | 5.7 | 700 | 10,150 | 700 | 10,150 | 11.6 | 3.06 | 1 |
| 3/8 | 7.6 | 600 | 8,700 | 600 | 8,700 | 16.7 | 4.41 | 2 |
| 1/2 | 10.3 | 500 | 7,250 | 500 | 7,250 | 25.5 | 6.74 | 2.5 |
| 3/4 | 14.2 | 400 | 5,800 | 400 | 5,800 | 55 | 14.53 | 5.5 |
| 1 | 16.5 | 300 | 4,350 | 300 | 4,350 | 87 | 22.98 | 9 |
| 1 1/4 | 20.5 | 200 | 2,900 | 200 | 2,900 | 140 | 36.98 | 23 |
| 1 1/2 | 25.8 | 150 | 2,175 | 38 | 550 | 208 | 54.95 | 36 |
| 2 | 34.7 | 100 | 1,450 | 28 | 405 | 357 | 94.3 | 70 |

* For pulsating pressures when disconnected apply a multiplier of 0.5
 ** Indicated values refer to a 1 bar/14.5 psi pressure drop.

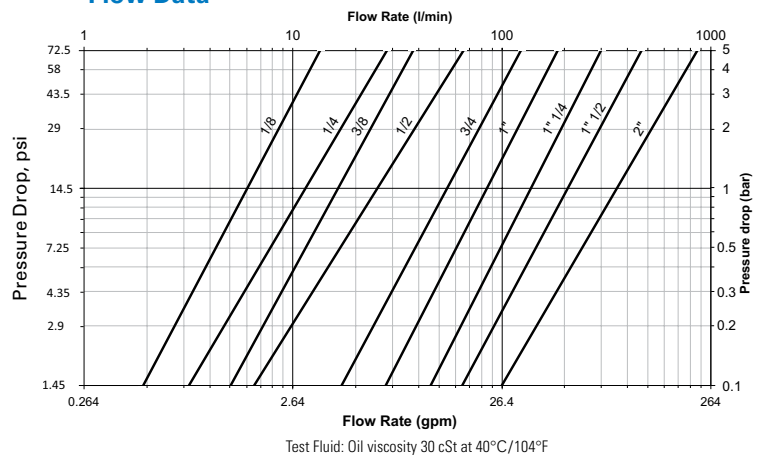
European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases.
 Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets

- Automobile
- Agriculture
- Construction
- Oil and Gas
- Railway
- Aeronautics
- Food Processing
- Iron and Steel Industry
- Electronics
- Laboratories
- General Hydraulic Applications

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |
| FKM | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

* For reference only, based on Eaton recommended temperatures.
 ** In accordance with NF L 17-241 or NAS 1613 rev. 5
 Contact Eaton technical support for further information on fluid compatibility.

H5000 Series (Steel)

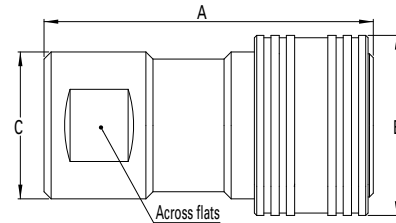


Figure 1

Sockets (Female)

| Part Number | FKM | EPDM | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size** (Female) | | | Fig. | Dimensions | | | | | | | | Weight | |
|-------------|-----------|-----------|----------------|----------------------------|------------------------|----------|---------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|--------|-------|
| | | | | | NPT | BSPB | Metric | | A (in) | B (in) | C (in) | Across flats (in) | A (mm) | B (mm) | C (mm) | Across flats (mm) | lbs | grams |
| HA0500100 | HA05001V0 | HA05001E0 | 1/8 | 3.8 | - | 1/8-28 | - | 1 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 88 |
| HA0520100 | HA05201V0 | HA05201E0 | 1/8 | 3.8 | 1/8-27 | - | - | 1 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 88 |
| HA0530100 | HA05301V0 | HA05301E0 | 1/8 | 3.8 | - | - | M10x100 | 1 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 88 |
| HA0501100 | HA05011V0 | HA05011E0 | 1/4 | 5.7 | - | 1/4-19 | - | 1 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 122 |
| HA0521100 | HA05211V0 | HA05211E0 | 1/4 | 5.7 | 1/4-18 | - | - | 1 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 122 |
| HA0531100 | HA05311V0 | HA05311E0 | 1/4 | 5.7 | - | - | M14x150 | 1 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 122 |
| HA0502100 | HA05021V0 | HA05021E0 | 3/8 | 7.6 | - | 3/8-19 | - | 1 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 197 |
| HA0522100 | HA05221V0 | HA05221E0 | 3/8 | 7.6 | 3/8-18 | - | - | 1 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 197 |
| HA0532100 | HA05321V0 | HA05321E0 | 3/8 | 7.6 | - | - | M18x150 | 1 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 197 |
| HA0503100 | HA05031V0 | HA05031E0 | 1/2 | 10.3 | - | 1/2-14 | - | 1 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 226 |
| HA0523100 | HA05231V0 | HA05231E0 | 1/2 | 10.3 | 1/2-14 | - | - | 1 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 226 |
| HA0533100 | HA05331V0 | HA05331E0 | 1/2 | 10.3 | - | - | M22x150 | 1 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 226 |
| HA0504100 | HA05041V0 | HA05041E0 | 3/4 | 14.2 | - | 3/4-14 | - | 1 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 577 |
| HA0524100 | HA05241V0 | HA05241E0 | 3/4 | 14.2 | 3/4-14 | - | - | 1 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 577 |
| HA0534100 | HA05341V0 | HA05341E0 | 3/4 | 14.2 | - | - | M27x150 | 1 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 577 |
| HA0505100 | HA05051V0 | HA05051E0 | 1 | 16.5 | - | 1-11 | - | 1 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.59 | 720 |
| HA0525100 | HA05251V0 | HA05251E0 | 1 | 16.5 | 1-11 1/2 | - | - | 1 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.59 | 720 |
| - | HA05061V0 | HA05061E0 | 1 1/4 | 20.5 | - | 1 1/4-11 | - | 1 | 5.20 | 2.95 | 2.44 | 2.16 | 132 | 75 | 62 | 55 | 4.77 | 2,165 |
| - | HA05071V0 | HA05071E0 | 1 1/2 | 25.8 | - | 1 1/2-11 | - | 1 | 5.90 | 3.35 | 2.95 | 2.56 | 150 | 85 | 75 | 65 | 7.72 | 3,500 |
| - | HA05091V0 | HA05091E0 | 2 | 34.7 | - | 2-11 | - | 1 | 6.69 | 3.82 | 3.35 | 2.95 | 170 | 97 | 85 | 75 | 10.67 | 4,840 |

* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

** Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together.

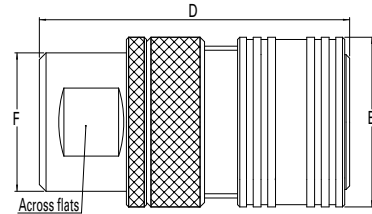


Figure 2

Sockets with Sleeve Lock (Female)

| Part Number | FKM | EPDM | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size** (Female) | | | Fig. | Dimensions | | | | | | | | Weight | |
|-------------|-----------|-----------|----------------|----------------------------|------------------------|----------|---------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|--------|-------|
| | | | | | NPT | BSPB | Metric | | D (in) | E (in) | F (in) | Across flats (in) | D (mm) | E (mm) | F (mm) | Across flats (mm) | lbs | grams |
| HA0500300 | HA05003V0 | HA05003E0 | 1/8 | 3.8 | - | 1/8-28 | - | 2 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 91 |
| HA0520300 | HA05203V0 | HA05203E0 | 1/8 | 3.8 | 1/8-27 | - | - | 2 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 91 |
| HA0530300 | HA05303V0 | HA05303E0 | 1/8 | 3.8 | - | - | M10x100 | 2 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 91 |
| HA0501300 | HA05013V0 | HA05013E0 | 1/4 | 5.7 | - | 1/4-19 | - | 2 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 134 |
| HA0521300 | HA05213V0 | HA05213E0 | 1/4 | 5.7 | 1/4-18 | - | - | 2 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 134 |
| HA0531300 | HA05313V0 | HA05313E0 | 1/4 | 5.7 | - | - | M14x150 | 2 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 134 |
| HA0502300 | HA05023V0 | HA05023E0 | 3/8 | 7.6 | - | 3/8-19 | - | 2 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 225 |
| HA0522300 | HA05223V0 | HA05223E0 | 3/8 | 7.6 | 3/8-18 | - | - | 2 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 225 |
| HA0532300 | HA05323V0 | HA05323E0 | 3/8 | 7.6 | - | - | M18x150 | 2 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 225 |
| HA0503300 | HA05033V0 | HA05033E0 | 1/2 | 10.3 | - | 1/2-14 | - | 2 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 310 |
| HA0523300 | HA05233V0 | HA05233E0 | 1/2 | 10.3 | 1/2-14 | - | - | 2 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 310 |
| HA0533300 | HA05333V0 | HA05333E0 | 1/2 | 10.3 | - | - | M22x150 | 2 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 310 |
| HA0504300 | HA05043V0 | HA05043E0 | 3/4 | 14.2 | - | 3/4-14 | - | 2 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 665 |
| HA0524300 | HA05243V0 | HA05243E0 | 3/4 | 14.2 | 3/4-14 | - | - | 2 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 665 |
| HA0534300 | HA05343V0 | HA05343E0 | 3/4 | 14.2 | - | - | M27x150 | 2 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 665 |
| HA0505300 | HA05053V0 | HA05053E0 | 1 | 16.5 | - | 1-11 | - | 2 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.59 | 813 |
| HA0525300 | HA05253V0 | HA05253E0 | 1 | 16.5 | 1-11 1/2 | - | - | 2 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.59 | 813 |
| - | HA05063V0 | HA05063E0 | 1 1/4 | 20.5 | - | 1 1/4-11 | - | 2 | 5.20 | 2.95 | 2.44 | 2.16 | 132 | 75 | 62 | 55 | 4.77 | 2,230 |
| - | HA05073V0 | HA05073E0 | 1 1/2 | 25.8 | - | 1 1/2-11 | - | 2 | 5.90 | 3.35 | 2.95 | 2.56 | 150 | 85 | 75 | 65 | 7.72 | 3,585 |
| - | HA05093V0 | HA05093E0 | 2 | 34.7 | - | 2-11 | - | 2 | 6.69 | 3.82 | 3.35 | 2.95 | 170 | 97 | 85 | 75 | 10.67 | 5,658 |

* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

** Alternative end connections available upon request.

To obtain connected length of coupling add dimensions D (Fig. 2) and J (Fig. 3) together.

FLUID TRANSFER
AND HYDRAULIC

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DIAGNOSTIC

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REFRIGERANT

H5000 Series (Steel)

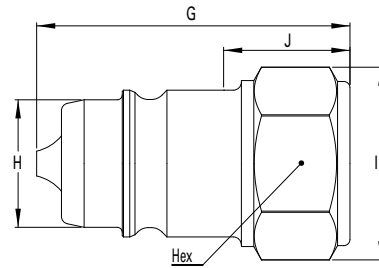


Figure 3

Plugs (Male)

| Part Number | Body Size | Nominal Flow Diameter | Thread Size** (Female) | | | Dimensions | | | | | | | | | | Weight | | | | | |
|-------------|-----------|-----------------------|------------------------|------|--------|------------|---------|--------|--------|--------|----------|--------|--------|--------|--------|----------|------|-------|------|------|------|
| | | | NPT | BSPP | Metric | Fig. | G (in) | H (in) | I (in) | J (in) | Hex (in) | G (mm) | H (mm) | I (mm) | J (mm) | Hex (mm) | lbs | grams | | | |
| HA0500200 | HA05002V0 | HA05002E0 | 1/8 | 3.8 | - | 1/8-28 | - | - | 3 | 1.10 | 0.43 | 0.72 | 0.39 | 0.63 | 28 | 11 | 18.4 | 10 | 16 | 0.05 | 23 |
| HA0520200 | HA05202V0 | HA05202E0 | 1/8 | 3.8 | - | 1/8-27 | - | - | 3 | 1.10 | 0.43 | 0.72 | 0.39 | 0.63 | 28 | 11 | 18.4 | 10 | 16 | 0.05 | 23 |
| HA0530200 | HA05302V0 | HA05302E0 | 1/8 | 3.8 | - | - | M10x100 | 3 | 1.10 | 0.43 | 0.72 | 0.39 | 0.63 | 28 | 11 | 18.4 | 10 | 16 | 0.05 | 23 | |
| HA0501200 | HA05012V0 | HA05012E0 | 1/4 | 5.7 | - | 1/4-19 | - | - | 3 | 1.38 | 0.56 | 0.86 | 0.55 | 0.75 | 35 | 14.2 | 21.8 | 14 | 19 | 0.08 | 37 |
| HA0521200 | HA05212V0 | HA05212E0 | 1/4 | 5.7 | - | 1/4-18 | - | - | 3 | 1.38 | 0.56 | 0.86 | 0.55 | 0.75 | 35 | 14.2 | 21.8 | 14 | 19 | 0.08 | 37 |
| HA0531200 | HA05312V0 | HA05312E0 | 1/4 | 5.7 | - | - | M14x150 | 3 | 1.38 | 0.56 | 0.86 | 0.55 | 0.75 | 35 | 14.2 | 21.8 | 14 | 19 | 0.08 | 37 | |
| HA0502200 | HA05022V0 | HA05022E0 | 3/8 | 7.6 | - | 3/8-19 | - | - | 3 | 1.65 | 0.75 | 1.04 | 0.7 | 0.90 | 42 | 19 | 26.4 | 18 | 23 | 0.15 | 70 |
| HA0522200 | HA05222V0 | HA05222E0 | 3/8 | 7.6 | - | 3/8-18 | - | - | 3 | 1.65 | 0.75 | 1.04 | 0.7 | 0.90 | 42 | 19 | 26.4 | 18 | 23 | 0.15 | 70 |
| HA0532200 | HA05322V0 | HA05322E0 | 3/8 | 7.6 | - | - | M18x150 | 3 | 1.65 | 0.75 | 1.04 | 0.7 | 0.90 | 42 | 19 | 26.4 | 18 | 23 | 0.15 | 70 | |
| HA0503200 | HA05032V0 | HA05032E0 | 1/2 | 10.3 | - | 1/2-14 | - | - | 3 | 1.97 | 0.81 | 1.22 | 0.94 | 1.06 | 50 | 20.6 | 31 | 24 | 27 | 0.20 | 92 |
| HA0523200 | HA05232V0 | HA05232E0 | 1/2 | 10.3 | - | 1/2-14 | - | - | 3 | 1.97 | 0.81 | 1.22 | 0.94 | 1.06 | 50 | 20.6 | 31 | 24 | 27 | 0.20 | 92 |
| HA0533200 | HA05332V0 | HA05332E0 | 1/2 | 10.3 | - | - | M22x150 | 3 | 1.97 | 0.81 | 1.22 | 0.94 | 1.06 | 50 | 20.6 | 31 | 24 | 27 | 0.20 | 92 | |
| HA0504200 | HA05042V0 | HA05042E0 | 3/4 | 14.2 | - | 3/4-14 | - | - | 3 | 2.48 | 1.10 | 1.58 | 1.10 | 1.38 | 63 | 27.9 | 40.2 | 28 | 35 | 0.48 | 217 |
| HA0524200 | HA05242V0 | HA05242E0 | 3/4 | 14.2 | - | 3/4-14 | - | - | 3 | 2.48 | 1.10 | 1.58 | 1.10 | 1.38 | 63 | 27.9 | 40.2 | 28 | 35 | 0.48 | 217 |
| HA0534200 | HA05342V0 | HA05342E0 | 3/4 | 14.2 | - | - | M27x150 | 3 | 2.48 | 1.10 | 1.58 | 1.10 | 1.38 | 63 | 27.9 | 40.2 | 28 | 35 | 0.48 | 217 | |
| HA0505200 | HA05052V0 | HA05052E0 | 1 | 16.5 | - | 1-11 | - | - | 3 | 2.79 | 1.27 | 1.87 | 1.22 | 1.61 | 71 | 32.4 | 47.5 | 31 | 41 | 0.63 | 287 |
| HA0525200 | HA05252V0 | HA05252E0 | 1 | 16.5 | - | 1-11 1/2 | - | - | 3 | 2.79 | 1.27 | 1.87 | 1.22 | 1.61 | 71 | 32.4 | 47.5 | 31 | 41 | 0.63 | 287 |
| - | HA05062V0 | HA05062E0 | 1 1/4 | 20.5 | - | 1 1/4-11 | - | - | 3 | 3.82 | 1.85 | 2.49 | 1.89 | 2.16 | 97 | 46.9 | 63.2 | 48 | 55 | 1.98 | 900 |
| - | HA05072V0 | HA05072E0 | 1 1/2 | 25.8 | - | 1 1/2-11 | - | - | 3 | 4.29 | 2.20 | 2.94 | 2.04 | 2.56 | 109 | 56 | 74.7 | 52 | 65 | 3.30 | 1500 |
| - | HA05092V0 | HA05092E0 | 2 | 34.7 | - | 2-11 | - | - | 3 | 4.76 | 2.56 | 3.30 | 1.97 | 2.95 | 121 | 65 | 84 | 50 | 75 | 4.06 | 1840 |

* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

** Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together for standard version ; add dimensions D (Fig. 2) and J (Fig. 3) together for sleeve lock version.

Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part Number | Plug Dust Cap Part Number |
|----------------|------------------------------|---------------------------|
| | Anodized Aluminum | Anodized Aluminum |
| 1/8 | HD0510100 | HD0510200 |
| 1/4 | HD0511100 | HD0511200 |
| 3/8 | HD0512100 | HD0512200 |
| 1/2 | HD0513100 | HD0513200 |
| 3/4 | HD0514100 | HD0514200 |
| 1 | HD0515100 | HD0515200 |
| 1 1/4 | HD0516100 | HD0516200 |
| 1 1/2 | HD0517100 | HD0517200 |
| 2 | HD0519100 | HD0519200 |

Socket Dust Plug



Plug Dust Cap

H5000 Series (Brass)



Eaton's H5000 Series brass quick disconnect coupling is a pull to connect double shut-off coupling. It is a general purpose industrial quick disconnect coupling with the original Eaton's Gromelle™ profile. Mainly used in fluid transfer applications where stainless steel is not a requirement, it offers a good alternative for corrosion resistance.

Product Features

- Proprietary profile
- Pull-to-connect with double shut-off valving
- Ball-locking
- Pressure performance
- Optional safety sleeve lock prevents accidental disconnections
- Optional dust caps and plugs (made of anodized aluminum)
- Standard body material: Nickel-plated brass
- Standard seal material: NBR, FKM, EPDM

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey gases in Group 1 (hazardous).

Group 1 = Hazardous media / Group 2 = Other media

Physical Characteristics

| Body Size | Nominal Flow Diameter* | Max. Operating Pressure** | | Rated Flow*** | Fluid Loss | | | |
|-----------|------------------------|--|--------------------------------|---------------|------------|--------|-------|-----|
| | | Hazardous and Non hazardous liquids in Group 1&2 | Non hazardous Gases in Group 2 | | | | | |
| (in) | (mm) | (bar) | (psi) | (lpm) | (gpm) | ml-cc. | | |
| 1/8 | 3.8 | 300 | 4,350 | 300 | 4,350 | 6.1 | 1.61 | 0.4 |
| 1/4 | 5.7 | 230 | 3,335 | 230 | 3,335 | 11.6 | 3.06 | 1 |
| 3/8 | 7.6 | 175 | 2,535 | 175 | 2,535 | 16.7 | 4.41 | 2 |
| 1/2 | 10.3 | 150 | 2,175 | 150 | 2,175 | 25.5 | 6.74 | 2.5 |
| 3/4 | 14.2 | 125 | 1,810 | 125 | 1,810 | 55 | 14.53 | 5.5 |
| 1 | 16.5 | 100 | 1,450 | 100 | 1,450 | 87 | 22.98 | 9 |
| 1 1/4 | 20.5 | 70 | 1,015 | 70 | 1,015 | 140 | 36.98 | 23 |
| 1 1/2 | 25.8 | 50 | 725 | 50 | 725 | 208 | 54.95 | 36 |
| 2 | 34.7 | 40 | 290 | 28 | 406 | 357 | 94.3 | 70 |

* Nominal diameters over 25 mm should not be used to convey gases in Group 1 (PED 97/23 EC)

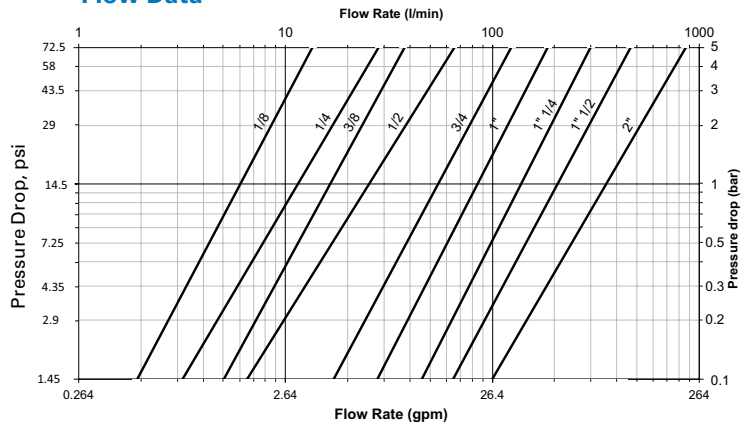
** For pulsating pressures when disconnected apply a multiplier of 0.5

*** Indicated values refer to a 1 bar/14.5 psi pressure drop.

Applications & Markets

- Automobile
- Agriculture
- Construction
- Oil and Gas
- Railway
- Aeronautics
- Food Processing
- Iron and Steel Industry
- Electronics
- Laboratories
- General Hydraulic Applications

Flow Data



Test Fluid: Oil viscosity 30 cSt at 40°C/104°F

Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |
| FKM (Fluorocarbon) | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

* For reference only, based on Eaton recommended temperatures.

** In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

H5000 Series (Brass)

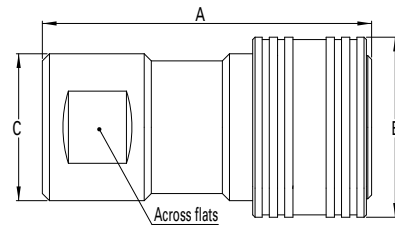


Figure 1

Sockets (Female)

| Part Number | | | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) | Fig. | Dimensions | | | | | | | Weight | | |
|-------------|-----------|-----------|----------------|----------------------------|-----------------------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|-------|-------|
| NBR | FKM | EPDM | | | | | A (in) | B (in) | C (in) | Across flats (in) | A (mm) | B (mm) | C (mm) | Across flats (mm) | lbs | grams |
| HL0500100 | HL05001V0 | HL05001E0 | 1/8 | 3.8 | 1/8-28 | 1 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.21 | 97 |
| HL0501100 | HL05011V0 | HL05011E0 | 1/4 | 5.7 | 1/4-19 | 1 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.30 | 134 |
| HL0502100 | HL05021V0 | HL05021E0 | 3/8 | 7.6 | 3/8-19 | 1 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.48 | 217 |
| HL0503100 | HL05031V0 | HL05031E0 | 1/2 | 10.3 | 1/2-14 | 1 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.55 | 249 |
| HL0504100 | HL05041V0 | HL05041E0 | 3/4 | 14.2 | 3/4-14 | 1 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.40 | 635 |
| HL0505100 | HL05051V0 | HL05051E0 | 1 | 16.5 | 1-11 | 1 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.75 | 792 |
| HL0506100 | HL05061V0 | HL05061E0 | 1 1/4 | 20.5 | 1 1/4-11 | 1 | 5.20 | 2.95 | 2.44 | 2.16 | 132 | 75 | 62 | 55 | 5.25 | 2,382 |
| HL0507100 | HL05071V0 | HL05071E0 | 1 1/2 | 25.8 | 1 1/2-11 | 1 | 5.90 | 3.35 | 2.95 | 2.56 | 150 | 85 | 75 | 65 | 8.49 | 3,850 |
| HL0509100 | HL05091V0 | HL05091E0 | 2 | 34.7 | 2-11 | 1 | 6.69 | 3.82 | 3.35 | 2.95 | 170 | 97 | 85 | 75 | 11.74 | 5,324 |

* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together.

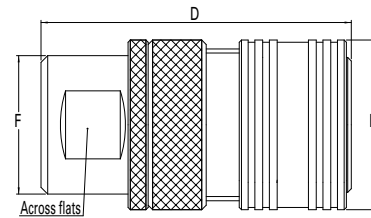


Figure 2

Sockets with Sleeve Lock (Female)

| Part Number | | | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) | Fig. | Dimensions | | | | | | | Weight | | |
|-------------|-----------|-----------|----------------|----------------------------|-----------------------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|-------|-------|
| NBR | FKM | EPDM | | | | | D (in) | E (in) | F (in) | Across flats (in) | D (mm) | E (mm) | F (mm) | Across flats (mm) | lbs | grams |
| HL0500300 | HL05003V0 | HL05003E0 | 1/8 | 3.8 | 1/8-28 | 2 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.22 | 100 |
| HL0501300 | HL05013V0 | HL05013E0 | 1/4 | 5.7 | 1/4-19 | 2 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.33 | 148 |
| HL0502300 | HL05023V0 | HL05023E0 | 3/8 | 7.6 | 3/8-19 | 2 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.55 | 248 |
| HL0503300 | HL05033V0 | HL05033E0 | 1/2 | 10.3 | 1/2-14 | 2 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.75 | 341 |
| HL0504300 | HL05043V0 | HL05043E0 | 3/4 | 14.2 | 3/4-14 | 2 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.61 | 732 |
| HL0505300 | HL05053V0 | HL05053E0 | 1 | 16.5 | 1-11 | 2 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.97 | 894 |
| HL0506300 | HL05063V0 | HL05063E0 | 1 1/4 | 20.5 | 1 1/4-11 | 2 | 5.20 | 2.95 | 2.44 | 2.16 | 132 | 75 | 62 | 55 | 5.41 | 2,453 |
| HL0507300 | HL05073V0 | HL05073E0 | 1 1/2 | 25.8 | 1 1/2-11 | 2 | 5.90 | 3.35 | 2.95 | 2.56 | 150 | 85 | 75 | 65 | 8.69 | 3,944 |
| HL0509300 | HL05093V0 | HL05093E0 | 2 | 34.7 | 2-11 | 2 | 6.69 | 3.82 | 3.35 | 2.95 | 170 | 97 | 85 | 75 | 13.72 | 6,224 |

* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions D (Fig. 2) and J (Fig. 3) together.

H5000 Series (Brass)

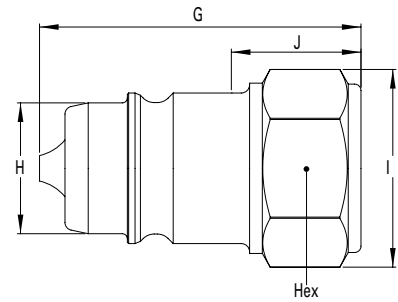


Figure 3

Plugs (Male)

| Part Number | | | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size** (Female) BSPP | Fig. | Dimensions | | | | | | | | | | Weight | |
|-------------|-----------|-----------|-------------------|-------------------------------|-----------------------------------|------|------------|--------|--------|--------|----------|--------|--------|--------|--------|----------|--------|-------|
| NBR* | FKM | EPDM | | | | | G (in) | H (in) | I (in) | J (in) | Hex (in) | G (mm) | H (mm) | I (mm) | J (mm) | Hex (mm) | lbs | grams |
| HL0500200 | HL05002V0 | HL05002E0 | 1/8 | 3.8 | 1/8-28 | 3 | 1.1 | 0.43 | 0.72 | 0.39 | 0.63 | 28 | 11 | 18.4 | 10 | 16 | 0.06 | 26 |
| HL0501200 | HL05012V0 | HL05012E0 | 1/4 | 5.7 | 1/4-19 | 3 | 1.38 | 0.56 | 0.86 | 0.55 | 0.75 | 35 | 14.2 | 21.8 | 14 | 19 | 0.09 | 41 |
| HL0502200 | HL05022V0 | HL05022E0 | 3/8 | 7.6 | 3/8-19 | 3 | 1.65 | 0.75 | 1.04 | 0.70 | 0.90 | 42 | 19 | 26.4 | 18 | 23 | 0.17 | 77 |
| HL0503200 | HL05032V0 | HL05032E0 | 1/2 | 10.3 | 1/2-14 | 3 | 1.97 | 0.81 | 1.22 | 0.94 | 1.06 | 50 | 20.6 | 31 | 24 | 27 | 0.22 | 101 |
| HL0504200 | HL05042V0 | HL05042E0 | 3/4 | 14.2 | 3/4-14 | 3 | 2.48 | 1.10 | 1.58 | 1.10 | 1.38 | 63 | 27.9 | 40.2 | 28 | 35 | 0.53 | 239 |
| HL0505200 | HL05052V0 | HL05052E0 | 1 | 16.5 | 1-11 | 3 | 2.79 | 1.27 | 1.87 | 1.22 | 1.61 | 71 | 32.4 | 47.5 | 31 | 41 | 0.70 | 316 |
| - | HL05062V0 | HL05062E0 | 1 1/4 | 20.5 | 1 1/4-11 | 3 | 3.82 | 1.85 | 2.49 | 1.89 | 2.16 | 97 | 46.9 | 63.2 | 48 | 55 | 2.18 | 990 |
| - | HL05072V0 | HL05072E0 | 1 1/2 | 25.8 | 1 1/2-11 | 3 | 4.29 | 2.20 | 2.94 | 2.04 | 2.56 | 109 | 56 | 74.7 | 52 | 65 | 3.64 | 1650 |
| - | HL05092V0 | HL05092E0 | 2 | 34.7 | 2-11 | 3 | 4.76 | 2.56 | 3.30 | 1.97 | 2.95 | 121 | 65 | 84 | 50 | 75 | 4.46 | 2024 |

* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

** Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together for standard version; add dimensions D (Fig. 2) and J (Fig. 3) together for sleeve lock version

Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part Number Anodized Aluminum | Plug Dust Cap Part Number Anodized Aluminum |
|-------------------|---|--|
| 1/8 | HD0510100 | HD0510200 |
| 1/4 | HD0511100 | HD0511200 |
| 3/8 | HD0512100 | HD0512200 |
| 1/2 | HD0513100 | HD0513200 |
| 3/4 | HD0514100 | HD0514200 |
| 1 | HD0515100 | HD0515200 |
| 1 1/4 | HD0516100 | HD0516200 |
| 1 1/2 | HD0517100 | HD0517200 |
| 2 | HD0519100 | HD0519200 |



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

H5000 Series (Stainless Steel)



Eaton's H5000 Series stainless steel quick disconnect coupling is a pull to connect double shut-off coupling. It is a general purpose industrial coupling with the original Eaton's Gromelle™ profile. It is mainly used in fluid transfer applications and provides excellent corrosion resistance.

Product Features

- Proprietary profile
- Pull-to-connect with double shut-off valving
- Ball-locking
- Optional safety sleeve lock prevents accidental disconnections
- Optional dust caps and plugs (made of anodized aluminum)
- Pressure performance
- Standard body material: AISI 316L Stainless steel
- Standard seal material: FKM, EPDM

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Group 1 = Hazardous media / Group 2 = Other media

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure* | | | | Rated Flow** | | Fluid Loss ml-cc. |
|-------------------|-------------------------------|---------------------------------------|-------|-----------------------------------|-------|--------------|-------|----------------------|
| | | Non hazardous liquids & gases Group 2 | | Hazardous liquids & gases Group 1 | | (lpm) | (gpm) | |
| | | (bar) | (psi) | (bar) | (psi) | | | |
| 1/8 | 3.8 | 300 | 4,350 | 300 | 4,350 | 6.1 | 1.61 | 0.4 |
| 1/4 | 5.7 | 230 | 3,335 | 230 | 3,335 | 11.6 | 3.06 | 1 |
| 3/8 | 7.6 | 175 | 2,535 | 175 | 2,535 | 16.7 | 4.41 | 2 |
| 1/2 | 10.3 | 150 | 2,175 | 150 | 2,175 | 25.5 | 6.74 | 2.5 |
| 3/4 | 14.2 | 125 | 1,810 | 125 | 1,810 | 55 | 14.53 | 5.5 |
| 1 | 16.5 | 100 | 1,450 | 100 | 1,450 | 87 | 22.98 | 9 |
| 1 1/4 | 20.5 | 100 | 1,450 | 100 | 1,450 | 140 | 36.98 | 23 |
| 1 1/2 | 25.8 | 75 | 1,085 | 28 | 550 | 208 | 54.95 | 36 |
| 2 | 34.7 | 40 | 580 | 38 | 405 | 357 | 94.30 | 70 |

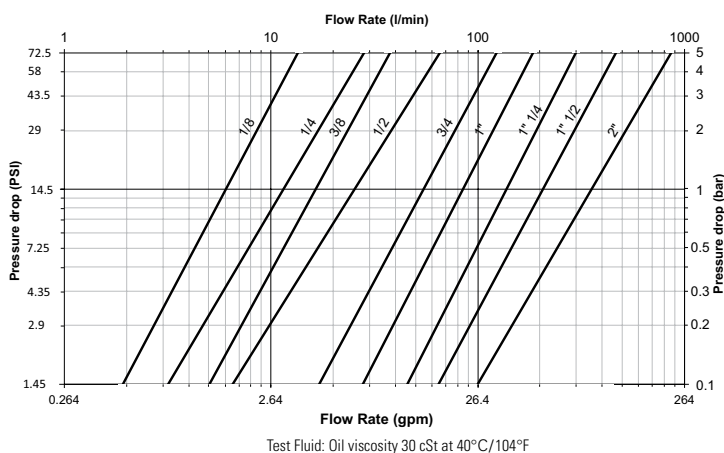
* For pulsating pressures when disconnected apply a multiplier of 0.5

** Indicated values refer to a 1 bar/14.5 psi pressure drop.

Applications & Markets

- Automobile
- Agriculture
- Construction
- Oil and Gas
- Railway
- Aeronautics
- Food Processing
- Iron and Steel Industry
- Electronics
- Laboratories
- General Hydraulic Applications

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| FKM | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

* For reference only, based on Eaton recommended temperatures.

** In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

H5000 Series (Stainless Steel)

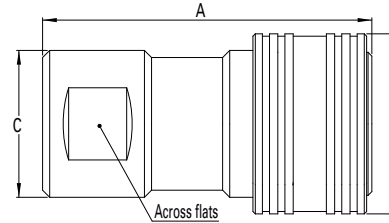


Figure 1

Sockets (Female)

| Part Number | FKM | EPDM | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) | | Fig. | Dimensions | | | | | | | Weight | | |
|-------------|-----------|-------|-------------------|-------------------------------|-----------------------|------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|-------|-------|
| | | | | | NPT | BSPP | | A (in) | B (in) | C (in) | Across flats (in) | A (mm) | B (mm) | C (mm) | Across flats (mm) | lbs | grams |
| HZ05001V0 | HZ05001E0 | 1/8 | 3.8 | - | 1/8-28 | - | 1 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 88 |
| HZ05201V0 | HZ05201E0 | 1/8 | 3.8 | 1/8-27 | - | 1 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 88 | |
| HZ05011V0 | HZ05011E0 | 1/4 | 5.7 | - | 1/4-19 | - | 1 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 122 |
| HZ05211V0 | HZ05211E0 | 1/4 | 5.7 | 1/4-18 | - | 1 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 122 | |
| HZ05021V0 | HZ05021E0 | 3/8 | 7.6 | - | 3/8-19 | - | 1 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 197 |
| HZ05221V0 | HZ05221E0 | 3/8 | 7.6 | 3/8-18 | - | 1 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 197 | |
| HZ05031V0 | HZ05031E0 | 1/2 | 10.3 | - | 1/2-14 | - | 1 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 226 |
| HZ05231V0 | HZ05231E0 | 1/2 | 10.3 | 1/2-14 | - | 1 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 226 | |
| HZ05041V0 | HZ05041E0 | 3/4 | 14.2 | - | 3/4-14 | - | 1 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 577 |
| HZ05241V0 | HZ05241E0 | 3/4 | 14.2 | 3/4-14 | - | 1 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 577 | |
| HZ05051V0 | HZ05051E0 | 1 | 16.5 | - | 1-11 | - | 1 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.59 | 720 |
| HZ05251V0 | HZ05251E0 | 1 | 16.5 | 1-11 1/2 | - | 1 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.59 | 720 | |
| HZ05061V0 | HZ05061E0 | 1 1/4 | 20.5 | - | 1 1/4-11 | - | 1 | 5.20 | 2.95 | 2.44 | 2.16 | 132 | 75 | 62 | 55 | 4.77 | 2,165 |
| HZ05071V0 | HZ05071E0 | 1 1/2 | 25.8 | - | 1 1/2-11 | - | 1 | 5.90 | 3.35 | 2.95 | 2.56 | 150 | 85 | 75 | 65 | 7.72 | 3,500 |
| HZ05091V0 | HZ05091E0 | 2 | 34.7 | - | 2-11 | - | 1 | 6.69 | 3.82 | 3.35 | 2.95 | 170 | 97 | 85 | 75 | 10.67 | 4,840 |

* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together.

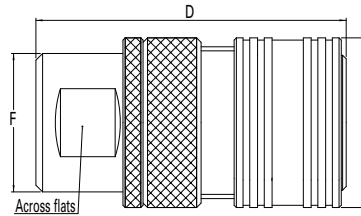


Figure 2

Sockets with Sleeve Lock (Female)

| Part Number | FKM | EPDM | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) | Fig. | Dimensions | | | | | | | Weight | |
|-------------|-----------|-------|-------------------|-------------------------------|-----------------------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|-------|
| | | | | | | | D (in) | E (in) | F (in) | Across flats (in) | D (mm) | E (mm) | F (mm) | Across flats (mm) | lbs |
| HZ05003V0 | HZ05003E0 | 1/8 | 3.8 | 1/8-28 | 2 | 1.65 | 0.94 | 0.83 | 0.63 | 42 | 24 | 21 | 16 | 0.19 | 91 |
| HZ05013V0 | HZ05013E0 | 1/4 | 5.7 | 1/4-19 | 2 | 1.97 | 1.10 | 0.94 | 0.75 | 50 | 28 | 24 | 19 | 0.27 | 134 |
| HZ05023V0 | HZ05023E0 | 3/8 | 7.6 | 3/8-19 | 2 | 2.32 | 1.34 | 1.10 | 0.90 | 59 | 34 | 28 | 23 | 0.43 | 225 |
| HZ05033V0 | HZ05033E0 | 1/2 | 10.3 | 1/2-14 | 2 | 2.71 | 1.50 | 1.22 | 1.06 | 69 | 38 | 31 | 27 | 0.50 | 310 |
| HZ05043V0 | HZ05043E0 | 3/4 | 14.2 | 3/4-14 | 2 | 3.50 | 1.89 | 1.57 | 1.38 | 89 | 48 | 40 | 35 | 1.27 | 665 |
| HZ05053V0 | HZ05053E0 | 1 | 16.5 | 1-11 | 2 | 3.89 | 2.05 | 1.77 | 1.61 | 99 | 52 | 45 | 41 | 1.59 | 813 |
| HZ05063V0 | HZ05063E0 | 1 1/4 | 20.5 | 1 1/4-11 | 2 | 5.20 | 2.95 | 2.44 | 2.16 | 132 | 75 | 62 | 55 | 4.77 | 2,230 |
| HZ05073V0 | HZ05073E0 | 1 1/2 | 25.8 | 1 1/2-11 | 2 | 5.90 | 3.35 | 2.95 | 2.56 | 150 | 85 | 75 | 65 | 7.72 | 3,585 |
| HZ05093V0 | HZ05093E0 | 2 | 34.7 | 2-11 | 2 | 6.69 | 3.82 | 3.35 | 2.95 | 170 | 97 | 85 | 75 | 10.67 | 5,658 |

* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions D (Fig. 2) and J (Fig. 3) together.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

H5000 Series (Stainless Steel)

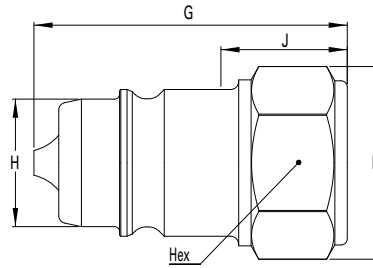


Figure 3

Plugs (Male)

| Part Number | Body Size | Nominal Flow Diameter | Thread Size* (Female) | | Fig. | Dimensions | | | | | | | | | | Weight | | |
|-------------|-----------|-----------------------|-----------------------|----------|----------|------------|--------|--------|--------|----------|--------|--------|--------|--------|----------|--------|-------|------|
| | | | NPT | BSPP | | G (in) | H (in) | I (in) | J (in) | Hex (in) | G (mm) | H (mm) | I (mm) | J (mm) | Hex (mm) | lbs | grams | |
| HZ05002V0 | HZ05002E0 | 1/8 | 3.8 | - | 1/8-28 | 3 | 1.10 | 0.43 | 0.72 | 0.39 | 0.63 | 28 | 11 | 18.4 | 10 | 16 | 0.05 | 23 |
| HZ05202V0 | HZ05202E0 | 1/8 | 3.8 | 1/8-27 | - | 3 | 1.10 | 0.43 | 0.72 | 0.39 | 0.63 | 28 | 11 | 18.4 | 10 | 16 | 0.05 | 23 |
| HZ05012V0 | HZ05012E0 | 1/4 | 5.7 | - | 1/4-19 | 3 | 1.38 | 0.56 | 0.86 | 0.55 | 0.75 | 35 | 14.2 | 21.8 | 14 | 19 | 0.08 | 37 |
| HZ05212V0 | HZ05212E0 | 1/4 | 5.7 | 1/4-18 | - | 3 | 1.38 | 0.56 | 0.86 | 0.55 | 0.75 | 35 | 14.2 | 21.8 | 14 | 19 | 0.08 | 37 |
| HZ05022V0 | HZ05022E0 | 3/8 | 7.6 | - | 3/8-19 | 3 | 1.65 | 0.75 | 1.04 | 0.70 | 0.90 | 42 | 19 | 26.4 | 18 | 23 | 0.15 | 70 |
| HZ05222V0 | HZ05222E0 | 3/8 | 7.6 | 3/8-18 | - | 3 | 1.65 | 0.75 | 1.04 | 0.70 | 0.90 | 42 | 19 | 26.4 | 18 | 23 | 0.15 | 70 |
| HZ05032V0 | HZ05032E0 | 1/2 | 10.3 | - | 1/2-14 | 3 | 1.97 | 0.81 | 1.22 | 0.94 | 1.06 | 50 | 20.6 | 31 | 24 | 27 | 0.20 | 92 |
| HZ05232V0 | HZ05232E0 | 1/2 | 10.3 | 1/2-14 | - | 3 | 1.97 | 0.81 | 1.22 | 0.94 | 1.06 | 50 | 20.6 | 31 | 24 | 27 | 0.20 | 92 |
| HZ05042V0 | HZ05042E0 | 3/4 | 14.2 | - | 3/4-14 | 3 | 2.48 | 1.10 | 1.58 | 1.10 | 1.38 | 63 | 27.9 | 40.2 | 28 | 35 | 0.48 | 217 |
| HZ05242V0 | HZ05242E0 | 3/4 | 14.2 | 3/4-14 | - | 3 | 2.48 | 1.10 | 1.58 | 1.10 | 1.38 | 63 | 27.9 | 40.2 | 28 | 35 | 0.48 | 217 |
| HZ05052V0 | HZ05052E0 | 1 | 16.5 | - | 1-11 | 3 | 2.79 | 1.27 | 1.87 | 1.22 | 1.61 | 71 | 32.4 | 47.5 | 31 | 41 | 0.63 | 287 |
| HZ05252V0 | HZ05252E0 | 1 | 16.5 | 1-11 1/2 | - | 3 | 2.79 | 1.27 | 1.87 | 1.22 | 1.61 | 71 | 32.4 | 47.5 | 31 | 41 | 0.63 | 287 |
| HZ05062V0 | HZ05062E0 | 1 1/4 | 20.5 | - | 1 1/4-11 | 3 | 3.82 | 1.85 | 2.49 | 1.89 | 2.16 | 97 | 46.9 | 63.2 | 48 | 55 | 1.98 | 900 |
| HZ05072V0 | HZ05072E0 | 1 1/2 | 25.8 | - | 1 1/2-11 | 3 | 4.29 | 2.20 | 2.94 | 2.04 | 2.56 | 109 | 56 | 74.7 | 52 | 65 | 3.30 | 1500 |
| HZ05092V0 | HZ05092E0 | 2 | 34.7 | - | 2-11 | 3 | 4.76 | 2.56 | 3.30 | 1.97 | 2.95 | 121 | 65 | 84 | 50 | 75 | 4.06 | 1840 |

* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and J (Fig. 3) together for standard version; add Dimensions D (Fig. 2) and J (Fig. 3) together for sleeve lock version

Dust Plugs and Dust Caps

| Body Size | Socket Dust Plug Part Number | Plug Dust Cap Part Number |
|-----------|------------------------------|---------------------------|
| (in) | Anodized Aluminum | Anodized Aluminum |
| 1/8 | HD0510100 | HD0510200 |
| 1/4 | HD0511100 | HD0511200 |
| 3/8 | HD0512100 | HD0512200 |
| 1/2 | HD0513100 | HD0513200 |
| 3/4 | HD0514100 | HD0514200 |
| 1 | HD0515100 | HD0515200 |
| 1 1/4 | HD0516100 | HD0516200 |
| 1 1/2 | HD0517100 | HD0517200 |
| 2 | HD0519100 | HD0519200 |

Socket Dust Plug



Plug Dust Cap

FF Series (Steel) ISO 16028 Interchange



Eaton's FF Series flat face is specifically designed for those applications where quick and easy connections and no-spill performance are essential. The FF Series is ideal for use when global interchangeability with other manufacturers is important and is available in sizes from 1/4" through 2" to best meet your specific size requirements.

Product Features

- Meets or exceeds the ISO 16028 standard
- Push-to-connect
- Standard sleeve lock prevents accidental disconnection
- Color identification rings available to help prevent crossing of lines
- Standard Material: High-resistant carbon steel with Guardian Seal™ plating, a whole new level of corrosion resistance with minimum 720 hours RR protection
- Guardian Seal™ plating:
 - Nickel-free
 - Solvent-free
 - Meets Global RoHS, ELV and REACH requirements
- Standard Seal Material: NBR+AU
- Available seal options: NBR+AU, FKM, EPDM, HNBR (upon request)

Physical Characteristics

| ISO Size* (mm) | Coupling Size (in) | Maximum Operating Pressure | | | | | | Minimum Burst Pressure | | | | | | Rated Flow** (lpm) (gpm) | Fluid Loss ml-cc. | Air Inclusion ml-cc. | Force to Connect | | |
|-------------------|-----------------------|----------------------------|-------|--------------------|-------|------------------------|-------|------------------------|--------|--------------------|--------|------------------------|--------|-----------------------------|----------------------|-------------------------|------------------|-----|------|
| | | Connected*** | | Plug/ Male Half | | Socket/ Female Half | | Connected | | Plug/ Male Half | | Socket/ Female Half | | | | | N | Lbs | |
| 6.3 | 1/4 | 400 | 5,800 | 400 | 5,800 | 400 | 5,800 | 1,400 | 20,300 | 1,400 | 20,300 | 1,400 | 20,300 | 18 | 4.8 | 0.004 | 0.007 | 80 | 18.0 |
| 10.0 | 3/8 | 400 | 5,800 | 400 | 5,800 | 400 | 5,800 | 1,400 | 20,300 | 1,400 | 20,300 | 1,400 | 20,300 | 40 | 10.6 | 0.006 | 0.010 | 140 | 31.5 |
| 12.5 | 1/2 | 400 | 5,800 | 400 | 5,800 | 400 | 5,800 | 1,400 | 20,300 | 1,400 | 20,300 | 1,400 | 20,300 | 77 | 20.3 | 0.012 | 0.013 | 195 | 43.8 |
| 16.0 | 5/8 | 400 | 5,800 | 400 | 5,800 | 400 | 5,800 | 1,400 | 20,300 | 1,400 | 20,300 | 1,400 | 20,300 | 82 | 21.7 | 0.016 | 0.030 | 205 | 46.1 |
| 19.0 | 3/4 | 400 | 5,800 | 400 | 5,800 | 400 | 5,800 | 1,300 | 18,850 | 1,300 | 18,850 | 1,400 | 20,300 | 114 | 30.1 | 0.034 | 0.015 | 215 | 48.3 |
| 25.0 | 1 | 400 | 5,800 | 400 | 5,800 | 400 | 5,800 | 1,260 | 18,270 | 1,260 | 18,270 | 1,260 | 18,270 | 184 | 48.6 | 0.032 | 0.033 | 260 | 58.5 |
| - | 1 1/4 | 300 | 4,350 | 300 | 4,350 | 300 | 4,350 | 900 | 13,050 | 900 | 13,050 | 900 | 13,050 | 260 | 68.7 | 0.170 | 0.053 | 200 | 45.0 |
| - | 1 1/2 | 300 | 4,350 | 300 | 4,350 | 270 | 3,915 | 900 | 13,050 | 900 | 13,050 | 810 | 11,745 | 450 | 118.9 | 0.265 | 0.445 | 385 | 86.6 |
| - | 2 | 300 | 4,350 | 300 | 4,350 | 225 | 3,260 | 900 | 13,050 | 900 | 13,050 | 675 | 9,790 | 700 | 184.9 | 0.390 | 0.260 | 375 | 84.3 |

* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard)
 ** Indicated values refer to a 1 bar/14.5 psi pressure drop
 *** 400 bar for static, steady or non-pulsed applications, 350 bar for ISO pressure rating for dynamic applications with moderate hydraulic shock

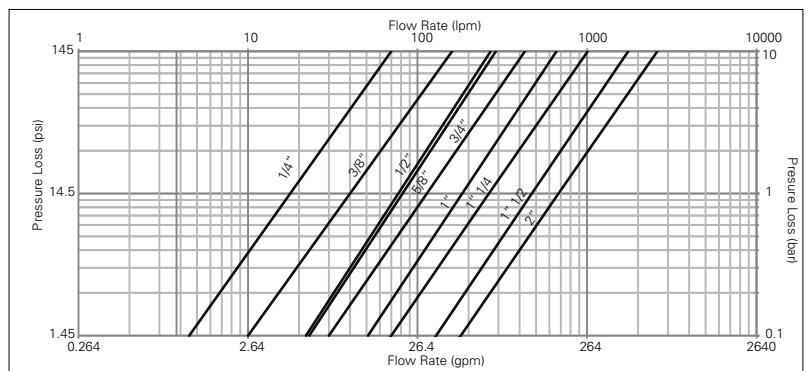
Applications & Markets

- Hydraulic and Fluid Transfer
- Construction Equipment
- Agricultural Equipment
- Utility Vehicles
- On-Highway Vehicles
- Stationary In-plant Hydraulics and Fluid Transfer
- Interchangeable with HTMA couplings in the 3/8" size

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European pressure Equipment Directive PED 2014/68/EU. They should not be used to convey gases in Group 1 (hazardous).

Flow Data



Seal Elastomer Data*

| Seal Elastomer | P/N Code | ISO Size (6FF, 10FF, 12FF, 16FF, 19FF and 25FF) Maximum Operation Temperature Range | Non-ISO Size (32FF, 50FF and 50FF) Maximum Operation Temperature Range |
|-----------------------------------|----------|---|--|
| NBR (Nitrile) + AU (Polyurethane) | - | -25°C +100°C/-13°F +212°F | -20°C +100°C/-4°F +212°F |
| FKM | -143 | -20°C +200°C/-4°F +392°F | -15°C +180°C/+5°F +356°F |
| EPDM (Ethylene-Propylene) | -192 | -40°C +150°C/-40°F +302°F | on request |
| HNBR | -507 | -32°C +150°C/-25°F +302°F | on request |
| Kalrez® 6375 | -242 | -20°C +275°C/-4°F +527°F | on request |
| Generic FFKM (Perfluorocarbon) | -503 | -15°C +275°C/+5°F +527°F | on request |

* For reference only, based on Eaton recommended temperatures. Contact Eaton technical support for further information on fluid compatibility

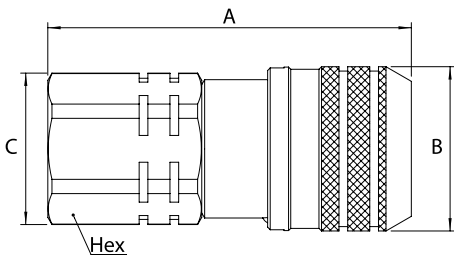
Maximum Operating Pressure

| Coupling Size (in) | Nominal Flow Diameter | Non hazardous liquids Group 2 | | | | Non hazardous gases Group 2 | | | | Hazardous liquids Group 1 | | | |
|-----------------------|-----------------------|-------------------------------|------|--------|------|-----------------------------|------|--------|------|---------------------------|-----|--------|-----|
| | | Plug & Connected | | Socket | | Plug & Connected | | Socket | | Plug & Connected | | Socket | |
| 1 1/2 | 30.1 | 300 | 4350 | 270 | 3915 | 300 | 4350 | 270 | 3915 | 66 | 955 | 66 | 955 |
| 2 | 39.2 | 300 | 4350 | 225 | 3260 | 25 | 360 | 25 | 360 | 50 | 725 | 50 | 725 |

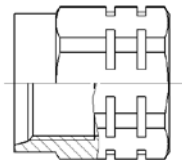
* Nominal diameters over 25mm should not be used to convey gases in group 1 (PED 2014/68/EU)

FF Series (Steel) ISO 16028 Interchange

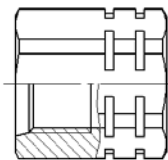
FLUID TRANSFER
AND HYDRAULIC



ISO 6149-1
15° + metric thread



SAE J 1926-1
15° + UN/UNF thread



EATON S013A
15° + BSPP thread

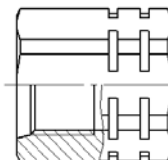


Figure 1

Sockets (Female)

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

| Part Number | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Thread Size* (Female) | | | | Fig. | Dimensions | | | | | | Weight | | | |
|-------------|----------------|---------------|----------------------------|-----------------------|------|--------------|--------------|------|-------------|--------|--------|--------|----------|--------|--------|--------|----------|------|
| | | | | NPT | BSPP | ISO 6149-1 | SAE J 1926-1 | | Eaton S013A | A (in) | B (in) | C (in) | Hex (in) | A (mm) | B (mm) | C (mm) | Hex (mm) | lbs |
| NBR-AU | 1/4 | 6.3 | 6 | 1/4 18f | | | | 1 | 2.13 | 1.06 | 0.94 | 0.87 | 54 | 27 | 24 | 22 | - | - |
| 6FFS25 | 1/4 | 6.3 | 6 | 1/4 18f | | | | 1 | 2.13 | 1.06 | 0.94 | 0.87 | 54 | 27 | 24 | 22 | - | - |
| 6FFS25BS | 1/4 | 6.3 | 6 | 1/4-19 | | | | 1 | 2.13 | 1.06 | 0.94 | 0.87 | 54 | 27 | 24 | 22 | - | - |
| 6FFS25FG | 1/4 | 6.3 | 6 | | | | G 1/4 | 1 | 2.13 | 1.06 | 0.94 | 0.87 | 54 | 27 | 24 | 22 | 0.32 | 143 |
| 6FFS56UN | 1/4 | 6.3 | 6 | | | | 3/8 18f UNF | 1 | 2.17 | 1.06 | 0.94 | 0.87 | 55 | 27 | 24 | 22 | - | - |
| 10FFS16FMET | 3/8 | 10 | 8.6 | | | M16x1.5 | | 1 | 2.67 | 1.26 | 1.16 | 1.06 | 67.8 | 32 | 29.5 | 27 | - | - |
| 10FFS37 | 3/8 | 10 | 8.6 | 3/8 18f | | | | 1 | 2.67 | 1.26 | 1.16 | 1.06 | 67.8 | 32 | 29.5 | 27 | - | - |
| 10FFS37BS | 3/8 | 10 | 8.6 | 3/8-19 | | | | 1 | 2.67 | 1.26 | 1.16 | 1.06 | 67.8 | 32 | 29.5 | 27 | - | - |
| 10FFS37FG | 3/8 | 10 | 8.6 | | | | G 3/8 | 1 | 2.67 | 1.26 | 1.16 | 1.06 | 67.8 | 32 | 29.5 | 27 | 0.56 | 255 |
| 10FFS50 | 3/8 | 10 | 8.6 | 1/2 14f | | | | 1 | 2.79 | 1.26 | 1.16 | 1.06 | 70.8 | 32 | 29.5 | 27 | - | - |
| 10FFS50BS | 3/8 | 10 | 8.6 | 1/2-14 | | | | 1 | 2.79 | 1.26 | 1.16 | 1.06 | 70.8 | 32 | 29.5 | 27 | - | - |
| 10FFS50FG | 3/8 | 10 | 8.6 | | | | G 1/2 | 1 | 2.79 | 1.26 | 1.16 | 1.06 | 70.8 | 32 | 29.5 | 27 | 0.55 | 251 |
| 10FFS56UN | 3/8 | 10 | 8.6 | | | 3/8 18f UNF | | 1 | 2.79 | 1.26 | 1.16 | 1.06 | 70.8 | 32 | 29.5 | 27 | - | - |
| 10FFS75UN | 3/8 | 10 | 8.6 | | | 3/4 16f UNF | | 1 | 2.79 | 1.26 | 1.16 | 1.06 | 70.8 | 32 | 29.5 | 27 | - | - |
| 10FFS87UN | 3/8 | 10 | 8.6 | | | 3/4 14f UNF | | 1 | 2.91 | 1.26 | 1.30 | 1.18 | 73.8 | 32 | 33 | 30 | - | - |
| 12FFS106UN | 1/2 | 12.5 | 11 | | | 1 1/8 12f UN | | 1 | 3.50 | 1.50 | 1.56 | 1.42 | 89 | 38.2 | 39.5 | 36 | - | - |
| 12FFS50 | 1/2 | 12.5 | 11 | 1/2 14f | | | | 1 | 3.27 | 1.50 | 1.56 | 1.42 | 83 | 38.2 | 39.5 | 36 | - | - |
| 12FFS50BS | 1/2 | 12.5 | 11 | 1/2-14 | | | | 1 | 3.27 | 1.50 | 1.56 | 1.42 | 83 | 38.2 | 39.5 | 36 | - | - |
| 12FFS50FG | 1/2 | 12.5 | 11 | | | | G 1/2 | 1 | 3.27 | 1.50 | 1.56 | 1.42 | 83 | 38.2 | 39.5 | 36 | 1.1 | 498 |
| 12FFS75 | 1/2 | 12.5 | 11 | 3/4 14f | | | | 1 | 3.39 | 1.50 | 1.56 | 1.42 | 86 | 38.2 | 39.5 | 36 | - | - |
| 12FFS75BS | 1/2 | 12.5 | 11 | 3/4-14 | | | | 1 | 3.39 | 1.50 | 1.56 | 1.42 | 86 | 38.2 | 39.5 | 36 | - | - |
| 12FFS75FG | 1/2 | 12.5 | 11 | | | | G 3/4 | 1 | 3.39 | 1.50 | 1.56 | 1.42 | 86 | 38.2 | 39.5 | 36 | 1.08 | 488 |
| 12FFS75UN | 1/2 | 12.5 | 11 | | | 3/4 16f UNF | | 1 | 3.27 | 1.50 | 1.56 | 1.42 | 83 | 38.2 | 39.5 | 36 | - | - |
| 12FFS87UN | 1/2 | 12.5 | 11 | | | 3/4 14f UNF | | 1 | 3.39 | 1.50 | 1.56 | 1.42 | 86 | 38.2 | 39.5 | 36 | - | - |
| 16FFS106UN | 3/4 | 16 | 13 | | | 1 1/8 12f UN | | 1 | 3.50 | 1.66 | 1.56 | 1.42 | 89 | 42.2 | 39.5 | 36 | - | - |
| 16FFS50 | 3/4 | 16 | 13 | 1/2 14f | | | | 1 | 3.27 | 1.66 | 1.56 | 1.42 | 83 | 42.2 | 39.5 | 36 | - | - |
| 16FFS50BS | 3/4 | 16 | 13 | 1/2-14 | | | | 1 | 3.27 | 1.66 | 1.56 | 1.42 | 83 | 42.2 | 39.5 | 36 | - | - |
| 16FFS75 | 3/4 | 16 | 13 | 3/4 14f | | | | 1 | 3.39 | 1.66 | 1.56 | 1.42 | 86 | 42.2 | 39.5 | 36 | - | - |
| 16FFS75BS | 3/4 | 16 | 13 | 3/4-14 | | | | 1 | 3.39 | 1.66 | 1.56 | 1.42 | 86 | 42.2 | 39.5 | 36 | - | - |
| 16FFS75FG | 3/4 | 16 | 13 | | | | G 3/4 | 1 | 3.39 | 1.66 | 1.56 | 1.42 | 86 | 42.2 | 39.5 | 36 | 1.20 | 548 |
| 16FFS75UN | 3/4 | 16 | 13 | | | 3/4 16f UNF | | 1 | 3.27 | 1.66 | 1.56 | 1.42 | 83 | 42.2 | 39.5 | 36 | - | - |
| 16FFS87UN | 3/4 | 16 | 13 | | | 3/4 14f UNF | | 1 | 3.39 | 1.66 | 1.56 | 1.42 | 86 | 42.2 | 39.5 | 36 | - | - |
| 19FFS100 | 1 | 19 | 15 | 1 1/8 11,5f | | | | 1 | 3.80 | 1.82 | 1.81 | 1.65 | 96.6 | 46.2 | 46 | 42 | - | - |
| 19FFS100BS | 1 | 19 | 15 | 1-11 | | | | 1 | 3.80 | 1.82 | 1.81 | 1.65 | 96.6 | 46.2 | 46 | 42 | - | - |
| 19FFS100FG | 1 | 19 | 15 | | | | G 1 | 1 | 3.80 | 1.82 | 1.81 | 1.65 | 96.6 | 46.2 | 46 | 42 | 1.62 | 737 |
| 19FFS106UN | 1 | 19 | 15 | | | 1 1/8 12f UN | | 1 | 3.80 | 1.82 | 1.81 | 1.65 | 96.6 | 46.2 | 46 | 42 | - | - |
| 19FFS131UN | 1 | 19 | 15 | | | 1 3/8 12f UN | | 1 | 3.80 | 1.82 | 1.81 | 1.65 | 96.6 | 46.2 | 46 | 42 | - | - |
| 19FFS75 | 3/4 | 19 | 15 | 3/4 14f | | | | 1 | 3.80 | 1.82 | 1.81 | 1.65 | 96.6 | 46.2 | 46 | 42 | - | - |
| 19FFS75BS | 3/4 | 19 | 15 | 3/4-14 | | | | 1 | 3.80 | 1.82 | 1.81 | 1.65 | 96.6 | 46.2 | 46 | 42 | - | - |
| 25FFS100 | 1 | 25 | 18 | 1 1/8 11,5f | | | | 1 | 4.07 | 2.17 | 2.36 | 2.17 | 103.5 | 55.2 | 60 | 55 | - | - |
| 25FFS100BS | 1 | 25 | 18 | 1-11 | | | | 1 | 4.07 | 2.17 | 2.36 | 2.17 | 103.5 | 55.2 | 60 | 55 | - | - |
| 25FFS125 | 1 | 25 | 18 | 1 1/4 11,5f | | | | 1 | 4.07 | 2.17 | 2.36 | 2.17 | 103.5 | 55.2 | 60 | 55 | - | - |
| 25FFS125BS | 1 | 25 | 18 | 1 1/4-11 | | | | 1 | 4.07 | 2.17 | 2.36 | 2.17 | 103.5 | 55.2 | 60 | 55 | - | - |
| 25FFS125FG | 1 | 25 | 18 | | | | G 1 1/4 | 1 | 4.07 | 2.17 | 2.36 | 2.17 | 103.5 | 55.2 | 60 | 55 | 2.74 | 1246 |
| 25FFS131UN | 1 | 25 | 18 | | | 1 3/8 12f UN | | 1 | 4.07 | 2.17 | 2.36 | 2.17 | 103.5 | 55.2 | 60 | 55 | 2.77 | 126 |
| 25FFS162UN | 1 | 25 | 18 | | | 1 1/2 12f UN | | 1 | 4.07 | 2.17 | 2.36 | 2.17 | 103.5 | 55.2 | 60 | 55 | - | - |
| 32FFS125 | 1 1/4 | - | 22.1 | 1 1/4-11,5 | | | | 1 | 4.93 | 2.55 | 2.36 | 2.17 | 125.2 | 64.8 | 60 | 55 | 4.22 | 1915 |
| 32FFS125BS | 1 1/4 | - | 22.1 | 1 1/4-11 | | | | 1 | 4.93 | 2.55 | 2.36 | 2.17 | 125.2 | 64.8 | 60 | 55 | 4.18 | 1897 |
| 32FFS162UN | 1 1/4 | - | 22.1 | | | 1 1/2 12 UN | | 1 | 4.93 | 2.55 | 2.36 | 2.17 | 125.2 | 64.8 | 60 | 55 | 4.16 | 1894 |
| 40FFS150 | 1 1/2 | - | 30.1 | 1 1/2-11,5 | | | | 1 | 5.01 | 3.13 | 2.76 | 2.56 | 127.4 | 79.5 | 70 | 65 | 6.16 | 2796 |
| 40FFS150BS | 1 1/2 | - | 30.1 | 1 1/2-11 | | | | 1 | 5.01 | 3.13 | 2.76 | 2.56 | 127.4 | 79.5 | 70 | 65 | 6.13 | 2781 |
| 40FFS150FG | 1 1/2 | - | 30.1 | | | | G 1 1/2 | 1 | 5.01 | 3.13 | 2.76 | 2.56 | 127.4 | 79.5 | 70 | 65 | 6.12 | 2775 |
| 40FFS187UN | 1 1/2 | - | 30.1 | | | 1 1/2 12 UN | | 1 | 5.01 | 3.13 | 2.76 | 2.56 | 127.4 | 79.5 | 70 | 65 | 6.10 | 2767 |
| 50FFS200 | 2 | - | 39.2 | 2-11,5 | | | | 1 | 6.17 | 3.84 | 3.46 | 3.15 | 156.8 | 97.5 | 87.8 | 80 | 10.87 | 4931 |
| 50FFS200BS | 2 | - | 39.2 | 2-11 | | | | 1 | 6.17 | 3.84 | 3.46 | 3.15 | 156.8 | 97.5 | 87.8 | 80 | 10.82 | 4908 |
| 50FFS250UN | 2 | - | 39.2 | | | 2 1/2 12 UN | | 1 | 6.17 | 3.84 | 3.46 | 3.15 | 156.8 | 97.5 | 87.8 | 80 | 10.64 | 4825 |

*Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

FF Series (Steel) ISO 16028 Interchange

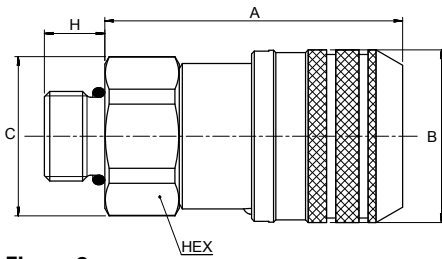
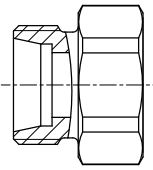
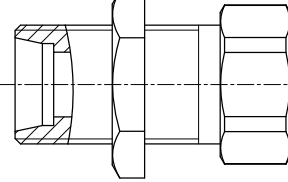


Figure 2

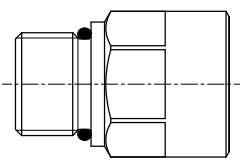
ISO 8434-1
Metric thread



ISO 8434-1 + Bulkhead
Metric thread



SAE J 1926-2
UN/UNF thread



Sockets (Female)

| Part Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size*(Male) | | Fig. | Dimensions | | | | | | | | | | Weight | |
|-------------|-----------|----------|-----------------------|--------------------------|--------------|------|------------|--------|--------|---------|----------|--------|--------|--------|--------|----------|--------|-------|
| | | | | ISO 8434-1 | SAE J 1926-2 | | A (in) | B (in) | C (in) | H (in.) | Hex (in) | A (mm) | B (mm) | C (mm) | H (mm) | Hex (mm) | lbs | grams |
| 6FFS10LBH | ¼ | 6.3 | 6 | 10L - M16x1,5 + bulkhead | | 2 | 1.65 | 1.06 | 0.94 | 1.38 | 0.87 | 42 | 27 | 24 | 35 | 22 | - | - |
| 10FFS8L | ¾ | 10 | 6 | 8L - M14x1,5 | | 2 | 2.33 | 1.26 | 1.16 | 0.39 | 1.06 | 59.3 | 32 | 29.5 | 10 | 27 | 0.52 | 236 |
| 10FFS10L | ¾ | 10 | 8 | 10L - M16x1,5 | | 2 | 2.33 | 1.26 | 1.16 | 0.43 | 1.06 | 59.3 | 32 | 29.5 | 11 | 27 | 0.52 | 234 |
| 10FFS12L | ¾ | 10 | 10 | 12L - M18x1,5 | | 2 | 2.28 | 1.26 | 1.16 | 0.43 | 1.06 | 57.8 | 32 | 29.5 | 11 | 27 | 0.52 | 235 |
| 10FFS15L | ¾ | 10 | 8,6 | 15L - M22x1,5 | | 2 | 2.24 | 1.26 | 1.16 | 0.47 | 1.06 | 56.8 | 32 | 29.5 | 12 | 27 | 0.52 | 238 |
| 10FFS15LBH | ¾ | 10 | 8,6 | 15L - M22x1,5 | | 2 | 3.24 | 1.26 | 1.16 | 1.50 | 1.06 | 82.3 | 32 | 29.5 | 38 | 27 | 0.62 | 282 |
| 10FFS16S | ¾ | 10 | 8,6 | 16S - M24x1,5 + bulkhead | | 2 | 2.26 | 1.26 | 1.16 | 0.55 | 1.06 | 57.3 | 32 | 29.5 | 14 | 27 | 0.46 | 211 |
| 10FFS56ORM | ¾ | 10 | 8,6 | | ¾ 18f UNF | 2 | 2.61 | 1.26 | 1.06 | 0.47 | 0.94 | 66.4 | 32 | 27 | 12 | 23.8 | - | - |
| 10FFS75ORM | ¾ | 10 | 8,6 | | ¾ 16f UNF | 2 | 2.61 | 1.26 | 1.06 | 0.55 | 0.94 | 66.4 | 32 | 27 | 14 | 23.8 | - | - |
| 12FFS15LBH | ½ | 12 | 11 | 15L - M22x1,5 + bulkhead | | 2 | 3.66 | 1.50 | 1.56 | 1.50 | 1.42 | 93 | 38.2 | 39.5 | 38 | 36 | 1.05 | 478 |
| 12FFS16S | ½ | 12 | 11 | 16S - M24x1,5 | | 2 | 2.75 | 1.50 | 1.56 | 0.55 | 1.42 | 70 | 38.2 | 39.5 | 14 | 36 | 1.01 | 460 |
| 12FFS18LBH | ½ | 12 | 11 | 18L - M26x1,5 + bulkhead | | 2 | 3.74 | 1.50 | 1.56 | 1.57 | 1.42 | 95 | 38.2 | 39.5 | 40. | 36 | 1.17 | 534 |
| 16FFS15LBH | ¾ | 16 | 12 | 15L - M22x1,5 + bulkhead | | 2 | 2.68 | 1.66 | 1.56 | 1.50 | 1.42 | 68 | 42.2 | 39.5 | 38 | 36 | - | - |
| 16FFS16S | ¾ | 16 | 12 | 16S - M24x1,5 | | 2 | 2.75 | 1.66 | 1.56 | 0.55 | 1.42 | 70 | 42.2 | 39.5 | 14 | 36 | 1.11 | 505 |
| 16FFS18LBH | ¾ | 16 | 13 | 18L - M26x1,5 + bulkhead | | 2 | 2.68 | 1.66 | 1.56 | 1.57 | 1.42 | 68 | 42.2 | 39.5 | 40 | 36 | - | - |

* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

Note that ISO 8434-1 will restrict usage of coupling to 250 bar for end connection 8L, 10L, 12L and 15L, and to 160 bar for end connection 18L.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FF Series (Steel) ISO 16028 Interchange

FLUID TRANSFER
AND HYDRAULIC

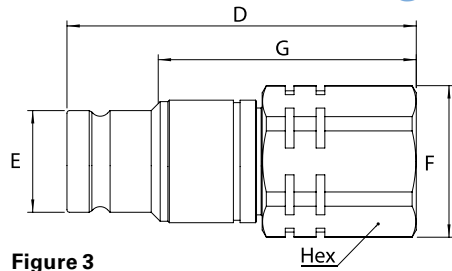
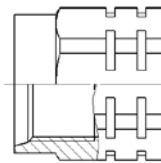
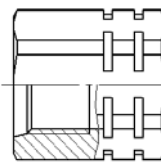


Figure 3

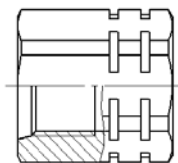
ISO 6149-1
15° + Metric thread



SAE J 1926-1
15° + UN/UNF thread



EATON S013A
15° + BSPP Thread



Plugs (Male)

| Part Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size*(Female) | | | Dimensions | | | | | | | | | | | | | Weight | | |
|-------------|-----------|----------|-----------------------|----------------------|--------|------------|--------------|-------------|------|--------|--------|--------|--------|----------|--------|--------|--------|--------|----------|--------|-------|------|
| | | | | NPT | BSPP | ISO 6149-1 | SAE J 1926-1 | Eaton S013A | Fig. | D (in) | E (in) | F (in) | G (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Hex (mm) | lbs | grams | |
| 6FFP25 | ¼ | 6.3 | 6 | ¼ 18f | | | | | | 3 | 2.01 | 0.64 | 0.94 | 1.58 | 0.87 | 51 | 16.2 | 24 | 40.1 | 22 | - | - |
| 6FFP25BS | ¼ | 6.3 | 6 | | ¼-19 | | | | | 3 | 2.01 | 0.64 | 0.94 | 1.58 | 0.87 | 51 | 16.2 | 24 | 40.1 | 22 | - | - |
| 6FFP25FG | ¼ | 6.3 | 6 | | | | | G ¼ | | 3 | 2.01 | 0.64 | 0.94 | 1.58 | 0.87 | 51 | 16.2 | 24 | 40.1 | 22 | 0.20 | 90 |
| 6FFP56UN | ¼ | 6.3 | 6 | | | | ¾ 18f UNF | | | 3 | 2.05 | 0.64 | 0.94 | 1.62 | 0.87 | 52 | 16.2 | 24 | 41.1 | 22 | - | - |
| 10FFP16FMET | ¾ | 10 | 8.6 | | | M16x1,5 | | | | 3 | 2.56 | 0.78 | 1.16 | 1.96 | 1.06 | 65 | 19.7 | 29.5 | 49.7 | 27 | - | - |
| 10FFP37 | ¾ | 10 | 8.6 | ¾ 18f | | | | | | 3 | 2.56 | 0.78 | 1.16 | 1.96 | 1.06 | 65 | 19.7 | 29.5 | 49.7 | 27 | - | - |
| 10FFP37BS | ¾ | 10 | 8.6 | | ¾-19 | | | | | 3 | 2.56 | 0.78 | 1.16 | 1.96 | 1.06 | 65 | 19.7 | 29.5 | 49.7 | 27 | - | - |
| 10FFP37FG | ¾ | 10 | 8.6 | | | | | G ¾ | | 3 | 2.56 | 0.78 | 1.16 | 1.96 | 1.06 | 65 | 19.7 | 29.5 | 49.7 | 27 | 0.35 | 157 |
| 10FFP50 | ¾ | 10 | 8.6 | ½ 14f | | | | | | 3 | 2.68 | 0.78 | 1.16 | 2.08 | 1.06 | 68 | 19.7 | 29.5 | 52.7 | 27 | - | - |
| 10FFP50BS | ¾ | 10 | 8.6 | | ½-14 | | | | | 3 | 2.68 | 0.78 | 1.16 | 2.08 | 1.06 | 68 | 19.7 | 29.5 | 52.7 | 27 | - | - |
| 10FFP50FG | ¾ | 10 | 8.6 | | | | | G ½ | | 3 | 2.68 | 0.78 | 1.16 | 2.08 | 1.06 | 68 | 19.7 | 29.5 | 52.7 | 27 | 0.33 | 150 |
| 10FFP56UN | ¾ | 10 | 8.6 | | | | ¾ 18f UNF | | | 3 | 2.68 | 0.78 | 1.16 | 2.08 | 1.06 | 68 | 19.7 | 29.5 | 52.7 | 27 | - | - |
| 10FFP75UN | ¾ | 10 | 8.6 | ¾ 16f UNF | | | | | | 3 | 2.68 | 0.78 | 1.16 | 2.08 | 1.06 | 68 | 19.7 | 29.5 | 52.7 | 27 | - | - |
| 10FFP87UN | ¾ | 10 | 8.6 | ¾ 14f UNF | | | | | | 3 | 2.80 | 0.78 | 1.30 | 2.19 | 1.18 | 71 | 19.7 | 33 | 55.7 | 30 | - | - |
| 12FFP106UN | ½ | 12.5 | 11 | 1 ½ 12f UN | | | | | | 3 | 2.95 | 0.96 | 1.56 | 2.28 | 1.42 | 75 | 24.5 | 39.5 | 58 | 36 | - | - |
| 12FFP50 | ½ | 12.5 | 11 | ½ 14f | | | | | | 3 | 2.71 | 0.96 | 1.56 | 2.05 | 1.42 | 69 | 24.5 | 39.5 | 52 | 36 | - | - |
| 12FFP50BS | ½ | 12.5 | 11 | | ½-14 | | | | | 3 | 2.71 | 0.96 | 1.56 | 2.05 | 1.42 | 69 | 24.5 | 39.5 | 52 | 36 | - | - |
| 12FFP50FG | ½ | 12.5 | 11 | | | | | G ½ | | 3 | 2.71 | 0.96 | 1.56 | 2.05 | 1.42 | 69 | 24.5 | 39.5 | 52 | 36 | 0.67 | 305 |
| 12FFP75 | ½ | 12.5 | 11 | ¾ 14f | | | | | | 3 | 2.83 | 0.96 | 1.56 | 2.16 | 1.42 | 72 | 24.5 | 39.5 | 55 | 36 | - | - |
| 12FFP75BS | ½ | 12.5 | 11 | | ¾-14 | | | | | 3 | 2.83 | 0.96 | 1.56 | 2.16 | 1.42 | 72 | 24.5 | 39.5 | 55 | 36 | - | - |
| 12FFP75FG | ½ | 12.5 | 11 | | | | | G ¾ | | 3 | 2.83 | 0.96 | 1.56 | 2.16 | 1.42 | 72 | 24.5 | 39.5 | 55 | 36 | 0.65 | 295 |
| 12FFP75UN | ½ | 12.5 | 11 | ¾ 16f UNF | | | | | | 3 | 2.71 | 0.96 | 1.56 | 2.05 | 1.42 | 69 | 24.5 | 39.5 | 52 | 36 | - | - |
| 12FFP87UN | ½ | 12.5 | 11 | ¾ 14f UNF | | | | | | 3 | 2.83 | 0.96 | 1.56 | 2.16 | 1.42 | 72 | 24.5 | 39.5 | 55 | 36 | - | - |
| 16FFP106UN | ¾ | 16 | 13 | 1 ½ 12f UN | | | | | | 3 | 2.95 | 1.06 | 1.56 | 2.28 | 1.42 | 75 | 27 | 39.5 | 58 | 36 | - | - |
| 16FFP50 | ¾ | 16 | 13 | ½ 14f | | | | | | 3 | 2.71 | 1.06 | 1.56 | 2.05 | 1.42 | 69 | 27 | 39.5 | 52 | 36 | - | - |
| 16FFP50BS | ¾ | 16 | 13 | | ½-14 | | | | | 3 | 2.71 | 1.06 | 1.56 | 2.05 | 1.42 | 69 | 27 | 39.5 | 52 | 36 | - | - |
| 16FFP75 | ¾ | 16 | 13 | ¾ 14f | | | | | | 3 | 2.83 | 1.06 | 1.56 | 2.16 | 1.42 | 72 | 27 | 39.5 | 55 | 36 | - | - |
| 16FFP75BS | ¾ | 16 | 13 | | ¾-14 | | | | | 3 | 2.83 | 1.06 | 1.56 | 2.16 | 1.42 | 72 | 27 | 39.5 | 55 | 36 | - | - |
| 16FFP75FG | ¾ | 16 | 13 | | | | | G ¾ | | 3 | 2.83 | 1.06 | 1.56 | 2.16 | 1.42 | 72 | 27 | 39.5 | 55 | 36 | 0.7 | 317 |
| 16FFP75UN | ¾ | 16 | 13 | ¾ 16f UNF | | | | | | 3 | 2.71 | 1.06 | 1.56 | 2.05 | 1.42 | 69 | 27 | 39.5 | 52 | 36 | - | - |
| 16FFP87UN | ¾ | 16 | 13 | ¾ 14f UNF | | | | | | 3 | 2.83 | 1.06 | 1.56 | 2.16 | 1.42 | 72 | 27 | 39.5 | 55 | 36 | - | - |
| 19FFP100 | ¾ | 19 | 15 | 1 11,5f | | | | | | 3 | 3.69 | 1.18 | 1.81 | 2.84 | 1.65 | 93.8 | 29.9 | 46 | 72 | 42 | - | - |
| 19FFP100BS | ¾ | 19 | 15 | | 1-11 | | | | | 3 | 3.69 | 1.18 | 1.81 | 2.84 | 1.65 | 93.8 | 29.9 | 46 | 72 | 42 | - | - |
| 19FFP100FG | ¾ | 19 | 15 | | | | | G 1 | | 3 | 3.69 | 1.18 | 1.81 | 2.84 | 1.65 | 93.8 | 29.9 | 46 | 72 | 42 | 1.14 | 518 |
| 19FFP106UN | ¾ | 19 | 15 | 1 ½ 12f UN | | | | | | 3 | 3.69 | 1.18 | 1.81 | 2.84 | 1.65 | 93.8 | 29.9 | 46 | 72 | 42 | - | - |
| 19FFP131UN | ¾ | 19 | 15 | 1 ½ 12f UN | | | | | | 3 | 3.69 | 1.18 | 1.81 | 2.84 | 1.65 | 93.8 | 29.9 | 46 | 72 | 42 | - | - |
| 19FFP75 | ¾ | 19 | 15 | ¾ 14f | | | | | | 3 | 3.69 | 1.18 | 1.81 | 2.84 | 1.65 | 93.8 | 29.9 | 46 | 72 | 42 | - | - |
| 19FFP75BS | ¾ | 19 | 15 | | ¾-14 | | | | | 3 | 3.69 | 1.18 | 1.81 | 2.84 | 1.65 | 93.8 | 29.9 | 46 | 72 | 42 | - | - |
| 25FFP100 | 1 | 25 | 18 | 1 11,5f | | | | | | 3 | 4.12 | 1.42 | 2.36 | 3.22 | 2.17 | 104.6 | 36 | 60 | 81.7 | 55 | - | - |
| 25FFP100BS | 1 | 25 | 18 | | 1-11 | | | | | 3 | 4.12 | 1.42 | 2.36 | 3.22 | 2.17 | 104.6 | 36 | 60 | 81.7 | 55 | - | - |
| 25FFP125 | 1 | 25 | 18 | 1 ¼ 11,5f | | | | | | 3 | 4.12 | 1.42 | 2.36 | 3.22 | 2.17 | 104.6 | 36 | 60 | 81.7 | 55 | - | - |
| 25FFP125BS | 1 | 25 | 18 | | 1 ¼-11 | | | | | 3 | 4.12 | 1.42 | 2.36 | 3.22 | 2.17 | 104.6 | 36 | 60 | 81.7 | 55 | - | - |
| 25FFP125FG | 1 | 25 | 18 | | | | | G 1 ¼ | | 3 | 4.12 | 1.42 | 2.36 | 3.22 | 2.17 | 104.6 | 36 | 60 | 81.7 | 55 | 2.08 | 948 |
| 25FFP131UN | 1 | 25 | 18 | 1 ½ 12f UN | | | | | | 3 | 4.12 | 1.42 | 2.36 | 3.22 | 2.17 | 104.6 | 36 | 60 | 81.7 | 55 | 2.09 | 952 |
| 25FFP162UN | 1 | 25 | 18 | 1 ½ 12f UN | | | | | | 3 | 4.12 | 1.42 | 2.36 | 3.22 | 2.17 | 104.6 | 36 | 60 | 81.7 | 55 | - | - |
| 32FFP125 | 1 ¼ | - | 22.1 | 1 ¼-11,5 | | | | | | 3 | 4.15 | 1.73 | 2.36 | 3.24 | 2.17 | 105.5 | 44 | 60 | 82.3 | 55 | 2.63 | 1193 |
| 32FFP125BS | 1 ¼ | - | 22.1 | | 1 ¼-11 | | | | | 3 | 4.15 | 1.73 | 2.36 | 3.24 | 2.17 | 105.5 | 44 | 60 | 82.3 | 55 | 2.60 | 1177 |
| 32FFP162UN | 1 ¼ | - | 22.1 | | | | 1 5/8 12 UN | | | 3 | 4.15 | 1.73 | 2.36 | 3.24 | 2.17 | 105.5 | 44 | 60 | 82.3 | 55 | 2.59 | 1174 |
| 40FFP150 | 1 ½ | - | 30.1 | 1 ½ 11,5 | | | | | | 3 | 4.13 | 2.24 | 2.61 | 3.01 | 2.36 | 105 | 57 | 66.3 | 76.5 | 60 | 3.15 | 1430 |
| 40FFP150BS | 1 ½ | - | 30.1 | | 1 ½-11 | | | | | 3 | 4.13 | 2.24 | 2.61 | 3.01 | 2.36 | 105 | 57 | 66.3 | 76.5 | 60 | 3.12 | 1417 |
| 40FFP150FG | 1 ½ | - | 30.1 | | | | | 1 ½ | | 3 | 4.13 | 2.24 | 2.61 | 3.01 | 2.36 | 105 | 57 | 66.3 | 76.5 | 60 | 3.11 | 1412 |
| 40FFP187UN | 1 ½ | - | 30.1 | 1 ½ 12 UN | | | | | | 3 | 4.13 | 2.24 | 2.61 | 3.01 | 2.36 | 105 | 57 | 66.3 | 76.5 | 60 | 3.10 | 1406 |
| 50FFP200 | 2 | - | 39.2 | 2 11,5 | | | | | | 3 | 5.31 | 2.87 | 3.29 | 3.80 | 2.95 | 135 | 73 | 83.5 | 96.6 | 75 | 6.01 | 2725 |
| 50FFP200BS | 2 | - | 39.2 | | 2-11 | | | | | 3 | 5.31 | 2.87 | 3.29 | 3.80 | 2.95 | 135 | 73 | 83.5 | 96.6 | 75 | 5.97 | 2706 |
| 50FFP250UN | 2 | - | 39.2 | 2 ½ 12 UN | | | | | | 3 | 5.31 | 2.87 | 3.29 | 3.80 | 2.95 | 135 | 73 | 83.5 | 96.6 | 75 | 5.78 | 2623 |

* Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FF Series (Steel) ISO 16028 Interchange

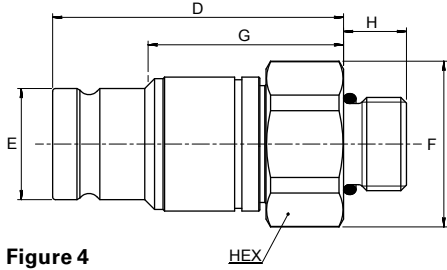
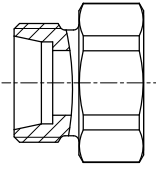
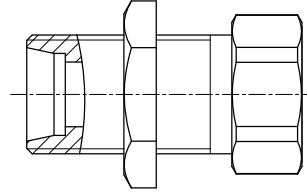


Figure 4

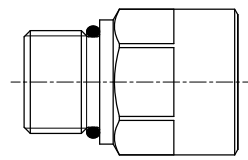
ISO 8434-1
Metric thread



ISO 8434-1 + Bulkhead
Metric thread



SAE J 1926-2
UN/UNF thread



Plugs (Male)

| Part Number | Body Size (in) | ISO Size (mm) | Nominal Flow Diameter (mm) | Thread Size*(Male) | | Fig. | Dimensions | | | | | | | | | | Weight | | | |
|-------------|----------------|---------------|----------------------------|---------------------------|--------------|------|------------|--------|--------|---------|--------|----------|--------|--------|--------|--------|--------|----------|------|-------|
| | | | | ISO 8434-1 | SAE J 1926-2 | | D (in) | E (in) | F (in) | G (in.) | H (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | H (mm) | Hex (mm) | lbs | grams |
| 6FFP10LBH | ¼ | 6.3 | 6 | M10L - M16x1,5 + bulkhead | | 4 | 1.54 | 0.64 | 0.94 | 1.11 | 1.38 | 0.87 | 39 | 16.2 | 24 | 28.1 | 35 | 22 | 0.27 | 123 |
| 10FFP8L | ¾ | 10 | 6 | 8L - M14x1,5 | | 4 | 2.20 | 0.78 | 1.16 | 1.84 | 0.39 | 1.06 | 56 | 19.7 | 29.5 | 46.7 | 10 | 27 | 0.3 | 137 |
| 10FFP10L | ¾ | 10 | 8 | 10L - M16x1,5 | | 4 | 2.17 | 0.78 | 1.16 | 1.84 | 0.43 | 1.06 | 55 | 19.7 | 29.5 | 46.7 | 11 | 27 | 0.3 | 135 |
| 10FFP12L | ¾ | 10 | 10 | 12L - M18x1,5 | | 4 | 2.17 | 0.78 | 1.16 | 1.41 | 0.43 | 1.06 | 55 | 19.7 | 29.5 | 35.7 | 11 | 27 | 0.3 | 136 |
| 10FFP15L | ¾ | 10 | 8,6 | 5L - M22x1,5 | | 4 | 2.13 | 0.78 | 1.16 | 1.84 | 0.47 | 1.06 | 54 | 19.7 | 29.5 | 46.7 | 12 | 27 | 0.31 | 139 |
| 10FFP15LBH | ¾ | 10 | 8,6 | 15L - M22x1,5 + bulkhead | | 4 | 3.5 | 0.78 | 1.16 | 2.9 | 1.50 | 1.06 | 89 | 19.7 | 29.5 | 73.7 | 38 | 27 | 0.4 | 183 |
| 10FFP16S | ¾ | 10 | 8,6 | 16S - M24x1,5 | | 4 | 2.52 | 0.78 | 1.16 | 1.92 | 0.55 | 1.06 | 64 | 19.7 | 29.5 | 48.7 | 14 | 27 | 0.27 | 123 |
| 10FFP56ORM | ¾ | 10 | 8,6 | | ¾ 16 UNF | 4 | 2.5 | 0.78 | 1.06 | 1.9 | 0.47 | 0.94 | 63.6 | 19.7 | 27 | 48.3 | 12 | 23.8 | 0.33 | 150 |
| 10FFP75ORM | ¾ | 10 | 8,6 | | ¾ 16 UNF | 4 | 2. | 0.78 | 1.06 | 1. | 0.55 | 0.94 | 63.6 | 19.7 | 27 | 48.3 | 14 | 23.8 | 0.34 | 156 |
| 12FFP15LBH | ½ | 12 | 11 | 15L - M22x1,5 + bulkhead | | 4 | 3.62 | 0.96 | 1.56 | 2.95 | 1 | 1.42 | 92 | 24.5 | 39.5 | 75 | 38 | 36 | 0.65 | 297 |
| 12FFP16S | ½ | 12 | 11 | 16S - M24x1,5 | | 4 | 2.71 | 0.96 | 1.56 | 2.05 | 0.55 | 1.42 | 69 | 24.5 | 39.5 | 52 | 14 | 36 | 0.61 | 279 |
| 12FFP18LBH | ½ | 12 | 11 | 18L - M26x1,5 + bulkhead | | 4 | 3.70 | 0.96 | 1.56 | 3.03 | 1.57 | 1.42 | 94 | 24.5 | 39.5 | 77 | 40 | 36 | 0.78 | 353 |
| 16FFP15LBH | ¾ | 16 | 12 | 15L - M22x1,5 + bulkhead | | 4 | 2.12 | 1.06 | 1.56 | 1.45 | 1.5 | 1.42 | 54 | 27 | 39.5 | 37 | 38 | 36 | 0.65 | 298 |
| 16FFP16S | ¾ | 16 | 12 | 16S - M24x1,5 | | 4 | 2.71 | 1.06 | 1.56 | 2.05 | 0.55 | 1.42 | 69 | 27 | 39.5 | 52 | 14 | 36 | 0.62 | 280 |
| 16FFP18LBH | ¾ | 16 | 13 | 18L - M26x1,5 + bulkhead | | 4 | 2.12 | 1.06 | 1.56 | 1.45 | 1.57 | 1.42 | 54 | 27 | 39.5 | 37 | 40 | 36 | 0.78 | 353 |

*Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1 or Fig. 2) and G (Fig. 3 or 4) together.

Note that ISO 8434-1 will restrict usage of coupling to 250 bar for end connection 8L, 10L, 12L and 15L, and to 160 bar for end connection 18L.

Socket (Female) Dust Plug

| Body Size (in) | Body Size (in) with color ring | Part Number | Coupling Type | Dust Plug Material |
|----------------|--------------------------------|-------------|---------------|--------------------|
| ¼ | - | SDC6FF | Socket/Female | PVC |
| ¾* | - | SDC10FF | Socket/Female | PVC |
| ½ | ¾ | SDC12FF | Socket/Female | PVC |
| ¾ | - | SDC16FF | Socket/Female | PVC |
| ¾ | ½ | SDC19FF | Socket/Female | PVC |
| 1 | ¾ | SDC25FF | Socket/Female | PVC |

*Dust caps and dust plugs are offered in black.

Plug (Male) Dust Cap

| Body Size (in) | Part Number | Coupling Type | Dust Plug Material |
|----------------|-------------|---------------|--------------------|
| ¼ | PDC6FF | Plug/Male | PVC |
| ¾* | PDC10FF | Plug/Male | PVC |
| ½ | PDC12FF | Plug/Male | PVC |
| ¾ | PDC16FF | Plug/Male | PVC |
| ¾ | PDC19FF | Plug/Male | PVC |
| 1 | PDC25FF | Plug/Male | PVC |



Color Coding Ring Option*

| Body Size (in) | ISO Size (mm) | Size | Socket/Female Ring Part Number** | | | | Plug/Male Ring Part Number** | | | | Tool Part Number | Tool & Rings Kit Part Number*** |
|----------------|---------------|------|----------------------------------|-----------|-----------|-----------|------------------------------|-----------|-----------|-----------|------------------|---------------------------------|
| | | | Blue | Red | Yellow | Green | Blue | Red | Yellow | Green | | |
| ¾ | 10 | 10FF | CR10FFSLB | CR10FFSRD | CR10FFSYL | CR10FFSDG | CR10FFPLB | CR10FFPRD | CR10FFPYL | CR10FFPDG | CR10FFSP93 | CRKIT10FF |
| ½ | 12.5 | 12FF | CR12FFSLB | CR12FFSRD | CR12FFSYL | CR12FFSDG | CR12FFPLB | CR12FFPRD | CR12FFPYL | CR12FFPDG | CR12FFSP93 | CRKIT12FF |
| ¾ | 16 | 16FF | CR16FFSLB | CR16FFSRD | CR16FFSYL | CR16FFSDG | CR16FFPLB | CR16FFPRD | CR16FFPYL | CR16FFPDG | CR16FFSP93 | CRKIT16FF |
| ¾ | 19 | 19FF | CR19FFSLB | CR19FFSRD | CR19FFSYL | CR19FFSDG | CR19FFPLB | CR19FFPRD | CR19FFPYL | CR19FFPDG | CR19FFSP93 | CRKIT19FF |

* For requests on alternative colors or installation instructions, please contact your Eaton sales representative.

** Orders must be in multiples of 10 pcs.

*** The kit consists of a tool plus 10 socket rings and 10 plug rings of each color.

MLFF Series (Stainless Steel) ISO 16028 Flat Face/Dry Break



Eaton's MLFF Series stainless steel coupling is a flat face dry break coupling used for hydraulic applications. The MLFF Series interchanges with all ISO 16028 profiles. Due to its stainless steel design, it is corrosion resistant and can handle aggressive environments.

Product Features

- Designed and manufactured under Article 3.3 of the European Pressure Equipment Directive PED 2014/68/EU
- Safety sleeve lock prevents accidental disconnections
- Push to connect with double shut-off valving
- Shock resistant color coding ring option available in sizes 10FF, 12FF, 16FF and 19FF to prevent accidental crossing of lines
- Resistant to aggressive environments and corrosion
- Utilize FF Series dust caps
- Standard body material: 316L Stainless steel corrosion resistant
- Alternative end connections available upon request
- Standard seal material: FKM, EPDM, NBR+AU, HNBR (upon request)

Physical Characteristics

| ISO Size* (mm) | Coupling Size (in) | Maximum Operating Pressure | | | Minimum Burst Pressure | | | Rated Flow** | | Fluid Loss ml-cc. | Air Inclusion ml-cc. | Force to Connect | |
|-------------------|-----------------------|----------------------------|-----------------------------------|---------------------------------------|--------------------------|-----------------------------------|---------------------------------------|--------------|-------------|----------------------|-------------------------|------------------|--|
| | | Connected (bar) (psi) | Plug/ Male Half (bar) (psi) | Socket/ Female Half (bar) (psi) | Connected (bar) (psi) | Plug/ Male Half (bar) (psi) | Socket/ Female Half (bar) (psi) | (lpm) (gpm) | (N) (Lbs) | | | | |
| 6.3 | ¼ | 250 3,625 | 250 3,625 | 250 3,625 | 2,335 33,858 | 1,640 23,780 | 1,330 19,285 | 17 4.49 | 0.004 0.007 | 80 18.0 | | | |
| 10 | ¾ | 250 3,625 | 250 3,625 | 250 3,625 | 1,672 24,244 | 1,664 24,128 | 845 12,253 | 29 7.66 | 0.006 0.010 | 140 31.5 | | | |
| 12 | ½ | 250 3,625 | 250 3,625 | 250 3,625 | 1,679 24,346 | 997 14,457 | 993 14,399 | 55 14.53 | 0.012 0.013 | 195 43.8 | | | |
| 16 | ¾ | 250 3,625 | 250 3,625 | 250 3,625 | 1,190 17,255 | 950 13,775 | 880 12,760 | 67 17.70 | 0.016 0.030 | 205 46.1 | | | |
| 19 | ¾ | 250 3,625 | 250 3,625 | 250 3,625 | 1,370 19,865 | 882 12,789 | 845 12,253 | 105 27.74 | 0.034 0.015 | 215 48.3 | | | |
| 25 | 1 | 250 3,625 | 250 3,625 | 250 3,625 | 1,690 24,505 | 1,000 14,500 | 850 12,325 | 177 46.76 | 0.032 0.033 | 260 58.5 | | | |
| - | 1½ | 250 3,625 | 250 3,625 | 250 3,625 | 750 10,875 | 750 10,875 | 750 10,875 | 450 118.9 | 0.265 0.445 | 385 86.6 | | | |
| - | 2" | 175 2,535 | 175 2,535 | 175 2,535 | 525 7,610 | 525 7,610 | 525 7,610 | 700 184.9 | 0.390 0.260 | 375 84.3 | | | |

* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard)

** Indicated values refer to a 1 bar/14.5 psi pressure drop

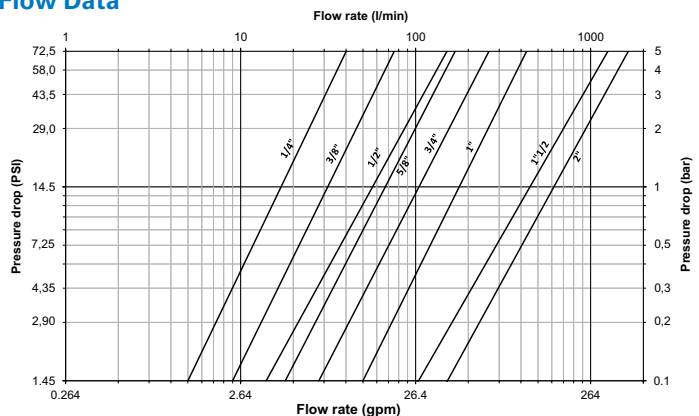
Applications & Markets

- Construction
- Agriculture
- Iron and Steel Industry
- Railway
- Oil and Gas
- Marine
- Material Handling
- General Hydraulic Applications

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European pressure Equipment Directive 97/23 EC. They should not be used to convey gases in Group 1 (hazardous).

Flow Data



Seal Elastomer Data*

| Seal Elastomer | P/N Code | ISO Size (6FF to 25FF) Maximum Operation Temperature Range | Non-ISO Size (40FF and 50FF) Maximum Operation Temperature Range |
|-----------------------------------|----------|--|--|
| NBR (Nitrile) + AU (Polyurethane) | - | -25°C +100°C/-13°F +212°F | on request |
| FKM | -143 | -20°C +200°C/-4°F +392°F | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene) | -192 | -40°C +150°C/-40°F +302°F | on request |

*For reference only, based on Eaton recommended temperatures.
Contact Eaton technical support for further information on fluid compatibility.

Maximum Operating Pressure

| Coupling Size (in) | Nominal Flow Diameter | Non hazardous liquids Group 2 | | Non hazardous gases Group 2 | | Hazardous liquids Group 1 | |
|-----------------------|-----------------------|-------------------------------|-----------|-----------------------------|-----------|---------------------------|-----------|
| | | Plug & Connected | Socket | Plug & Connected | Socket | Plug & Connected | Socket |
| | | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) | bar (psi) |
| 1 ½ | 30.1 | 300 4350 | 270 3915 | 300 4350 | 270 3915 | 66 955 | 66 955 |
| 2 | 39.2 | 300 4350 | 225 3260 | 25 360 | 25 360 | 50 725 | 50 725 |

* Nominal diameters over 25mm should not be used to convey gases in group 1 (PED 97/23 EC)

MLFF Series (Stainless Steel) ISO 16028 Flat Face/Dry Break

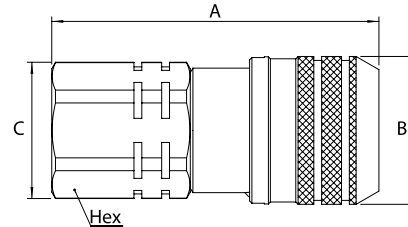


Figure 1

Sockets (Female)

| Part Number | | | Body Size | ISO Size | Nominal Flow Diameter | Thread Size*(Female) | | Dimensions | | | | Weight | | | | | | |
|--------------|-----------------|-----------------|-----------|----------|-----------------------|----------------------|--------|------------|--------|--------|--------|----------|--------|--------|--------|----------|-------|-------|
| NBR+AU | FKM | EPDM | (in) | (mm) | (mm) | NPT | BSP | Fig. | A (in) | B (in) | C (in) | Hex (in) | A (mm) | B (mm) | C (mm) | Hex (mm) | lbs | grams |
| ML6FFS25 | ML6FFS25143 | ML6FFS25192 | ¼ | 6.3 | 6 | ¼-18 | - | 1 | 2.13 | 1.06 | 0.94 | 0.87 | 54 | 27 | 24 | 22 | 0.30 | 135 |
| ML6FFS25BS | ML6FFS25BS143 | ML6FFS25BS192 | ¼ | 6.3 | 6 | - | ¼-19 | 1 | 2.13 | 1.06 | 0.94 | 0.87 | 54 | 27 | 24 | 22 | 0.30 | 135 |
| ML10FFS37 | ML10FFS37143 | ML10FFS37192 | ⅜ | 10 | 8.6 | ⅜-18 | - | 1 | 2.68 | 1.26 | 1.16 | 1.06 | 68 | 32 | 29.5 | 27 | 0.54 | 245 |
| ML10FFS37BS | ML10FFS37BS143 | ML10FFS37BS192 | ⅜ | 10 | 8.6 | - | ⅜-19 | 1 | 2.68 | 1.26 | 1.16 | 1.06 | 68 | 32 | 29.5 | 27 | 0.54 | 245 |
| ML10FFS50BS | ML10FFS50BS143 | ML10FFS50BS192 | ⅜ | 10 | 8.6 | - | ½-14 | 1 | 2.80 | 1.26 | 1.16 | 1.06 | 71 | 32 | 29.5 | 27 | 0.53 | 240 |
| ML12FFS50 | ML12FFS50143 | ML12FFS50192 | ½ | 12.5 | 11 | ½-14 | - | 1 | 3.27 | 1.50 | 1.56 | 1.42 | 83 | 38 | 39.5 | 36 | 1.03 | 470 |
| ML12FFS50BS | ML12FFS50BS143 | ML12FFS50BS192 | ½ | 12.5 | 11 | - | ½-14 | 1 | 3.27 | 1.50 | 1.56 | 1.42 | 83 | 38 | 39.5 | 36 | 1.03 | 470 |
| ML12FFS75BS | ML12FFS75BS143 | ML12FFS75BS192 | ½ | 12.5 | 11 | - | ¾-14 | 1 | 3.39 | 1.50 | 1.56 | 1.42 | 86 | 38 | 39.5 | 36 | 1.01 | 460 |
| ML16FFS75 | ML16FFS75143 | ML16FFS75192 | ⅝ | 16 | 13 | ¾-14 | - | 1 | 3.39 | 1.66 | 1.56 | 1.42 | 86 | 42 | 39.5 | 36 | 1.21 | 550 |
| ML16FFS75BS | ML16FFS75BS143 | ML16FFS75BS192 | ⅝ | 16 | 13 | - | ¾-14 | 1 | 3.39 | 1.66 | 1.56 | 1.42 | 86 | 42 | 39.5 | 36 | 1.21 | 550 |
| ML19FFS75 | ML19FFS75143 | ML19FFS75192 | ¾ | 19 | 15 | ¾-14 | - | 1 | 3.82 | 1.81 | 1.77 | 1.61 | 97 | 46 | 45 | 41 | 1.69 | 770 |
| ML19FFS75BS | ML19FFS75BS143 | ML19FFS75BS192 | ¾ | 19 | 15 | - | ¾-14 | 1 | 3.82 | 1.81 | 1.77 | 1.61 | 97 | 46 | 45 | 41 | 1.69 | 770 |
| ML19FFS100 | ML19FFS100143 | ML19FFS100192 | ¾ | 19 | 15 | 1-11.5 | - | 1 | 3.80 | 1.82 | 1.77 | 1.61 | 97 | 46 | 45 | 41 | 1.56 | 710 |
| ML19FFS100BS | ML19FFS100BS143 | ML19FFS100BS192 | ¾ | 19 | 15 | - | 1-11 | 1 | 3.82 | 1.81 | 1.77 | 1.61 | 97 | 46 | 45 | 41 | 1.56 | 710 |
| ML25FFS100BS | ML25FFS100BS143 | ML25FFS100BS192 | 1 | 25 | 18 | - | 1-11 | 1 | 4.07 | 2.36 | 2.36 | 2.17 | 104 | 60 | 60 | 55 | 2.83 | 1290 |
| ML25FFS125 | ML25FFS125143 | ML25FFS125192 | 1 | 25 | 18 | 1¼-11.5 | - | 1 | 4.07 | 2.36 | 2.36 | 2.17 | 104 | 60 | 60 | 55 | 2.83 | 1290 |
| ML40FFS150 | ML40FFS150143 | - | 1 ½ | - | 30.1 | 1½-11.5 | - | 1 | 5.01 | 3.13 | 2.76 | 2.56 | 127.4 | 79.5 | 70 | 65 | 6.16 | 2767 |
| ML40FFS150BS | ML40FFS150BS143 | - | 1 ½ | - | 30.1 | - | 1 ½-11 | 1 | 5.01 | 3.13 | 2.76 | 2.56 | 127.4 | 79.5 | 70 | 65 | 6.13 | 2752 |
| - | ML50FFS200143 | - | 2 | - | 39.2 | 2-11.5 | - | 1 | 6.17 | 3.84 | 3.46 | 3.15 | 156.8 | 97.5 | 87.8 | 80 | 10.87 | 4883 |
| - | ML50FFS200BS143 | - | 2 | - | 39.2 | - | 2-11 | 1 | 6.17 | 3.84 | 3.46 | 3.15 | 156.8 | 97.5 | 87.8 | 80 | 10.82 | 4861 |

* Alternative end connections available upon request.
To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

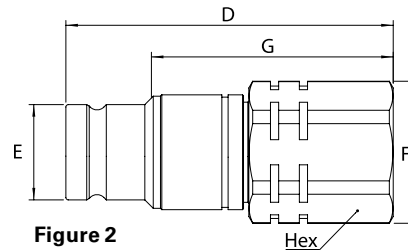


Figure 2

Plugs (Male)

| Part Number | | | Body Size | ISO Size | Nominal Flow Diameter | Thread Size*(Female) | | Dimensions | | | | Weight | | | | | | | | |
|--------------|-----------------|-----------------|-----------|----------|-----------------------|----------------------|--------|------------|--------|--------|--------|--------|----------|--------|--------|--------|--------|----------|------|-------|
| NBR+AU | FKM | EPDM | (in) | (mm) | (mm) | NPT | BSP | Fig. | D (in) | E (in) | F (in) | G (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Hex (mm) | lbs | grams |
| ML6FFP25 | ML6FFP25143 | ML6FFP25192 | ¼ | 6.3 | 6 | ¼-18 | - | 2 | 2.01 | 0.46 | 0.94 | 1.58 | 0.87 | 51 | 11.6 | 24 | 40.1 | 22 | 0.20 | 90 |
| ML6FFP25BS | ML6FFP25BS143 | ML6FFP25BS192 | ¼ | 6.3 | 6 | - | ¼-19 | 2 | 2.01 | 0.46 | 0.94 | 1.58 | 0.87 | 51 | 11.6 | 24 | 40.1 | 22 | 0.20 | 90 |
| ML10FFP37 | ML10FFP37143 | ML10FFP37192 | ⅜ | 10 | 8.6 | ⅜-18 | - | 2 | 2.56 | 0.78 | 1.16 | 1.97 | 1.06 | 65 | 19.7 | 29.5 | 50 | 27 | 0.33 | 150 |
| ML10FFP37BS | ML10FFP37BS143 | ML10FFP37BS192 | ⅜ | 10 | 8.6 | - | ⅜-19 | 2 | 2.56 | 0.78 | 1.16 | 1.97 | 1.06 | 65 | 19.7 | 29.5 | 50 | 27 | 0.33 | 150 |
| ML10FFP50BS | ML10FFP50BS143 | ML10FFP50BS192 | ⅜ | 10 | 8.6 | - | ½-14 | 2 | 2.68 | 0.78 | 1.16 | 2.09 | 1.06 | 68 | 19.7 | 29.5 | 53 | 27 | 0.33 | 150 |
| ML12FFP50 | ML12FFP50143 | ML12FFP50192 | ½ | 12.5 | 11 | ½-14 | - | 2 | 2.72 | 0.96 | 1.56 | 2.05 | 1.42 | 69 | 24.5 | 39.5 | 52 | 36 | 0.61 | 275 |
| ML12FFP50BS | ML12FFP50BS143 | ML12FFP50BS192 | ½ | 12.5 | 11 | - | ½-14 | 2 | 2.72 | 0.96 | 1.56 | 2.05 | 1.42 | 69 | 24.5 | 39.5 | 52 | 36 | 0.64 | 290 |
| ML12FFP75BS | ML12FFP75BS143 | ML12FFP75BS192 | ½ | 12.5 | 11 | - | ¾-14 | 2 | 2.83 | 0.96 | 1.56 | 2.17 | 1.42 | 72 | 24.5 | 39.5 | 55 | 36 | 0.61 | 275 |
| ML16FFP75 | ML16FFP75143 | ML16FFP75192 | ⅝ | 16 | 13 | ¾-14 | - | 2 | 2.83 | 1.06 | 1.56 | 1.42 | 1.42 | 72 | 27 | 39.5 | 36 | 36 | 0.69 | 315 |
| ML16FFP75BS | ML16FFP75BS143 | ML16FFP75BS192 | ⅝ | 16 | 13 | - | ¾-14 | 2 | 2.83 | 1.06 | 1.56 | 1.42 | 1.42 | 72 | 27 | 39.5 | 36 | 36 | 0.69 | 315 |
| ML19FFP75 | ML19FFP75143 | ML19FFP75192 | ¾ | 19 | 15 | ¾-14 | - | 2 | 3.70 | 1.18 | 1.77 | 2.83 | 1.61 | 94 | 29.9 | 45 | 72 | 41 | 1.28 | 580 |
| ML19FFP75BS | ML19FFP75BS143 | ML19FFP75BS192 | ¾ | 19 | 15 | - | ¾-14 | 2 | 3.70 | 1.18 | 1.77 | 2.83 | 1.61 | 94 | 29.9 | 45 | 72 | 41 | 1.28 | 580 |
| ML19FFP100 | ML19FFP100143 | ML19FFP100192 | ¾ | 19 | 15 | 1-11.5 | - | 2 | 3.70 | 1.18 | 1.77 | 2.83 | 1.61 | 94 | 29.9 | 45 | 72 | 41 | 1.13 | 515 |
| ML19FFP100BS | ML19FFP100BS143 | ML19FFP100BS192 | ¾ | 19 | 15 | - | 1-11 | 2 | 3.70 | 1.18 | 1.77 | 2.83 | 1.61 | 94 | 29.9 | 45 | 72 | 41 | 1.12 | 510 |
| ML25FFP100BS | ML25FFP100BS143 | ML25FFP100BS192 | 1 | 25 | 18 | - | 1-11 | 2 | 4.12 | 1.42 | 2.36 | 2.17 | 2.17 | 104.6 | 36 | 60 | 55 | 55 | 2.37 | 1080 |
| ML25FFP125 | ML25FFP125143 | ML25FFP125192 | 1 | 25 | 18 | 1¼-11.5 | - | 2 | 4.12 | 1.42 | 2.36 | 2.17 | 2.17 | 104.6 | 36 | 60 | 55 | 55 | 2.37 | 1080 |
| ML40FFP150 | ML40FFP150143 | - | 1 ½ | - | 30.1 | 1½-11.5 | - | 2 | 4.13 | 2.24 | 2.61 | 3.01 | 2.36 | 105 | 57 | 66.3 | 76.5 | 60 | 3.15 | 1411 |
| ML40FFP150BS | ML40FFP150BS143 | - | 1 ½ | - | 30.1 | - | 1 ½-11 | 2 | 4.13 | 2.24 | 2.61 | 3.01 | 2.36 | 105 | 57 | 66.3 | 76.5 | 60 | 3.12 | 1398 |
| - | ML50FFP200143 | - | 2 | - | 39.2 | 2-11.5 | - | 2 | 5.31 | 2.87 | 3.29 | 3.80 | 2.95 | 135 | 73 | 83.5 | 96.6 | 75 | 6.01 | 2729 |
| - | ML50FFP200BS143 | - | 2 | - | 39.2 | - | 2-11 | 2 | 5.31 | 2.87 | 3.29 | 3.80 | 2.95 | 135 | 73 | 83.5 | 96.6 | 75 | 5.97 | 2710 |

* Alternative end connections available upon request.
To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

Color Coding Ring Option**

| Body Size (in) | ISO Size (mm) | Size | Socket/Female Ring Part Number** | | | | Plug/Male Ring Part Number** | | | | Tool Part Number | Tool & Rings Kit Part Number*** |
|-------------------|------------------|--------|----------------------------------|-----------|-----------|-----------|------------------------------|-----------|-----------|-----------|------------------|---------------------------------|
| | | | Blue | Red | Yellow | Green | Blue | Red | Yellow | Green | | |
| ⅜ | 10 | ML10FF | CR10FFSLB | CR10FFSRD | CR10FFSYL | CR10FFSDG | CR10FFPLB | CR10FFPRD | CR10FFPYL | CR10FFPDG | CR10FFSP93 | CRKIT10FF |
| ½ | 12.5 | ML12FF | CR12FFSLB | CR12FFSRD | CR12FFSYL | CR12FFSDG | CR12FFPLB | CR12FFPRD | CR12FFPYL | CR12FFPDG | CR12FFSP93 | CRKIT12FF |
| ⅝ | 16 | ML16FF | CR16FFSLB | CR16FFSRD | CR16FFSYL | CR16FFSDG | CR16FFPLB | CR16FFPRD | CR16FFPYL | CR16FFPDG | CR16FFSP93 | CRKIT16FF |
| ¾ | 19 | ML19FF | CR19FFSLB | CR19FFSRD | CR19FFSYL | CR19FFSDG | CR19FFPLB | CR19FFPRD | CR19FFPYL | CR19FFPDG | CR19FFSP93 | CRKIT19FF |

* For requests on alternative colors or installation instructions, please contact your Eaton sales representative.

** Orders must be in multiples of 10 pcs.

*** The kit consists of a tool plus 10 socket rings and 10 plug rings of each color.

† For dust caps and dust plugs please refer to page 37.



FFCUP Series

ISO 16028 Connect Under Pressure Flat Face Plug/Male



Eaton's FFCUP Series plug/male coupling is an ISO 16028 standard interchange. The flush face design prevents fluid loss on disconnection and air inclusion on connection guaranteeing excellent flow capability. An integrated patented system allows the FFCUP Series plug to be connected to a socket/female half coupling under 350 bar (5075 psi) residual pressure.

Product Features

- Designed and manufactured in accordance with Article 3.3 of the European Pressure Equipment Directive PED 2014/68/EU
- Meets dimensional requirements of ISO 16028
- Push to connect
- Connect under residual pressure
- Shock resistant color coding ring option available to prevent accidental crossing of lines
- Standard Material: High-resistant carbon steel with Guardian Seal™ plating, a whole new level of corrosion resistance with minimum 720 hours RR protection
- Guardian Seal™ plating:
 - Nickel-free
 - Solvent-free
 - Meets Global RoHS, ELV and REACH requirements
- Alternative end connections available upon request
- Standard seal material: NBR (Nitrile) + AU (Polyurethane)
- Utilize FF Series dust caps

Physical Characteristics

| Body Size | ISO Size* | Nominal Flow Diameter | Max. Operating Pressure | Min. Burst Pressure | Rated Flow** | Air Inclusion | Fluid Loss | Force to Connect | | | | |
|-----------|-----------|-----------------------|-------------------------|---------------------|--------------|---------------|------------|------------------|-------|-------|-----|------|
| (in) | (mm) | (mm) | (bar) | (psi) | (lpm) | (gpm) | ml-cc. | N | | | | |
| 3/8 | 10 | 8.6 | 350 | 5,075 | 1,400 | 20,300 | 29.4 | 7.76 | 0.010 | 0.006 | 350 | 79 |
| 1/2 | 12.5 | 11 | 350 | 5,075 | 1,400 | 20,300 | 46.8 | 12.36 | 0.013 | 0.012 | 270 | 60.7 |

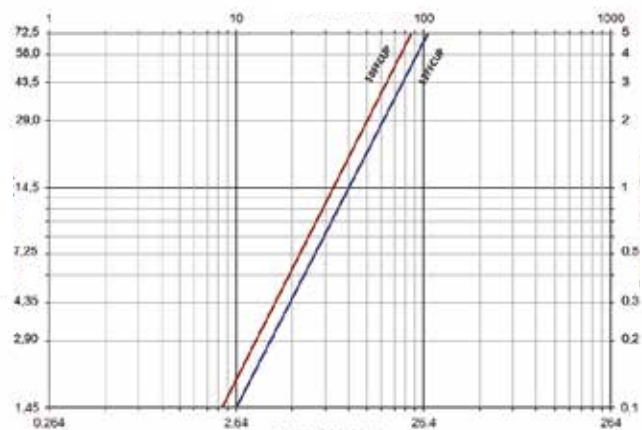
* The ISO size corresponds to the internal diameter of the hose or the external diameter of the rigid tube (as defined in ISO 4397 Standard)

** Indicated values refer to a 1 bar/14.5 psi pressure drop

Connect Under Pressure Operating Guidelines

- The plug can be connected against 350 bar/5075 psi residual pressure to sockets/females meeting ISO 16028 standard requirements.
- Plug only is under pressure while connected
- During the connection phase, the socket must not be under pressure
- Disconnection under pressure is strictly forbidden
- Connection under pressure may require a few seconds: the force to connect must be maintained during this lapse of time

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------------|----------------------------------|
| NBR (Nitrile) + AU (Polyurethane) | -25°C +100°C / -13°F +212°F |

* For reference only, based on Eaton recommended temperatures. Contact Eaton technical support for further information on fluid compatibility

FFCUP Series

ISO 16028 Connect Under Pressure Flat Face Plug/Male

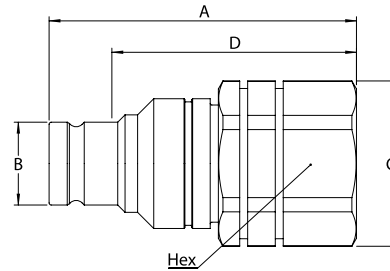


Figure 1

Plugs (Male)

| Part Number | Body Size | ISO Size | Nominal Flow Diameter | Thread Size* (Female) | | | Dimensions | | | | | | | | | | Weight | | |
|--------------|-----------|----------|-----------------------|-----------------------|--------|--------------|------------|--------|--------|--------|--------|----------|--------|--------|--------|--------|----------|------|-------|
| | | | | NPT | BSPP | SAE J 1926-1 | Fig. | A (in) | B (in) | C (in) | D (in) | Hex (in) | A (mm) | B (mm) | C (mm) | D (mm) | Hex (mm) | lbs | grams |
| 10FFPCUP37 | 3/8 | 10 | 8.6 | 3/8-18 | - | | 1 | 2.89 | 0.74 | 1.55 | 2.28 | 1.41 | 73.5 | 18.7 | 39.5 | 58.0 | 36 | 0.69 | 314 |
| 10FFPCUP37BS | | | | - | 3/8-19 | | 1 | 2.89 | 0.74 | 1.55 | 2.28 | 1.41 | 73.5 | 18.7 | 39.5 | 58.0 | 36 | 0.69 | 314 |
| 10FFPCUP50 | | | | 1/2-14 | - | | 1 | 2.89 | 0.74 | 1.55 | 2.28 | 1.41 | 73.5 | 18.7 | 39.5 | 58.0 | 36 | 0.66 | 300 |
| 10FFPCUP50BS | | | | - | 1/2-14 | | 1 | 2.89 | 0.74 | 1.55 | 2.28 | 1.41 | 73.5 | 18.7 | 39.5 | 58.0 | 36 | 0.66 | 300 |
| 12FFPCUP50 | 1/2 | 12,5 | 11 | 1/2-14 | - | | 1 | 3.03 | 0.96 | 1.55 | 2.36 | 1.41 | 77 | 24,52 | 39,5 | 60 | 36 | 0,77 | 350 |
| 12FFPCUP50BS | | | | - | 1/2-14 | | 1 | 3,03 | 0,96 | 1,55 | 2,36 | 1,41 | 77 | 24,52 | 39,5 | 60 | 36 | 0,76 | 346 |
| 12FFPCUP56UN | | | | 9/16 18f UNF | - | | 1 | 2,87 | 0,96 | 1,55 | 2,2 | 1,41 | 73 | 24,52 | 39,5 | 56 | 36 | 0,74 | 336 |
| 12FFPCUP75UN | | | | 3/4 16f UNF | - | | 1 | 3,03 | 0,96 | 1,55 | 2,36 | 1,41 | 77 | 24,52 | 39,5 | 60 | 36 | 0,77 | 351 |

* Alternative end connections available upon request.

Color Coding Ring Option*

| Body Size | ISO Size | Nominal Flow Diameter | Plug/Male Ring Part Number** | | | | Tool Part Number |
|-----------|----------|-----------------------|------------------------------|-----------|-----------|-----------|------------------|
| | | | Blue | Red | Yellow | Green | |
| (in) | (mm) | (mm) | | | | | |
| 3/8 | 10 | 8.6 | CR12FFPLB | CR12FFPRD | CR12FFPYL | CR12FFPDG | CR12FFSP93 |
| 1/2 | 12,5 | 11 | CR16FFPLB | CR16FFPRD | CR16FFPYL | CR16FFPDG | CR16FFSP93 |

* For requests on alternative colours or installation instructions, please contact your Eaton sales representative.

** Orders must be in multiples of 10 pcs.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD49 Series

NFPA Standard T3.20.15 HTMA Interchange



Eaton's FD49 Series meets NFPA standard T3.20.15 and was developed in conjunction with HTMA (Hydraulic Tool Manufacturer's Association). Eaton's Twin-Guard™ sealing system prevents seepage at low pressures and allows connection and disconnection against pressure up to 500 psi.

Product Features

- Dual flush face valving for minimal fluid loss and air inclusion
- Tubular valve and sleeve construction for high fluid flow with low pressure drop
- Push-to-connect latching
- for one hand operation
- Standard seal material: Teflon channel seal and Buna-N O-Ring backup
- Standard body material: High-resistance carbon steel with zinc trivalent plating

Physical Characteristics

| Body Size (in) | Max. Operating Pressure | | Min. Burst Pressure Connected | | Vacuum Connected Only | Rated Flow | | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|-------|-------------------------------|-------|-----------------------|------------|-------|---------------|------------|
| | (bar) | (psi) | (bar) | (psi) | (in./Hg) | (lpm) | (gpm) | cc. max. | cc.max. |
| 3/8 | 207 | 3,000 | 621 | 9,000 | 28 | 38 | 10 | .01 | .02 |



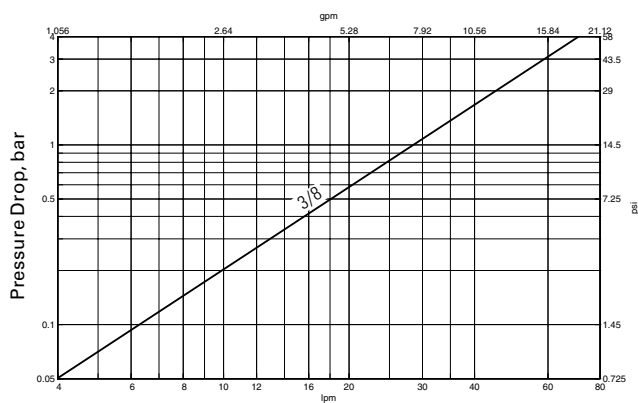
Eaton's Twin-Guard™ seal system consists of channel and Buna-N O-Ring seals. The channel seal prevents blowout during connection and disconnection under pressure to 500 psi. The Buna-N O-Ring seal is a secondary seal eliminating fluid seepage.

Applications & Markets

- Hydraulic Tool (HTMA interchange)
- Hydraulic and Fluid Transfer

Flow Data

Pressure Drop Versus Flow Graph

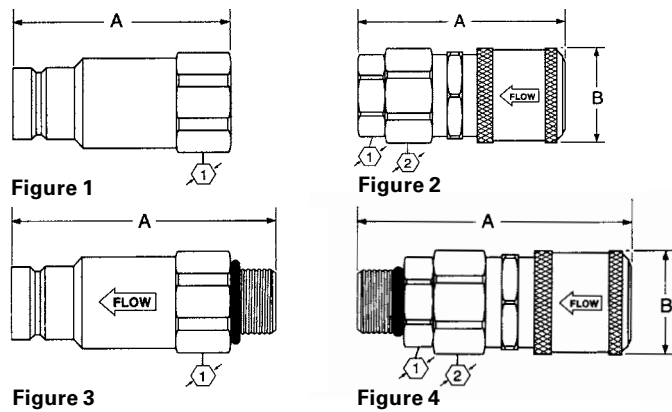


Gallons Per Minute Flow

Test Fluid: MIL-H-5606 Oil at 100°F

FD49 Series

NFPA Standard T3.20.15 HTMA Interchange



Dimensions (Female NPT, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex ① | | Hex ② | |
|-----------------------|------------------|--------------|--------------|--------|------------|------|------------|------|-------|------|-------|------|
| | | | | | | | A | B | mm | (in) | mm | (in) |
| FD49-1002-06-06 | Plug/Male | 3/8 | 3/8 | 3/8-18 | Female NPT | 1 | 66.5 | - | 25.4 | - | - | - |
| FD49-1001-06-06 | Socket/Female | 3/8 | 3/8 | 3/8-18 | Female NPT | 2 | 69.6 | 30.5 | 25.4 | 26.9 | 1.00 | 1.06 |
| FD49-1002-08-06 | Plug/Male | 3/8 | 1/2 | 1/2-14 | Female NPT | 1 | 69.9 | - | 26.9 | - | - | - |
| FD49-1001-08-06 | Socket/Female | 3/8 | 1/2 | 1/2-14 | Female NPT | 2 | 72.4 | 30.5 | 26.9 | 26.9 | 1.06 | 1.06 |

Dimensions (Female SAE O-Ring, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex ① | | Hex ② | |
|-----------------------|------------------|--------------|--------------|--------|-------------------|------|------------|------|-------|------|-------|------|
| | | | | | | | A | B | mm | (in) | mm | (in) |
| FD49-1004-08-06 | Plug/Male | 3/8 | 3/8 | 3/8-16 | Female SAE O-Ring | 1 | 69.9 | - | 26.9 | - | - | - |
| FD49-1005-08-06 | Socket/Female | 3/8 | 3/8 | 3/8-16 | Female SAE O-Ring | 2 | 71.6 | 30.5 | 26.9 | 26.9 | 1.06 | 1.06 |

Dimensions (Male SAE O-Ring, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex ① | | Hex ② | |
|-----------------------|------------------|--------------|--------------|---------|-----------------|------|------------|------|-------|------|-------|------|
| | | | | | | | A | B | mm | (in) | mm | (in) |
| FD49-1057-06-06 | Plug/Male | 3/8 | 3/16 | 3/16-18 | Male SAE O-Ring | 3 | 75.9 | - | 25.4 | - | - | - |
| FD49-1014-06-06 | Socket/Female | 3/8 | 3/16 | 3/16-18 | Male SAE O-Ring | 4 | 81.8 | 30.5 | 25.4 | 26.9 | 1.00 | 1.06 |
| FD49-1057-08-06 | Plug/Male | 3/8 | 3/4 | 3/4-16 | Male SAE O-Ring | 3 | 75.9 | - | 25.4 | - | - | - |
| FD49-1014-08-06 | Socket/Female | 3/8 | 3/4 | 3/4-16 | Male SAE O-Ring | 4 | 83.3 | 30.5 | 25.4 | 26.9 | 1.00 | 1.06 |

Dust Cap/Plug, Standard Coupling

| Part Number (Buna-N) | Body Size |
|-------------------------|--------------|
| FD49-1042-06 | 3/8 |

Note: Fits male and female halves.



FLUID TRANSFER
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SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD96 Series

High Pressure Thread to Connect Flush Face

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT



Eaton's FD96 High Pressure Thread Together Flush Face Series is designed for high pressure and high impulse applications for hydraulic circuits. The FD96 Series design provides low connect and disconnect force in hydraulic circuits where trapped residual pressure must be addressed. The flush face design limits contamination and unwanted fluid loss. The FD96 Series is available in sizes 1/4" through 2" to best meet your specific size requirements.

Product Features

- Thread together design allows connection and disconnection under pressure up to 4,300 psi
- Low connection force
- Dual flush-face valving with non-spill design
- Working pressures up to 8,700 psi
- Body material: High-resistance carbon steel with zinc trivalent and black oxide plating

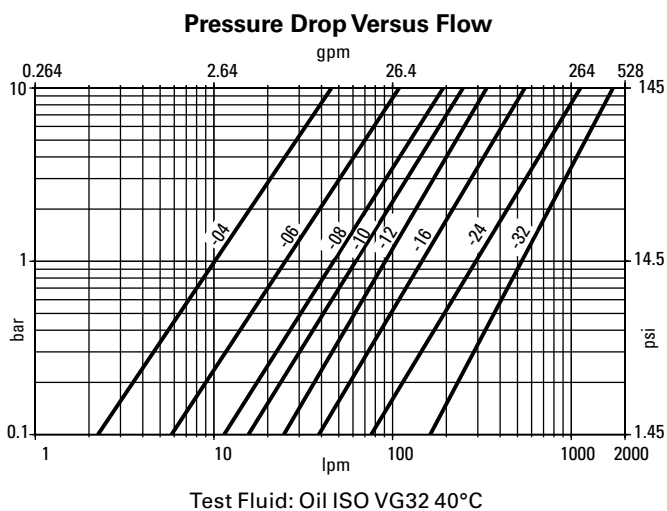
Applications & Markets

- Hydraulic Fluid Transfer
- High-impulse Hydraulics
- Oilfields
- Mining

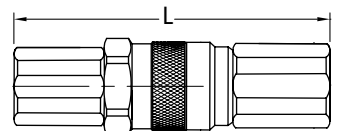
Physical Characteristics

| Body Size | Max. Operating Pressure | | | | | | Min. Burst Pressure | | | | | | Rated Flow (lpm) | Fluid Loss (gpm) | cc. | Req. Torque to Connect | |
|-----------|-------------------------|-------|----------------|-------|--------------------|-------|---------------------|--------|----------------|--------|--------------------|--------|------------------|------------------|------|------------------------|---------|
| | Connected | | Plug/Male Half | | Socket/Female Half | | Connected | | Plug/Male Half | | Socket/Female Half | | | | | lbs. | (N) |
| | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | | | | | |
| 1/4 | 600 | 8,700 | 600 | 8,700 | 420 | 6,090 | 1,500 | 21,750 | 1,500 | 21,750 | 1,260 | 18,270 | 12 | 3.2 | .012 | 29-37 | 40-50 |
| 3/8 | 550 | 7,980 | 550 | 7,980 | 330 | 4,785 | 1,400 | 20,300 | 1,400 | 20,300 | 1,000 | 14,500 | 23 | 6.1 | .040 | 37-44 | 50-60 |
| 1/2 | 550 | 7,980 | 550 | 7,980 | 330 | 4,785 | 1,400 | 20,300 | 1,400 | 20,300 | 1,000 | 14,500 | 45 | 11.9 | .025 | 48-55 | 65-75 |
| 3/4 | 550 | 7,980 | 550 | 7,980 | 330 | 4,785 | 1,400 | 20,300 | 1,400 | 20,300 | 1,000 | 14,500 | 74 | 19.6 | .033 | 52-59 | 70-80 |
| 1 | 500 | 7,250 | 500 | 7,250 | 330 | 4,785 | 1,250 | 18,125 | 1,250 | 18,125 | 1,000 | 14,500 | 100 | 26.5 | .018 | 66-81 | 90-110 |
| 1 1/4 | 470 | 6,800 | 470 | 6,800 | 300 | 4,350 | 1,200 | 17,400 | 1,200 | 17,400 | 800 | 11,600 | 189 | 50.1 | .060 | 92-107 | 125-145 |
| 1 1/2 | 400 | 5,800 | 400 | 5,800 | 270 | 3,915 | 1,700 | 15,950 | 1,100 | 15,950 | 800 | 11,600 | 288 | 76.3 | .200 | 114-129 | 155-175 |
| 2 | 350 | 5,080 | 350 | 5,080 | 270 | 3,915 | 1,100 | 15,950 | 1,100 | 15,950 | 800 | 11,600 | 379 | 100.4 | .350 | 236-258 | 320-355 |

Flow Data

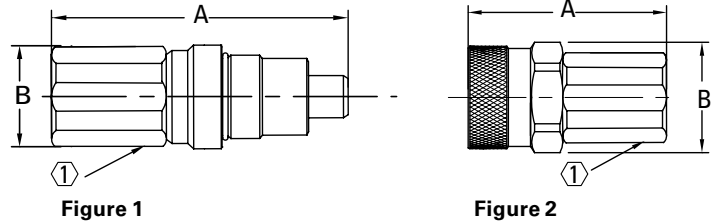


Connected Length



| Body Size | Port Size | Connected Length "L" | |
|-----------|-----------|----------------------|---------|
| | | mm | (in) |
| 1/4 | 3/8 | 90.0 | (3.54) |
| 3/8 | 3/8 | 131.0 | (5.16) |
| 3/8 | 1/2 | 131.0 | (5.16) |
| 1/2 | 1/2 | 155.0 | (6.10) |
| 1/2 | 3/4 | 160.0 | (6.30) |
| 3/4 | 3/4 | 165.0 | (6.50) |
| 1 | 1 | 190.4 | (7.50) |
| 1 | 1 1/4 | 170.0 | (6.69) |
| 1 1/2 | 1 1/2 | 256.0 | (10.08) |
| 2 | 2 | 363.5 | (14.31) |

FD96 Series High Pressure Thread to Connect Flush Face



Dimensions (Female NPT)

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------|---------------|-----------|-----------|--------------|------------|------|------------|--------|-------|--------|-------|--------|
| | | | | | | | A | | B | | Hex ① | |
| | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD96-1001-06-06 | Socket/Female | 3/8 | 3/8 | 3/8-18 | Female NPT | 2 | 65.8 | (2.59) | 41.8 | (1.65) | 30 | (1.18) |
| FD96-1002-06-06 | Plug/Male | 3/8 | 3/8 | 3/8-18 | Female NPT | 1 | 82.5 | (3.25) | 37.8 | (1.49) | 27 | (1.06) |
| FD96-1001-08-06 | Socket/Female | 3/8 | 1/2 | 1/2-14 | Female NPT | 2 | 70.8 | (2.79) | 41.8 | (1.65) | 30 | (1.18) |
| FD96-1002-08-06 | Plug/Male | 3/8 | 1/2 | 1/2-14 | Female NPT | 1 | 85.0 | (3.35) | 37.8 | (1.49) | 27 | (1.06) |
| FD96-1001-08-08 | Socket/Female | 1/2 | 1/2 | 1/2-14 | Female NPT | 2 | 77.8 | (3.06) | 49.8 | (1.96) | 36 | (1.42) |
| FD96-1002-08-08 | Plug/Male | 1/2 | 1/2 | 1/2-14 | Female NPT | 1 | 95.0 | (3.74) | 45.8 | (1.80) | 36 | (1.42) |
| FD96-1001-12-08 | Socket/Female | 1/2 | 3/4 | 3/4-14 | Female NPT | 2 | 84.8 | (3.06) | 49.8 | (1.96) | 36 | (1.42) |
| FD96-1002-12-08 | Plug/Male | 1/2 | 3/4 | 3/4-14 | Female NPT | 1 | 97.4 | (3.83) | 45.8 | (1.80) | 36 | (1.42) |
| FD96-1001-12-12 | Socket/Female | 3/4 | 3/4 | 3/4-14 | Female NPT | 2 | 84.9 | (3.34) | 53.8 | (2.12) | 41 | (1.61) |
| FD96-1002-12-12 | Plug/Male | 3/4 | 3/4 | 3/4-14 | Female NPT | 1 | 99.0 | (3.90) | 49.8 | (1.96) | 36 | (1.42) |
| FD96-1001-12-16 | Socket/Female | 1 | 3/4 | 3/4-14 | Female NPT | 2 | 96.7 | (3.81) | 58.8 | (2.31) | 46 | (1.81) |
| FD96-1002-12-16 | Plug/Male | 1 | 3/4 | 3/4-14 | Female NPT | 1 | 113.6 | (4.47) | 54.8 | (2.16) | 46 | (1.81) |
| FD96-1001-16-16 | Socket/Female | 1 | 1 | 1-11 1/2 | Female NPT | 2 | 99.7 | (3.93) | 58.8 | (2.31) | 46 | (1.81) |
| FD96-1002-16-16 | Plug/Male | 1 | 1 | 1-11 1/2 | Female NPT | 1 | 113.6 | (4.47) | 54.8 | (2.16) | 46 | (1.81) |
| FD96-1001-16-20 | Socket/Female | 1 1/4 | 1 | 1-11 1/2 | Female NPT | 2 | 105.8 | (4.17) | 69.8 | (2.75) | 55 | (2.17) |
| FD96-1002-16-20 | Plug/Male | 1 1/4 | 1 | 1-11 1/2 | Female NPT | 1 | 123.4 | (4.86) | 64.5 | (2.54) | 55 | (2.17) |
| FD96-1001-20-20 | Socket/Female | 1 1/4 | 1 1/4 | 1 1/4-11 1/2 | Female NPT | 2 | 106.8 | (4.20) | 69.8 | (2.75) | 55 | (2.17) |
| FD96-1002-20-20 | Plug/Male | 1 1/4 | 1 1/4 | 1 1/4-11 1/2 | Female NPT | 1 | 123.4 | (4.86) | 64.5 | (2.54) | 55 | (2.17) |
| FD96-1001-20-24 | Socket/Female | 1 1/2 | 1 1/4 | 1 1/4-11 1/2 | Female NPT | 2 | 133.5 | (5.26) | 92.0 | (3.62) | 65 | (2.56) |
| FD96-1002-20-24 | Plug/Male | 1 1/2 | 1 1/4 | 1 1/4-11 1/2 | Female NPT | 1 | 150.0 | (5.91) | 89.8 | (3.54) | 65 | (2.56) |
| FD96-1001-24-24 | Socket/Female | 1 1/2 | 1 1/2 | 1 1/2-11 1/2 | Female NPT | 2 | 133.5 | (5.26) | 92.0 | (3.62) | 65 | (2.56) |
| FD96-1002-24-24 | Plug/Male | 1 1/2 | 1 1/2 | 1 1/2-11 1/2 | Female NPT | 1 | 150.0 | (5.91) | 89.8 | (3.54) | 65 | (2.56) |
| FD96-1001-32-32 | Socket/Female | 2 | 2 | 2-11 1/2 | Female NPT | 2 | 224.8 | (8.85) | 200.0 | (7.87) | 90 | (3.54) |
| FD96-1002-32-32 | Plug/Male | 2 | 2 | 2-11 1/2 | Female NPT | 1 | 218.4 | (8.60) | 145.0 | (5.71) | 90 | (3.54) |

Dimensions (Female SAE O-Ring)

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------|---------------|-----------|-----------|--------------|-------------------|------|------------|--------|-------|--------|-------|--------|
| | | | | | | | A | | B | | Hex ① | |
| | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD96-1004-06-04 | Socket/Female | 1/4 | 3/8 | 3/8-18 UNF | Female SAE O-Ring | 2 | 57.1 | (2.25) | 38.8 | (1.53) | 27 | (1.06) |
| FD96-1005-06-04 | Plug/Male | 1/4 | 3/8 | 3/8-18 UNF | Female SAE O-Ring | 1 | 72.8 | (2.87) | 34.8 | (1.37) | 22 | (.87) |
| FD96-1004-08-06 | Socket/Female | 3/8 | 1/2 | 3/4-16 UNF | Female SAE O-Ring | 2 | 70.8 | (2.79) | 41.8 | (1.65) | 30 | (1.18) |
| FD96-1005-08-06 | Plug/Male | 3/8 | 1/2 | 3/4-16 UNF | Female SAE O-Ring | 1 | 87.0 | (3.43) | 37.8 | (1.49) | 27 | (1.06) |
| FD96-1004-12-08 | Socket/Female | 1/2 | 3/4 | 1 1/8-12 UNF | Female SAE O-Ring | 2 | 84.8 | (3.06) | 49.8 | (1.96) | 36 | (1.42) |
| FD96-1005-12-08 | Plug/Male | 1/2 | 3/4 | 1 1/8-12 UNF | Female SAE O-Ring | 1 | 100.4 | (3.95) | 45.8 | (1.80) | 36 | (1.42) |
| FD96-1004-12-12 | Socket/Female | 3/4 | 3/4 | 1 1/8-12 UNF | Female SAE O-Ring | 2 | 84.9 | (3.34) | 53.8 | (2.12) | 41 | (1.61) |
| FD96-1005-12-12 | Plug/Male | 3/4 | 3/4 | 1 1/8-12 UN | Female SAE O-Ring | 1 | 102.0 | (4.02) | 49.8 | (1.96) | 36 | (1.42) |
| FD96-1004-12-16 | Socket/Female | 1 | 3/4 | 1 1/8-12 UN | Female SAE O-Ring | 2 | 99.7 | (3.93) | 58.8 | (2.31) | 46 | (1.81) |
| FD96-1005-12-16 | Plug/Male | 1 | 3/4 | 1 1/8-12 UN | Female SAE O-Ring | 1 | 115.6 | (4.55) | 54.8 | (2.16) | 46 | (1.81) |
| FD96-1004-16-16 | Socket/Female | 1 | 1 | 1 3/8-12 UN | Female SAE O-Ring | 2 | 99.7 | (3.93) | 58.8 | (2.31) | 46 | (1.81) |
| FD96-1005-16-16 | Plug/Male | 1 | 1 | 1 3/8-12 UN | Female SAE O-Ring | 1 | 113.6 | (4.47) | 54.8 | (2.16) | 46 | (1.81) |
| FD96-1004-16-20 | Socket/Female | 1 1/4 | 1 | 1 3/8-12 UN | Female SAE O-Ring | 2 | 105.8 | (4.17) | 69.8 | (2.75) | 55 | (2.17) |
| FD96-1005-16-20 | Plug/Male | 1 1/4 | 1 | 1 3/8-12 UN | Female SAE O-Ring | 1 | 125.4 | (4.94) | 64.5 | (2.54) | 55 | (2.17) |
| FD96-1004-20-20 | Socket/Female | 1 1/4 | 1 1/4 | 1 3/8-12 UN | Female SAE O-Ring | 2 | 106.8 | (4.20) | 69.8 | (2.75) | 55 | (2.17) |
| FD96-1005-20-20 | Plug/Male | 1 1/4 | 1 1/4 | 1 3/8-12 UN | Female SAE O-Ring | 1 | 123.4 | (4.86) | 64.5 | (2.54) | 55 | (2.17) |
| FD96-1004-20-24 | Socket/Female | 1 1/2 | 1 1/4 | 1 3/8-12 UN | Female SAE O-Ring | 2 | 133.5 | (5.26) | 92.0 | (3.62) | 65 | (2.56) |
| FD96-1005-20-24 | Plug/Male | 1 1/2 | 1 1/4 | 1 3/8-12 UN | Female SAE O-Ring | 1 | 150.0 | (5.91) | 89.8 | (3.54) | 65 | (2.56) |
| FD96-1004-24-24 | Socket/Female | 1 1/2 | 1 1/2 | 1 3/8-12 UN | Female SAE O-Ring | 2 | 133.5 | (5.26) | 92.0 | (3.62) | 65 | (2.56) |
| FD96-1005-24-24 | Plug/Male | 1 1/2 | 1 1/2 | 1 3/8-12 UN | Female SAE O-Ring | 1 | 150.0 | (5.91) | 89.8 | (3.54) | 65 | (2.56) |
| FD96-1004-32-32 | Socket/Female | 2 | 2 | 2 1/2-12 UN | Female SAE O-Ring | 2 | 224.8 | (8.85) | 200.0 | (7.87) | 90 | (3.54) |
| FD96-1005-32-32 | Plug/Male | 2 | 2 | 2 1/2-12 UN | Female SAE O-Ring | 1 | 218.4 | (8.60) | 145.0 | (5.71) | 90 | (3.54) |

Dust Caps and Dust Plugs

| Body Size | Part Number | Coupling Type | Cap Material | Body Size | Part Number | Coupling Type | Cap Material |
|-----------|--------------|---------------|--------------|-----------|--------------|---------------|--------------|
| 1/4 | FD96-1009-04 | Socket/Female | Aluminum | 1/4 | FD96-1010-04 | Plug/Male | Aluminum |
| 3/8 | FD96-1009-06 | Socket/Female | Aluminum | 3/8 | FD96-1010-06 | Plug/Male | Aluminum |
| 1/2 | FD96-1009-08 | Socket/Female | Aluminum | 1/2 | FD96-1010-08 | Plug/Male | Aluminum |
| 3/4 | FD96-1009-12 | Socket/Female | Aluminum | 3/4 | FD96-1010-12 | Plug/Male | Aluminum |
| 1 | FD96-1009-16 | Socket/Female | Aluminum | 1 | FD96-1010-16 | Plug/Male | Aluminum |
| 1 1/4 | FD96-1009-20 | Socket/Female | Aluminum | 1 1/4 | FD96-1010-20 | Plug/Male | Aluminum |
| 1 1/2 | FD96-1009-24 | Socket/Female | Aluminum | 1 1/2 | FD96-1010-24 | Plug/Male | Aluminum |
| 2 | FD96-1009-32 | Socket/Female | Aluminum | 2 | FD96-1010-32 | Plug/Male | Aluminum |

MLDB Series (Stainless Steel) Flat Face/Dry Break



Eaton's MLDB Series stainless steel coupling is a flat face/dry break coupling used for fluid transfer applications. The MLDB Series offers the ability to connect with less force, higher sealing performance and are available in multiple configurable end connections.

Product Features

- Designed and manufactured in accordance with Article 3.3 of the European Pressure Equipment Directive PED 201468/EU
- Safety sleeve lock prevents accidental disconnections
- Push to connect with double shut-off valving
- Capable of working under high temperature applications
- Shock-resistant color coding ring option available in 1/2" size
- Serviceable design allows for easy cleaning and seal replacement
- Designed with higher flow capacity and resistance to aggressive fluids and corrosion
- Standard body material: 316/316L Stainless steel corrosion resistant
- Standard seal material: FKM, EPDM, Kalrez® and generic FFKM

Physical Characteristics

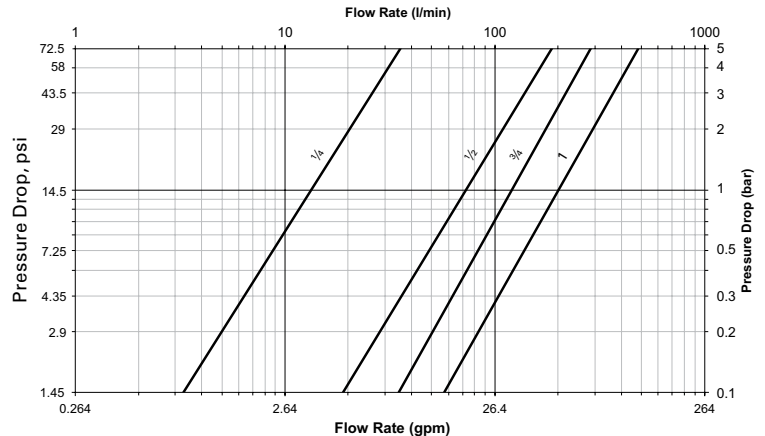
| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Rated* Flow | | Air Inclusion ml-cc. | Fluid Loss ml-cc. | Force to Connect | |
|-------------------|-------------------------------|-------------------------|-------|-------------|-------|-------------------------|----------------------|------------------|-----|
| | | (bar) | (psi) | (lpm) | (gpm) | | | N | lbf |
| 1/4 | 5.9 | 25 | 360 | 15 | 4 | 0.002 | 0.001 | 85 | 19 |
| 1/2 | 11.5 | 25 | 360 | 73 | 19 | 0.012 | 0.025 | 150 | 34 |
| 3/4 | 15.0 | 25 | 360 | 120 | 32 | 0.030 | 0.050 | 170 | 38 |
| 1 | 18.5 | 25 | 360 | 200 | 53 | 0.150 | 0.130 | 180 | 41 |

* Indicated values refer to a 1 bar/14.5 psi pressure drop.

Applications & Markets

- Process/Fluid Transfer
- Cooling
- Corrosive Environments
- Chemicals/ Petrochemicals
- Pharmaceuticals
- Food Processing
- Electrical

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|--------------------------------|----------------------------------|
| FKM | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene) | -40°C +150°C/-40°F +302°F |
| Kalrez® 6375 | -20°C +275°C/-4°F +527°F |
| Generic FFKM (Perfluorocarbon) | -15°C +275°C/+5°F +527°F |

* For reference only, based on Eaton recommended temperatures. Contact Eaton technical support for further information on fluid compatibility

MLDB Series (Stainless Steel) Flat Face/Dry Break

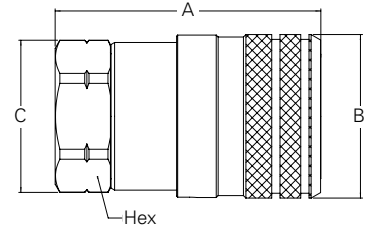


Figure 1

Sockets (Female)

| Part Number | | | | Thread Size*(Female) | | | Dimensions | | | | | | Weight | | | | |
|--------------|-----------------|-----------------|-----------------|----------------------|--------|------|------------|--------|--------|--------|----------|--------|--------|--------|----------|------|-------|
| FKM | EPDM | Kalrez 6375 | Generic FFKM | Body Size | NPT | BSPP | Fig. | A (in) | B (in) | C (in) | Hex (in) | A (mm) | B (mm) | C (mm) | Hex (mm) | lbs | grams |
| ML2DBS25FBS | ML2DBS25FBS292 | ML2DBS25FBS242 | ML2DBS25FBS503 | ¼ | – | ¼-19 | 1 | 1.79 | 1.06 | 0.96 | 0.87 | 45.4 | 26.8 | 24.5 | 22 | 0.26 | 116 |
| ML2DBS25F | ML2DBS25F292 | ML2DBS25F242 | ML2DBS25F503 | ¼ | ¼-18 | | 1 | 1.73 | 1.06 | 0.96 | 0.87 | 43.9 | 26.8 | 24.5 | 22 | 0.26 | 116 |
| ML4DBS50FBS | ML4DBS50FBS292 | ML4DBS50FBS242 | ML4DBS50FBS503 | ½ | – | ½-14 | 1 | 2.44 | 1.5 | 1.4 | 1.26 | 61.9 | 38.2 | 35.5 | 32 | 0.73 | 330 |
| ML4DBS50F | ML4DBS50F292 | ML4DBS50F242 | ML4DBS50F503 | ½ | ½-14 | | 1 | 2.44 | 1.5 | 1.4 | 1.26 | 61.9 | 38.2 | 35.5 | 32 | 0.73 | 330 |
| ML6DBS75FBS | ML6DBS75FBS292 | ML6DBS75FBS242 | ML6DBS75FBS503 | ¾ | – | ¾-14 | 1 | 3.02 | 1.89 | 1.83 | 1.61 | 76.8 | 47.9 | 46.5 | 41 | 1.34 | 610 |
| ML6DBS75F | ML6DBS75F292 | ML6DBS75F242 | ML6DBS75F503 | ¾ | ¾-14 | | 1 | 3.02 | 1.89 | 1.83 | 1.61 | 76.8 | 47.9 | 46.5 | 41 | 1.34 | 610 |
| ML8DBS100FBS | ML8DBS100FBS292 | ML8DBS100FBS242 | ML8DBS100FBS503 | 1 | – | 1-11 | 1 | 3.54 | 2.26 | 2.16 | 1.97 | 89.9 | 57.4 | 54.9 | 50 | 2.31 | 1050 |
| ML8DBS100F | ML8DBS100F292 | ML8DBS100F242 | ML8DBS100F503 | 1 | 1-11 ½ | | 1 | 3.42 | 2.26 | 2.16 | 1.97 | 86.9 | 57.4 | 54.9 | 50 | 2.31 | 1050 |

*Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

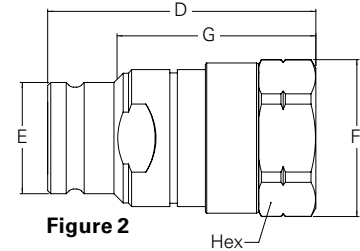


Figure 2

Plugs (Male)

| Part Number | | | | Thread Size*(Female) | | | Dimensions | | | | | | | | | | Weight | | |
|--------------|-----------------|-----------------|-----------------|----------------------|--------|------|------------|--------|--------|--------|--------|----------|--------|--------|--------|--------|----------|------|-------|
| FKM | EPDM | Kalrez® 6375 | Generic FFKM | Body Size | NPT | BSPP | Fig. | D (in) | E (in) | F (in) | G (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Hex (mm) | lbs | grams |
| ML2DBP25FBS | ML2DBP25FBS292 | ML2DBP25FBS242 | ML2DBP25FBS503 | ¼ | – | ¼-19 | 2 | 1.72 | 0.65 | 0.96 | 1.31 | 0.87 | 43.6 | 16.5 | 24.5 | 33.2 | 22 | 0.17 | 78 |
| ML2DBP25F | ML2DBP25F292 | ML2DBP25F242 | ML2DBP25F503 | ¼ | ¼-18 | | 2 | 1.66 | 0.65 | 0.96 | 1.25 | 0.87 | 42.1 | 16.5 | 24.5 | 31.7 | 22 | 0.17 | 78 |
| ML4DBP50FBS | ML4DBP50FBS292 | ML4DBP50FBS242 | ML4DBP50FBS503 | ½ | – | ½-14 | 2 | 2.39 | 0.99 | 1.4 | 1.8 | 1.26 | 60.7 | 25.2 | 35.5 | 45.7 | 32 | 0.46 | 210 |
| ML4DBP50F | ML4DBP50F292 | ML4DBP50F242 | ML4DBP50F503 | ½ | ½-14 | | 2 | 2.39 | 0.99 | 1.4 | 1.8 | 1.26 | 60.7 | 25.2 | 35.5 | 45.7 | 32 | 0.46 | 210 |
| ML6DBP75FBS | ML6DBP75FBS292 | ML6DBP75FBS242 | ML6DBP75FBS503 | ¾ | – | ¾-14 | 2 | 2.97 | 1.29 | 1.83 | 2.11 | 1.61 | 75.5 | 32.8 | 46.5 | 53.6 | 41 | 0.87 | 395 |
| ML6DBP75F | ML6DBP75F292 | ML6DBP75F242 | ML6DBP75F503 | ¾ | ¾-14 | | 2 | 2.97 | 1.29 | 1.83 | 2.11 | 1.61 | 75.5 | 32.8 | 46.5 | 53.6 | 41 | 0.87 | 395 |
| ML8DBP100FBS | ML8DBP100FBS292 | ML8DBP100FBS242 | ML8DBP100FBS503 | 1 | – | 1-11 | 2 | 3.52 | 1.59 | 2.16 | 2.60 | 1.97 | 89.4 | 40.4 | 54.9 | 66.1 | 50 | 1.54 | 700 |
| ML8DBP100F | ML8DBP100F292 | ML8DBP100F242 | ML8DBP100F503 | 1 | 1-11 ½ | | 2 | 3.4 | 1.59 | 2.16 | 2.48 | 1.97 | 86.4 | 40.4 | 54.9 | 63.1 | 50 | 1.54 | 700 |

*Alternative end connections available upon request.

To obtain connected length of coupling, add dimensions A (Fig. 1) and G (Fig. 2) together.

Seal Kit and Tool for Servicing Sockets (Female)

| Body Size | Tool Part Number | Seal Kit Part Number (includes 5 sets) | | Seal Kit Part Number (includes 1 set) | |
|-----------|------------------|--|----------|---------------------------------------|--------------|
| | | FKM | EPDM | Kalrez 6375 | Generic FFKM |
| ¼ | ML2DBS93 | 2DBSG143 | 2DBSG292 | 2DBSG242 | 2DBSG503 |
| ½ | ML4DBS93 | 4DBSG143 | 4DBSG292 | 4DBSG242 | 4DBSG503 |
| ¾ | ML6DBS93 | 6DBSG143 | 6DBSG292 | 6DBSG242 | 6DBSG503 |
| 1 | ML8DBS93 | 8DBSG143 | 8DBSG292 | 8DBSG242 | 8DBSG503 |

For installation instructions, please contact your Eaton sales representative.

Seal Kit for Servicing Plugs (Male)

| Body Size | Seal Kit Part Number (includes 5 sets) | | Seal Kit Part Number (includes 1 set) | |
|-----------|--|----------|---------------------------------------|--------------|
| | FKM | EPDM | Kalrez 6375 | Generic FFKM |
| ¼ | 2DBPG143 | 2DBPG292 | 2DBPG242 | 2DBPG503 |
| ½ | 4DBPG143 | 4DBPG292 | 4DBPG242 | 4DBPG503 |
| ¾ | 6DBPG143 | 6DBPG292 | 6DBPG242 | 6DBPG503 |
| 1 | 8DBPG143 | 8DBPG292 | 8DBPG242 | 8DBPG503 |

For installation instructions, please contact your Eaton sales representative. No tool required for servicing of the plug(male).

Color Coding Ring Option*

| Body Size | Socket/Female Ring** | | Plug/Male Ring** | | Tool Part Number | Tool & Rings Kit Part Number*** |
|-----------|----------------------|-------------|------------------|-------------|------------------|---------------------------------|
| | Color | Part Number | Color | Part Number | | |
| ½ | Blue | CR12FFSLB | Blue | CR12FFPLB | CR4DBSP93 | CRKIT4DB |
| | Red | CR12FFSRD | Red | CR12FFPRD | | |
| | Yellow | CR12FFSYL | Yellow | CR12FFPYL | | |
| | Green | CR12FFSDG | Green | CR12FFPDG | | |

*For requests on other sizes, alternative colors or installation instructions, please contact your Eaton sales representative.

**Orders must be in multiples of 10 pcs.

***The kit consists of a tool plus 10 socket rings and 10 plug rings of each color.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

5100 Series Thread to Connect



Eaton's 5100 Series brass coupling with steel tubular valve offers minimum air inclusion and fluid loss. Thread together latch provides connect under pressure capability and vibration resistance. The 5100 Series is not rated for continuous hydraulic impulse applications. For hydraulic impulse applications, refer to the FD86 and FD96 Series thread to connect product lines.

Product Features

- Tubular valve construction for virtually no fluid loss during disconnection, reduces environmental and worker safety hazards
- Low air inclusion during connection maintains system performance
- Available with wing or hex nut configurations
- Connect against pressure capability allows connecting of halves even when pressurized up to 500 psi
- Steel flange available for accessible bulkhead mounting
- Standard seal material: Buna-N
- Standard body material: Brass body with high resistance carbon steel with zinc trivalent plated valving components, hex and wing nuts

Physical Characteristics

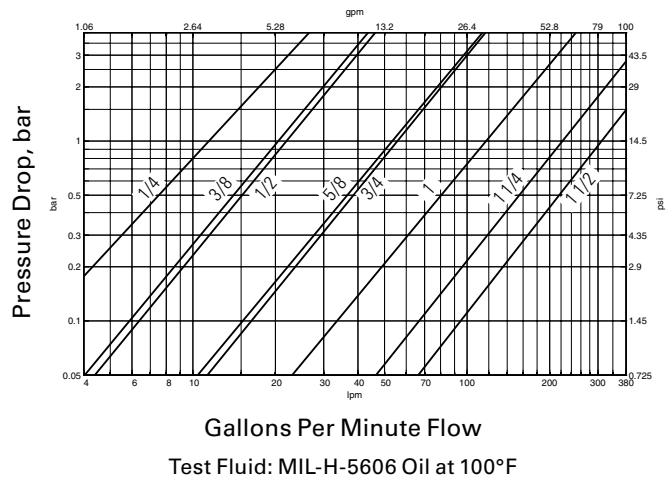
| Body Dash Size | Body Interface Size | Max. Operating Pressure Connected | | Max. Operating Pressure Disconnected | | | | Rated Flow (lpm) | Rated Flow (gpm) | Air Inclusion cc. max. | Fluid Loss cc.max. | |
|----------------|---------------------|-----------------------------------|-------|--------------------------------------|-------|-----------------------|-------|------------------|------------------|------------------------|--------------------|-----------------|
| | | | | Plug/Male Half S2 and S4 | | Socket/Female Half S5 | | | | | | Vacuum (in./Hg) |
| (in) | (in) | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (in./Hg) | (lpm) | (gpm) | cc. max. | cc.max. |
| ¼ | ¼ | 207 | 3,000 | 207 | 3,000 | 207 | 3,000 | 28 | 15 | 4 | .03 | .01 |
| ¾ | ½ | 207 | 3,000 | 207 | 3,000 | 207 | 3,000 | 28 | 26 | 7 | .05 | .06 |
| ½ | ½ | 207 | 3,000 | 207 | 3,000 | 207 | 3,000 | 28 | 26 | 7 | .05 | .10 |
| ¾ | ¾ | 207 | 3,000 | 207 | 3,000 | 207 | 3,000 | 28 | 68 | 18 | .14 | .10 |
| ¾ | ¾ | 207 | 3,000 | 207 | 3,000 | 207 | 3,000 | 28 | 68 | 18 | .34 | .26 |
| 1 | 1 | 207 | 3,000 | 207 | 3,000 | 207 | 3,000 | 28 | 151 | 40 | .50 | .35 |
| 1¼ | 1¼ | 190 | 2,750 | 172 | 2,500 | 190 | 2,750 | 28 | 284 | 75 | .68 | .70 |
| 1½ | 1½ | 172 | 2,500 | 172 | 2,500 | 138 | 2,000 | 28 | 379 | 100 | .60 | .94 |

Applications & Markets

- Hydraulics and Fluid Transfer
- On-highway Hydraulic Wet Lines
- Dump and Refuse Vehicles
- Bulk Liquid Transfer

Flow Data

Pressure Drop Versus Flow Graph



5100 Series Thread to Connect

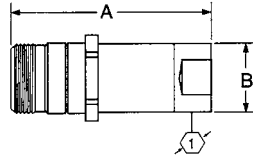


Figure 1

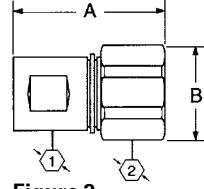


Figure 2

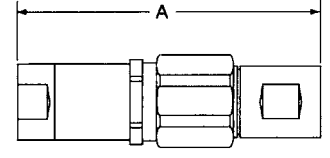


Figure 3

Dimensions (Female NPT, Valved without Flange)

| Part Number Buna-N | Type | Coupling Size | Body Size | Port Thread | Type | Fig. | Dimensions | | B | | Hex ① | | Hex ② | |
|-----------------------|---------------|------------------|--------------|----------------|------------|------|------------|--------|------|--------|-------|--------|-------|--------|
| | | | | | | | A | A | mm | (in) | mm | (in) | mm | (in) |
| 5100-S2-4B | Plug/Male | ¼ | ¾ | ½-27 | Female NPT | 1 | 478 | (1.88) | 22.9 | (.90) | 175 | (.69) | - | - |
| 5110-S5-4B | Socket/Female | ¼ | ¾ | ½-27 | Female NPT | 2 | 53.3 | (2.10) | 33.5 | (1.32) | 14.2 | (.56) | 30.2 | (1.19) |
| 5111-4B | Complete | ¼ | ¾ | ½-27 | Female NPT | 3 | 81.3 | (3.20) | - | - | - | - | - | - |
| 5100-S2-6B | Plug/Male | ⅜ | ¾ | ¼-18 | Female NPT | 1 | 65.5 | (2.58) | 26.7 | 1.05 | 23.9 | (.94) | - | - |
| 5110-S5-6B | Socket/Female | ⅜ | ¾ | ¼-18 | Female NPT | 2 | 61.0 | (2.40) | 38.9 | (1.53) | 19.3 | (.76) | 35.1 | (1.38) |
| 5111-6B | Complete | ⅜ | ¾ | ¼-18 | Female NPT | 3 | 104.4 | (4.11) | - | - | - | - | - | - |
| 5100-S2-8B | Plug/Male | ½ | ¾ | ⅝-18 | Female NPT | 1 | 65.5 | (2.58) | 26.7 | (1.05) | 23.9 | (.94) | - | - |
| 5110-S5-8B | Socket/Female | ½ | ¾ | ⅝-18 | Female NPT | 2 | 61.0 | (2.40) | 38.9 | (1.53) | 19.3 | (.76) | 35.1 | (1.38) |
| 5111-8B | Complete | ½ | ¾ | ⅝-18 | Female NPT | 3 | 104.4 | (4.11) | - | - | - | - | - | - |
| 5100-S2-10B | Plug/Male | ⅝ | ½ | ½-14 | Female NPT | 1 | 79.0 | (3.11) | 35.1 | (1.38) | 30.2 | (1.19) | - | - |
| 5110-S5-10B | Socket/Female | ⅝ | ½ | ½-14 | Female NPT | 2 | 78.0 | (3.07) | 50.3 | (1.98) | 29.5 | (1.16) | 44.5 | (1.75) |
| 5111-10B | Complete | ⅝ | ½ | ½-14 | Female NPT | 3 | 132.3 | (5.21) | - | - | - | - | - | - |
| 5100-S2-12B | Plug/Male | ¾ | ¾ | ¾-14 | Female NPT | 1 | 79.0 | (3.11) | 35.1 | (1.38) | 30.2 | (1.19) | - | - |
| 5110-S5-12B | Socket/Female | ¾ | ¾ | ¾-14 | Female NPT | 2 | 78.0 | (3.07) | 50.3 | (1.98) | 29.5 | (1.16) | 44.5 | (1.75) |
| 5111-12B | Complete | ¾ | ¾ | ¾-14 | Female NPT | 3 | 132.3 | (5.21) | - | - | - | - | - | - |
| 5100-S2-16B | Plug/Male | 1 | 1 | 1-11½ | Female NPT | 1 | 90.2 | (3.55) | 44.2 | (1.74) | 39.6 | (1.56) | - | - |
| 5110-S5-16B | Socket/Female | 1 | 1 | 1-11½ | Female NPT | 2 | 93.5 | (3.68) | 61.2 | (2.41) | 36.6 | (1.44) | 53.8 | (2.12) |
| 5111-16B | Complete | 1 | 1 | 1-11½ | Female NPT | 3 | 151.9 | (5.98) | - | - | - | - | - | - |
| 5100-S2-20B | Plug/Male | 1¼ | 1¼ | 1¼ - 11½ | Female NPT | 1 | 94.2 | (3.71) | 52.8 | (2.08) | 47.8 | (1.88) | - | - |
| 5110-S5-20B | Socket/Female | 1¼ | 1¼ | 1¼ - 11½ | Female NPT | 2 | 101.6 | (4.00) | 58.7 | (2.31) | 45.2 | (1.78) | 63.5 | (2.50) |
| 5111-20B | Complete | 1¼ | 1¼ | 1¼ - 11½ | Female NPT | 3 | 160.3 | (6.31) | - | - | - | - | - | - |
| 5100-S2-24B | Plug/Male | 1½ | 1½ | 1½ - 11½ | Female NPT | 1 | 104.6 | (4.12) | 62.5 | (2.46) | 55.6 | (2.19) | 55.6 | (2.19) |
| 5110-S5-24B | Socket/Female | 1½ | 1½ | 1½ - 11½ | Female NPT | 2 | 104.1 | (4.10) | 78.7 | (3.10) | 50.8 | (2.00) | - | - |
| 5111-24B | Complete | 1½ | 1½ | 1½ - 11½ | Female NPT | 3 | 165.6 | (6.52) | - | - | - | - | - | - |

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

5100 Series Thread to Connect

FLUID TRANSFER
AND HYDRAULIC

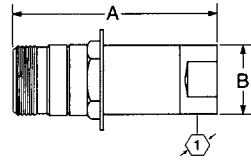


Figure 4

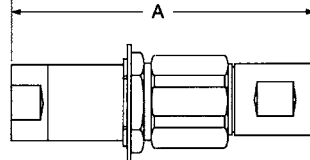


Figure 5

Dimensions (Female NPT, Valved WITH Flange)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions A | | B | | Hex ① | |
|-----------------------|------------------|--------------|--------------|--------|------------|------|-----------------|--------|------|--------|-------|--------|
| | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| 5100-S4-4B | Plug/Male | ¼ | ⅜ | ⅜-27 | Female NPT | 4 | 47.8 | (1.88) | 22.4 | (.88) | 23.3 | (.96) |
| 5110-4B | Complete | ¼ | ⅜ | ⅜-27 | Female NPT | 5 | 81.3 | (3.20) | - | - | - | - |
| 5100-S4-6B | Plug/Male | ⅜ | ½ | ½-18 | Female NPT | 4 | 65.5 | (2.58) | 26.7 | (1.05) | 28.5 | (1.12) |
| 5110-6B | Complete | ⅜ | ½ | ½-18 | Female NPT | 5 | 104.4 | (4.11) | - | - | - | - |
| 5100-S4-8B | Plug/Male | ½ | ¾ | ¾-18 | Female NPT | 4 | 65.5 | (2.58) | 26.7 | (1.05) | 28.5 | (1.12) |
| 5110-8B | Complete | ½ | ¾ | ¾-18 | Female NPT | 5 | 104.4 | (4.11) | - | - | - | - |
| 5100-S4-10B | Plug/Male | ⅝ | ⅞ | ⅞-14 | Female NPT | 4 | 79.0 | (3.11) | 35.2 | (1.35) | 41.2 | (1.62) |
| 5110-10B | Complete | ⅝ | ⅞ | ⅞-14 | Female NPT | 5 | 132.3 | (5.21) | - | - | - | - |
| 5100-S4-12B | Plug/Male | ¾ | 1 | 1-14 | Female NPT | 4 | 79.0 | (3.11) | 35.2 | (1.35) | 41.2 | (1.62) |
| 5110-12B | Complete | ¾ | 1 | 1-14 | Female NPT | 5 | 132.3 | (5.21) | - | - | - | - |
| 5100-S4-16B | Plug/Male | 1 | 1 | 1-11½ | Female NPT | 4 | 90.2 | (3.55) | 44.2 | (1.74) | 47.8 | (1.88) |
| 5100-S4-20B | Plug/Male | 1¼ | 1¼ | 1¼-11½ | Female NPT | 4 | 94.2 | (3.71) | 52.8 | (2.08) | 53.9 | (2.12) |
| 5110-20B | Complete | 1¼ | 1¼ | 1¼-11½ | Female NPT | 5 | 160.3 | (6.31) | - | - | - | - |
| 5100-S4-24B | Plug/Male | 1½ | 1½ | 1½-11½ | Female NPT | 4 | 104.6 | (4.12) | 62.5 | (2.46) | 63.5 | (2.50) |

PNEUMATIC

SPECIAL APPLICATIONS

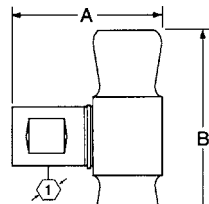


Figure 6

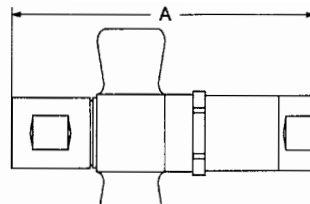


Figure 7

Dimensions (Female NPT, Valved WITH Wing Nut Less Flange)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions A | | B | | Hex ① | |
|-----------------------|------------------|--------------|--------------|--------|-------------|------|-----------------|--------|-------|--------|-------|--------|
| | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| 5100-S5-4B | Socket/Female | ¼ | ⅜ | ⅜-27 | Female NPT | 6 | 53.3 | (2.10) | 77.0 | (3.03) | 14.2 | (.56) |
| 5101-4B | Complete | ¼ | ⅜ | ⅜-27 | Female NPT | 7 | 81.3 | (3.20) | - | - | - | - |
| 5100-S5-6B | Socket/Female | ⅜ | ½ | ½-18 | Female NPT | 6 | 61.0 | (2.40) | 87.4 | (3.44) | 19.3 | (.76) |
| 5101-6B | Complete | ⅜ | ½ | ½-18 | Female NPT | 7 | 104.4 | (4.11) | - | - | - | - |
| 5100-S5-8B | Socket/Female | ½ | ¾ | ¾-18 | Female NPT | 6 | 61.0 | (2.40) | 87.4 | (3.44) | 19.3 | (.76) |
| 5101-8B | Complete | ½ | ¾ | ¾-18 | Female NPT | 7 | 104.4 | (4.11) | - | - | - | - |
| 5100-S5-10B | Socket/Female | ⅝ | ⅞ | ⅞-14 | Female NPT | 6 | 78.0 | (3.07) | 104.9 | (4.13) | 29.5 | (1.16) |
| 5101-10B | Complete | ⅝ | ⅞ | ⅞-14 | Female NPT | 7 | 132.3 | (5.21) | - | - | - | - |
| 5100-S5-12B | Socket/Female | ¾ | 1 | 1-14 | Female NPT | 6 | 78.0 | (3.07) | 104.9 | (4.13) | 29.5 | (1.16) |
| 5101-12B | Complete | ¾ | 1 | 1-14 | Female NPT | 7 | 132.3 | (5.21) | - | - | - | - |
| 5100-S5-16B | Socket/Female | 1 | 1 | 1-11½ | Female NPT | 6 | 93.5 | (3.68) | 111.3 | (4.38) | 36.6 | (1.44) |
| 5101-16B | Complete | 1 | 1 | 1-11½ | Female NPT | 7 | 151.9 | (5.98) | - | - | - | - |
| 5100-S5-20B | Socket/Female | 1¼ | 1¼ | 1¼-11½ | Female Pipe | 6 | 101.6 | (4.00) | 133.9 | (5.27) | 45.2 | (1.78) |
| 5101-20B | Complete | 1¼ | 1¼ | 1¼-11½ | Female NPT | 7 | 160.3 | (6.31) | - | - | - | - |
| 5100-S5-24B | Socket/Female | 1½ | 1½ | 1½-11½ | Female NPT | 6 | 104.1 | (4.10) | 136.7 | (5.38) | 50.8 | (2.00) |
| 5101-24B | Complete | 1½ | 1½ | 1½-11½ | Female NPT | 7 | 165.6 | (6.52) | - | - | - | - |

Note: Uses the 5100-S2 series plug/male half shown on page 49.

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

5100 Series Thread to Connect

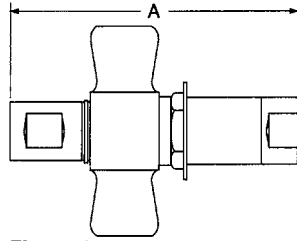


Figure 8

Dimensions (Female NPT, Valved WITH Wing Nut and Flange)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Dimensions Fig. A | |
|-----------------------|------------------|--------------|--------------|--------|------------|----------------------|--------------|
| | | | | | | mm | (in) |
| 5100-4B | Complete | ¼ | ⅛ | ⅛-27 | Female NPT | 8 | 81.3 (3.24) |
| 5100-6B | Complete | ⅜ | ¼ | ¼-18 | Female NPT | 8 | 104.4 (4.11) |
| 5100-8B | Complete | ½ | ⅜ | ⅜-18 | Female NPT | 8 | 104.4 (4.11) |
| 5100-10B | Complete | ⅝ | ½ | ½-14 | Female NPT | 8 | 132.3 (5.21) |
| 5100-12B | Complete | ¾ | ¾ | ¾-14 | Female NPT | 8 | 132.3 (5.21) |
| 5100-16B | Complete | 1 | 1 | 1-11½ | Female NPT | 8 | 151.9 (5.89) |
| 5100-20B | Complete | 1¼ | 1¼ | 1¼-11½ | Female NPT | 8 | 160.3 (6.33) |
| 5100-24B | Complete | 1½ | 1½ | 1½-11½ | Female NPT | 8 | 165.6 (6.54) |

Note: Uses the 5100-S2 series plug/male half shown on page 49.

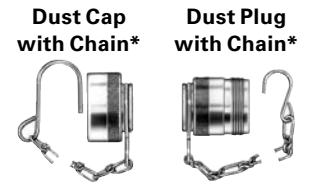
Repair Kits

| Part Number Buna-N | Body Size |
|-----------------------|--------------|
| FF098-04 | ¼ |
| FF098-08 | ⅜ & ½ |
| FF098-12 | ⅝ & ¾ |
| FF098-16 | 1 |
| FF098-20 | 1¼ |
| FF098-24 | 1½ |

Note: Each kit will repair both plug/male and socket/female halves.

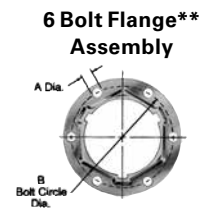
Dust Caps and Dust Plugs

| Part Number Dust Cap with Chain | Dust Plug with Chain | Body Size |
|------------------------------------|----------------------|--------------|
| 5100-S7-5 | 5100-S9-5 | ¼ |
| 5100-S7-8 | 5100-S9-8 | ⅜ & ½ |
| 5100-S7-12 | 5100-S9-12 | ⅝ & ¾ |
| 5100-S7-16 | 5100-S9-16 | 1 |
| 5100-S7-20 | 5100-S9-20 | 1¼ |
| 5100-S7-24 | 5100-S9-24 | 1½ |



6-Bolt Flange Assembly

| Part Number 6-Bolt Flange Assembly | Body Size | Dimensions A | | B | |
|---------------------------------------|--------------|-----------------|--------|------|--------|
| | | mm | (in) | mm | (in) |
| 150-22-5 | ¼ | 5.11 | (.201) | 33.6 | (1.44) |
| 150-22-8 | ⅜ & ½ | 5.11 | (.201) | 42.9 | (1.69) |
| 150-22-12 | ⅝ & ¾ | 5.11 | (.201) | 53.8 | (2.12) |
| 150-22-16 | 1 | 5.11 | (.201) | 60.5 | (2.38) |
| 150-22-20 | 1¼ | 5.11 | (.201) | 66.5 | (2.62) |
| 5100-22-245 | 1½ | 5.11 | (.201) | 82.6 | (3.25) |



*To order caps and plugs without chain, order cap by part number 5100-32-(size) and plug by part number 5100-41-(size).

**6 Bolt Flange-holes equally spaced. (See "A" for bolt hole diameter, and "B" for bolt circle diameter).

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD85 Series Thread to Connect



The Eaton FD85 Series is a thread to connect coupling most commonly used in Oil and Gas applications, but can also be found on demanding applications on both mobile and stationary equipment where operating pressures of 5,000 psi are present.

Product Features

- Thread to connect feature allows for use in high vibration and impulse applications
- Standard body material: Zinc trivalent plated carbon steel. Stainless steel construction available upon request
- Connect under pressure capability up to 5,000 psi (345 bar)
- Standard seal material: Buna-N. FKM seals are available upon request
- Wing nut and hex flat design allows for easy connection and disconnection
- 3/4" design is offered in a hex nut design
- Female NPTF and BSPP ends available

Physical Characteristics

| Body Size (in) | Maximum Operating Pressure | | | | | | Minimum Burst Pressure | | | | | | Rated Flow | | Fluid Loss | | Air Inclusion | |
|----------------|----------------------------|-------|----------------|-------|--------------------|-------|------------------------|--------|----------------|--------|--------------------|--------|------------|------|------------|--------|---------------|--|
| | Connected | | Plug/Male Half | | Socket/Female Half | | Connected | | Plug/Male Half | | Socket/Female Half | | L/min | gpm | ml-cc. | ml-cc. | | |
| | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi | | | | | | |
| 3/4" | 345 | 5,000 | 345 | 5,000 | 345 | 5,000 | 1,380 | 20,000 | 1,380 | 20,000 | 1,380 | 20,000 | 100 | 26.4 | 10 | 10 | | |
| 1" | 345 | 5,000 | 345 | 5,000 | 345 | 5,000 | 1,380 | 20,000 | 1,380 | 20,000 | 1,380 | 20,000 | 189 | 50 | 20 | 26 | | |
| 1 1/4" | 345 | 5,000 | 345 | 5,000 | 345 | 5,000 | 1,035 | 15,000 | 1,035 | 15,000 | 1,035 | 15,000 | 288 | 76 | 20 | 40 | | |
| 1 1/2" | 345 | 5,000 | 345 | 5,000 | 345 | 5,000 | 1,035 | 15,000 | 1,035 | 15,000 | 1,035 | 15,000 | 379 | 100 | 83 | 85 | | |
| 2" | 345 | 5,000 | 345 | 5,000 | 345 | 5,000 | 1,035 | 15,000 | 1,035 | 15,000 | 1,035 | 15,000 | 757 | 200 | 181 | 240 | | |

Applications & Markets

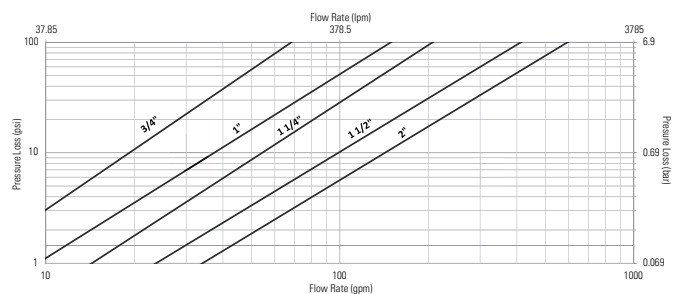
- Oilfields
- Offshore Drilling
- Construction
- Oil and Gas

Lloyd's Register Certification

The FD85 Series carries a Lloyd's Registry Certificate for fire conditions outlined in API 16D and EUB Directive 36. These parts meet the requirements that couplings shall be capable of maintaining pressure when exposed to a 700°C (1,300°F) temperature for a five-minute period in connected state.

Certification only applies to those assemblies where both mating parts socket/female and plug/male are Eaton FD85 Series thread to connect couplings.

Flow Data



FD85 Series Thread to Connect

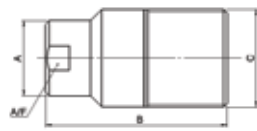


Figure 1

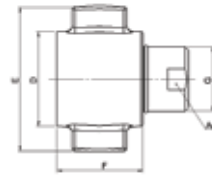


Figure 2

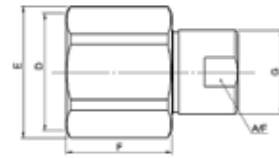


Figure 3

Plugs (Male)

| Part Number | Body Size (in) | Thread Size (Female) | | Fig. | Dimensions | | | | | | | | | Weight | |
|-----------------|----------------|----------------------|--------------|------|------------|--------|--------|--------|--------|--------|----------|----------|--------|--------|--|
| | | NPT | BSPP | | A (in) | B (in) | C (in) | A (mm) | B (mm) | C (mm) | A/F (in) | A/F (mm) | Lbs | grams | |
| FD85-1001-12-12 | 3/4 | 3/4-14 | | 1 | 1.39 | 3.27 | 1.74 | 35.2 | 83.1 | 44.3 | 1 1/3 | 33 | 1.162 | 480 | |
| FD85-1017-12-12 | 3/4 | | G 3/4-14 | 1 | 1.39 | 3.27 | 1.74 | 35.2 | 83.1 | 44.3 | 1 1/3 | 33 | 1.162 | 480 | |
| FD85-1001-16-16 | 1 | 1-11 1/2 | | 1 | 1.77 | 4.17 | 2.25 | 45 | 106 | 57.1 | 1 5/8 | 41 | 2.921 | 1120 | |
| FD85-1017-16-16 | 1 | | G 1-11 | 1 | 1.77 | 4.17 | 2.25 | 45 | 106 | 57.1 | 1 5/8 | 41 | 2.974 | 1120 | |
| FD85-1001-20-20 | 1 1/4 | 1 1/4 - 11 | | 1 | 2.15 | 5.37 | 2.62 | 54.5 | 136.4 | 66.6 | 2 | 50 | 5.633 | 1875 | |
| FD85-1017-20-20 | 1 1/4 | | G 1 1/4 - 11 | 1 | 2.15 | 5.37 | 2.62 | 54.5 | 136.4 | 66.6 | 2 | 50 | 5.633 | 1875 | |
| FD85-1001-24-24 | 1 1/2 | 1 1/2 - 11 1/2 | | 1 | 2.5 | 5.99 | 3.25 | 63.5 | 152.2 | 82.55 | 2 3/8 | 60 | 7.721 | 3150 | |
| FD85-1017-24-24 | 1 1/2 | | G 1 1/2 - 11 | 1 | 2.5 | 5.99 | 3.25 | 63.5 | 152.2 | 82.55 | 2 3/8 | 60 | 7.721 | 3150 | |
| FD85-1001-32-32 | 2 | 2-11 1/2 | | 1 | 3.25 | 7 | 4 | 82.5 | 179.2 | 101.6 | 3 | 76 | 15.046 | 5635 | |
| FD85-1017-32-32 | 2 | | G 2 - 11 | 1 | 3.25 | 7 | 4 | 82.5 | 179.2 | 101.6 | 3 | 76 | 15.046 | 5635 | |

Sockets (Female)

| Part Number | Body Size (in) | Thread Size (Female) | | Fig. | Dimensions | | | | | | | | | Weight | | |
|-----------------|----------------|----------------------|--------------|------|------------|--------|--------|--------|--------|--------|--------|--------|----------|----------|--------|-------|
| | | NPT | BSPP | | D (in) | E (in) | F (in) | G (in) | D (mm) | E (mm) | F (mm) | G (mm) | A/F (in) | A/F (mm) | Lbs | grams |
| FD85-1003-12-12 | 3/4 | 3/4-14 | | 3 | 1.94 | 2.17 | 1.74 | 1.39 | 49.2 | 55 | 44.3 | 35.2 | 1 1/3 | 33 | 1.162 | 527 |
| FD85-1019-12-12 | 3/4 | | G 3/4-14 | 3 | 1.94 | 2.17 | 1.74 | 1.39 | 49.2 | 55 | 44.3 | 35.2 | 1 1/3 | 33 | 1.162 | 527 |
| FD85-1003-16-16 | 1 | 1-11 1/2 | | 2 | 2.68 | 4.25 | 2.2 | 1.77 | 68 | 108 | 56 | 45 | 1 5/8 | 41 | 2.921 | 1325 |
| FD85-1019-16-16 | 1 | | G 1-11 | 2 | 2.68 | 4.25 | 2.2 | 1.77 | 68 | 108 | 56 | 45 | 1 5/8 | 41 | 2.974 | 1349 |
| FD85-1003-20-20 | 1 1/4 | 1 1/4 - 11 | | 2 | 3.15 | 4.72 | 2.8 | 2.15 | 80 | 120 | 71 | 54.5 | 2 | 50 | 5.633 | 2555 |
| FD85-1019-20-20 | 1 1/4 | | G 1 1/4 - 11 | 2 | 3.15 | 4.72 | 2.8 | 2.15 | 80 | 120 | 71 | 54.5 | 2 | 50 | 5.633 | 2555 |
| FD85-1003-24-24 | 1 1/2 | 1 1/2 - 11 1/2 | | 2 | 3.66 | 5.67 | 3.31 | 2.5 | 93 | 144 | 84 | 63.5 | 2 3/8 | 60 | 7.721 | 3502 |
| FD85-1019-24-24 | 1 1/2 | | G 1 1/2 - 11 | 2 | 3.66 | 5.67 | 3.31 | 2.5 | 93 | 144 | 84 | 63.5 | 2 3/8 | 60 | 7.721 | 3502 |
| FD85-1003-32-32 | 2 | 2-11 1/2 | | 2 | 4.67 | 6.67 | 4.35 | 3.25 | 118.6 | 169.4 | 110.5 | 82.5 | 3 | 76 | 15.046 | 6825 |
| FD85-1019-32-32 | 2 | | G 2-11 | 2 | 4.67 | 6.67 | 4.35 | 3.25 | 118.6 | 169.4 | 110.5 | 82.5 | 3 | 76 | 15.046 | 6825 |

Complete Sets

| Part Number | Coupling Type | Body Size | Thread | Fig. |
|-----------------|---------------|-----------|-------------------|-------|
| FD85-1000-12-12 | Complete | 3/4 | 3/4-14 NPTF | 1 & 3 |
| FD85-1016-12-12 | Complete | 3/4 | 3/4-14 BSPP | 1 & 3 |
| FD85-1000-16-16 | Complete | 1 | 1 11-1/2 NPTF | 1 & 2 |
| FD85-1016-16-16 | Complete | 1 | 1 11 BSPP | 1 & 2 |
| FD85-1000-20-20 | Complete | 1 1/4 | 1 1/4 - 11 NPTF | 1 & 2 |
| FD85-1016-20-20 | Complete | 1 1/4 | 1 1/4 - 11 BSPP | 1 & 2 |
| FD85-1000-24-24 | Complete | 1 1/2 | 1 1/2 11-1/2 NPTF | 1 & 2 |
| FD85-1016-24-24 | Complete | 1 1/2 | 1 1/2 11 BSPP | 1 & 2 |
| FD85-1000-32-32 | Complete | 2 | 2 11 1/2 NPTF | 1 & 2 |
| FD85-1016-32-32 | Complete | 2 | 2 11 BSPP | 1 & 2 |

FD86 Series

Thread to Connect

5,000 psi Dry Break – High Impulse



Eaton's FD86 Series is a thread together steel quick coupling offering dry break and high impulse technology and capabilities. The maximum operating pressure is 5,000 psi. The FD86 Series is available in either wing nut or hex nut configurations for ease of assembly and disassembly. (For higher pressure applications and additional size requirements, refer to FD96 on page 44.)

Product Features

- Tubular valve and sleeve construction for low fluid loss and air inclusion
- Thread together design using wing or hex nut allows connection and disconnection against pressures up to 750 psi
- Teflon* back-up rings along with secondary metal-to-metal sealing contact provides high impulse capability up to 5,000 psi operating pressure
- Acme threads prevent galling and provide ease of connection
- Steel flange available for bulkhead mounting
- Standard seal material: Buna-N
- Standard body material: High resistance carbon steel with zinc trivalent plating

Physical Characteristics

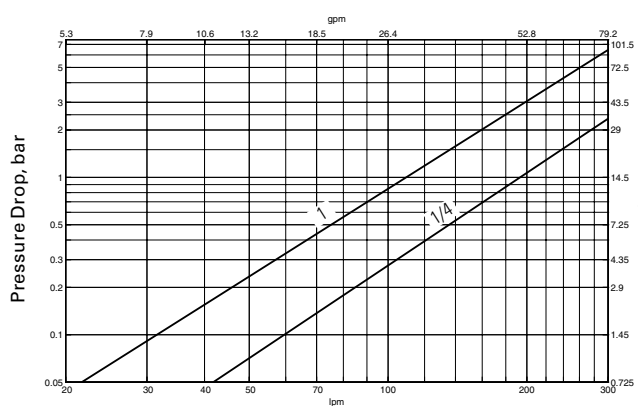
| Body Size (in) | Max. Operating Pressure | | Min. Burst Pressure | | Vacuum Connected Only (in./Hg) | Rated Flow | | Air Inclusion cc. max. | Fluid Loss cc.max. |
|-------------------|-------------------------|-------|---------------------|--------|-----------------------------------|------------|-------|---------------------------|-----------------------|
| | (bar) | (psi) | (bar) | (psi) | | (lpm) | (gpm) | | |
| 1 | 345 | 5,000 | 1,034 | 15,000 | 28 | 189 | 50 | 2.90 | 0.72 |
| 1 1/4 | 345 | 5,000 | 1,034 | 15,000 | 28 | 284 | 75 | 4.61 | 1.00 |

Applications & Markets

- Hydraulic and Fluid Transfer
- Mining Equipment

Flow Data

Pressure Drop Versus Flow Graph



Gallons Per Minute Flow

Test Fluid: MIL-H-5606 Oil at 100°F

FD86 Series

Thread to Connect

5,000 psi Dry Break – High Impulse

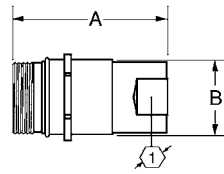


Figure 1

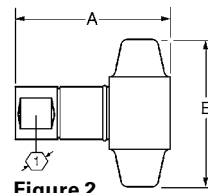


Figure 2

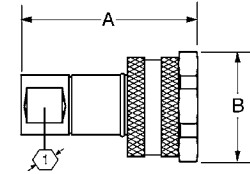


Figure 3

Dimensions (Female SAE O-Ring)

| Part Number | Buna-N | FKM | EPDM | Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------|-----------------|-----------------|---------------|-------|-----------|-----------|----------|-------------------|------|------------|--------|-------|--------|------|--------|
| | | | | | | | | | | A | B | Hex | | | |
| | | | | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD86-1008-16-16 | FD86-1043-16-16 | FD86-1053-16-16 | Plug/Male | 1 | 1% | 1% | 1/8 - 12 | Female SAE O-Ring | 1 | 102.4 | (4.03) | 53.6 | (2.11) | 44.5 | (1.75) |
| FD86-1010-16-16 | FD86-1044-16-16 | FD86-1054-16-16 | Socket/Female | 1 | 1% | 1% | 1/8 - 12 | Female SAE O-Ring | 2 | 117.3 | (4.62) | 114.3 | (4.50) | - | - |
| FD86-1006-16-16 | FD86-1042-16-16 | FD86-1052-16-16 | Socket/Female | 1 | 1% | 1% | 1/8 - 12 | Female SAE O-Ring | 3 | 117.3 | (4.62) | 71.4 | (2.81) | 15.8 | (1.62) |
| FD86-1008-20-20 | FD86-1043-20-20 | FD86-1053-20-20 | Plug/Male | 1 1/4 | 1% | 1% | 1/8 - 12 | Female SAE O-Ring | 1 | 105.7 | (4.16) | 63.0 | (2.48) | 57.2 | (2.25) |
| FD86-1010-20-20 | FD86-1044-20-20 | FD86-1054-20-20 | Socket/Female | 1 1/4 | 1% | 1% | 1/8 - 12 | Female SAE O-Ring | 2 | 132.6 | (5.22) | 133.4 | (5.25) | - | - |
| FD86-1006-20-20 | FD86-1042-20-20 | FD86-1052-20-20 | Socket/Female | 1 1/4 | 1% | 1% | 1/8 - 12 | Female SAE O-Ring | 3 | 132.6 | (5.22) | 86.4 | (3.40) | 50.8 | (2.00) |

Dimensions (Female NPT)

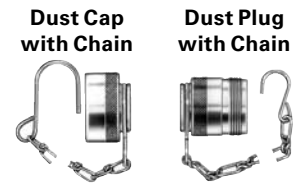
| Part Number | Buna-N | FKM | EPDM | Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------|-----------------|-----------------|---------------|-------|----------------|----------------|----------------|------------|------|------------|--------|-------|--------|------|--------|
| | | | | | | | | | | A | B | Hex | | | |
| | | | | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD86-1002-16-16 | FD86-1040-16-16 | FD86-1050-16-16 | Plug/Male | 1 | 1 - 11 1/2 | 1 - 11 1/2 | 1 - 11 1/2 | Female NPT | 1 | 111.8 | (4.40) | 53.6 | (2.11) | 44.5 | (1.75) |
| FD86-1001-16-16 | FD86-1039-16-16 | FD86-1049-16-16 | Socket/Female | 1 | 1 - 11 1/2 | 1 - 11 1/2 | 1 - 11 1/2 | Female NPT | 2 | 126.5 | (4.98) | 114.3 | (4.50) | - | - |
| FD86-1004-16-16 | FD86-1041-16-16 | FD86-1051-16-16 | Socket/Female | 1 | 1 - 11 1/2 | 1 - 11 1/2 | 1 - 11 1/2 | Female NPT | 3 | 126.5 | (4.98) | 71.4 | (2.81) | 15.8 | (1.62) |
| FD86-1002-20-20 | FD86-1040-20-20 | FD86-1050-20-20 | Plug/Male | 1 1/4 | 1 1/4 - 11 1/2 | 1 1/4 - 11 1/2 | 1 1/4 - 11 1/2 | Female NPT | 1 | 112.5 | (4.43) | 63.0 | (2.48) | 57.2 | (2.25) |
| FD86-1001-20-20 | FD86-1039-20-20 | FD86-1049-20-20 | Socket/Female | 1 1/4 | 1 1/4 - 11 1/2 | 1 1/4 - 11 1/2 | 1 1/4 - 11 1/2 | Female NPT | 2 | 142.8 | (5.62) | 133.4 | (5.25) | - | - |
| FD86-1004-20-20 | FD86-1041-20-20 | FD86-1051-20-20 | Socket/Female | 1 1/4 | 1 1/4 - 11 1/2 | 1 1/4 - 11 1/2 | 1 1/4 - 11 1/2 | Female NPT | 3 | 142.8 | (5.62) | 86.4 | (3.40) | 50.8 | (2.00) |

Repair Kits

| Part Number | Buna-N | FKM | EPDM | Body Size | Coupling Type |
|-------------|------------|------------|------------|-----------|---------------|
| FF10596-16 | FF10596-16 | FF10597-16 | FF10598-16 | 1 | Male |
| FF10593-16 | FF10593-16 | FF10594-16 | FF10595-16 | 1 | Female |
| FF10596-20 | FF10596-20 | FF10597-20 | FF10598-20 | 1 1/4 | Male |
| FF10593-20 | FF10593-20 | FF10594-20 | FF10595-20 | 1 1/4 | Female |

Dust Caps and Dust Plugs

| Part Number | Dust Cap with Chain | Dust Plug with Chain | Body Size |
|--------------|---------------------|----------------------|-----------|
| FD86-1018-16 | FD86-1018-16 | FD86-1016-16 | 1 |
| FD86-1018-20 | FD86-1018-20 | FD86-1016-20 | 1 1/4 |



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

W46000 Series

FLUID TRANSFER
AND HYDRAULIC



Eaton's W46000 Series is a wing nut style screw to connect coupling used in hydraulic applications.

PNEUMATIC

Product Features

- Wing nut screw to connect
- Plug/Male half has bulkhead mount capability
- Metal dust caps and dust plugs
- Standard body material: Zinc trivalent plated steel
- Standard seal material: Nitrile

SPECIAL APPLICATIONS

Physical Characteristics

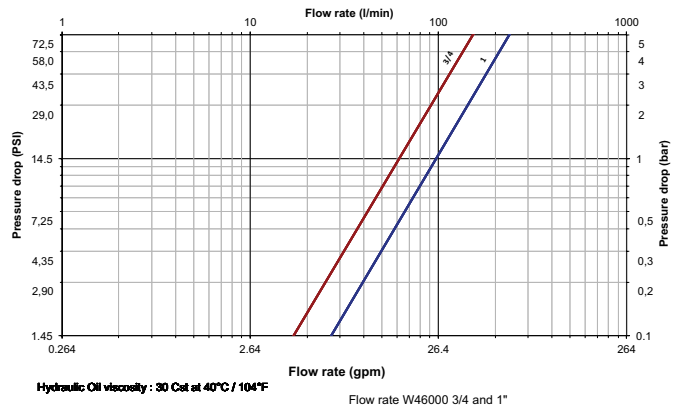
| Coupling Size (in) | DN/ND | Max. Operating Pressure | | Min. Burst Pressure | | Rated Flow | | Air Inclusion |
|-----------------------|-------|-------------------------|-------|---------------------|-------|------------|-------|---------------|
| | | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) | ml max |
| 3/4 | 16 | 250 | 3625 | 1200 | 17404 | 63 | 16,7 | 10 |
| 1 | 20 | 230 | 3335 | 800 | 11603 | 99 | 26,0 | 15 |

DIAGNOSTIC

Applications & Markets

- Hydraulic Circuits

Flow Data



AGRICULTURE

| Size (in) | DN/ND | Socket/Female | Socket Dust Plug Only | Coupling Type | Connection | Fig. | Dimensions | | |
|--------------|-------|---------------|-----------------------|---------------|------------|------|------------|-----------|---------------|
| | | | | | | | L1 (mm) | 1 (mm) | Hex 1 (mm) |
| 3/4 | 16 | WA4604700 | WA4614700 | Socket/Female | G 3/4 | 1 | 77 | M5 | 33 |
| 1 | 20 | WA4605700 | WA4615700 | Socket/Female | G 1 | 1 | 83 | M6 | 40 |

| Size (in) | DN/ND | Socket/Female | Socket Dust Plug Only | Coupling Type | Connection | Fig. | Dimensions | | | |
|--------------|-------|---------------|-----------------------|---------------|------------|------|------------|-----------|---------------|---------------|
| | | | | | | | L2 (mm) | 2 (mm) | Hex 2 (mm) | Hex 3 (mm) |
| 3/4 | 16 | WA4604400 | WA4614400 | Plug/Male | G 3/4 | 2 | 78 | G 1" 1/4 | 46 | 50 |
| 1 | 20 | WA4605400 | WA4615400 | Plug/Male | G 1 | 2 | 83 | G 1" 1/4 | 55 | 50 |

REFRIGERANT

W36000 Series Thread-to-Connect



Eaton's W36000 Series is a screw-to-connect quick disconnect coupling. Due to its design and the materials used, the W36000 Series quick disconnect coupling has excellent resistance to mechanical and hydraulic applications where vibration is present. The inner components of sizes 3/4", 1" & 1 1/4" have a robust construction to withstand the harsh application needs. Additionally, the plug sleeve ensures protection of the sealing area upon disconnection.

Product Features

- Designed and manufactured in accordance with Article 3.3 of the European Pressure Equipment Directive PED 2014/68/EU
- Proprietary profile
- Thread-to-connect with double shut-off valving
- Can be connected against 50 bar (725 psi) residual pressure
- Optional dust caps and plugs (PVC or aluminum)
- An alternative version can be offered with a safety feature which minimizes the risk of unscrewing in conditions of heavy vibration
- O-ring indication allows checking that connection is complete (thus guaranteeing full flow)
- Standard body material: Zinc trivalent plated steel
- Standard seal material: NBR

Physical Characteristics

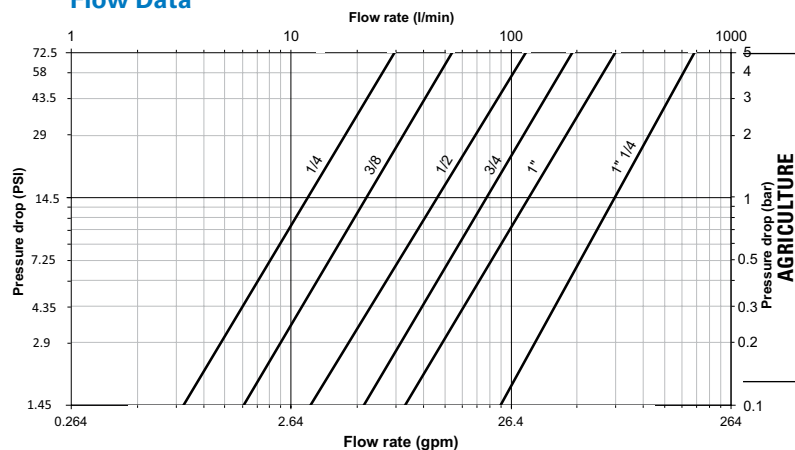
| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Max. Residual Pressure during Connection | | Rated Flow* | |
|-------------------|-------------------------------|-------------------------|-------------------|--|-------|-------------|-------|
| | | bar | (psi) | bar | (psi) | L/min | (gpm) |
| 1/4 | 5.3 | 450 | 6525 | 50 | 725 | 12 | 3.17 |
| 3/8 | 7.3 | 450 | 6525 | 50 | 725 | 21 | 5.55 |
| 1/2 | 10.2 | 400** 250*** | 5800** 3625*** | 50 | 725 | 43 | 11.36 |
| 3/4 | 13.0 | 400 | 5800 | 50 | 725 | 77 | 20.34 |
| 1 | 16.9 | 300 | 4350 | 50 | 725 | 120 | 31.70 |
| 1 1/4 | 22.4 | 300 | 4350 | 50 | 725 | 300 | 79.25 |

* Indicated values refer to a 1 bar / 14.5 psi pressure drop.
 ** Operating pressures apply to BSPP and NPT threads.
 *** For ISO 8434-1 end connections.

Applications & Markets

- Construction
- Agriculture
- Forestry Machinery
- Snow-grooming Machines

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|----------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |

* For reference only, based on Eaton recommended temperatures. Contact Eaton technical support for further information on fluid compatibility.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

W36000 Series Thread-to-Connect

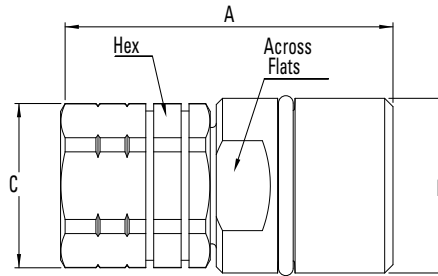


Figure 1

Sockets (Female) with Internal Thread

| Part Number* | Body Size | Nominal Flow Diameter | Thread Size* (Female) | BSPP | Fig. | Dimensions | | | | | | Weight | | | | | |
|--------------|-----------|-----------------------|-----------------------|--------|------|------------|--------|--------|-------------------|----------|--------|--------|--------|-------------------|----------|------|-------|
| | | | | | | A (in) | B (in) | C (in) | Across Flats (in) | Hex (in) | A (mm) | B (mm) | C (mm) | Across Flats (mm) | Hex (mm) | lbs | grams |
| WA3601700 | ¼ | 5.3 | - | ¼-19 | 1 | 2.28 | 0.94 | 0.94 | 0.87 | 0.87 | 58 | M24x2 | 24 | 22 | 22 | 0.26 | 117 |
| WA3621725 | ¼ | 5.3 | ¼-18 | - | 1 | 2.28 | 0.94 | 0.94 | 0.87 | 0.87 | 58 | M24x2 | 24 | 22 | 22 | 0.30 | 138 |
| WA3602725BS | ¾ | 7.3 | - | ¼-19 | 1 | 2.40 | 1.10 | 0.94 | 0.94 | 0.87 | 61 | M28x2 | 24 | 24 | 22 | 0.36 | 163 |
| WA3622725 | ¾ | 7.3 | ¼-18 | - | 1 | 2.40 | 1.10 | 0.94 | 0.94 | 0.87 | 61 | M28x2 | 24 | 24 | 22 | 0.36 | 165 |
| WA3602700 | ¾ | 7.3 | - | ¾-19 | 1 | 2.40 | 1.10 | 0.94 | 0.94 | 0.87 | 61 | M28x2 | 24 | 24 | 22 | 0.34 | 156 |
| WA3622737 | ¾ | 7.3 | ¾-18 | - | 1 | 2.40 | 1.10 | 0.94 | 0.94 | 0.87 | 61 | M28x2 | 24 | 24 | 22 | 0.35 | 158 |
| WA3603737BS | ½ | 10.2 | - | ¾-19 | 1 | 2.84 | 1.42 | 1.18 | 1.61(Hex) | 1.06 | 72 | M36x2 | 30 | 41(Hex) | 27 | 0.82 | 370 |
| WA3623737 | ½ | 10.2 | ¾-18 | - | 1 | 2.84 | 1.42 | 1.18 | 1.61(Hex) | 1.06 | 72 | M36x2 | 30 | 41(Hex) | 27 | 0.82 | 372 |
| WA3603700 | ½ | 10.2 | - | ½-14 | 1 | 2.95 | 1.42 | 1.18 | 1.61(Hex) | 1.06 | 75 | M36x2 | 30 | 41(Hex) | 27 | 0.79 | 360 |
| WA3623750 | ½ | 10.2 | ½-14 | - | 1 | 2.95 | 1.42 | 1.18 | 1.61(Hex) | 1.06 | 75 | M36x2 | 30 | 41(Hex) | 27 | 0.80 | 361 |
| WA3604750BS | ¾ | 13 | - | ½-14 | 1 | 3.15 | 1.65 | 1.57 | 1.42 | 1.42 | 80 | M42x2 | 40 | 36 | 36 | 1.06 | 480 |
| WA3624750 | ¾ | 13 | ½-14 | - | 1 | 3.15 | 1.65 | 1.57 | 1.42 | 1.42 | 80 | M42x2 | 40 | 36 | 36 | 1.07 | 484 |
| WA3604700 | ¾ | 13 | - | ¾-14 | 1 | 3.15 | 1.65 | 1.57 | 1.42 | 1.42 | 80 | M42x2 | 40 | 36 | 36 | 1.03 | 466 |
| WA3624775 | ¾ | 13 | ¾-14 | - | 1 | 3.15 | 1.65 | 1.57 | 1.42 | 1.42 | 80 | M42x2 | 40 | 36 | 36 | 1.04 | 472 |
| WA3605775BS | 1 | 16.9 | - | ¾-14 | 1 | 3.78 | 1.89 | 1.81 | 1.65 | 1.65 | 96 | M48x3 | 46 | 42 | 42 | 1.62 | 735 |
| WA3625775 | 1 | 16.9 | ¾-14 | - | 1 | 3.78 | 1.89 | 1.81 | 1.65 | 1.65 | 96 | M48x3 | 46 | 42 | 42 | 1.63 | 741 |
| WA3605700 | 1 | 16.9 | - | 1-11 | 1 | 3.78 | 1.89 | 1.81 | 1.65 | 1.65 | 96 | M48x3 | 46 | 42 | 42 | 1.51 | 684 |
| WA36257100 | 1 | 16.9 | 1-11 ½ | - | 1 | 3.78 | 1.89 | 1.81 | 1.65 | 1.65 | 96 | M48x3 | 46 | 42 | 42 | 1.53 | 694 |
| WA3606700 | 1 ¼ | 22.4 | - | 1 ¼-11 | 1 | 4.96 | 2.76 | 2.83 | 2.56 | 2.56 | 126 | M70x3 | 72 | 65 | 65 | 4.82 | 2185 |
| WA36267125 | 1 ¼ | 22.4 | 1 ¼-11 ½ | - | 1 | 4.96 | 2.76 | 2.83 | 2.56 | 2.56 | 126 | M70x3 | 72 | 65 | 65 | 4.87 | 2207 |
| WA36067150BS | 1 ¼ | 22.4 | - | 1 ½-11 | 1 | 4.96 | 2.76 | 2.83 | 2.56 | 2.56 | 126 | M70x3 | 72 | 65 | 65 | 4.63 | 2101 |
| WA36267150 | 1 ¼ | 22.4 | 1 ½-11 ½ | - | 1 | 4.96 | 2.76 | 2.83 | 2.56 | 2.56 | 126 | M70x3 | 72 | 65 | 65 | 4.68 | 2121 |

* Alternative end connections upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and K (Fig. 3) or O (Fig. 4) together.

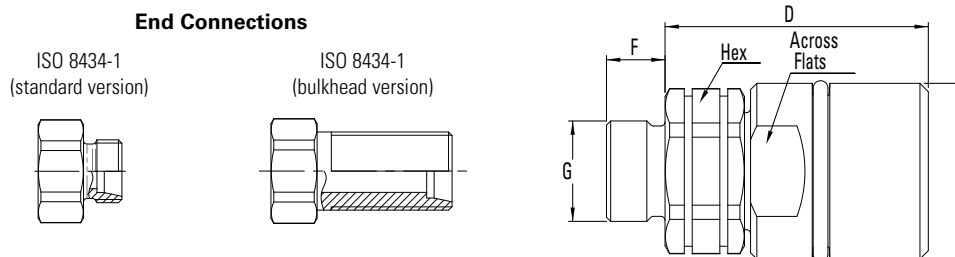


Figure 2

Sockets (Female) with External Thread

| Part Number | Body Size | Nominal Flow Diameter | Thread Size* (Male) | Fig. | Dimensions | | | | | | Weight | | | | | | | |
|--------------|-----------|-----------------------|------------------------|------|------------|--------|--------|--------|-------------------|----------|--------|--------|--------|---------|-------------------|----------|------|-------|
| | | | | | D (in) | E (in) | F (in) | G (in) | Across Flats (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Across Flats (mm) | Hex (mm) | lbs | grams |
| WA3633708L | ½ | 10.2 | M14x1.5 - 8L | 2 | 2.32 | 1.42 | 0.39 | 0.55 | 1.61(Hex) | 1.06 | 59 | M36x2 | 10 | M14x1.5 | 41(Hex) | 27 | 0.73 | 330 |
| WA3633710L | | | M16x1.5 - 10L | 2 | 2.28 | 1.42 | 0.43 | 0.63 | 1.61(Hex) | 1.06 | 58 | M36x2 | 11 | M16x1.5 | 41(Hex) | 27 | 0.72 | 328 |
| WA3633712L | | | M18x1.5 - 12L | 2 | 2.28 | 1.42 | 0.43 | 0.71 | 1.61(Hex) | 1.06 | 58 | M36x2 | 11 | M18x1.5 | 41(Hex) | 27 | 0.73 | 330 |
| WA3633715L | | | M22x1.5 - 15L | 2 | 2.24 | 1.42 | 0.47 | 0.87 | 1.61(Hex) | 1.06 | 57 | M36x2 | 12 | M22x1.5 | 41(Hex) | 27 | 0.77 | 350 |
| WA3633715LBH | | | M22x1.5 - 15L Bulkhead | 2 | 2.28 | 1.42 | 1.50 | 0.87 | 1.61(Hex) | 1.06 | 58 | M36x2 | 38 | M22x1.5 | 41(Hex) | 27 | 0.85 | 385 |

* Alternative end connections upon request.

** Light L series = working pressure 250 bar/3625 psi max.

To obtain connected length of coupling add dimensions D (Fig. 2) and K (Fig. 3) or O (Fig. 4) together.

W36000 Series Thread-to-Connect

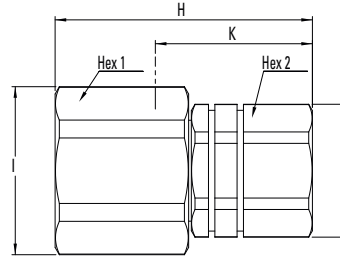


Figure 3

Plugs (Male) with Internal Thread

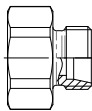
| Part Number | Body Size | Nominal Flow Diameter | | Thread Size* (Female) | | Dimensions | | | | | | | | | | | Weight | | |
|--------------|-----------|-----------------------|--------|-----------------------|------|------------|--------|--------|--------|--------|------------|------------|--------|--------|--------|--------|------------|------------|------|
| | | (in) | (mm) | NPT | BSPP | Fig. | H (in) | I (in) | J (in) | K (in) | Hex 1 (in) | Hex 2 (in) | H (mm) | I (mm) | J (mm) | K (mm) | Hex 1 (mm) | Hex 2 (mm) | lbs |
| WA3601400 | ¼ | 5.3 | - | ¼-19 | 3 | 2.17 | 1.26 | 0.94 | 1.22 | 1.14 | 0.87 | 55 | 32 | 24 | 31 | 29 | 22 | 0.41 | 184 |
| WA3621425 | ¼ | 5.3 | ¼-18 | - | 3 | 2.17 | 1.26 | 0.94 | 1.22 | 1.14 | 0.87 | 55 | 32 | 24 | 31 | 29 | 22 | 0.33 | 150 |
| WA3602425BS | ¾ | 7.3 | - | ¼-19 | 3 | 2.28 | 1.38 | 0.94 | 1.26 | 1.26 | 0.87 | 58 | 35 | 24 | 32 | 32 | 22 | 0.36 | 164 |
| WA3622425 | ¾ | 7.3 | ¼-18 | - | 3 | 2.28 | 1.38 | 0.94 | 1.26 | 1.26 | 0.87 | 58 | 35 | 24 | 32 | 32 | 22 | 0.37 | 166 |
| WA3602400 | ¾ | 7.3 | - | ¾-19 | 3 | 2.28 | 1.38 | 0.94 | 1.26 | 1.26 | 0.87 | 58 | 35 | 24 | 32 | 32 | 22 | 0.35 | 158 |
| WA3622437 | ¾ | 7.3 | ¾-18 | - | 3 | 2.28 | 1.38 | 0.94 | 1.26 | 1.26 | 0.87 | 58 | 35 | 24 | 32 | 32 | 22 | 0.35 | 160 |
| WA3603437BS | ½ | 10.2 | - | ¾-19 | 3 | 2.52 | 1.77 | 1.18 | 1.46 | 1.61 | 1.06 | 64 | 45 | 30 | 37 | 41 | 27 | 0.61 | 276 |
| WA3623437 | ½ | 10.2 | ¾-18 | - | 3 | 2.52 | 1.77 | 1.18 | 1.46 | 1.61 | 1.06 | 64 | 45 | 30 | 37 | 41 | 27 | 0.61 | 278 |
| WA3603400 | ½ | 10.2 | - | ½-14 | 3 | 2.60 | 1.77 | 1.18 | 1.57 | 1.61 | 1.06 | 66 | 45 | 30 | 40 | 41 | 27 | 0.60 | 271 |
| WA3623450 | ½ | 10.2 | ½-14 | - | 3 | 2.60 | 1.77 | 1.18 | 1.57 | 1.61 | 1.06 | 66 | 45 | 30 | 40 | 41 | 27 | 0.60 | 273 |
| WA3604450BS | ¾ | 13.0 | - | ½-14 | 3 | 3.03 | 1.97 | 1.57 | 1.85 | 1.81 | 1.42 | 77 | 50 | 40 | 47 | 46 | 36 | 1.01 | 456 |
| WA3624450 | ¾ | 13.0 | ½-14 | - | 3 | 3.03 | 1.97 | 1.57 | 1.85 | 1.81 | 1.42 | 77 | 50 | 40 | 47 | 46 | 36 | 1.01 | 460 |
| WA3604400 | ¾ | 13.0 | - | ¾-14 | 3 | 3.03 | 1.97 | 1.57 | 1.85 | 1.81 | 1.42 | 77 | 50 | 40 | 47 | 46 | 36 | 0.97 | 442 |
| WA3624475 | ¾ | 13.0 | ¾-14 | - | 3 | 3.03 | 1.97 | 1.57 | 1.85 | 1.81 | 1.42 | 77 | 50 | 40 | 47 | 46 | 36 | 0.99 | 448 |
| WA3605475BS | 1 | 16.9 | - | ¾-14 | 3 | 3.62 | 2.36 | 1.81 | 2.24 | 2.17 | 1.65 | 92 | 60 | 46 | 57 | 55 | 42 | 1.77 | 805 |
| WA3625475 | 1 | 16.9 | ¾-14 | - | 3 | 3.62 | 2.36 | 1.81 | 2.24 | 2.17 | 1.65 | 92 | 60 | 46 | 57 | 55 | 42 | 1.79 | 811 |
| WA3605400 | 1 | 16.9 | - | 1-11 | 3 | 3.62 | 2.36 | 1.81 | 2.24 | 2.17 | 1.65 | 92 | 60 | 46 | 57 | 55 | 42 | 1.66 | 751 |
| WA36254100 | 1 | 16.9 | 1-11½ | - | 3 | 3.62 | 2.36 | 1.81 | 2.24 | 2.17 | 1.65 | 92 | 60 | 46 | 57 | 55 | 42 | 1.68 | 761 |
| WA3606400 | 1¼ | 22.4 | - | 1¼-11 | 3 | 4.72 | 3.50 | 2.83 | 2.76 | 3.03 | 2.56 | 120 | 89 | 72 | 70 | 77 | 65 | 5.56 | 2520 |
| WA36264125 | 1¼ | 22.4 | 1¼-11½ | - | 3 | 4.72 | 3.50 | 2.83 | 2.76 | 3.03 | 2.56 | 120 | 89 | 72 | 70 | 77 | 65 | 5.60 | 2542 |
| WA36064150BS | 1¼ | 22.4 | - | 1½-11 | 3 | 4.72 | 3.50 | 2.83 | 2.76 | 3.03 | 2.56 | 120 | 89 | 72 | 70 | 77 | 65 | 5.37 | 2436 |
| WA36264150 | 1¼ | 22.4 | 1½-11½ | - | 3 | 4.72 | 3.50 | 2.83 | 2.76 | 3.03 | 2.56 | 120 | 89 | 72 | 70 | 77 | 65 | 5.41 | 2456 |

* Alternative end connections upon request.

To obtain connected length of coupling add dimensions K (Fig. 3) and A (Fig. 1) or D (Fig. 2) together.

End Connections

ISO 8434-1
(standard version)



ISO 8434-1
(bulkhead version)

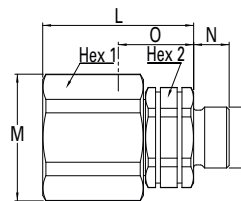
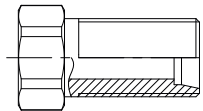


Figure 4

Plugs (Male) with External Thread

| Part Number | Body Size | Nominal Flow Diameter | | Thread Size* (Male) | | Dimensions | | | | | | | | | | | Weight | | | |
|--------------|-----------|-----------------------|------------------------|---------------------|------|------------|--------|--------|--------|--------|------------|------------|--------|--------|--------|---------|--------|------------|------------|-----|
| | | (in) | (mm) | ISO 8434-1** | Fig. | L (in) | M (in) | N (in) | O (in) | P (in) | Hex 1 (in) | Hex 2 (in) | L (mm) | M (mm) | N (mm) | O (mm) | P (mm) | Hex 1 (mm) | Hex 2 (mm) | lbs |
| WA3633408L | ½ | 10.2 | M14x1.5 - 8L | 4 | 1.93 | 1.77 | 0.39 | 1.42 | 0.55 | 1.61 | 1.06 | 49 | 45 | 10 | 36 | M14x1.5 | 41 | 27 | 0.56 | 255 |
| WA3633410L | | | M16x1.5 - 10L | 4 | 1.93 | 1.77 | 0.43 | 1.42 | 0.63 | 1.61 | 1.06 | 49 | 45 | 11 | 36 | M16x1.5 | 41 | 27 | 0.56 | 253 |
| WA3633412L | | | M18x1.5 - 12L | 4 | 1.93 | 1.77 | 0.43 | 1.42 | 0.71 | 1.61 | 1.06 | 49 | 45 | 11 | 36 | M18x1.5 | 41 | 27 | 0.56 | 255 |
| WA3633415L | | | M22x1.5 - 15L | 4 | 1.93 | 1.77 | 0.47 | 1.42 | 0.87 | 1.61 | 1.06 | 49 | 45 | 12 | 36 | M22x1.5 | 41 | 27 | 0.61 | 275 |
| WA3633415LBH | | | M22x1.5 - 15L Bulkhead | 4 | 1.93 | 1.77 | 1.50 | 1.42 | 0.87 | 1.61 | 1.06 | 49 | 45 | 38 | 36 | M22x1.5 | 41 | 27 | 0.68 | 310 |

* Alternative end connections upon request.

** Light L series = working pressure 250 bar/3625 psi max.

To obtain connected length of coupling add dimensions O (Fig. 4) and A (Fig. 1) or D (Fig. 2) together.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

W36000 Series Thread-to-Connect

Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part Number | | Plug Dust Cap Part Number | |
|-------------------|------------------------------|-----------|---------------------------|-----------|
| | Anodized Aluminum | PVC | Anodized Aluminum | PVC |
| ¼ | WD3611700 | WP3611700 | WD3611400 | WP3611400 |
| ⅜ | WD3612700 | WP3612700 | WD3612400 | WP3612400 |
| ½ | WD3613700 | WP3613700 | WD3613400 | WP3613400 |
| ¾ | WD3614700 | WP3614700 | WD3614400 | WP3614400 |
| 1 | WD3615700 | WP3615700 | WD3615400 | WP3615400 |
| 1 ¼ | WD3616700 | WP3616700 | WD3616400 | WP3616400 |

For installation instructions, please contact your Eaton sales representative



Metal Socket Dust Plug



Metal Plug Dust Cap



PVC Socket Dust Plug



PVC Plug Dust Cap

Seal Kit for Servicing Sockets (Female)

| Body Size (in) | Seal & Back-up Ring Kit* | NBR seals & PTFE back-up rings |
|-------------------|--------------------------|--------------------------------|
| | Part Number | |
| ¼ | WG3601700 | 10 seals + 10 back-up rings |
| ⅜ | WG3602700 | 10 seals + 10 back-up rings |
| ½ | WG3603700 | 10 seals + 10 back-up rings |
| ¾ | WG3604700 | 5 seals + 5 back-up rings |
| 1 | WG3605700 | 5 seals + 5 back-up rings |
| 1 ½ | WG3606700 | 1 seal + 1 back-up ring |

* The valve seal is not included in our repair kits

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

GA90090 Series



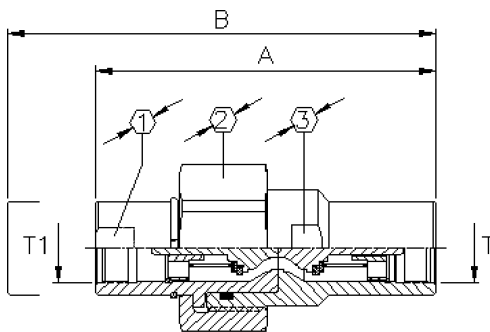
Eaton's high pressure hydraulic coupling GA90090 was engineered to perform in applications that require the highest level of performance. Working pressure of up to 420 bar (6,000psi) in all sizes. One of the most demanding applications is the drill hammer used in construction.

Product Features

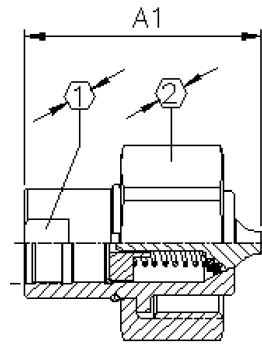
- Maximum working pressure up to 420 bar [6000 psi] in all sizes
- Available in size -8, -10, and -12
- Available thread configurations: Metric, UN, and BSP
- Self-sealing features guarantee minimum air inclusion and loss of fluid
- Connection via adapter
- Detachable under pressure
- Long lifetime in dynamic applications
- Works in applications where higher pressures are needed
- Exceeds the requirements of ISC7241/1
- Standard model available in Zinc plated steel

Applications & Markets

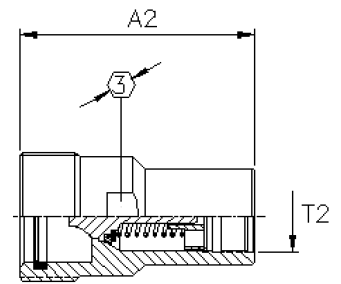
- High-pressure hydraulic systems and fluid transfer used in the construction, agriculture and forestry markets
- Dynamic hydraulic applications like the drilling hammer



Connected Coupling



Male Half



Female Half

Metric Thread

| Size | DN | Coupling | Thread | A | B | Hex 1 | Hex 2 | Hex 3 |
|------|----|------------|---------|-------|-------|-------|-------|-------|
| | | | | (mm) | (mm) | (mm) | (mm) | (mm) |
| -8 | 12 | GA90090-8 | M22x1,5 | 89.1 | 105 | 27 | 41 | 27 |
| -12 | 16 | GA90090-12 | M30x1,5 | 143.6 | 183 | 36 | 65 | 46 |
| -16 | 20 | GA90090-16 | M38x1,5 | 163.7 | 196.7 | 50 | 75 | 55 |

| Size | DN | Male Half | Female Half | A1 | A2 |
|------|----|------------|-------------|------|-------|
| | | | | (mm) | (mm) |
| -8 | 12 | GA90092-8 | GA90091-8 | 45.7 | 59.4 |
| -12 | 16 | GA90092-12 | GA90091-12 | 76.8 | 96.7 |
| -16 | 20 | GA90092-16 | GA90091-16 | 81.7 | 115.0 |

UNF-Thread*

| Size | DN | Coupling | Thread | A | B | Hex 1 | Hex 2 | Hex 3 |
|------|----|------------|----------------|-------|-------|-------|-------|-------|
| | | | | (mm) | (mm) | (mm) | (mm) | (mm) |
| -8 | 12 | GA90762-8 | 7/8-14UNF-2B | 93.1 | 109 | 27 | 41 | 27 |
| -12 | 16 | GA90762-12 | 1 3/8-12UNF-2B | 163.7 | 196.7 | 36 | 65 | 46 |

| Size | DN | Male Half | Female Half | A1 | A2 |
|------|----|------------|-------------|------|-------|
| | | | | (mm) | (mm) |
| -8 | 12 | GA90764-8 | GA90763-8 | 47.7 | 61.4 |
| -12 | 16 | GA90764-12 | GA90763-12 | 88.8 | 106.7 |

*Thread according to SAE J1926-1 (ISO 11926-1)

BSP-Thread

| Size | DN | Coupling | Thread | A | B | Hex 1 | Hex 2 | Hex 3 |
|------|----|---------------|-------------|-------|-------|-------|-------|-------|
| | | | | (mm) | (mm) | (mm) | (mm) | (mm) |
| -8 | 12 | GA90767-8 | G 1/2"-14 | 99.1 | 115 | 27 | 41 | 27 |
| -12 | 16 | GA90767-12-16 | G 1"-11 | 158.8 | 188.7 | 36 | 65 | 46 |
| -16 | 20 | GA90767-16-20 | G 1 1/4"-11 | 163.7 | 196.7 | 50 | 75 | 55 |

| Size | DN | Male Half | Female Half | A1 | A2 |
|------|----|---------------|---------------|------|-------|
| | | | | (mm) | (mm) |
| -8 | 12 | GA90767-8 | GA90768-8 | 50.7 | 64.4 |
| -12 | 16 | GA90767-12-16 | GA90768-12-16 | 84.4 | 104.3 |
| -16 | 20 | GA90767-16-20 | GA90768-16-20 | 81.7 | 115.0 |

W6000 Series (Steel) Thread-to-Connect



Eaton's W6000 Series steel quick disconnect coupling is a thread-to-connect with a rugged construction. It remains the series users refer to when it deals with severe hydraulic applications, such as construction and mining. The design and materials used give this quick disconnect coupling resistance to heavy mechanical loads. Most common examples are ram loads, hydraulic shocks and severe pulsating pressures.

Product Features

- Proprietary profile
- Thread-to-connect with double shut-off valving
- Optional dust caps and plugs (made of anodized aluminum)
- Can be connected under residual pressure
- Standard body material: Zinc trivalent plated steel
- Standard seal material: NBR, FKM, EPDM

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Group 1 = Hazardous media / Group 2 = Other media

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure* | | | | Maximum Residual Pressure during Connection*** | | Rated Flow** | | Fluid Loss ml-cc. |
|----------------|----------------------------|--------------------------|--------|-------|--------|--|-------|--------------|-------|-------------------|
| | | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) | |
| ¼ | 5.7 | 1,100 | 15,950 | 1,100 | 15,950 | 30 | 435 | 11.6 | 3.06 | 1.1 |
| ⅜ | 7.6 | 750 | 10,875 | 750 | 10,875 | 30 | 435 | 16.7 | 4.41 | 1.9 |
| ½ | 10.3 | 750 | 10,875 | 750 | 10,875 | 30 | 435 | 25.5 | 6.74 | 2.8 |
| ¾ | 14.2 | 650 | 9,425 | 650 | 9,425 | 50 | 725 | 55 | 14.53 | 5.8 |
| 1 | 16.5 | 450 | 6,525 | 450 | 6,525 | 30 | 435 | 87 | 22.98 | 10.9 |
| 1¼ | 20.5 | 450 | 6,525 | 450 | 6,525 | 30 | 435 | 140 | 36.98 | 26.9 |
| 1½ | 25.8 | 300 | 4,350 | 38 | 550 | 30 | 435 | 208 | 54.95 | 37.5 |
| 2 | 34.7 | 300 | 4,350 | 28 | 405 | 30 | 435 | 357 | 94.30 | 81 |

* For pulsating pressures when disconnected apply a multiplier of 0.5

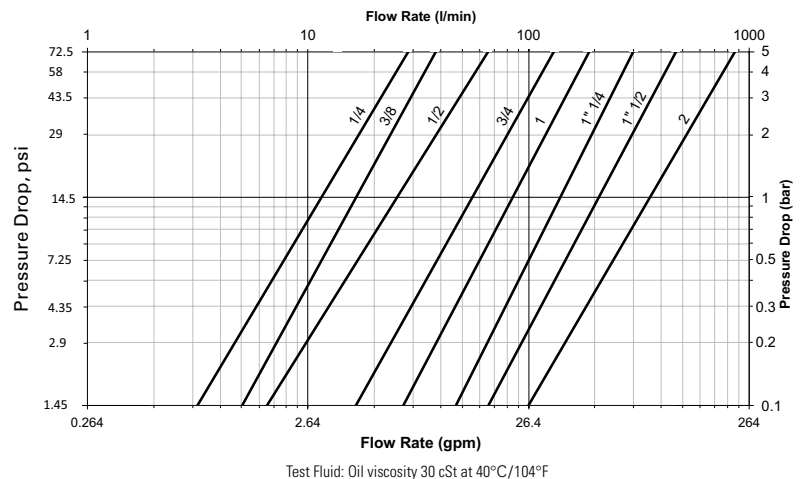
** Indicated values refer to a 1 bar/14.5 psi pressure drop.

*** When connecting under pressure, the socket nut thread must be lubricated.

Applications & Markets

- Construction
- Oil & Gas
- Material Handling
- All industrial and severe applications
- Systems subject to heavy mechanical loads, high pressures

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|---------------------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |
| FKM | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene) | -40°C +150°C/-40°F +302°F |

* For reference only, based on Eaton recommended temperatures.

Contact Eaton technical support for further information on fluid compatibility.

W6000 Series (Steel) Thread-to-Connect

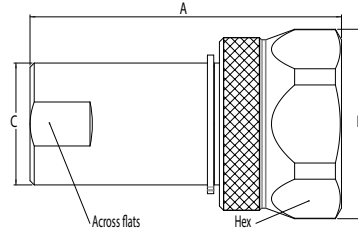


Figure 1

Sockets (Female)

| Part Number | NBR | FKM | EPDM | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) | | | Dimensions | | | | | | | | | | Weight | |
|-------------|-----------|-----------|------|----------------|----------------------------|-----------------------|---------|--------|-------------|--------|--------|-------------------|----------|--------|--------|--------|-------------------|----------|--------|-------|
| | | | | | | NPT | BSP | Metric | Fig. A (in) | B (in) | C (in) | Across Flats (in) | Hex (in) | A (mm) | B (mm) | C (mm) | Across Flats (mm) | Hex (mm) | lbs | grams |
| WA0601700 | WA06017V0 | WA06017E0 | ¼ | 5.7 | - | ¼-19 | - | 1 | 2.09 | 1.38 | 0.83 | 0.75 | 1.26 | 53 | 35 | 21 | 19 | 32 | 0.32 | 144 |
| WA0621700 | WA06217V0 | WA06217E0 | ¼ | 5.7 | ¼-18 | - | - | 1 | 2.09 | 1.38 | 0.83 | 0.75 | 1.26 | 53 | 35 | 21 | 19 | 32 | 0.32 | 144 |
| WA0602700 | WA06027V0 | WA06027E0 | ⅜ | 7.6 | - | ⅜-19 | - | 1 | 2.56 | 1.50 | 0.98 | 0.90 | 1.38 | 65 | 38 | 25 | 23 | 35 | 0.48 | 217 |
| WA0622700 | WA06227V0 | WA06227E0 | ⅜ | 7.6 | ⅜-18 | - | - | 1 | 2.56 | 1.50 | 0.98 | 0.90 | 1.38 | 65 | 38 | 25 | 23 | 35 | 0.48 | 217 |
| WA0603700 | WA06037V0 | WA06037E0 | ½ | 10.3 | - | ½-14 | - | 1 | 2.91 | 1.77 | 1.14 | 1.06 | 1.61 | 74 | 45 | 29 | 27 | 41 | 0.71 | 320 |
| WA0623700 | WA06237V0 | WA06237E0 | ½ | 10.3 | ½-14 | - | - | 1 | 2.91 | 1.77 | 1.14 | 1.06 | 1.61 | 74 | 45 | 29 | 27 | 41 | 0.71 | 320 |
| WA0633700 | WA06337V0 | WA06337E0 | ½ | 10.3 | - | - | M22x1.5 | 1 | 2.91 | 1.77 | 1.14 | 1.06 | 1.61 | 74 | 45 | 29 | 27 | 41 | 0.71 | 320 |
| WA0604700 | WA06047V0 | WA06047E0 | ¾ | 14.2 | - | ¾-14 | - | 1 | 3.58 | 2.16 | 1.50 | 1.38 | 1.97 | 91 | 55 | 38 | 35 | 50 | 1.32 | 600 |
| WA0624700 | WA06247V0 | WA06247E0 | ¾ | 14.2 | ¾-14 | - | - | 1 | 3.58 | 2.16 | 1.50 | 1.38 | 1.97 | 91 | 55 | 38 | 35 | 50 | 1.32 | 600 |
| WA0605700 | WA06057V0 | WA06057E0 | 1 | 16.5 | - | 1-11 | - | 1 | 4.05 | 2.72 | 1.81 | 1.61 | 2.56 | 103 | 69 | 46 | 41 | 65 | 2.41 | 1092 |
| WA0625700 | WA06257V0 | WA06257E0 | 1 | 16.5 | 1-11½ | - | - | 1 | 4.05 | 2.72 | 1.81 | 1.61 | 2.56 | 103 | 69 | 46 | 41 | 65 | 2.41 | 1092 |
| WA0635700 | WA06357V0 | WA06357E0 | 1 | 16.5 | - | - | M33x1.5 | 1 | 4.05 | 2.72 | 1.81 | 1.61 | 2.56 | 103 | 69 | 46 | 41 | 65 | 2.41 | 1092 |
| WA0606700 | WA06067V0 | WA06067E0 | 1¼ | 20.5 | - | 1¼-11 | - | 1 | 5.71 | 3.50 | 2.36 | 2.16 | 3.03 | 145 | 89 | 60 | 55 | 77 | 6.13 | 2780 |
| WA0626700 | WA06267V0 | WA06267E0 | 1¼ | 20.5 | 1¼-11½ | - | - | 1 | 5.71 | 3.50 | 2.36 | 2.16 | 3.03 | 145 | 89 | 60 | 55 | 77 | 6.13 | 2780 |
| WA0607700 | WA06077V0 | WA06077E0 | 1½ | 25.8 | - | 1½-11 | - | 1 | 6.81 | 3.94 | 2.64 | 2.48 | 3.46 | 173 | 100 | 67 | 63 | 88 | 9.26 | 4200 |
| WA0627700 | WA06277V0 | WA06277E0 | 1½ | 25.8 | 1½-11½ | - | - | 1 | 6.81 | 3.94 | 2.64 | 2.48 | 3.46 | 173 | 100 | 67 | 63 | 88 | 9.26 | 4200 |
| WA0609700 | WA06097V0 | WA06097E0 | 2 | 34.7 | - | 2-11 | - | 1 | 8.07 | 4.60 | 3.07 | 2.80 | 4.13 | 205 | 117 | 78 | 71 | 105 | 14.64 | 6640 |
| WA0629700 | WA06297V0 | WA06297E0 | 2 | 34.7 | 2-11½ | - | - | 1 | 8.07 | 4.60 | 3.07 | 2.80 | 4.13 | 205 | 117 | 78 | 71 | 105 | 14.64 | 6640 |

* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.

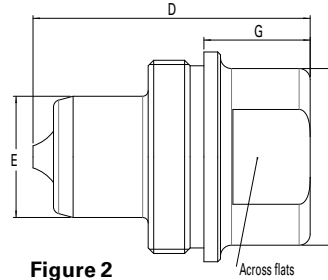


Figure 2

Plugs (Male)

| Part Number | NBR | FKM | EPDM | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) | | | Dimensions | | | | | | | | | | Weight | |
|-------------|-----------|-----------|------|----------------|----------------------------|-----------------------|---------|--------|-------------|--------|--------|--------|-------------------|--------|--------|--------|--------|-------------------|--------|-------|
| | | | | | | NPT | BSP | Metric | Fig. D (in) | E (in) | F (in) | G (in) | Across Flats (in) | D (mm) | E (mm) | F (mm) | G (mm) | Across Flats (mm) | lbs | grams |
| WA0601400 | WA06014V0 | WA06014E0 | ¼ | 5.7 | - | ¼-19 | - | 2 | 1.38 | 0.59 | 0.90 | 0.45 | 0.75 | 35 | 15 | 23 | 11.5 | 19 | 0.16 | 71 |
| WA0621400 | WA06214V0 | WA06214E0 | ¼ | 5.7 | ¼-18 | - | - | 2 | 1.38 | 0.59 | 0.90 | 0.45 | 0.75 | 35 | 15 | 23 | 11.5 | 19 | 0.16 | 71 |
| WA0602400 | WA06024V0 | WA06024E0 | ⅜ | 7.6 | - | ⅜-19 | - | 2 | 1.65 | 0.75 | 1.02 | 0.52 | 0.90 | 42 | 19 | 26 | 13 | 23 | 0.23 | 104 |
| WA0622400 | WA06224V0 | WA06224E0 | ⅜ | 7.6 | ⅜-18 | - | - | 2 | 1.65 | 0.75 | 1.02 | 0.52 | 0.90 | 42 | 19 | 26 | 13 | 23 | 0.23 | 104 |
| WA0603400 | WA06034V0 | WA06034E0 | ½ | 10.3 | - | ½-14 | - | 2 | 1.97 | 0.87 | 1.26 | 0.77 | 1.06 | 50 | 22 | 32 | 19.5 | 27 | 0.36 | 165 |
| WA0623400 | WA06234V0 | WA06234E0 | ½ | 10.3 | ½-14 | - | - | 2 | 1.97 | 0.87 | 1.26 | 0.77 | 1.06 | 50 | 22 | 32 | 19.5 | 27 | 0.36 | 165 |
| WA0633400 | WA06334V0 | WA06334E0 | ½ | 10.3 | - | - | M22x1.5 | 2 | 1.97 | 0.87 | 1.26 | 0.77 | 1.06 | 50 | 22 | 32 | 19.5 | 27 | 0.36 | 165 |
| WA0604400 | WA06044V0 | WA06044E0 | ¾ | 14.2 | - | ¾-14 | - | 2 | 2.48 | 1.14 | 1.65 | 1.02 | 1.38 | 63 | 29 | 42 | 26 | 35 | 0.84 | 382 |
| WA0624400 | WA06244V0 | WA06244E0 | ¾ | 14.2 | ¾-14 | - | - | 2 | 2.48 | 1.14 | 1.65 | 1.02 | 1.38 | 63 | 29 | 42 | 26 | 35 | 0.84 | 382 |
| WA0605400 | WA06054V0 | WA06054E0 | 1 | 16.5 | - | 1-11 | - | 2 | 2.80 | 1.42 | 1.89 | 1.14 | 1.61 | 71 | 36 | 48 | 29 | 41 | 1.29 | 585 |
| WA0625400 | WA06254V0 | WA06254E0 | 1 | 16.5 | 1-11½ | - | - | 2 | 2.80 | 1.42 | 1.89 | 1.14 | 1.61 | 71 | 36 | 48 | 29 | 41 | 1.29 | 585 |
| WA0635400 | WA06354V0 | WA06354E0 | 1 | 16.5 | - | - | M33x1.5 | 2 | 2.80 | 1.42 | 1.89 | 1.14 | 1.61 | 71 | 36 | 48 | 29 | 41 | 1.29 | 585 |
| WA0606400 | WA06064V0 | WA06064E0 | 1¼ | 20.5 | - | 1¼-11 | - | 2 | 3.82 | 2.00 | 2.36 | 1.45 | 2.16 | 97 | 50.9 | 60 | 37 | 55 | 3.22 | 1460 |
| WA0626400 | WA06264V0 | WA06264E0 | 1¼ | 20.5 | 1¼-11½ | - | - | 2 | 3.82 | 2.00 | 2.36 | 1.45 | 2.16 | 97 | 50.9 | 60 | 37 | 55 | 3.22 | 1460 |
| WA0607400 | WA06074V0 | WA06074E0 | 1½ | 25.8 | - | 1½-11 | - | 2 | 4.29 | 2.24 | 2.64 | 1.22 | 2.48 | 109 | 56.9 | 67 | 31 | 63 | 4.50 | 2040 |
| WA0627400 | WA06274V0 | WA06274E0 | 1½ | 25.8 | 1½-11½ | - | - | 2 | 4.29 | 2.24 | 2.64 | 1.22 | 2.48 | 109 | 56.9 | 67 | 31 | 63 | 4.50 | 2040 |
| WA0609400 | WA06094V0 | WA06094E0 | 2 | 34.7 | - | 2-11 | - | 2 | 5.08 | 2.73 | 3.07 | 1.32 | 2.80 | 129 | 69.4 | 78 | 33 | 71 | 7.05 | 3200 |
| WA0629400 | WA06294V0 | WA06294E0 | 2 | 34.7 | 2-11½ | - | - | 2 | 5.08 | 2.73 | 3.07 | 1.32 | 2.80 | 129 | 69.4 | 78 | 33 | 71 | 7.05 | 3200 |

* Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

W6000 Series (Steel) Thread-to-Connect

Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part Number Anodized Aluminum | Plug Dust Cap Part Number Anodized Aluminum |
|-------------------|---|--|
| ¼ | WD0611700 | WD0611400 |
| ⅜ | WD0612700 | WD0612400 |
| ½ | WD0613700 | WD0613400 |
| ¾ | WD0614700 | WD0614400 |
| 1 | WD0615700 | WD0615400 |
| 1¼ | WD0616700 | WD0616400 |
| 1½ | WD0617700 | WD0617400 |
| 2 | WD0619700 | WD0619400 |

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

W6000 Series (Stainless Steel) Thread-to-Connect



Eaton's W6000 Series stainless steel quick disconnect coupling is a thread-to-connect with a rugged construction. This quick disconnect coupling utilizes 1.4418 grade stainless steel, which guarantees the same mechanical resistance as the steel version while offering excellent resistance in corrosive environments. It remains the coupling of choice in offshore oil & gas applications but also covers a wide range of alternative hydraulic applications.

Product Features

- Proprietary profile
- Thread-to-connect with double shut-off valving
- Resistance to heavy mechanical loads (hydraulic shocks, severe pulsating pressures, etc.).
- Optional dust caps and plugs (made of anodized aluminum)
- Can be connected under residual pressure
- Standard seal material: FKM, EPDM
- Standard body material: Stainless steel 1.4418 (1.4404 AISI 316L stainless steel available on request at lower operating pressures). Please contact Eaton technical support for further information

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases.

Group 1 = Hazardous media /
Group 2 = Other media

Physical Characteristics

| Body Size | Nominal Flow Diameter | Max. Operating Pressure* | | | | Maximum Residual Pressure during Connection*** | | Rated Flow** | | Fluid Loss |
|-----------|-----------------------|---------------------------------------|--------|-----------------------------------|--------|--|-------|--------------|-------|------------|
| | | Non hazardous liquids & gases Group 2 | | Hazardous liquids & gases Group 1 | | (bar) | (psi) | (lpm) | (gpm) | |
| ¼ | 5.7 | 1100 | 15,950 | 1100 | 15,950 | 30 | 435 | 11.6 | 3.06 | 1.1 |
| ⅜ | 7.6 | 750 | 10,875 | 750 | 10,875 | 30 | 435 | 16.7 | 4.41 | 1.9 |
| ½ | 10.3 | 750 | 10,875 | 750 | 10,875 | 30 | 435 | 25.5 | 6.74 | 2.8 |
| ¾ | 14.2 | 650 | 9,425 | 650 | 9,425 | 50 | 725 | 55 | 14.53 | 5.8 |
| 1 | 16.5 | 450 | 6,525 | 450 | 6,525 | 30 | 435 | 87 | 22.98 | 10.9 |
| 1¼ | 20.5 | 450 | 6,525 | 450 | 6,525 | 30 | 435 | 140 | 36.98 | 26.9 |
| 1½ | 25.8 | 300 | 4,350 | 38 | 550 | 30 | 435 | 208 | 54.95 | 37.5 |
| 2 | 34.7 | 300 | 4,350 | 28 | 405 | 30 | 435 | 357 | 94.30 | 81.0 |

* For pulsating pressures when disconnected apply a multiplier of 0.5

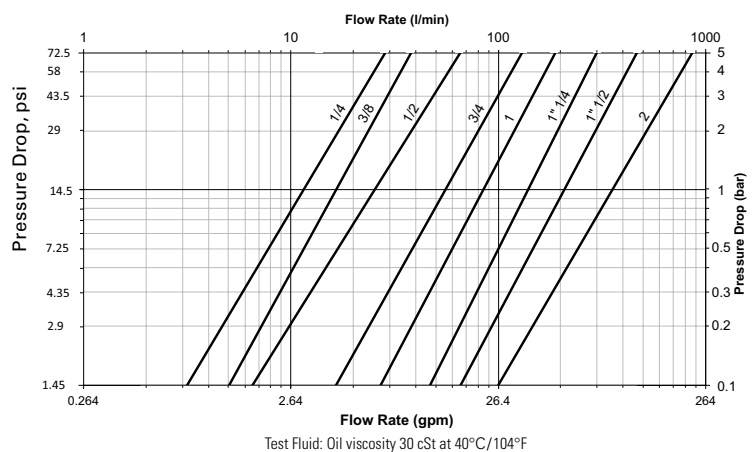
** Indicated values refer to a 1 bar/14.5 psi pressure drop.

*** When connecting under pressure, the socket nut thread must be lubricated.

Applications & Markets

- Construction
- Oil & Gas
- Material Handling
- All industrial and severe applications
- Systems subject to heavy mechanical loads, high pressures

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|---------------------------|----------------------------------|
| FKM | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene) | -40°C +150°C/-40°F +302°F |

* For reference only, based on Eaton recommended temperatures.

Contact Eaton technical support for further information on fluid compatibility.

W6000 Series (Stainless Steel) Thread-to-Connect

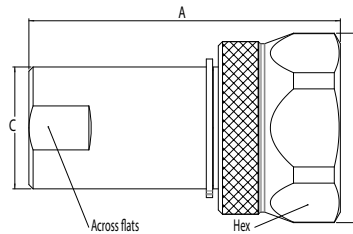


Figure 1

Sockets (Female)

| Part Number* | Body Size | Nominal Flow Diameter | | Thread Size** (Female) | | Dimensions | | | | | | | | | | Weight | | |
|--------------|-----------|-----------------------|------|------------------------|-------|-------------|--------|--------|-------------------|----------|--------|--------|--------|-------------------|----------|--------|-------|------|
| | | (in) | (mm) | NPT | BSPP | Fig. A (in) | B (in) | C (in) | Across Flats (in) | Hex (in) | A (mm) | B (mm) | C (mm) | Across Flats (mm) | Hex (mm) | lbs | grams | |
| FKM | EPDM | | | | | | | | | | | | | | | | | |
| WV06017V0 | WV06017E0 | ¼ | 5.7 | - | ¼-19 | 1 | 2.09 | 1.38 | 0.83 | 0.75 | 1.26 | 53 | 35 | 21 | 19 | 32 | 0.32 | 144 |
| WV06217V0 | WV06217E0 | ¼ | 5.7 | ¼-18 | - | 1 | 2.09 | 1.38 | 0.83 | 0.75 | 1.26 | 53 | 35 | 21 | 19 | 32 | 0.32 | 144 |
| WV06027V0 | WV06027E0 | ⅜ | 7.6 | - | ⅜-19 | 1 | 2.56 | 1.50 | 0.98 | 0.90 | 1.38 | 65 | 38 | 25 | 23 | 35 | 0.48 | 217 |
| WV06227V0 | WV06227E0 | ⅜ | 7.6 | ⅜-18 | - | 1 | 2.56 | 1.50 | 0.98 | 0.90 | 1.38 | 65 | 38 | 25 | 23 | 35 | 0.48 | 217 |
| WV06037V0 | WV06037E0 | ½ | 10.3 | - | ½-14 | 1 | 2.91 | 1.77 | 1.14 | 1.06 | 1.61 | 74 | 45 | 29 | 27 | 41 | 0.71 | 320 |
| WV06237V0 | WV06237E0 | ½ | 10.3 | ½-14 | - | 1 | 2.91 | 1.77 | 1.14 | 1.06 | 1.61 | 74 | 45 | 29 | 27 | 41 | 0.71 | 320 |
| WV06047V0 | WV06047E0 | ¾ | 14.2 | - | ¾-14 | 1 | 3.58 | 2.16 | 1.50 | 1.38 | 1.97 | 91 | 55 | 38 | 35 | 50 | 1.32 | 600 |
| WV06247V0 | WV06247E0 | ¾ | 14.2 | ¾-14 | - | 1 | 3.58 | 2.16 | 1.50 | 1.38 | 1.97 | 91 | 55 | 38 | 35 | 50 | 1.32 | 600 |
| WV06057V0 | WV06057E0 | 1 | 16.5 | - | 1-11 | 1 | 4.05 | 2.72 | 1.81 | 1.61 | 2.56 | 103 | 69 | 46 | 41 | 65 | 2.41 | 1092 |
| WV06257V0 | WV06257E0 | 1 | 16.5 | 1-11½ | - | 1 | 4.05 | 2.72 | 1.81 | 1.61 | 2.56 | 103 | 69 | 46 | 41 | 65 | 2.41 | 1092 |
| WV06067V0 | WV06067E0 | 1¼ | 20.5 | - | 1¼-11 | 1 | 5.71 | 3.50 | 2.36 | 2.16 | 3.03 | 145 | 89 | 60 | 55 | 77 | 6.13 | 2780 |
| WV06267V0 | WV06267E0 | 1¼ | 20.5 | 1¼-11½ | - | 1 | 5.71 | 3.50 | 2.36 | 2.16 | 3.03 | 145 | 89 | 60 | 55 | 77 | 6.13 | 2780 |
| WV06077V0 | WV06077E0 | 1½ | 25.8 | - | 1½-11 | 1 | 6.81 | 3.94 | 2.64 | 2.48 | 3.46 | 173 | 100 | 67 | 63 | 88 | 9.26 | 4200 |
| WV06277V0 | WV06277E0 | 1½ | 25.8 | 1½-11½ | - | 1 | 6.81 | 3.94 | 2.64 | 2.48 | 3.46 | 173 | 100 | 67 | 63 | 88 | 9.26 | 4200 |
| WV06097V0 | WV06097E0 | 2 | 34.7 | - | 2-11 | 1 | 8.07 | 4.60 | 3.07 | 2.80 | 4.13 | 205 | 117 | 78 | 71 | 105 | 14.64 | 6640 |
| WV06297V0 | WV06297E0 | 2 | 34.7 | 2-11½ | - | 1 | 8.07 | 4.60 | 3.07 | 2.80 | 4.13 | 205 | 117 | 78 | 71 | 105 | 14.64 | 6640 |

* 1.4404 AISI 316L stainless steel available on request. Please contact Eaton technical support for further information.

** Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.

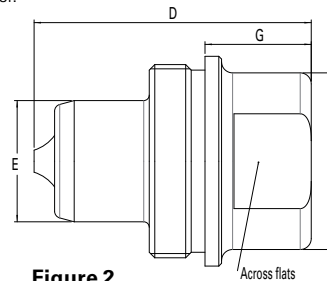


Figure 2

Plugs (Male)

| Part Number* | Body Size | Nominal Flow Diameter | | Thread Size** (Female) | | Dimensions | | | | | | | | | | Weight | | |
|--------------|-----------|-----------------------|------|------------------------|-------|-------------|--------|--------|--------|-------------------|--------|--------|--------|--------|-------------------|--------|-------|------|
| | | (in) | (mm) | NPT | BSPP | Fig. D (in) | E (in) | F (in) | G (in) | Across Flats (in) | D (mm) | E (mm) | F (mm) | G (mm) | Across Flats (mm) | lbs | grams | |
| FKM | EPDM | | | | | | | | | | | | | | | | | |
| WV06014V0 | WV06014E0 | ¼ | 5.7 | - | ¼-19 | 2 | 1.38 | 0.59 | 0.90 | 0.45 | 0.75 | 35 | 15 | 23 | 11.5 | 19 | 0.16 | 71 |
| WV06214V0 | WV06214E0 | ¼ | 5.7 | ¼-18 | - | 2 | 1.38 | 0.59 | 0.90 | 0.45 | 0.75 | 35 | 15 | 23 | 11.5 | 19 | 0.16 | 71 |
| WV06024V0 | WV06024E0 | ⅜ | 7.6 | - | ⅜-19 | 2 | 1.65 | 0.75 | 1.02 | 0.52 | 0.90 | 42 | 19 | 26 | 13 | 23 | 0.23 | 104 |
| WV06224V0 | WV06224E0 | ⅜ | 7.6 | ⅜-18 | - | 2 | 1.65 | 0.75 | 1.02 | 0.52 | 0.90 | 42 | 19 | 26 | 13 | 23 | 0.23 | 104 |
| WV06034V0 | WV06034E0 | ½ | 10.3 | - | ½-14 | 2 | 1.97 | 0.87 | 1.26 | 0.77 | 1.06 | 50 | 22 | 32 | 19.5 | 27 | 0.36 | 165 |
| WV06234V0 | WV06234E0 | ½ | 10.3 | ½-14 | - | 2 | 1.97 | 0.87 | 1.26 | 0.77 | 1.06 | 50 | 22 | 32 | 19.5 | 27 | 0.36 | 165 |
| WV06044V0 | WV06044E0 | ¾ | 14.2 | - | ¾-14 | 2 | 2.48 | 1.14 | 1.65 | 1.02 | 1.38 | 63 | 29 | 42 | 26 | 35 | 0.84 | 382 |
| WV06244V0 | WV06244E0 | ¾ | 14.2 | ¾-14 | - | 2 | 2.48 | 1.14 | 1.65 | 1.02 | 1.38 | 63 | 29 | 42 | 26 | 35 | 0.84 | 382 |
| WV06054V0 | WV06054E0 | 1 | 16.5 | - | 1-11 | 2 | 2.80 | 1.42 | 1.89 | 1.14 | 1.61 | 71 | 36 | 48 | 29 | 41 | 1.29 | 585 |
| WV06254V0 | WV06254E0 | 1 | 16.5 | 1-11½ | - | 2 | 2.80 | 1.42 | 1.89 | 1.14 | 1.61 | 71 | 36 | 48 | 29 | 41 | 1.29 | 585 |
| WV06064V0 | WV06064E0 | 1¼ | 20.5 | - | 1¼-11 | 2 | 3.82 | 2.00 | 2.36 | 1.45 | 2.16 | 97 | 50.9 | 60 | 37 | 55 | 3.22 | 1460 |
| WV06264V0 | WV06264E0 | 1¼ | 20.5 | 1¼-11½ | - | 2 | 3.82 | 2.00 | 2.36 | 1.45 | 2.16 | 97 | 50.9 | 60 | 37 | 55 | 3.22 | 1460 |
| WV06074V0 | WV06074E0 | 1½ | 25.8 | - | 1½-11 | 2 | 4.29 | 2.24 | 2.64 | 1.22 | 2.48 | 109 | 56.9 | 67 | 31 | 63 | 4.50 | 2040 |
| WV06274V0 | WV06274E0 | 1½ | 25.8 | 1½-11½ | - | 2 | 4.29 | 2.24 | 2.64 | 1.22 | 2.48 | 109 | 56.9 | 67 | 31 | 63 | 4.50 | 2040 |
| WV06094V0 | WV06094E0 | 2 | 34.7 | - | 2-11 | 2 | 5.08 | 2.73 | 3.07 | 1.32 | 2.80 | 129 | 69.4 | 78 | 33.5 | 71 | 7.05 | 3200 |
| WV06294V0 | WV06294E0 | 2 | 34.7 | 2-11½ | - | 2 | 5.08 | 2.73 | 3.07 | 1.32 | 2.80 | 129 | 69.4 | 78 | 33.5 | 71 | 7.05 | 3200 |

* 1.4404 AISI 316L stainless steel available on request. Please contact Eaton technical support for further information.

** Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig.1) and G (Fig. 2) together.

W6000 Series (Stainless Steel) Thread-to-Connect

Dust Plugs and Dust Caps

| Body Size | Socket Dust Plug Part Number | Plug Dust Cap Part Number |
|-----------|------------------------------|---------------------------|
| (in) | Anodized Aluminum | Anodized Aluminum |
| ¼ | WD0611700 | WD0611400 |
| ⅜ | WD0612700 | WD0612400 |
| ½ | WD0613700 | WD0613400 |
| ¾ | WD0614700 | WD0614400 |
| 1 | WD0615700 | WD0615400 |
| 1¼ | WD0616700 | WD0616400 |
| 1½ | WD0617700 | WD0617400 |
| 2 | WD0619700 | WD0619400 |

FLUID TRANSFER
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REFRIGERANT

HP3 Series



Eaton's HP3 Series Hydraulic Jack/Enerpac Interchange is designed for high-pressure applications up to 700 bar (10,000 psi).

Product Features

- Thread together design
- 700 bar (10,000 psi) operating pressure
- Ball valve
- Seal material: Buna-N
- Body material: High-resistance carbon steel with zinc trivalent chromate plating

Applications & Markets

- Hydraulic jack
- Portable hydraulic rams

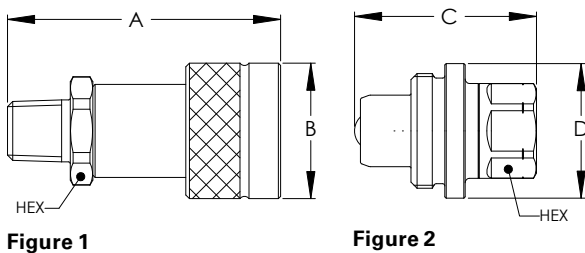
Physical Characteristics

| Body Size (in) | Max. Operating Pressure (Static) Connected | | Min. Burst Pressure Connected | | Rated Flow | |
|-------------------|---|--------|----------------------------------|--------|------------|-------|
| | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) |
| 3/8 | 700 | 10,000 | 1,850 | 26,800 | 23 | 6 |

* Connect and disconnect under pressure not allowed

Dimensions

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-------------|---------------|-----------|-----------|--------|------------|------|------------|--------|------|--------|----|------|
| | | | | | | | A | B | Hex | | | |
| | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| HP3SB37M | Socket/Female | 3/8 | 3/8 | 3/8-18 | Male NPT | 1 | 72.2 | (2.84) | 35.0 | (1.38) | 24 | .94 |
| HP3PB37F | Plug/Male | 3/8 | 3/8 | 3/8-18 | Female NPT | 2 | 40.0 | (1.57) | 35.0 | (1.38) | 32 | 1.26 |



Dust Caps and Dust Plugs

| Body Size | Dust Cap | Dust Plug |
|-----------|-----------|-----------|
| 3/8 | WA5612400 | WA5612700 |



W56000 Series



Eaton's W56000 Series is a screw to connect coupling designed to operate at pressures exceeding 10,000 psi or 700 bar. Rugged design makes these couplings suitable for hydraulic jacks and lift loading.

Product Features

- Screw to connect double shut off with poppet valve
- Designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC.
- Interchanges with other couplings with the same profile
- Standard body material: Zinc trivalent plated steel
- Standard seal material: Buna-N

Physical Characteristics

| Coupling Size (in) | DN/ND | Max. Operating Pressure | | Min. Burst Pressure | | Rated Flow | | Air Inclusion |
|-----------------------|-------|-------------------------|--------|---------------------|--------|------------|-------|---------------|
| | | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) | ml max |
| ¼ | 5.7 | 700 | 10,000 | 2,800 | 40,000 | 11 | 2.9 | 1.1 |
| ⅜ | 7.6 | 700 | 10,000 | 2,800 | 40,000 | 16 | 4.2 | 1.9 |

Applications & Markets

- Hydraulic Jacks, Lifts
- Emergency Rescue Equipment

Flow Data

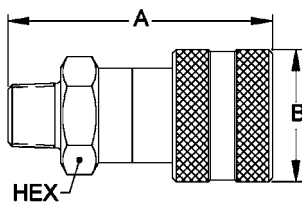
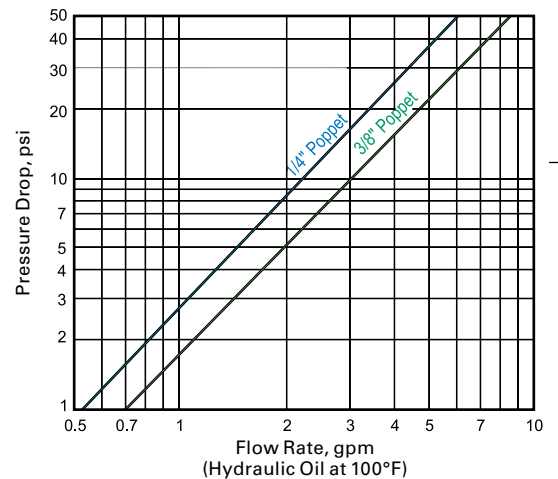


Figure 1

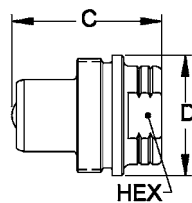


Figure 2

| Part Number | DN/ND | Body Size | Coupling Type | Connection | Fig. | Dimensions | | | | | |
|-------------|-------|-----------|---------------|------------|------|------------|------|------|----|------|-----|
| | | | | | | A | B | Hex | A | B | Hex |
| WA5651700 | 5.7 | ¼ | Socket/Female | ¼ NPT Male | 1 | 2.36 | 1.12 | .88 | 60 | 28.5 | 22 |
| WA5652700 | 7.6 | ⅜ | Socket/Female | ⅜ NPT Male | 1 | 2.76 | 1.38 | 1.06 | 70 | 35 | 27 |

| Part Number | DN/ND | Socket/Female | Coupling Type | Connection | Fig. | Dimensions | | | | | |
|-------------|-------|---------------|---------------|--------------|------|------------|------|-----|----|------|-----|
| | | | | | | C | D | Hex | C | D | Hex |
| WA5651400 | 5.7 | ¼ | Plug/Male | ¼ NPT Female | 2 | 1.26 | 1.10 | .75 | 35 | 15.9 | 19 |
| WA5652400 | 7.6 | ⅜ | Plug/Male | ⅜ NPT Female | 2 | 1.52 | 1.26 | .91 | 42 | 19 | 23 |

Dust Caps and Dust Plugs

| Body Size | Dust Cap | Dust Plug |
|-----------|-----------|-----------|
| ¼ | WA5611400 | WA5611700 |
| ⅜ | WA5612400 | WA5612700 |



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REFRIGERANT

FD35 Series 10,000 psi Ball Latch



Eaton's FD35 Series ball latch has a greater surface contact area for long surface life in rugged high pressure applications. The maximum operating pressure is 10,000 psi.

Product Features

- Safety sleeve lock prevents accidental disconnection
- Heavy duty back-up ring prevents O-Ring extrusion
- Heat-treated and plated steel for greater wear and corrosion resistance
- Self-sealing poppet valves provide excellent high-and low-pressure sealing
- Standard seal material: FKM
- Standard body material: High-resistance carbon steel with Zinc trivalent plating

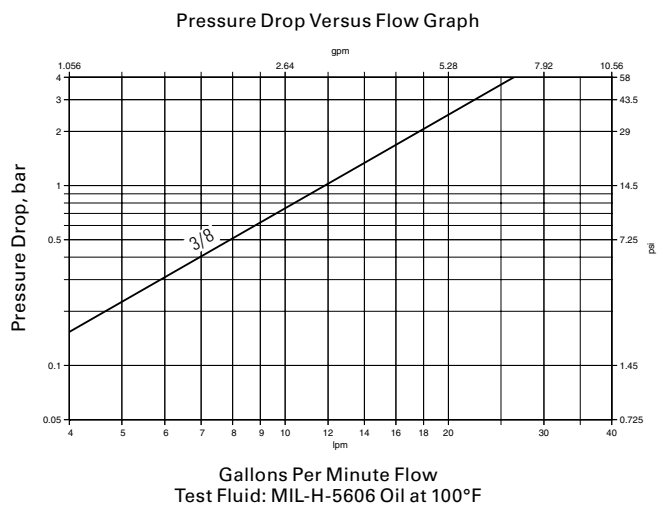
Physical Characteristics

| Body Size | Max. Operating Pressure | | Min. Burst Pressure | | Vacuum Connected Only | Rated Flow | | Air Inclusion | Fluid Loss |
|-----------|-------------------------|--------|---------------------|--------|-----------------------|------------|-------|---------------|------------|
| | (bar) | (psi) | (bar) | (psi) | | (lpm) | (gpm) | | |
| 3/8" | 700 | 10,000 | 2,800 | 40,000 | 28 | 8 | 2 | 0.50 | 0.50 |

Applications & Markets

- 10,000 psi Hydraulic Applications
- Hydraulic Tool
- Hydraulic Ram and Work Loading

Flow Data



FD35 Series 10,000 psi

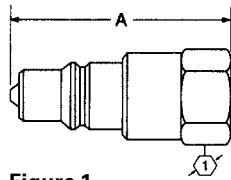


Figure 1

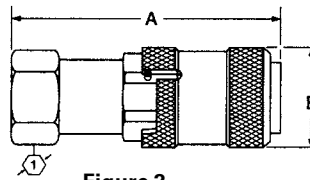


Figure 2

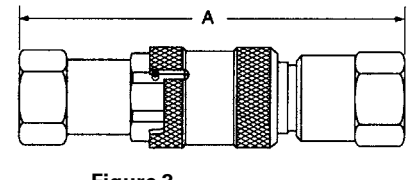


Figure 3

Dimensions (Female NPT, Valved)

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions A | | B | | Hex ① | |
|-----------------|---------------|-----------|-----------|---------|------------|------|--------------|--------|------|--------|-------|-------|
| | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD35-1002-06-06 | Plug/Male | 3/8" | 3/8" | 3/8"-18 | Female NPT | 1 | 53.8 | (2.12) | - | - | 23.9 | (.94) |
| FD35-1001-06-06 | Socket/Female | 3/8" | 3/8" | 3/8"-18 | Female NPT | 2 | 65.0 | (2.56) | 32.3 | (1.27) | 23.9 | (.94) |
| FD35-1000-06-06 | Complete | 3/8" | 3/8" | 3/8"-18 | Female NPT | 3 | 89.9 | (3.54) | - | - | - | - |

Dimensions (Female SAE O-Ring, Valved)

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions A | | B | | Hex ① | |
|-----------------|---------------|-----------|-----------|----------|-------------------|------|--------------|--------|------|--------|-------|-------|
| | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD35-1008-06-06 | Plug/Male | 3/8" | 1/16" | 1/16"-18 | Female SAE O-Ring | 1 | 53.8 | (2.12) | - | - | 23.9 | (.94) |
| FD35-1007-06-06 | Socket/Female | 3/8" | 1/16" | 1/16"-18 | Female SAE O-Ring | 2 | 65.0 | (2.56) | 32.3 | (1.27) | 23.9 | (.94) |
| FD35-1006-06-06 | Complete | 3/8" | 1/16" | 1/16"-18 | Female SAE O-Ring | 3 | 89.9 | (3.54) | - | - | - | - |

Dimensions (Female SAE O-Ring, 125 PSI Bleed Valve)

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions A | | Hex ① | |
|-----------------|---------------|-----------|-----------|----------|-------------------|------|--------------|--------|-------|-------|
| | | | | | | | mm | (in) | mm | (in) |
| FD35-1052-06-06 | Plug/Male | 3/8" | 1/16" | 1/16"-18 | Female SAE O-Ring | 1 | 53.8 | (2.12) | 23.9 | (.94) |

Note: Incorporates a special relief valve set at 125 psi, preventing disconnected pressure build-up.

Dust Cap/Plug

| Part Number | Body Size |
|--------------|-----------|
| FD35-1042-06 | 3/8" |

Note: Fits male and female halves



Dust Cap/Plug

FLUID TRANSFER
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AGRICULTURE

REFRIGERANT

2UH Series



Eaton's 2UH Series quick disconnect coupling is a ball latch coupling used in high pressure hydraulic applications exceeding 20,000 psi or 1,500 bar.

Product Features

- Pull-to-connect high-pressure coupling
- Standard body material: High tensile steel with anticorrosion finish, hardened steel sleeve
- Standard seal material: NBR
- Blue PVC dust caps and plugs

Physical Characteristics

| Coupling Size | DN/ND | Max. Operating Pressure | | Rated Flow | | Spillage |
|---------------|-------|-------------------------|--------|------------|-------|----------|
| (in) | | (bar) | (psi) | (lpm) | (gpm) | ml max |
| ¼ | 2.5 | 1,500 | 21,750 | 3 | 0.79 | 0.005 |

Applications & Markets

- High-pressure Hydraulic Equipment:
 - Lifts
 - Jacks
 - Shears
 - Pullers

Flow Data

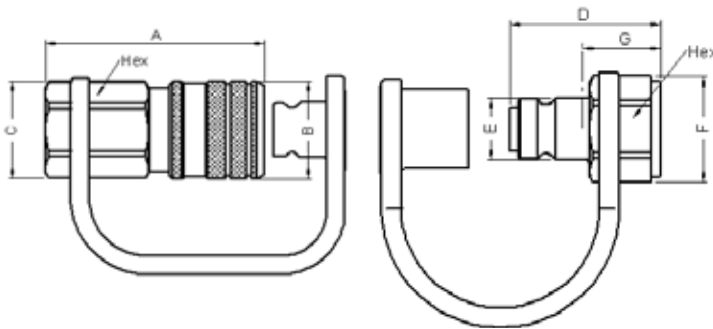
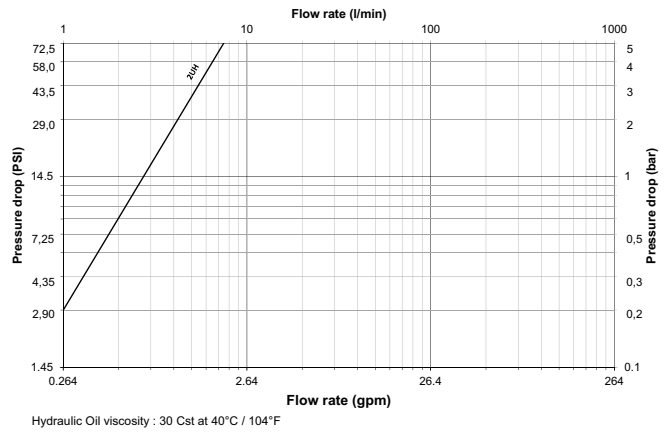


Figure 1

Figure 2

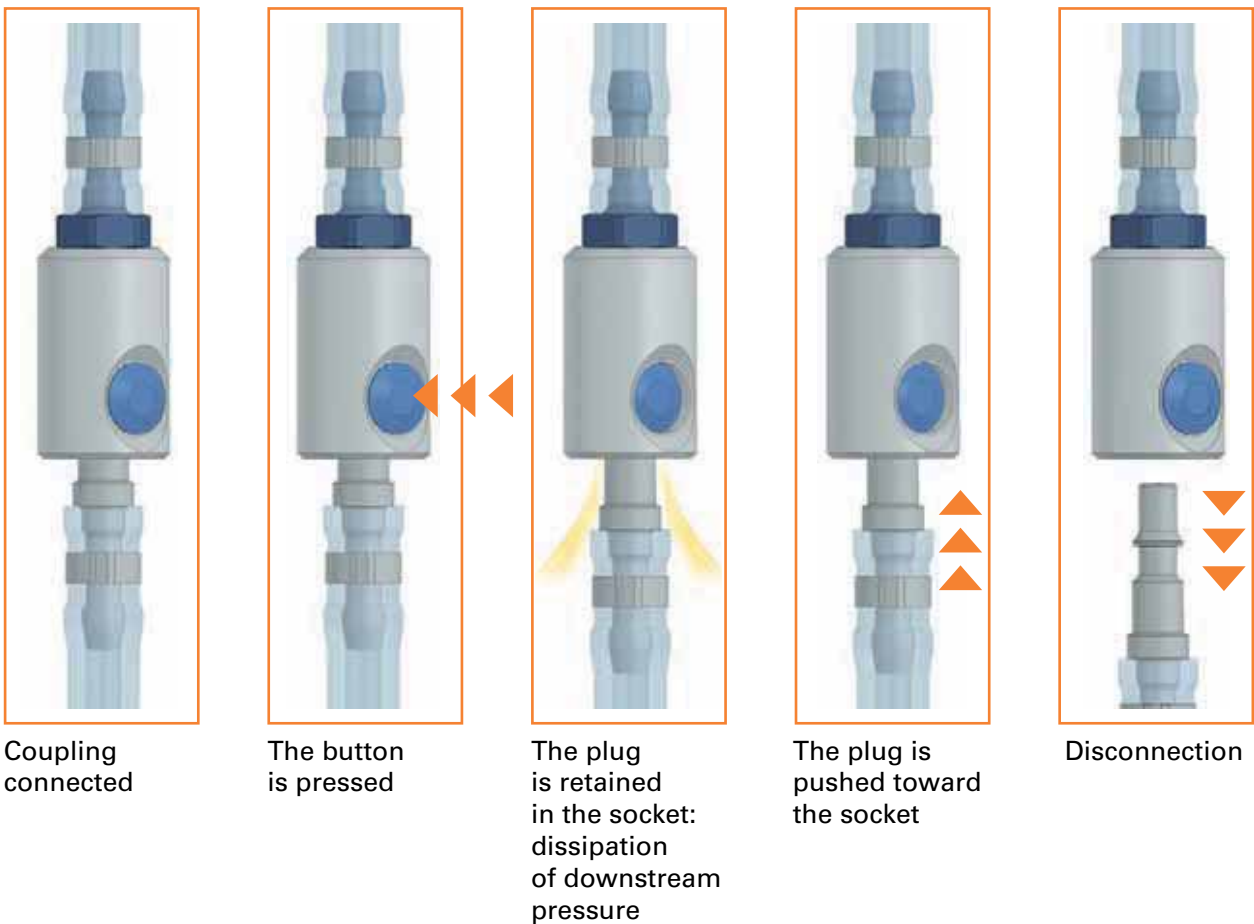
Dimensions

| Size | DN/ND | Socket/Female and Dust Plug | Socket/Female Dust Plug Only | Coupling Type | Connection | Fig. | A | B | C | Hex | |
|------|-------|-----------------------------|------------------------------|---------------|--------------|------|------|------|------|------|------|
| (in) | | | | | | | (mm) | (mm) | (mm) | (mm) | |
| ¼ | 2.5 | 2UHS25BS 2UHS25 | PSDC2UH | Socket/Female | G ¼ ¼ NPT | 1 | 60 | 12 | 27 | 24 | |
| Size | DN/ND | Socket/Female and Dust Plug | Socket/Female Dust Plug Only | Coupling Type | Connection | Fig. | D | E | F | G | Hex |
| (in) | | | | | | | (mm) | (mm) | (mm) | (mm) | (mm) |
| ¼ | 2.5 | 2UHP25BS 2UHP25 | PPDC2UH | Plug/Male | G ¼ ¼ NPT | 2 | 38 | 12 | 15.6 | 19.6 | 24 |

Safeline Series Operation Guidelines

Elimination of hose whip with two distinct movements:

- 1 Button pressed ▶ Dissipation of downstream pressure: the plug is retained in the socket
- 2 Plug pushed into the socket ▶ Disconnection



Recommendation applicable to all profiles

Use with vibrating tools:
A flexible hose at least 300 mm long between the tool and the quick coupling is recommended.

FLUID TRANSFER AND HYDRAULIC

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Safeline Series

ISO 6150 B GD10500 Safety-Type Quick-Release

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AGRICULTURE

REFRIGERANT



Eaton's Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.

Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Accepts 1/4" ISO 6150 Series B and A-A-59439 plugs/males
- Accepts all US industrial plugs/males
- Standard body material: Aluminum
- Standard seal material: Buna-N

Physical Characteristics

| Body Size | Nominal Flow Diameter (mm) | Max. Operating Pressure Connected or Disconnected | | Air Flow Rate* Δp 0.6 bar/8.7 psi** | | Δp 1 bar/14.5 psi*** | | Working Temperature | |
|-----------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | (lpm) | (gpm) | (lpm) | (gpm) | °C | °F |
| 1/4 | 5.5 | 16 | 232 | 525 | 139 | 660 | 174 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

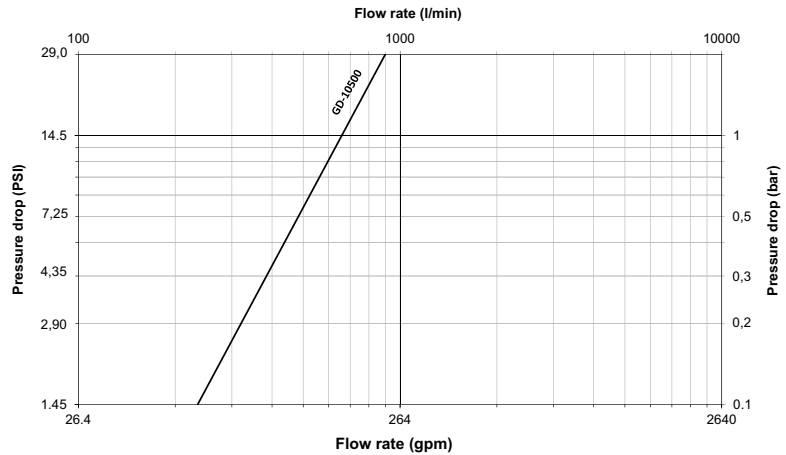
**This flow rate allows the optimum output from a pneumatic tool.

*** This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

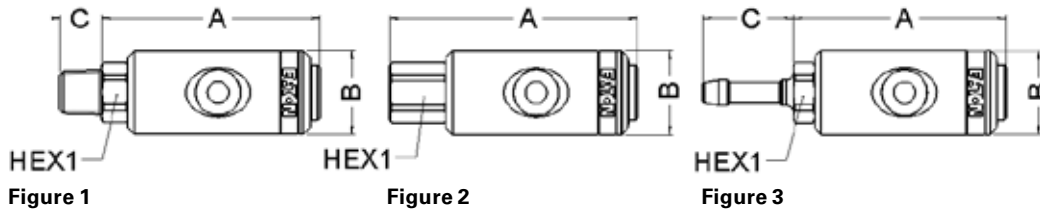
Flow Data



Air flow-rate at 6 bar (87 psi)

Safeline Series

ISO 6150 B GD10500 Safety-Type Quick-Release



Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam. | Type | Fig. | Dimensions | | | Hex1 | Hex2 | A | B | C | Hex1 Weight | | |
|-------------|-----------|-----------|----------------------|--------------------|------|------------|------|------|------|------|------|------|------|-------------|-------|-----|
| | | | | | | A | B | C | | | | | | (mm) | (lbs) | (g) |
| GD1053615 | | ¼ | ¼ | Male BSPP | 1 | 2.57 | 1.02 | 0.47 | 0.75 | | 65.3 | 26.0 | 12.0 | 19 | 0.24 | 110 |
| GD1053614 | | ¼ | ¼ | Male BSPT | 1 | 2.65 | 1.02 | 0.51 | 0.67 | | 67.3 | 26.0 | 13.0 | 17 | 0.24 | 109 |
| GD1053641 | | ¼ | ¼ | Male NPT | 1 | 2.65 | 1.02 | 0.59 | 0.67 | | 67.2 | 26.0 | 15.1 | 17 | 0.24 | 110 |
| GD1053639 | | ¾ | ¾ | Male BSPP | 1 | 2.61 | 1.02 | 0.47 | 0.87 | | 66.3 | 26.0 | 12.0 | 22 | 0.27 | 124 |
| GD1053638 | | ¾ | ¾ | Male BSPT | 1 | 2.65 | 1.02 | 0.57 | 0.67 | | 67.3 | 26.0 | 14.5 | 17 | 0.26 | 117 |
| GD1053683 | | ¾ | ¾ | Male NPT | 1 | 2.62 | 1.02 | 0.60 | 0.75 | | 66.5 | 26.0 | 15.3 | 19 | 0.27 | 121 |
| GD1053613 | | ½ | ½ | Male BSPP | 1 | 2.69 | 1.02 | 0.55 | 1.06 | | 68.3 | 26.0 | 14.0 | 27 | 0.33 | 148 |
| GD1053612 | | ½ | ½ | Male BSPT | 1 | 2.61 | 1.02 | 0.67 | 0.87 | | 66.3 | 26.0 | 17.0 | 22 | 0.34 | 156 |
| GD1053621 | | ½ | ½ | Male NPT | 1 | 2.61 | 1.02 | 0.79 | 0.87 | | 66.3 | 26.0 | 20.0 | 22 | 0.30 | 137 |
| GD1052614 | ¼ | ¼ | ¼ | Female BSPP | 2 | 2.33 | 1.02 | 0.00 | 0.67 | | 76.8 | 26.0 | | 17 | 0.24 | 109 |
| GD1052641 | | ¼ | ¼ | Female NPT | 2 | 2.33 | 1.02 | 0.00 | 0.67 | | 76.3 | 26.0 | | 17 | 0.24 | 109 |
| GD1052638 | | ¾ | ¾ | Female BSPP | 2 | 3.14 | 1.02 | 0.00 | 0.87 | | 79.8 | 26.0 | | 22 | 0.29 | 132 |
| GD1052683 | | ¾ | ¾ | Female NPT | 2 | 3.08 | 1.02 | 0.00 | 0.87 | | 78.3 | 26.0 | | 22 | 0.29 | 132 |
| GD1052612 | | ½ | ½ | Female BSPP | 2 | 3.30 | 1.02 | 0.00 | 1.06 | | 83.8 | 26.0 | | 27 | 0.34 | 155 |
| GD1052621 | | ½ | ½ | Female NPT | 2 | 3.24 | 1.02 | 0.00 | 1.06 | | 82.3 | 26.0 | | 27 | 0.35 | 157 |
| GD1055667 | | – | 6 mm | Reusable Hose Fit. | 3 | 2.59 | 1.02 | 1.10 | 0.67 | | 65.8 | 26.0 | 28.0 | 17 | 0.23 | 106 |
| GD1055678 | | – | 7 mm | Reusable Hose Fit. | 3 | 2.57 | 1.02 | 1.10 | 0.67 | | 65.8 | 26.0 | 28.0 | 17 | 0.24 | 107 |
| GD1055689 | | – | 8 mm | Reusable Hose Fit. | 3 | 2.33 | 1.02 | 1.10 | 0.67 | | 65.8 | 26.0 | 28.0 | 17 | 0.24 | 107 |
| GD1055690 | | – | 9 mm | Reusable Hose Fit. | 3 | 2.33 | 1.02 | 1.10 | 0.67 | | 65.8 | 26.0 | 28.0 | 17 | 0.24 | 108 |
| GD1055601 | | – | 10 mm | Reusable Hose Fit. | 3 | 2.33 | 1.02 | 1.10 | 0.67 | | 65.8 | 26.0 | 28.0 | 17 | 0.25 | 112 |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6, 7, 8) together and subtract 23 mm (0.91 in).

*Alternative end connections available upon request.

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Safeline Series

ISO 6150 B GD10500 Safety-Type Quick-Release

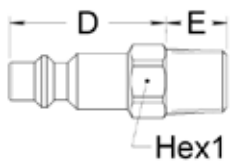


Figure 4

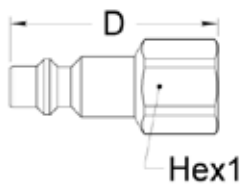


Figure 5

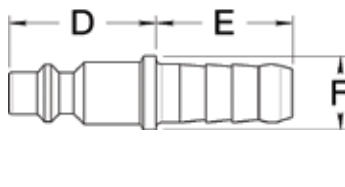


Figure 6

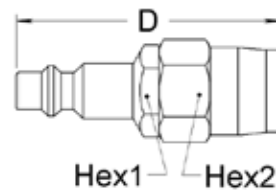


Figure 7

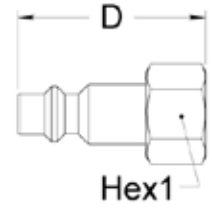


Figure 8

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam. Type | Fig. | Dimensions | | | Hex1 (in) | Hex2 (in) | D (mm) | E (mm) | F (mm) | Hex1 (mm) | Hex2 (mm) | Weight | |
|-------------|-----------|-----------|---------------------------|----------------------|------------|--------|--------|-----------|-----------|--------|--------|--------|-----------|-----------|---------|-----|
| | | | | | D (in) | E (in) | F (in) | | | | | | | | (lbs) | (g) |
| GA0066318 | | 1/8 | 1/8-28 | Male BSPT | 4 | 1.260 | 0.354 | 0.472 | | 32 | 9 | | 12 | | 0.04189 | 19 |
| GA0066314 | | 1/4 | 1/4-19 | Male BSPT | 4 | 1.260 | 0.512 | 0.551 | | 32 | 13 | | 14 | | 0.06 | 25 |
| 10 | | 1/4 | 1/4-18 | Male NPT | 4 | 1.220 | 0.551 | 0.591 | | 31 | 14 | | 15 | | 0.06 | 25 |
| GA0066338 | | 3/8 | 3/8-19 | Male BSPT | 4 | 1.260 | 0.591 | 0.669 | | 32 | 15 | | 17 | | 0.08 | 38 |
| GA0066345 | | M14 | M14x125 | Male Metric | 4 | 1.260 | 0.512 | 0.551 | | 32 | 13 | | 14 | | 0.06 | 26 |
| GA0066214 | | 1/4 | 1/4-19 | Female BSPP | 5 | 1.732 | | 0.669 | | 44 | | | 17 | | 0.07 | 30 |
| 11 | | 1/4 | 1/4-18 | Female NPT | 5 | 1.634 | | 0.709 | | 41.5 | | | 18 | | 0.07 | 30 |
| GA0066238 | | 3/8 | 3/8-19 | Female BSPP | 5 | 1.732 | | 0.827 | | 44 | | | 21 | | 0.08 | 37 |
| GA0066245 | | M14 | M14x125 | Female Metric | 5 | 1.732 | | 0.669 | | 44 | | | 17 | | 0.06 | 25 |
| GA0066248 | 1/4 | - | M14x125 | Female Metric | 5 | 1.732 | | 0.551 | | 44 | | | 14 | | 0.05 | 24 |
| GA0066767 | | - | 6mm | Hose Tail | 6 | 1.102 | 1.024 | 0.551 | | 28 | 26 | 14 | | | 0.04 | 19 |
| GA0066778 | | - | 7mm | Hose Tail | 6 | 1.102 | 1.024 | 0.551 | | 28 | 26 | 14 | | | 0.04 | 20 |
| GA0066789 | | - | 8mm | Hose Tail | 6 | 1.102 | 1.024 | 0.551 | | 28 | 26 | 14 | | | 0.04 | 20 |
| GA0066790 | | - | 9mm | Hose Tail | 6 | 1.102 | 1.024 | 0.551 | | 28 | 26 | 14 | | | 0.04 | 20 |
| GA0066701 | | - | 10mm | Hose Tail | 6 | 1.102 | 1.024 | 0.551 | | 28 | 26 | 14 | | | 0.05 | 22 |
| GA0066174 | | - | 7x14 mm | Reusable Hose Fit. | 7 | 2.224 | | 0.630 | 0.748 | 56.5 | | | 16 | 19 | 0.12 | 56 |
| GA0066184 | | - | 8x14 mm | Reusable Hose Fit. | 7 | 2.224 | | 0.630 | 0.748 | 56.5 | | | 16 | 19 | 0.13 | 57 |
| GA0066185 | | - | 8x15 mm | Reusable Hose Fit. | 7 | 2.224 | | 0.630 | 0.748 | 56.5 | | | 16 | 19 | 0.12 | 53 |
| GA0066196 | | - | 9x16 mm | Reusable Hose Fit. | 7 | 2.224 | | 0.630 | 0.748 | 56.5 | | | 16 | 19 | 0.11 | 51 |
| GA0066814 | | 1/4 | 1/4-19 | Female BSPP Swivel | 8 | 1.496 | | 0.669 | | 38 | | | 17 | | 0.06 | 26 |
| GA0066845 | | M14 | M14x125 | Female Metric Swivel | 8 | 1.496 | | 0.669 | | 38 | | | 17 | | 0.06 | 26 |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6, 7, 8) together and subtract 23 mm (0,91 in).

*Alternative end connections available upon request.

FLUID TRANSFER AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Safeline Series

ISO 6150 B ID10900 Safety-Type Quick-Release



Eaton Gromelle™ ID10900 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 C Standards requirements. Nominal diameter is 8 mm. Thanks to a distinct two-movement action, our couplings guarantee worker safety at disconnection by eliminating the “whiplash” effect. It is a must-have for safe air applications.

Product Features

- One-hand push-to-connect
- Automatic button for disconnection
- Meets safety standard ISO 4414
- Single shut-off valving
- Good flow capacity
- Wide selection of end connections
- Standard seal material: NBR (Nitrile)
- Standard body material (Female): Aluminum
- Standard body material (Male): Zinc plated steel

Physical Characteristics

| Body Size | Nominal Flow Diameter (mm) | Max. Operating Pressure Connected or Disconnected | | Air Flow Rate* Δp 0.6 bar/8.7 psi** Δp 1 bar/14.5 psi*** | | | | Working Temperature | |
|-----------|----------------------------|---|-------|--|-------|-------|-------|---------------------|-----------|
| | | (bar) | (psi) | (lpm) | (gpm) | (lpm) | (gpm) | °C | °F |
| 3/8" | 8 | 16 | 232 | 1,590 | 420 | 2,000 | 528 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

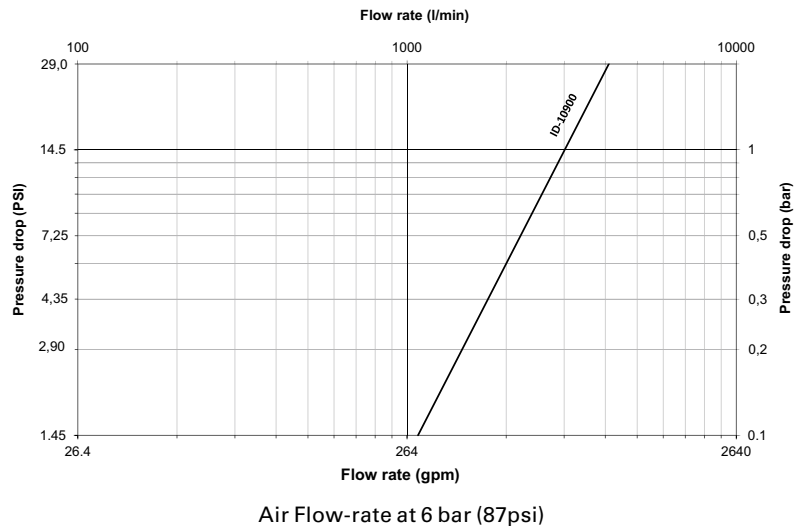
**This flow rate allows the optimum output from a pneumatic tool.

*** This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- General Pneumatics
- Air Tools

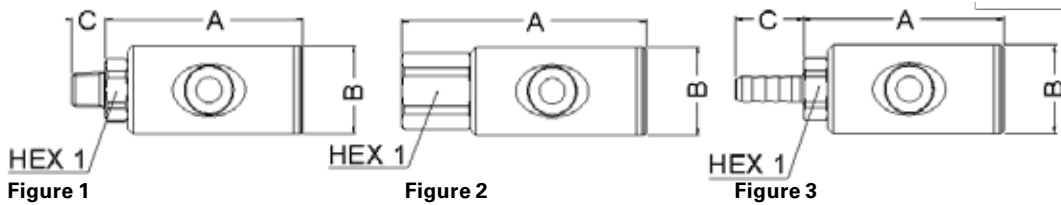
Flow Data



Safeline Series

ISO 6150 B ID10900 Safety-Type Quick-Release

FLUID TRANSFER
AND HYDRAULIC



PNEUMATIC

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam. | Type | Fig. | Dimensions | | | | | | | | | |
|-------------|-----------|-----------|----------------------|-------------|------|------------|--------|--------|-----------|--------|--------|--------|-----------|--------------|------------|
| | | | | | | A (in) | B (in) | C (in) | Hex1 (in) | A (mm) | B (mm) | C (mm) | Hex1 (mm) | Weight (lbs) | Weight (g) |
| ID1096015 | | ¼ | ¼ | Male BSPP | 1 | 3.0 | 1.3 | 0.5 | 0.87 | 76.2 | 34 | 11.9 | 22 | 0.47 | 214 |
| ID1096014 | | ¼ | ¼ | Male BSPT | 1 | 3.0 | 1.3 | 0.5 | 0.87 | 76.1 | 34 | 13 | 22 | 0.47 | 213 |
| ID1096041 | | ¼ | ¼ | Male NPT | 1 | 3.0 | 1.3 | 0.5 | 0.87 | 76 | 34 | 13 | 22 | 0.47 | 213 |
| ID1096039 | | ⅜ | ⅜ | Male BSPP | 1 | 3.0 | 1.3 | 0.5 | 0.87 | 76.20 | 34 | 11.9 | 22 | 0.48 | 218 |
| ID1096038 | | ⅜ | ⅜ | Male BSPT | 1 | 3.0 | 1.3 | 0.6 | 0.87 | 76.1 | 34 | 15 | 22 | 0.48 | 219 |
| ID1096083 | | ⅜ | ⅜ | Male NPT | 1 | 3.0 | 1.3 | 0.6 | 0.87 | 76.1 | 34 | 15 | 22 | 0.48 | 219 |
| ID1096013 | | ½ | ½ | Male BSPP | 1 | 3.0 | 1.3 | 0.5 | 1.06 | 76.2 | 34 | 13.9 | 27 | 0.52 | 238 |
| ID1096012 | | ½ | ½ | Male BSPT | 1 | 3.0 | 1.3 | 0.7 | 0.87 | 76.1 | 34 | 17 | 22 | 0.51 | 233 |
| ID1096021 | | ½ | ½ | Male NPT | 1 | 3.0 | 1.3 | 0.7 | 0.87 | 76.1 | 34 | 17 | 22 | 0.51 | 233 |
| ID1097014 | ⅜ | ¼ | ¼ | Female BSPP | 2 | 3.5 | 1.3 | - | 0.87 | 88.1 | 34 | - | 22 | 0.51 | 233 |
| ID1097041 | | ¼ | ¼ | Female NPT | 2 | 3.5 | 1.3 | - | 0.87 | 88.10 | 34 | - | 22 | 0.51 | 233 |
| ID1097038 | | ⅜ | ⅜ | Female BSPP | 2 | 3.6 | 1.3 | - | 0.87 | 90.60 | 34 | - | 22 | 0.51 | 232 |
| ID1097083 | | ⅜ | ⅜ | Female NPT | 2 | 3.6 | 1.3 | - | 0.87 | 90.6 | 34 | - | 22 | 0.51 | 232 |
| ID1097012 | | ½ | ½ | Female BSPP | 2 | 3.7 | 1.3 | - | 1.06 | 94.1 | 34 | - | 27 | 0.59 | 267 |
| ID1097021 | | ½ | ½ | Female NPT | 2 | 3.7 | 1.3 | - | 1.06 | 94.1 | 34 | - | 27 | 0.59 | 269 |
| ID1095678 | | - | 7 mm | Hose Tail | 3 | 3.0 | 1.3 | 1.1 | 0.87 | 77.1 | 34 | 28 | 22 | 0.47 | 215 |
| ID1095689 | | - | 8 mm | Hose Tail | 3 | 3.0 | 1.3 | 1.1 | 0.87 | 77.1 | 34 | 28 | 22 | 0.48 | 216 |
| ID1095690 | | - | 9 mm | Hose Tail | 3 | 3.0 | 1.3 | 1.1 | 0.87 | 77.1 | 34 | 28 | 22 | 0.48 | 218 |
| ID1095601 | | - | 10 mm | Hose Tail | 3 | 3.0 | 1.3 | 1.1 | 0.87 | 77.1 | 34 | 28 | 22 | 0.48 | 219 |

SPECIAL APPLICATIONS

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.).

*Alternative end connections available upon request.

DIAGNOSTIC

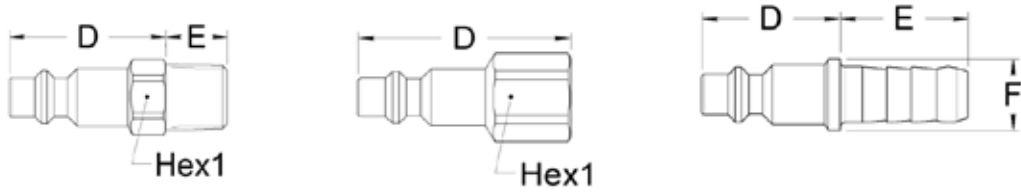


Figure 4

Figure 5

Figure 6

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam. | Type | Fig. | Dimensions | | | | | | | | | |
|-------------|-----------|-----------|----------------------|-------------|------|------------|--------|--------|-----------|--------|--------|--------|-----------|--------------|------------|
| | | | | | | D (in) | E (in) | F (in) | Hex1 (in) | D (mm) | E (mm) | F (mm) | Hex1 (mm) | Weight (lbs) | Weight (g) |
| IA0090614 | | ¼ | ¼ | Male BSPT | 4 | 1.34 | 0.51 | - | 0.63 | 34.00 | 13.00 | - | 16.00 | 0.07 | 32.00 |
| IA0090638 | | ⅜ | ⅜ | Male BSPT | 4 | 1.42 | 0.59 | - | 0.67 | 36.00 | 15.00 | - | 17.00 | 0.09 | 41.00 |
| IA0090612 | | ½ | ½ | Male BSPT | 4 | 1.57 | 0.67 | - | 0.91 | 40.00 | 17.00 | - | 23.00 | 0.12 | 56.00 |
| IA0090714 | | ¼ | ¼ | Female BSPP | 5 | 1.97 | - | - | 0.67 | 50.00 | - | - | 17.00 | 0.08 | 38.00 |
| IA0090738 | | ⅜ | ⅜ | Female BSPP | 5 | 1.97 | - | - | 0.83 | 50.00 | - | - | 21.00 | 0.11 | 49.00 |
| IA0090712 | ⅜ | ½ | ½ | Female BSPP | 5 | 2.09 | - | - | 1.02 | 53.00 | - | - | 26.00 | 0.15 | 69.00 |
| IA0090978 | | - | 7 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33.00 | 26.00 | 16.00 | - | 0.07 | 30.00 |
| IA0090989 | | - | 8 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33.00 | 26.00 | 16.00 | - | 0.07 | 30.00 |
| IA0090990 | | - | 9 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33.00 | 26.00 | 16.00 | - | 0.07 | 31.00 |
| IA0090901 | | - | 10 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33.00 | 26.00 | 16.00 | - | 0.07 | 32.00 |
| IA0090912 | | - | 11-12 mm | Hose Tail | 6 | 1.30 | 1.22 | 0.63 | - | 33.00 | 31.00 | 16.00 | - | 0.08 | 38.00 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.).

*Alternative end connections available upon request.

AGRICULTURE

REFRIGERANT

Safeline Series

ISO 6150 C GD18500/GK18600



Eaton's Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.

Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Meets Safety Standard ISO 4414
- Meets ISO 6150 Series C Standard
- Standard body material: Dural
- Standard seal material: Buna-N

Physical Characteristics

| Body Size | Nominal Flow Diameter (mm) | Max. Operating Pressure Connected or Disconnected | | Air Flow Rate* Δp 0.6 bar/8.7 psi** | | Δp 1 bar/14.5 psi*** | | Working Temperature | |
|-----------|----------------------------|---|-------|---|-------|------------------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | (lpm) | (gpm) | (lpm) | (gpm) | °C | °F |
| 1/4 | 5.5 | 16 | 232 | 515 | 136 | 650 | 172 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

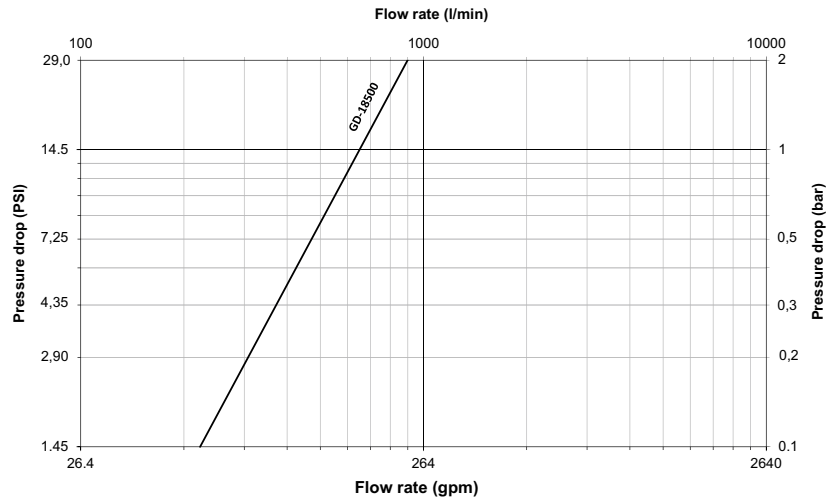
**This flow rate allows the optimum output from a pneumatic tool.

*** This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

Flow Data



Air flow-rate at 6 bar (87 psi)

Safeline Series

ISO 6150 C GD18500/GK18600

FLUID TRANSFER
AND HYDRAULIC

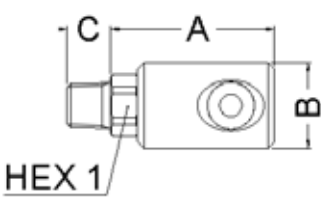


Figure 1

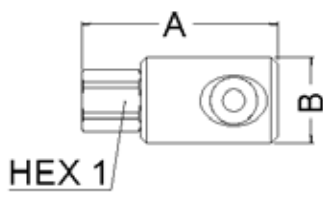


Figure 2

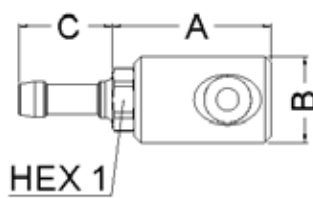


Figure 3

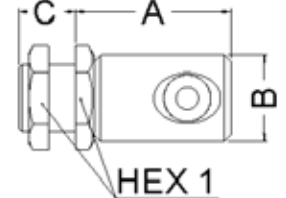


Figure 4

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam. | Type | Fig. | Dimensions | | | | | | | | | Weight | |
|-------------|-----------|-----------|----------------------|-------------------------|------|------------|------|------|------|------|------|------|------|-------|--------|--|
| | | | | | | A | B | C | Hex1 | A | B | C | Hex1 | (lbs) | (g) | |
| | | | | | | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | | | |
| GD1853615 | | ¼ | ¼ | Male BSPP | 1 | 1.85 | 1.02 | 0.47 | 0.75 | 47 | 26 | 12 | 19 | 0.17 | 77 | |
| GD1853614 | | ¼ | ¼ | Male BSPT | 1 | 1.93 | 1.02 | 0.51 | 0.67 | 49 | 26 | 13 | 17 | 0.17 | 76 | |
| GD1853639 | | ¾ | ¾ | Male BSPP | 1 | 1.89 | 1.02 | 0.47 | 0.87 | 48 | 26 | 12 | 22 | 0.20 | 91 | |
| GD1853638 | | ¾ | ¾ | Male BSPT | 1 | 1.93 | 1.02 | 0.57 | 0.67 | 49 | 26 | 14.5 | 17 | 0.19 | 84 | |
| GD1853613 | | ½ | ½ | Male BSPP | 1 | 1.97 | 1.02 | 0.55 | 1.06 | 50 | 26 | 14 | 27 | 0.25 | 115 | |
| GD1853612 | | ½ | ½ | Male BSPT | 1 | 1.89 | 1.02 | 0.67 | 0.87 | 48 | 26 | 17 | 22 | 0.27 | 123 | |
| GD1852614 | | ¼ | ¼ | Female BSPP | 2 | 2.30 | 1.02 | | 0.67 | 58.5 | 26 | - | 17 | 0.17 | 76 | |
| GD1852638 | ¼ | ¾ | ¾ | Female BSPP | 2 | 2.42 | 1.02 | | 0.87 | 61.5 | 26 | - | 22 | 0.22 | 99 | |
| GD1852612 | | ½ | ½ | Female BSPP | 2 | 2.58 | 1.02 | | 1.06 | 65.5 | 26 | - | 27 | 0.27 | 122 | |
| GD1855667 | | - | 6 mm | Hose Tail | 3 | 1.87 | 1.02 | 1.10 | 0.67 | 47.5 | 26 | 28 | 17 | 0.16 | 73 | |
| GD1855678 | | - | 7 mm | Hose Tail | 3 | 1.87 | 1.02 | 1.10 | 0.67 | 47.5 | 26 | 28 | 17 | 0.16 | 74 | |
| GD1855689 | | - | 8 mm | Hose Tail | 3 | 1.87 | 1.02 | 1.10 | 0.67 | 47.5 | 26 | 28 | 17 | 0.16 | 74 | |
| GD1855690 | | - | 9 mm | Hose Tail | 3 | 1.87 | 1.02 | 1.10 | 0.67 | 47.5 | 26 | 28 | 17 | 0.17 | 75 | |
| GD1855601 | | - | 10 mm | Hose Tail | 3 | 1.87 | 1.02 | 1.10 | 0.67 | 47.5 | 26 | 28 | 17 | 0.17 | 79 | |
| GD1855613 | | - | 13 mm | Hose Tail | 3 | 1.87 | 1.02 | 1.30 | 0.67 | 47.5 | 26 | 33 | 17 | 0.19 | 87 | |
| GD1855014 | | ¼ | ¼ | Female BSPP, Bulkhead* | 4 | 1.83 | 1.02 | 0.67 | 1.06 | 46.5 | 26 | 17 | 27 | 0.25 | 112 | |
| GD1855038 | | ¾ | ¾ | Female BSPP, Bulkhead** | 4 | 1.87 | 1.02 | 0.79 | 1.26 | 47.5 | 26 | 20 | 32 | 0.33 | 150 | |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 26 mm (1,02 in).

*Max bulkhead thickness: 10 mm (0,39 in) / Bulkhead hole diameter = 21 mm (0,83 in).

**Max bulkhead thickness: 12 mm (0,47 in) / Bulkhead hole diameter = 25 mm (0,98 in).

SPECIAL APPLICATIONS

DIAGNOSTIC

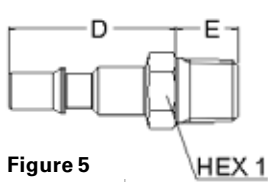


Figure 5

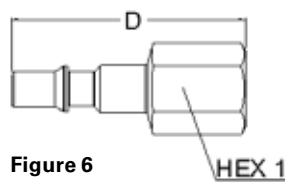


Figure 6

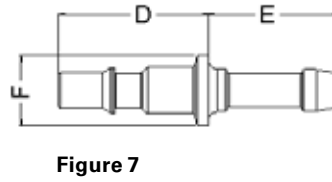


Figure 7

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam. | Type | Fig. | Dimensions | | | | | | | | | Weight | | |
|-------------|-----------|-----------|----------------------|---------------|------|------------|------|------|------|------|------|------|------|------|--------|-------|-----|
| | | | | | | D | E | F | Hex1 | Hex2 | D | E | F | Hex1 | Hex2 | (lbs) | (g) |
| | | | | | | (in) | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | (mm) | | |
| GK1866319 | | ½ | ½ | Male BSPP | 5 | 1.38 | 0.31 | | 0.55 | | 35 | 8 | | 14 | | 0.04 | 17 |
| GK1866318 | | ½ | ½ | Male BSPT | 5 | 1.34 | 0.31 | | 0.47 | | 34 | 8 | | 12 | | 0.03 | 14 |
| GK1866381 | | ½ | ½ | Male NPT | 5 | 1.34 | 0.39 | | 0.47 | | 34 | 10 | | 12 | | 0.03 | 15 |
| GK1866315 | | ¼ | ¼ | Male BSPP | 5 | 1.42 | 0.47 | | 0.67 | | 36 | 12 | | 17 | | 0.06 | 25 |
| GK1866314 | | ¼ | ¼ | Male BSPT | 5 | 1.40 | 0.51 | | 0.55 | | 35.5 | 13 | | 14 | | 0.05 | 23 |
| GK1866341 | | ¼ | ¼ | Male NPT | 5 | 1.42 | 0.59 | | 0.67 | | 36 | 15 | | 17 | | 0.07 | 30 |
| GK1866339 | | ¾ | ¾ | Male BSPP | 5 | 1.46 | 0.47 | | 0.87 | | 37 | 12 | | 22 | | 0.09 | 39 |
| GK1866338 | | ¾ | ¾ | Male BSPT | 5 | 1.48 | 0.47 | | 0.75 | | 37.5 | 12 | | 19 | | 0.08 | 37 |
| GK1866218 | | ½ | ½ | Female BSPP | 6 | 1.63 | | | 0.55 | | 41.5 | | | 14 | | 0.04 | 18 |
| GK1866281 | ¼ | ½ | ½ | Female NPT | 6 | 0.00 | | | 0.00 | | | | | | | 0.04 | 18 |
| GK1866214 | | ¼ | ¼ | Female BSPP | 6 | 1.97 | | | 0.67 | | 50 | | | 17 | | 0.07 | 33 |
| GK1866241 | | ¼ | ¼ | Female NPT | 6 | 1.97 | | | 0.67 | | 50 | | | 17 | | 0.07 | 32 |
| GK1866238 | | ¾ | ¾ | Female BSPP | 6 | 1.85 | | | 0.83 | | 47 | | | 21 | | 0.08 | 35 |
| GK1866245 | | M 14 | M 14 x 125 | Female Metric | 6 | 1.87 | | | 0.67 | | 47.5 | | | 17 | | 0.06 | 26 |
| GK1866767 | | - | 6 mm | Hose Tail | 7 | 1.26 | 1.10 | 0.59 | | | 32 | 28 | 15 | | | 0.03 | 15 |
| GK1866778 | | - | 7 mm | Hose Tail | 7 | 1.26 | 1.10 | 0.59 | | | 32 | 28 | 15 | | | 0.04 | 18 |
| GK1866789 | | - | 8 mm | Hose Tail | 7 | 1.26 | 1.10 | 0.59 | | | 32 | 28 | 15 | | | 0.04 | 19 |
| GK1866790 | | - | 9 mm | Hose Tail | 7 | 1.26 | 1.10 | 0.59 | | | 32 | 28 | 15 | | | 0.04 | 19 |
| GK1866701 | | - | 10 mm | Hose Tail | 7 | 1.26 | 1.10 | 0.59 | | | 32 | 28 | 15 | | | 0.04 | 20 |
| GK1866713 | | - | 13 mm | Hose Tail | 7 | 1.26 | 1.30 | 0.79 | | | 32 | 33 | 20 | | | 0.08 | 34 |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 26 mm (1,02 in).

AGRICULTURE

REFRIGERANT

Safeline Series

ISO 6150 C ID18900/IK18900



Eaton's Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.

Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Meets Safety Standard ISO 4414
- Meets ISO 6150 Series C Standard
- Standard body material: Dural
- Standard seal material: Buna-N

Physical Characteristics

| Body Size | Nominal Flow Diameter (mm) | Max. Operating Pressure Connected or Disconnected | | Air Flow Rate* Δp 0.6 bar/8.7 psi** | | | | Working Temperature | |
|-----------|----------------------------|---|-------|---|-------|-------|-------|---------------------|-----------|
| | | (bar) | (psi) | (lpm) | (gpm) | (lpm) | (gpm) | °C | °F |
| 3/8 | 8 | 16 | 232 | 1,080 | 285 | 1,350 | 356 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

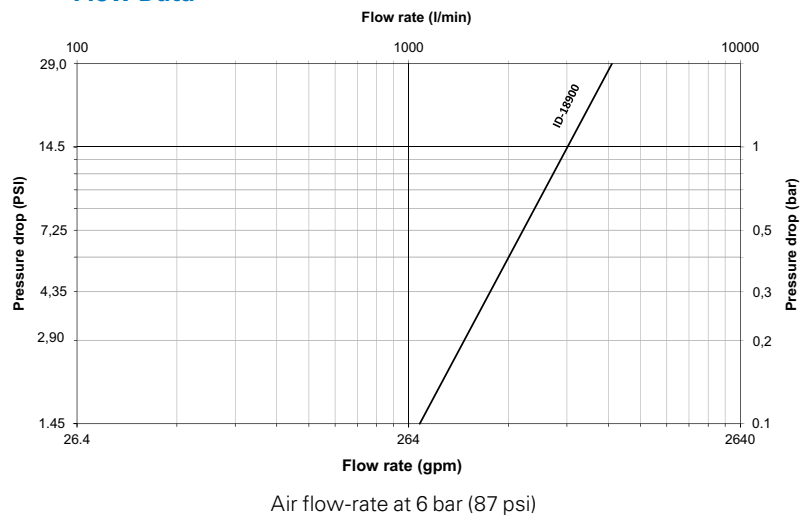
**This flow rate allows the optimum output from a pneumatic tool.

*** This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

Flow Data



Safeline Series

ISO 6150 C ID18900/IK18900

FLUID TRANSFER
AND HYDRAULIC

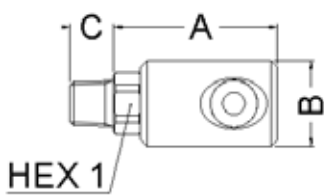


Figure 1

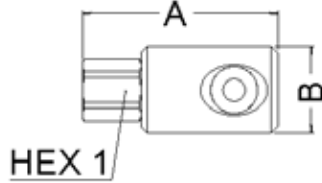


Figure 2

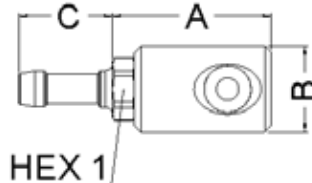


Figure 3

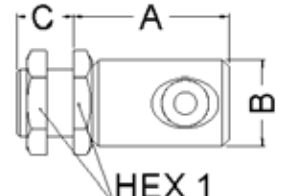


Figure 4

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam. Type | Fig. | Dimensions | | | | | | | | | | |
|-------------|-----------|-----------|---------------------------|-------------------------|------------|--------|--------|-----------|--------|--------|--------|-----------|--------------|------------|-----|
| | | | | | A (in) | B (in) | C (in) | Hex1 (in) | A (mm) | B (mm) | C (mm) | Hex1 (mm) | Weight (lbs) | Weight (g) | |
| ID1896015 | | ¼ | ¼ | Male BSPP | 1 | 2.45 | 1.34 | 0.47 | 0.87 | 62 | 34 | 12 | 22 | 0.35 | 160 |
| ID1896014 | | ¼ | ¼ | Male BSPT | 1 | 2.45 | 1.34 | 0.51 | 0.87 | 62 | 34 | 13 | 22 | 0.36 | 162 |
| ID1896039 | | ⅜ | ⅜ | Male BSPP | 1 | 2.45 | 1.34 | 0.47 | 0.87 | 62 | 34 | 12 | 22 | 0.36 | 165 |
| ID1896038 | | ⅜ | ⅜ | Male BSPT | 1 | 2.45 | 1.34 | 0.59 | 0.87 | 62 | 34 | 15 | 22 | 0.37 | 168 |
| ID1896013 | | ½ | ½ | Male BSPP | 1 | 2.45 | 1.34 | 0.55 | 1.06 | 62 | 34 | 14 | 27 | 0.37 | 168 |
| ID1896012 | | ½ | ½ | Male BSPT | 1 | 2.45 | 1.34 | 0.67 | 0.87 | 62 | 34 | 17 | 22 | 0.40 | 180 |
| ID1897014 | | ¼ | ¼ | Female BSPP | 2 | 2.92 | 1.34 | - | 0.87 | 74 | 34 | - | 22 | 0.40 | 182 |
| ID1897038 | % | ⅜ | ⅜ | Female BSPP | 2 | 3.02 | 1.34 | - | 0.87 | 77 | 34 | - | 22 | 0.40 | 180 |
| ID1897012 | | ½ | ½ | Female BSPP | 2 | 3.16 | 1.34 | - | 1.06 | 80 | 34 | - | 27 | 0.48 | 216 |
| ID1895689 | | - | 8 mm | Hose Tail | 3 | 2.49 | 1.34 | 1.10 | 0.87 | 63 | 34 | 28 | 22 | 0.36 | 165 |
| ID1895690 | | - | 9 mm | Hose Tail | 3 | 2.49 | 1.34 | 1.10 | 0.87 | 63 | 34 | 28 | 22 | 0.35 | 160 |
| ID1895601 | | - | 10 mm | Hose Tail | 3 | 2.49 | 1.34 | 1.10 | 0.87 | 63 | 34 | 28 | 22 | 0.37 | 166 |
| ID1895613 | | - | 13 mm | Hose Tail | 3 | 2.49 | 1.34 | 1.30 | 0.87 | 63 | 34 | 33 | 22 | 0.39 | 177 |
| ID1895038 | | ⅜ | ⅜ | Female BSPP, Bulkhead* | 4 | 2.37 | 1.34 | 0.79 | 1.26 | 60 | 34 | 20 | 32 | 0.52 | 235 |
| ID1895012 | | ½ | ⅜ | Female BSPP, Bulkhead** | 4 | 2.39 | 1.34 | 0.91 | 1.38 | 61 | 34 | 23 | 35 | 0.59 | 269 |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 40 mm (1,57 in).

*Max bulkhead thickness: 12 mm (0,47 in) / Bulkhead hole diameter = 25 mm (0,98 in)

**Max bulkhead thickness: 15 mm (0,59 in) / Bulkhead hole diameter = 31 mm (1,22 in)

SPECIAL APPLICATIONS

DIAGNOSTIC

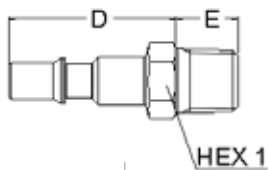


Figure 5

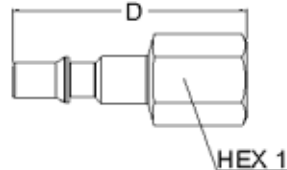


Figure 6

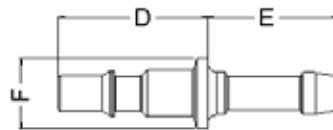


Figure 7

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam. Type | Fig. | Dimensions | | | | | | | | | | |
|-------------|-----------|-----------|---------------------------|-------------|------------|--------|--------|-----------|--------|--------|--------|-----------|--------------|------------|----|
| | | | | | D (in) | E (in) | F (in) | Hex1 (in) | D (mm) | E (mm) | F (mm) | Hex1 (mm) | Weight (lbs) | Weight (g) | |
| IK1890615 | | ¼ | ¼ | Male BSPP | 5 | 1.81 | 0.47 | 0.75 | 0.75 | 46 | 12 | - | 19 | 0.10 | 44 |
| IK1890614 | | ¼ | ¼ | Male BSPT | 5 | 1.77 | 0.51 | 0.67 | 0.67 | 45 | 13 | - | 17 | 0.08 | 38 |
| IK1890641 | | ¼ | ¼ | Male NPT | 5 | 1.77 | 0.51 | 0.67 | 0.67 | 45 | 13 | - | 17 | 0.09 | 39 |
| IK1890639 | | ⅜ | ⅜ | Male BSPP | 5 | 1.81 | 0.47 | 0.87 | 0.87 | 46 | 12 | - | 22 | 0.11 | 51 |
| IK1890638 | | ⅜ | ⅜ | Male BSPT | 5 | 1.77 | 0.59 | 0.75 | 0.75 | 45 | 15 | - | 19 | 0.11 | 51 |
| IK1890683 | | ⅜ | ⅜ | Male NPT | 5 | 1.77 | 0.59 | 0.75 | 0.75 | 45 | 15 | - | 19 | 0.11 | 52 |
| IK1890613 | | ½ | ½ | Male BSPP | 5 | 1.81 | 0.55 | 1.02 | 1.02 | 46 | 14 | - | 26 | 0.16 | 73 |
| IK1890612 | % | ½ | ½ | Male BSPT | 5 | 1.77 | 0.67 | 0.87 | 0.87 | 45 | 17 | - | 22 | 0.15 | 66 |
| IK1890714 | | ¼ | ¼ | Female BSPP | 6 | 2.36 | - | 0.67 | 0.67 | 60 | - | - | 17 | 0.09 | 40 |
| IK1890741 | | ¼ | ¼ | Female NPT | 6 | 2.36 | - | 0.67 | 0.67 | 60 | - | - | 17 | 0.09 | 40 |
| IK1890738 | | ⅜ | ⅜ | Female BSPP | 6 | 2.36 | - | 0.83 | 0.83 | 60 | - | - | 21 | 0.11 | 52 |
| IK1890783 | | ⅜ | ⅜ | Female NPT | 6 | 2.36 | - | 0.83 | 0.83 | 60 | - | - | 21 | 0.12 | 55 |
| IK1890712 | | ½ | ½ | Female BSPP | 6 | 2.36 | - | 1.02 | 1.02 | 60 | - | - | 26 | 0.15 | 66 |
| IK1890989 | | - | 8 mm | Hose Tail | 7 | 1.65 | 1.10 | 0.63 | 0.63 | 42 | 28 | 16 | - | 0.07 | 33 |
| IK1890990 | | - | 9 mm | Hose Tail | 7 | 1.65 | 1.10 | 0.63 | 0.63 | 42 | 28 | 16 | - | 0.07 | 33 |
| IK1890901 | | - | 10 mm | Hose Tail | 7 | 1.65 | 1.10 | 0.63 | 0.63 | 42 | 28 | 16 | - | 0.08 | 35 |
| IK1890913 | | - | 13 mm | Hose Tail | 7 | 1.65 | 1.30 | 0.79 | 0.79 | 42 | 33 | 20 | - | 0.10 | 46 |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 40 mm (1,57 in).

AGRICULTURE

REFRIGERANT

Safeline Series

ISO 6150 C TD18300/TK18300



Eaton's Safeline Series is an Industrial Interchange pneumatic coupling with push button safety feature designed for use with compressed air. Two-step disconnect procedure shuts off air supply and releases downstream air pressure before plug can be removed from socket/female, which prevents hose whip.

Product Features

- Safe and easy to connect and disconnect
- Light weight, compact ergonomic design
- Meets Safety Standard ISO 4414
- Meets ISO 6150 Series C Standard
- Standard body material: Dural
- Standard seal material: Buna-N

Physical Characteristics

| Body Size | Nominal Flow Diameter (mm) | Max. Operating Pressure Connected or Disconnected | | Air Flow Rate* Δp 0.6 bar/8.7 psi** | | Δp 1 bar/14.5 psi*** | | Working Temperature | |
|-----------|-------------------------------|--|-------|--|-------|----------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | (lpm) | (gpm) | (lpm) | (gpm) | °C | °F |
| ½ | 11 | 16 | 232 | 2,400 | 634 | 3,000 | 793 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

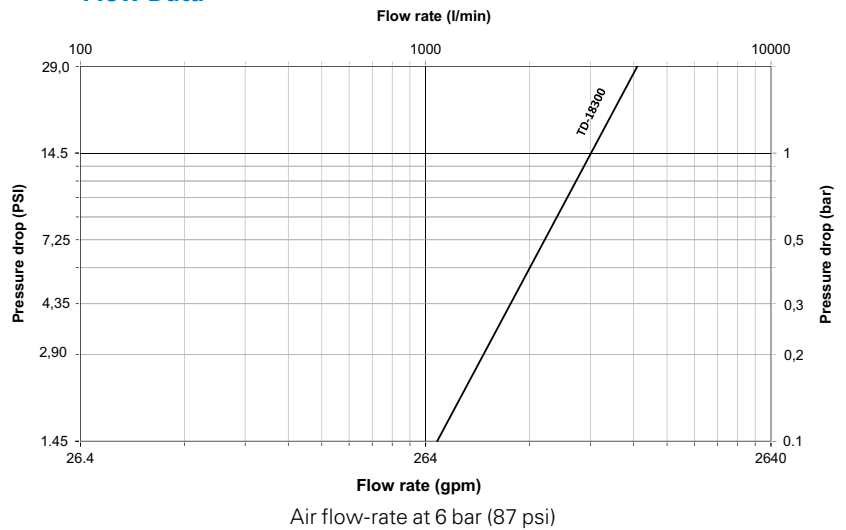
**This flow rate allows the optimum output from a pneumatic tool.

*** This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- General Pneumatics
- Air Tools
- Industrial Plants
- Maintenance and Repair

Flow Data



Safeline Series

ISO 6150 C TD18300/TK18300

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

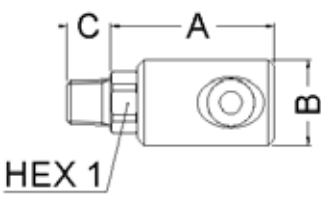


Figure 1

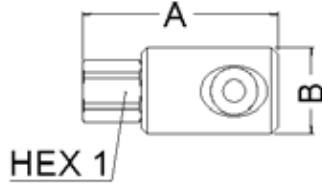


Figure 2

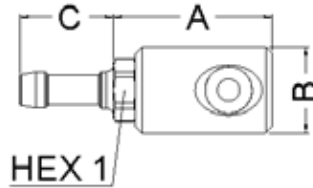


Figure 3

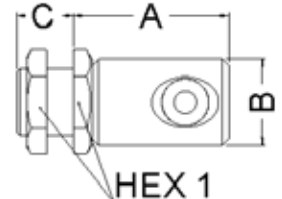


Figure 4

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam. | Type | Fig. | Dimensions | | | | | | | | | | Weight | | | |
|-------------|-----------|-----------|----------------------|-------------------------|------|------------|--------|--------|-----------|-----------|--------|--------|--------|-----------|-----------|--------|-----|------|-----|
| | | | | | | A (in) | B (in) | C (in) | Hex1 (in) | Hex2 (in) | A (mm) | B (mm) | C (mm) | Hex1 (mm) | Hex2 (mm) | (lbs) | (g) | | |
| TD1832012 | | ½ | ½ | Male BSPT | 1 | 2.78 | 1.56 | 0.67 | 1.06 | | | | | | | | | 0.58 | 262 |
| TD1832034 | | ¾ | ¾ | Male BSPT | 1 | 2.78 | 1.56 | 0.73 | 1.14 | | | | | | | | | 0.63 | 287 |
| TD1832138 | | ¾ | ¾ | Female BSPP | 2 | 3.27 | 1.56 | | 1.06 | | | | | | | | | 0.62 | 280 |
| TD1832112 | | ½ | ½ | Female BSPP | 2 | 3.27 | 1.56 | | 1.06 | | | | | | | | | 0.58 | 261 |
| TD1832134 | ½ | ¾ | ¾ | Female BSPP | 2 | 3.51 | 1.56 | | 1.26 | | | | | | | | | 0.67 | 304 |
| TD1835601 | - | | 10 mm | Hose Tail | 3 | 2.84 | 1.56 | 1.10 | 1.06 | | | | | | | | | 0.56 | 256 |
| TD1835613 | - | | 13 mm | Hose Tail | 3 | 2.84 | 1.56 | 1.30 | 1.06 | | | | | | | | | 0.59 | 267 |
| TD1835616 | - | | 16 mm | Hose Tail | 3 | 2.84 | 1.56 | 1.30 | 1.06 | | | | | | | | | 0.60 | 270 |
| TD1835012 | | ½ | ½ | Female BSPP, Bulkhead* | 4 | 2.78 | 1.56 | 0.91 | 1.38 | | | | | | | | | 0.76 | 343 |
| TD1835034 | | ¾ | ¾ | Female BSPP, Bulkhead** | 4 | 2.82 | 1.56 | 0.98 | 1.50 | | | | | | | | | 0.77 | 350 |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 20 mm (0,79 in).

*Max bulkhead thickness: 15 mm (0,59 in) / Bulkhead hole diameter = 31 mm (1,22 in)

**Max bulkhead thickness: 16 mm (0,63 in) / Bulkhead hole diameter = 33 mm (1,30 in)

DIAGNOSTIC

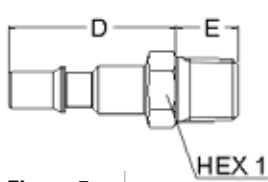


Figure 5

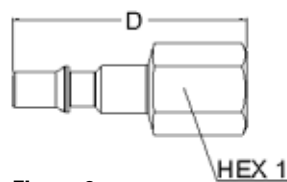


Figure 6

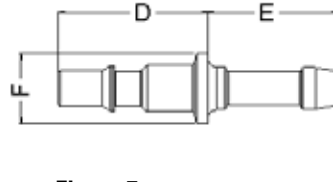


Figure 7

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam. | Type | Fig. | Dimensions | | | | | | Weight | | | |
|-------------|-----------|-----------|----------------------|-------------|------|------------|--------|--------|-----------|--------|--------|--------|-----------|-------|-----|
| | | | | | | D (in) | E (in) | F (in) | Hex1 (in) | D (mm) | E (mm) | F (mm) | Hex1 (mm) | (lbs) | (g) |
| TK1831539 | | ¾ | ¾ | Male BSPP | 5 | 2.01 | 0.47 | | 0.87 | 51.1 | 11.9 | | 22 | 2.32 | 59 |
| TK1831512 | | ½ | ½ | Male BSPT | 5 | 1.97 | 0.67 | | 0.87 | 50 | 17 | | 22 | 2.56 | 65 |
| TK1831534 | | ¾ | ¾ | Male BSPT | 5 | 2.11 | 0.73 | | 1.14 | 53.5 | 18.5 | | 29 | 3.86 | 98 |
| TK1831638 | | ¾ | ¾ | Female BSPP | 6 | 2.56 | | | 1.02 | 65 | | | 26 | 3.70 | 94 |
| TK1831612 | ½ | ½ | ½ | Female BSPP | 6 | 2.56 | | | 1.02 | 65 | | | 26 | 3.02 | 77 |
| TK1831634 | | ¾ | ¾ | Female BSPP | 6 | 2.87 | | | 1.26 | 73 | | | 32 | 5.02 | 128 |
| TK1831889 | - | | 8 mm | Hose Tail | 7 | 1.85 | 1.10 | 0.79 | | 47 | 28 | 20 | | 1.87 | 48 |
| TK1831801 | - | | 10 mm | Hose Tail | 7 | 1.85 | 1.10 | 0.79 | | 47 | 28 | 20 | | 1.91 | 48 |
| TK1831813 | - | | 13 mm | Hose Tail | 7 | 1.85 | 1.30 | 0.79 | | 47 | 33 | 20 | | 2.19 | 56 |
| TK1831816 | - | | 16 mm | Hose Tail | 7 | 1.85 | 1.30 | 0.79 | | 47 | 33 | 20 | | 2.40 | 61 |

To obtain connected length of coupling add Dimensions A or A+C (Fig. 1, 2, 3, 4) and D or D+E (Fig. 5, 6, 7) together and subtract 20 mm (0,79 in).

REFRIGERANT

1000 Series



Eaton's 1000 Series is an Industrial Interchange pneumatic coupling that is rugged and reliable designed for use with compressed air, gases and liquids.

Product Features

- Ball-latching mechanism
- Optional sleeve lock prevents accidental disconnection
- All sizes accept U.S. Industrial Interchange
- ¼" accepts ISO 6150 B and A-A-59439 plugs/males
- Standard body material: Brass with nickel plated steel sleeve
- Standard seal material: Buna-N
- Optional seal materials: Silicone-138, FKM-143, EPDM-192

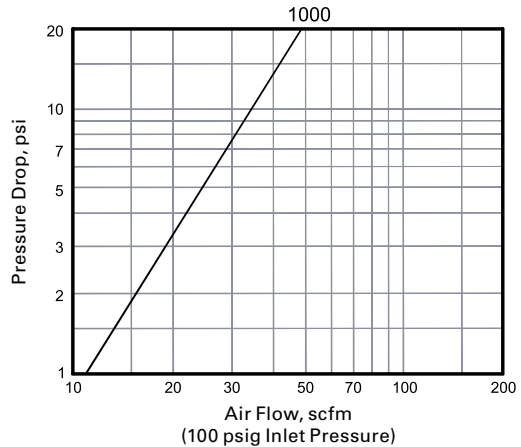
Physical Characteristics

| Series | Body Size | Max. Operating Pressure | | Min. Burst Pressure | | Rated Flow | |
|--------|-----------|-------------------------|-------|---------------------|-------|------------|-------|
| | (in) | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) |
| 1000 | ¼ | 138 | 2,000 | 552 | 8,000 | 679 | 179 |

Applications & Markets

- General Pneumatics
- Construction
- Industrial Plants

Flow Data



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

1000 Series

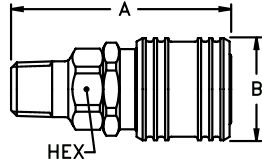


Figure 1

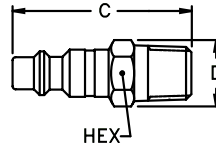


Figure 2

Male NPTF Connections

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions | | | A | B | Hex |
|-------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|------|-------|-------|-------|
| | | | | | | | | A | B | Hex | | | |
| | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 900 | Socket/Female | ¼ | ½ | ½-27 | NPTF | Brass | 1 | 1.97 | 1.00 | 0.69 | 50.04 | 25.40 | 17.53 |
| 1100 | Socket/Female | ¼ | ¼ | ¼-18 | NPTF | Brass | 1 | 2.16 | 1.00 | 0.69 | 54.86 | 25.40 | 17.53 |
| 1300 | Socket/Female | ¼ | ¾ | ¾-18 | NPTF | Brass | 1 | 2.12 | 1.00 | 0.69 | 53.85 | 25.40 | 17.53 |
| LL1100 | Socket/Female | ¼ | ¼ | ¼-18 | NPTF | Stainless | 1 | 2.16 | 1.00 | 0.69 | 54.86 | 25.40 | 17.53 |
| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions | | | C | D | Hex |
| | | | | | | | | C | D | Hex | | | |
| | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 10 | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Steel | 2 | 1.75 | 0.62 | 0.56 | 44.45 | 15.75 | 14.22 |
| 10C§ | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Steel | 2 | 1.75 | 0.65 | 0.56 | 44.45 | 16.51 | 14.22 |
| 10G† | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Steel | 2 | 1.75 | 0.65 | 0.56 | 44.45 | 16.51 | 14.22 |
| 12E | Plug/Male | ¼ | ½ | ½-27 | NPTF | Steel | 2 | 1.59 | 0.58 | 0.50 | 40.38 | 14.73 | 12.7 |
| 12G† | Plug/Male | ¼ | ½ | ½-27 | NPTF | Steel | 2 | 2.38 | 0.77 | 0.69 | 60.45 | 19.55 | 17.52 |
| 14 | Plug/Male | ¼ | ¾ | ¾-18 | NPTF | Steel | 2 | 1.75 | 0.79 | 0.69 | 44.45 | 20.06 | 17.52 |
| 14G† | Plug/Male | ¼ | ¾ | ¾-18 | NPTF | Steel | 2 | 2.53 | 0.77 | 0.69 | 64.26 | 19.55 | 17.52 |
| B10 | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Brass | 2 | 1.75 | 0.62 | 0.56 | 44.45 | 16.25 | 14.22 |
| LL10 | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Stainless | 2 | 1.75 | 0.62 | 0.56 | 44.45 | 16.51 | 14.22 |
| 10NK* | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Steel | 2 | 1.75 | 0.62 | 0.56 | 44.45 | 15.75 | 14.22 |

§ With Ball Check †With Bleeder Ball Check—Reduces Hose Whip *Nickel plated

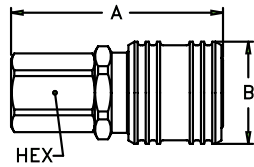


Figure 3

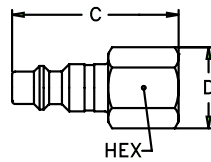


Figure 4

Female NPTF Connections

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions | | | A | B | Hex |
|-------------|---------------|-----------|-----------|--------|------|-----------|------|------------|------|------|-------|-------|-------|
| | | | | | | | | A | B | Hex | | | |
| | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 800E | Socket/Female | ¼ | ½ | ½-27 | NPTF | Brass | 3 | 1.86 | 1.00 | 0.69 | 47.24 | 25.40 | 17.53 |
| 1000E | Socket/Female | ¼ | ¼ | ¼-18 | NPTF | Brass | 3 | 2.08 | 1.00 | 0.69 | 52.83 | 25.40 | 17.53 |
| 1200 | Socket/Female | ¼ | ¾ | ¾-18 | NPTF | Brass | 3 | 2.16 | 1.00 | 0.75 | 54.86 | 25.40 | 19.05 |
| LL1000 | Socket/Female | ¼ | ¼ | ¼-18 | NPTF | Stainless | 3 | 2.08 | 1.00 | 0.69 | 52.83 | 25.40 | 17.53 |
| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Material | Fig. | Dimensions | | | C | D | Hex |
| | | | | | | | | C | D | Hex | | | |
| | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 11 | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Steel | 4 | 1.63 | 0.79 | 0.69 | 41.40 | 20.07 | 17.53 |
| 11G† | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Steel | 4 | 2.44 | 0.77 | 0.69 | 61.98 | 19.56 | 17.53 |
| 13 | Plug/Male | ¼ | ½ | ½-27 | NPTF | Steel | 4 | 1.47 | 0.65 | 0.56 | 37.34 | 16.51 | 14.22 |
| 15E | Plug/Male | ¼ | ¾ | ¾-18 | NPTF | Steel | 4 | 1.69 | 0.94 | 0.81 | 42.93 | 23.88 | 20.57 |
| 11B | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Brass | 4 | 1.63 | 0.78 | 0.69 | 41.40 | 19.81 | 17.53 |
| LL11 | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Stainless | 4 | 1.63 | 0.79 | 0.69 | 41.40 | 20.07 | 17.53 |
| 11NK* | Plug/Male | ¼ | ¼ | ¼-18 | NPTF | Steel | 4 | 1.63 | 0.79 | 0.69 | 41.40 | 20.07 | 17.53 |

†With Bleeder Ball Check—Reduces Hose Whip *Nickel plated

1000 Series

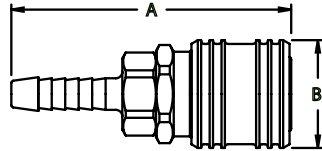


Figure 5

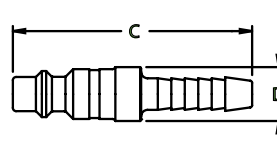
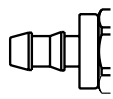


Figure 6

Hose Stem End Connections

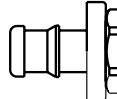
| Part Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions | | A | B |
|-------------|---------------|-----------|-----------|----------|-------|------------|------|-------|-------|
| | | | | | | A | B | | |
| | | | | | | (in) | (in) | (mm) | (mm) |
| 1600E | Socket/Female | ¼ | ¼ | Brass | 5 | 2.60 | 1.00 | 66.04 | 25.40 |
| 1600P‡ | Socket/Female | ¼ | ¼ | Brass | 5, 5A | 2.37 | 1.00 | 60.20 | 25.40 |
| 1700E | Socket/Female | ¼ | ¾ | Brass | 5 | 2.60 | 1.00 | 66.04 | 25.40 |
| 1700P‡ | Socket/Female | ¼ | ¾ | Brass | 5, 5A | 2.44 | 1.00 | 61.98 | 25.40 |
| 1800 | Socket/Female | ¼ | ⅝ | Brass | 5 | 2.60 | 1.00 | 66.04 | 25.40 |
| Part Number | Coupling Type | Body Size | Hose I.D. | Material | Fig. | Dimensions | | C | D |
| | | | | | | C | D | | |
| | | | | | | (in) | (in) | (mm) | (mm) |
| 16 | Plug/Male | ¼ | ¼ | Steel | 6 | 2.22 | 0.50 | 56.39 | 12.70 |
| 16G† | Plug/Male | ¼ | ¼ | Steel | 6 | 2.97 | 0.77 | 75.44 | 19.56 |
| 16P‡ | Plug/Male | ¼ | ¼ | Steel | 6, 6A | 2.00 | 0.58 | 50.80 | 14.73 |
| 17 | Plug/Male | ¼ | ¾ | Steel | 6 | 2.22 | 0.5 | 56.39 | 12.70 |
| 17G‡ | Plug/Male | ¼ | ¾ | Steel | 6 | 2.96 | 0.77 | 75.18 | 19.56 |
| 17P‡ | Plug/Male | ¼ | ¾ | Steel | 6, 6A | 2.06 | 0.5 | 52.32 | 12.70 |
| 18E | Plug/Male | ¼ | ⅝ | Steel | 6 | 2.22 | 0.50 | 56.39 | 12.70 |
| B17 | Plug/Male | ¼ | ¾ | Brass | 6 | 2.22 | 0.5 | 56.39 | 12.70 |
| 16NK* | Plug/Male | ¼ | ¼ | Steel | 6 | 2.22 | 0.50 | 56.39 | 12.70 |
| 17NK* | Plug/Male | ¼ | ¾ | Steel | 6 | 2.22 | 0.5 | 56.39 | 12.70 |

†With Bleeder Ball Check—Reduces Hose Whip ‡ For use with push-on style hose *Nickel plated

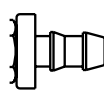


1600P

Figure 5A

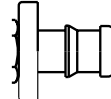


1700P



16P

Figure 6A



17P

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

1000 Series

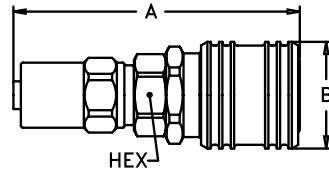


Figure 7

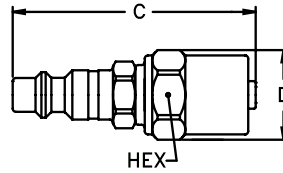


Figure 8

Hose Clamp End Connections

| Part Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions | | | A | B | Hex |
|-------------|---------------|-----------|-----------|-----------|----------|------|------------|------|------|-------|-------|-------|
| | | | | | | | A | B | Hex | | | |
| | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 1SB1 | Socket/Female | ¼ | ¼ | 1½/32 | Brass | 7 | 2.69 | 1.00 | 0.69 | 68.33 | 25.40 | 17.53 |
| 1SB3 | Socket/Female | ¼ | ¼ | ½ | Brass | 7 | 2.69 | 1.00 | 0.69 | 68.33 | 25.40 | 17.53 |
| 1SB5E | Socket/Female | ¼ | ¼ | 9/16 | Brass | 7 | 2.69 | 1.00 | 0.69 | 68.33 | 25.40 | 17.53 |
| 1SB7 | Socket/Female | ¼ | ¼ | 5/8 | Brass | 7 | 2.69 | 1.00 | 0.69 | 68.33 | 25.40 | 17.53 |
| 1SC5 | Socket/Female | ¼ | 9/16 | 9/16 | Brass | 7 | 2.75 | 1.00 | 0.69 | 69.85 | 25.40 | 17.53 |
| 1SC7 | Socket/Female | ¼ | 9/16 | 5/8 | Brass | 7 | 2.75 | 1.00 | 0.69 | 69.85 | 25.40 | 17.53 |
| 1SC9 | Socket/Female | ¼ | 9/16 | 11/16 | Brass | 7 | 2.75 | 1.00 | 0.69 | 69.85 | 25.40 | 17.53 |
| 1SD5 | Socket/Female | ¼ | 5/8 | 9/16 | Brass | 7 | 2.81 | 1.00 | 0.69 | 71.37 | 25.40 | 17.53 |
| 1SD7 | Socket/Female | ¼ | 5/8 | 5/8 | Brass | 7 | 2.81 | 1.00 | 0.69 | 71.37 | 25.40 | 17.53 |
| 1SD9 | Socket/Female | ¼ | 5/8 | 11/16 | Brass | 7 | 2.81 | 1.00 | 0.69 | 71.37 | 25.40 | 17.53 |
| 1SD11 | Socket/Female | ¼ | 5/8 | ¾ | Brass | 7 | 2.81 | 1.00 | 0.69 | 71.37 | 25.40 | 17.53 |
| Part Number | Coupling Type | Body Size | Hose I.D. | Hose O.D. | Material | Fig. | Dimensions | | | C | D | Hex |
| | | | | | | | C | D | Hex | | | |
| | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 3PB1 | Plug/Male | ¼ | ¼ | 1½/32 | Steel | 8 | 2.31 | 0.70 | 0.63 | 58.67 | 17.78 | 16.00 |
| 3PB3 | Plug/Male | ¼ | ¼ | ½ | Steel | 8 | 2.31 | 0.70 | 0.63 | 58.67 | 17.78 | 16.00 |
| 3PB5 | Plug/Male | ¼ | ¼ | 9/16 | Steel | 8 | 2.31 | 0.77 | 0.69 | 58.67 | 19.56 | 17.53 |
| 3PB7 | Plug/Male | ¼ | ¼ | 5/8 | Steel | 8 | 2.31 | 0.84 | 0.75 | 58.67 | 21.34 | 19.05 |
| 3PB9 | Plug/Male | ¼ | ¼ | 11/16 | Steel | 8 | 2.31 | 0.94 | 0.81 | 58.67 | 23.88 | 20.57 |
| 3PB11 | Plug/Male | ¼ | ¼ | ¾ | Steel | 8 | 2.31 | 0.98 | 0.88 | 58.67 | 24.89 | 22.35 |
| 3PC5 | Plug/Male | ¼ | 9/16 | 9/16 | Steel | 8 | 2.38 | 0.77 | 0.69 | 60.45 | 19.56 | 17.53 |
| 3PC7 | Plug/Male | ¼ | 9/16 | 5/8 | Steel | 8 | 2.38 | 0.84 | 0.75 | 60.45 | 21.34 | 19.05 |
| 3PC9 | Plug/Male | ¼ | 9/16 | 11/16 | Steel | 8 | 2.38 | 0.91 | 0.81 | 60.45 | 23.11 | 20.57 |
| 3PD5 | Plug/Male | ¼ | 5/8 | 9/16 | Steel | 8 | 2.44 | 0.77 | 0.69 | 61.98 | 19.56 | 17.53 |
| 3PD7 | Plug/Male | ¼ | 5/8 | 5/8 | Steel | 8 | 2.44 | 0.84 | 0.75 | 61.98 | 21.34 | 19.05 |
| 3PD9 | Plug/Male | ¼ | 5/8 | 11/16 | Steel | 8 | 2.44 | 0.91 | 0.81 | 61.98 | 23.11 | 20.57 |
| 3PD11 | Plug/Male | ¼ | 5/8 | ¾ | Steel | 8 | 2.44 | 1.01 | 0.88 | 61.98 | 25.65 | 22.35 |

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

G600 Series ISO 6150 B Interchange



Eaton Gromelle™ G600 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 B and US A-A-59439 Standards requirements. Nominal diameter is 5.5 mm. Its new revamped design and the materials used make it a rugged and long-lasting coupling, offered in a wide selection of end connections. It is used in general pneumatic applications.

Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Shock-resistant ergonomic sleeve
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent-plated steel
- Standard seal material: NBR

Physical Characteristics

| Body Size | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Air Flow Rate* Δp 0.6 bar/8.7 psi** | | | | Working Temperature | |
|-----------|----------------------------|-------------------------|-------|--|-------|-------|-------|---------------------|-----------|
| | | (bar) | (psi) | (lpm) | (gpm) | (lpm) | (gpm) | °C | °F |
| 1/4 | 5.5 | 20 | 290 | 1,050 | 277 | 1,315 | 347 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

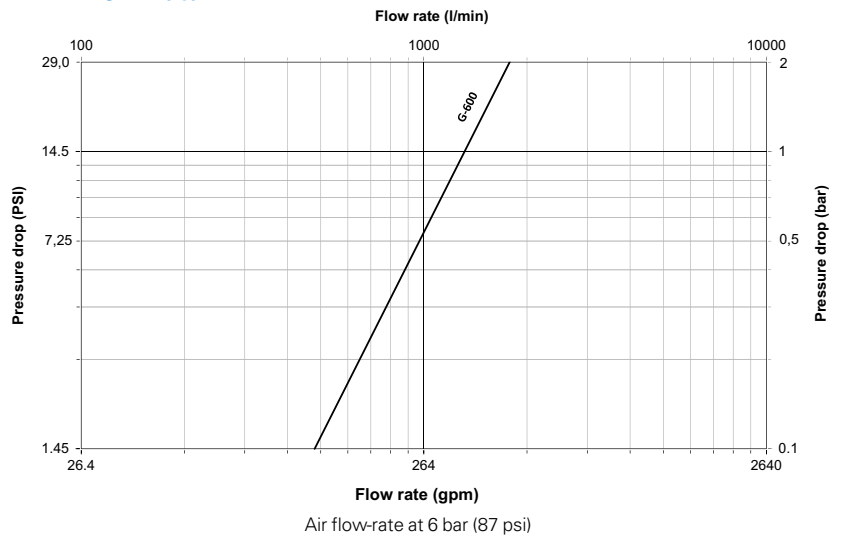
**This flow rate allows the optimum output from a pneumatic tool.

*** This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- Compressed Air
- Pneumatic Tools

Flow Data



G600 Series ISO 6150 B Interchange

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

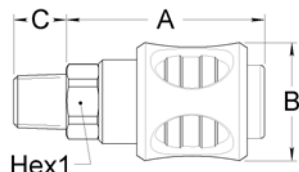


Figure 1

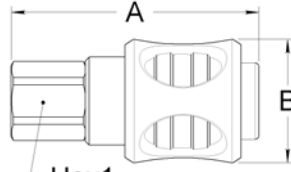


Figure 2

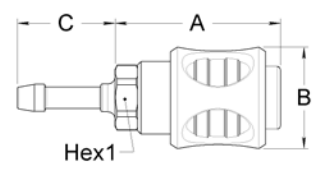


Figure 3

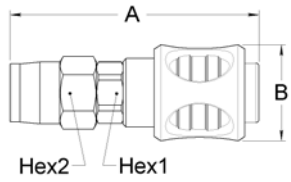


Figure 4

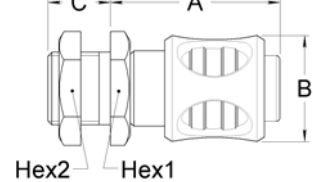


Figure 5

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | Hex1 (in) | Hex2 (in) | A (mm) | B (mm) | C (mm) | Hex1 (mm) | Hex2 (mm) | Weight | |
|-------------|-----------|-----------|-----------------------|------------------------|------|------------|--------|--------|-----------|-----------|--------|--------|--------|-----------|-----------|--------|-----|
| | | | | | | A (in) | B (in) | C (in) | | | | | | | | lbs | g |
| GL0063614 | | ¼ | ¼-19 | Male BSPT | 1 | 1.93 | 1.14 | 0.51 | 0.67 | - | 49 | 29 | 13 | 17 | - | 0.23 | 103 |
| GL0063638 | | ⅜ | ⅜-19 | Male BSPT | 1 | 1.93 | 1.14 | 0.57 | 0.67 | - | 49 | 29 | 14.5 | 17 | - | 0.25 | 112 |
| GL0063612 | | ½ | ½-14 | Male BSPT | 1 | 1.89 | 1.14 | 0.67 | 0.87 | - | 48 | 29 | 17 | 22 | - | 0.28 | 126 |
| GL0063645 | | M14 | M14x1,25 | Male Metric | 1 | 1.93 | 1.14 | 0.51 | 0.67 | - | 49 | 29 | 13 | 17 | - | 0.23 | 105 |
| GL0062614 | | ¼ | ¼-19 | Female BSPP | 2 | 2.30 | 1.14 | - | 0.67 | - | 58.5 | 29 | - | 17 | - | 0.22 | 102 |
| GL0062638 | | ⅜ | ⅜-19 | Female BSPP | 2 | 2.42 | 1.14 | - | 0.87 | - | 61.5 | 29 | - | 22 | - | 0.27 | 121 |
| GL0062645 | | M14 | M14x1,25 | Female Metric | 2 | 2.34 | 1.14 | - | 0.67 | - | 59.5 | 29 | - | 17 | - | 0.22 | 101 |
| GL0065667 | | - | 6 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | 0.67 | - | 47.5 | 29 | 28 | 17 | - | 0.22 | 99 |
| GL0065678 | ¼ | - | 7 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | 0.67 | - | 47.5 | 29 | 28 | 17 | - | 0.22 | 101 |
| GL0065689 | | - | 8 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | 0.67 | - | 47.5 | 29 | 28 | 17 | - | 0.22 | 101 |
| GL0065690 | | - | 9 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | 0.67 | - | 47.5 | 29 | 28 | 17 | - | 0.22 | 102 |
| GL0065601 | | - | 10 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | 0.67 | - | 47.5 | 29 | 28 | 17 | - | 0.22 | 102 |
| GL0061674 | | - | 7x14 mm | Reusable Hose Fit. | 4 | 2.95 | 1.14 | - | 0.67 | 0.75 | 75 | 29 | - | 17 | 19 | 0.30 | 134 |
| GL0061684 | | - | 8x14 mm | Reusable Hose Fit. | 4 | 2.95 | 1.14 | - | 0.67 | 0.75 | 75 | 29 | - | 17 | 19 | 0.29 | 130 |
| GL0061685 | | - | 8x15 mm | Reusable Hose Fit. | 4 | 2.95 | 1.14 | - | 0.67 | 0.75 | 75 | 29 | - | 17 | 19 | 0.28 | 126 |
| GL0061696 | | - | 9x16mm | Reusable Hose Fit. | 4 | 2.95 | 1.14 | - | 0.67 | 0.75 | 75 | 29 | - | 17 | 19 | 0.28 | 128 |
| GL0065014 | | ¼ | ¼-19 | Female BSPP Bulkhead** | 5 | 1.83 | 1.14 | 0.67 | 1.06 | 1.06 | 46.5 | 29 | 17 | 27 | 27 | 0.33 | 148 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3, 4, 5) and D or D+E (Fig. 6, 7, 8, 9, 10) together and subtract 20 mm (0.79 in.)

*Alternative end connections available upon request.

**Max bulkhead thickness: 10 mm (0.39 in.) / Bulkhead hole diameter: 21 mm (0.83 in.)

AGRICULTURE

REFRIGERANT

G600 Series ISO 6150 B Interchange

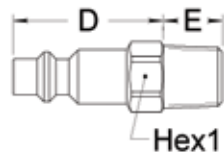


Figure 6

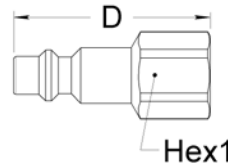


Figure 7



Figure 8

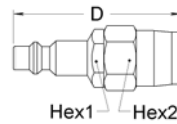


Figure 9

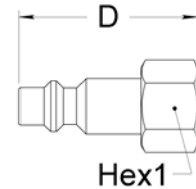


Figure 10

Plug (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | | | | Weight | | | | | |
|-------------|-----------|-----------|-----------------------|----------------------|------|------------|------|------|------|------|------|--------|----|------|------|------|----|
| | | | | | | D | E | F | Hex1 | Hex2 | D | E | F | Hex1 | Hex2 | lbs | g |
| GA0066318 | | 1/8 | 1/8-28 | Male BSPT | 6 | 1.26 | 0.35 | - | 0.47 | - | 32 | 9 | - | 12 | - | 0.04 | 19 |
| GA0066314 | | 1/4 | 1/4-19 | Male BSPT | 6 | 1.26 | 0.51 | - | 0.55 | - | 32 | 13 | - | 14 | - | 0.06 | 25 |
| 10 | | 1/4 | 1/4-18 | Male NPT | 6 | 1.22 | 0.55 | - | 0.59 | - | 31 | 14 | - | 15 | - | 0.06 | 25 |
| GA0066338 | | 3/8 | 3/8-19 | Male BSPT | 6 | 1.26 | 0.59 | - | 0.67 | - | 32 | 15 | - | 17 | - | 0.08 | 38 |
| GA0066345 | | M14 | M14x1,25 | Male Metric | 6 | 1.26 | 0.51 | - | 0.55 | - | 32 | 13 | - | 14 | - | 0.06 | 26 |
| GA0066214 | | 1/4 | 1/4-19 | Female BSPP | 7 | 1.73 | - | - | 0.67 | - | 44 | - | - | 17 | - | 0.07 | 30 |
| 11 | | 1/4 | 1/4-18 | Female NPT | 7 | 1.63 | - | - | 0.71 | - | 41.5 | - | - | 18 | - | 0.07 | 30 |
| GA0066238 | | 3/8 | 3/8-19 | Female BSPP | 7 | 1.73 | - | - | 0.83 | - | 44 | - | - | 21 | - | 0.08 | 37 |
| GA0066245 | | M14 | M14x1,25 | Female Metric | 7 | 1.73 | - | - | 0.67 | - | 44 | - | - | 17 | - | 0.06 | 25 |
| GA0066248 | 1/4 | - | M14x1,25 | Female Metric | 7 | 1.73 | - | - | 0.55 | - | 44 | - | - | 14 | - | 0.05 | 24 |
| GA0066767 | | - | 6 mm | Hose Tail | 8 | 1.10 | 1.02 | 0.55 | - | - | 28 | 26 | 14 | - | - | 0.04 | 19 |
| GA0066778 | | - | 7 mm | Hose Tail | 8 | 1.10 | 1.02 | 0.55 | - | - | 28 | 26 | 14 | - | - | 0.04 | 20 |
| GA0066789 | | - | 8 mm | Hose Tail | 8 | 1.10 | 1.02 | 0.55 | - | - | 28 | 26 | 14 | - | - | 0.04 | 20 |
| GA0066790 | | - | 9 mm | Hose Tail | 8 | 1.10 | 1.02 | 0.55 | - | - | 28 | 26 | 14 | - | - | 0.04 | 20 |
| GA0066701 | | - | 10 mm | Hose Tail | 8 | 1.10 | 1.02 | 0.55 | - | - | 28 | 26 | 14 | - | - | 0.05 | 22 |
| GA0066174 | | - | 7x14 mm | Reusable Hose Fit. | 9 | 2.22 | - | - | 0.63 | 0.75 | 56.5 | - | - | 16 | 19 | 0.12 | 56 |
| GA0066184 | | - | 8x14 mm | Reusable Hose Fit. | 9 | 2.22 | - | - | 0.63 | 0.75 | 56.5 | - | - | 16 | 19 | 0.13 | 57 |
| GA0066185 | | - | 8x15 mm | Reusable Hose Fit. | 9 | 2.22 | - | - | 0.63 | 0.75 | 56.5 | - | - | 16 | 19 | 0.12 | 53 |
| GA0066196 | | - | 9x16 mm | Reusable Hose Fit. | 9 | 2.22 | - | - | 0.63 | 0.75 | 56.5 | - | - | 16 | 19 | 0.11 | 51 |
| GA0066814 | | 1/4 | 1/4-19 | Female BSPP Swivel | 10 | 1.50 | - | - | 0.67 | - | 38 | - | - | 17 | - | 0.06 | 26 |
| GA0066845 | | M14 | M14x1,25 | Female Metric Swivel | 10 | 1.50 | - | - | 0.67 | - | 38 | - | - | 17 | - | 0.06 | 26 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3, 4, 5) and D or D+E (Fig. 6, 7, 8, 9, 10) together and subtract 20 mm (0.79 in.)

*Alternative end connections available upon request.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

G700 Series European Profile

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT



Eaton Gromelle™ G700 Series is a single shut-off compressed air coupling with a European profile. Nominal diameter is 7.2/7.4 mm. This coupling offers an excellent flow capacity and is used in compressed air applications.

Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Easy to connect
- Shock resistant ergonomic sleeve
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent-plated steel
- Standard seal material: NBR

Physical Characteristics

| Body Size | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Air Flow Rate* Δp 0.6 bar/8.7 psi** | | Δp 1 bar/14.5 psi*** | | Working Temperature | |
|-----------|----------------------------|-------------------------|-------|--|-------|----------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | (lpm) | (gpm) | (lpm) | (gpm) | °C | °F |
| 1/4 | 7.3 | 20 | 290 | 1,550 | 410 | 1,960 | 520 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

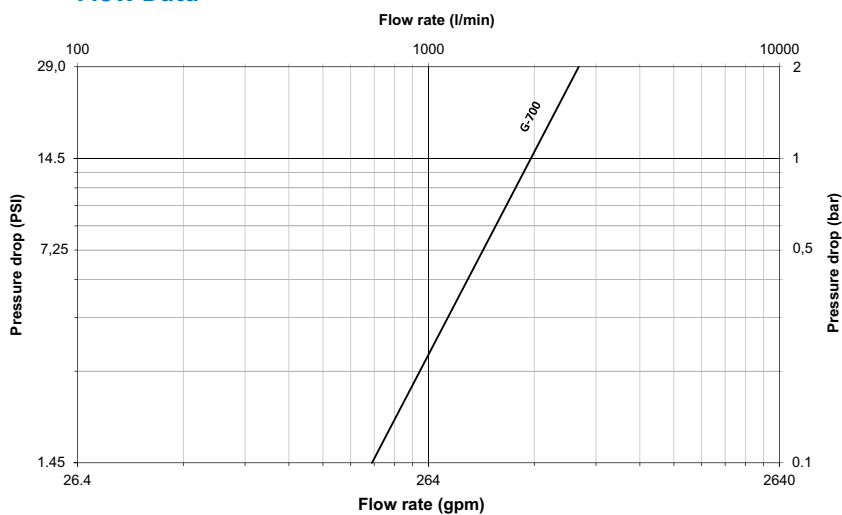
**This flow rate allows the optimum output from a pneumatic tool.

***This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- Compressed Air
- Pneumatic Tools

Flow Data



Air flow-rate at 6 bar (87 psi)

G700 Series European Profile

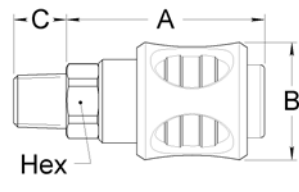


Figure 1

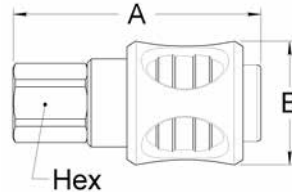


Figure 2

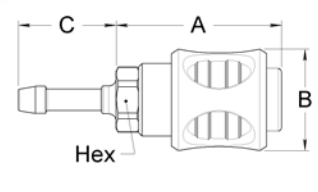


Figure 3

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | | | | | Weight | | |
|-------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|-----|------|----|------|--------|------|-----|
| | | | | | | A | B | C | Hex | A | B | C | Hex | lbs | g |
| GL0073614 | 1/4 | 1/4 | 1/4-19 | Male BSPT | 1 | 1.93 | 1.14 | 0.51 | 1 | 49 | 29 | 13 | 17 | 0.22 | 101 |
| GL0073638 | | 3/8 | 3/8-19 | Male BSPT | 1 | 1.93 | 1.14 | 0.57 | 1 | 49 | 29 | 14.5 | 17 | 0.24 | 110 |
| GL0073612 | | 1/2 | 1/2-14 | Male BSPT | 1 | 1.89 | 1.14 | 0.67 | 1 | 48 | 29 | 17 | 22 | 0.27 | 124 |
| GL0072614 | | 1/4 | 1/4-19 | Female BSPP | 2 | 2.30 | 1.14 | - | 0.7 | 58.5 | 29 | - | 17 | 0.22 | 102 |
| GL0072638 | | 3/8 | 3/8-19 | Female BSPP | 2 | 2.42 | 1.14 | - | 0.7 | 61.5 | 29 | - | 17 | 0.26 | 120 |
| GL0072612 | | 1/2 | 1/2-14 | Female BSPP | 2 | 2.58 | 1.14 | - | 0.9 | 65.5 | 29 | - | 22 | 0.22 | 100 |
| GL0075667 | | - | 6 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | - | 47.5 | 29 | 28 | - | 0.22 | 98 |
| GL0075689 | | - | 8 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | - | 47.5 | 29 | 28 | - | 0.22 | 100 |
| GL0075601 | | - | 10 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.10 | - | 47.5 | 29 | 28 | - | 0.22 | 100 |
| GL0075613 | | - | 13 mm | Hose Tail | 3 | 1.87 | 1.14 | 1.30 | - | 47.5 | 29 | 33 | - | 0.22 | 100 |

*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 19 mm (0.75 in.).

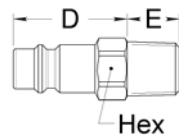


Figure 4

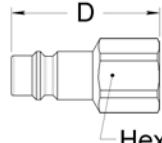


Figure 5

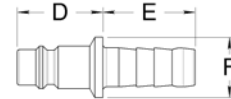


Figure 6

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | Hex | D | E | F | Hex | Weight | |
|-------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|------|------|----|-----|--------|----|
| | | | | | | D | E | F | | | | | | lbs | g |
| GA0076314 | 1/4 | 1/4 | 1/4-19 | Male BSPT | 4 | 1.11 | 0.51 | - | 0.55 | 28.3 | 13 | - | 14 | 0.05 | 26 |
| GA0076338 | | 3/8 | 3/8-19 | Male BSPT | 4 | 1.11 | 0.57 | - | 0.67 | 28.3 | 14.5 | - | 17 | 0.08 | 35 |
| GA0076312 | | 1/2 | 1/2-14 | Male BSPT | 4 | 1.18 | 0.67 | - | 0.91 | 30 | 17 | - | 23 | 0.13 | 59 |
| GA0076214 | | 1/4 | 1/4-19 | Female BSPP | 5 | 1.46 | - | - | 0.67 | 37 | - | - | 17 | 0.06 | 26 |
| GA0076238 | | 3/8 | 3/8-19 | Female BSPP | 5 | 1.54 | - | - | 0.83 | 39 | - | - | 21 | 0.08 | 36 |
| GA0076212 | | 1/2 | 1/2-14 | Female BSPP | 5 | 1.77 | - | - | 1.02 | 45 | - | - | 26 | 0.14 | 58 |
| GA0076767 | | - | 6 mm | Hose Tail | 6 | 0.80 | 1.02 | 0.47 | - | 20.3 | 26 | 12 | - | 0.03 | 14 |
| GA0076789 | | - | 8 mm | Hose Tail | 6 | 0.80 | 1.02 | 0.47 | - | 20.3 | 26 | 12 | - | 0.03 | 15 |
| GA0076701 | | - | 10 mm | Hose Tail | 6 | 0.94 | 1.02 | 0.67 | - | 24 | 26 | 17 | - | 0.05 | 23 |
| GA0076713 | | - | 13 mm | Hose Tail | 6 | 0.94 | 1.02 | 0.71 | - | 24 | 26 | 18 | - | 0.06 | 27 |

*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 19 mm (0.75 in.).

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

1900 Series ISO 6150 B Interchange

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT



Eaton Gromelle™ 1900 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 B and US A-A-59439 Standards requirements. Nominal diameter is 8 mm.

Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent plated steel
- Standard seal material: NBR

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Air Flow Rate* | | | | Working Temperature | |
|-------------------|-------------------------------|-------------------------|-------|-------------------------------|-------|-------------------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | Δp 0.6 bar/8.7 psi** (lpm) | (gpm) | Δp 1 bar/14.5 psi*** (lpm) | (gpm) | °C | °F |
| 3/8 | 8 | 20 | 290 | 2,200 | 580 | 2,700 | 710 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar/87 psi.

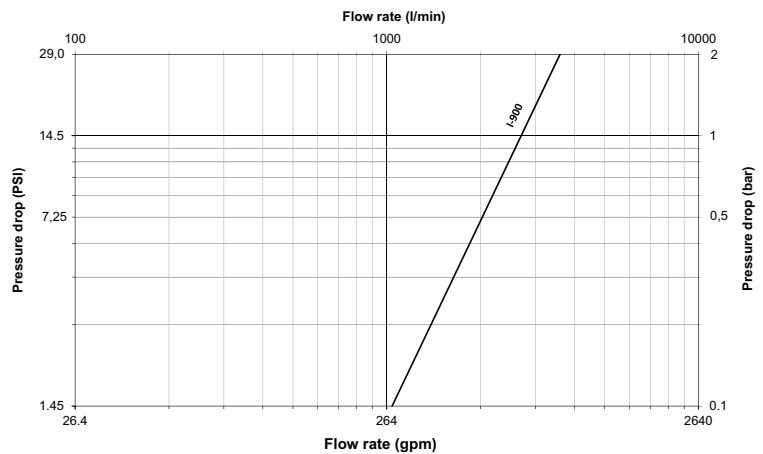
**This flow rate allows the optimum output from a pneumatic tool.

***This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- Compressed Air
- Pneumatic Tools

Flow Data



Air flow-rate at 6 bar (87 psi)

1900 Series ISO 6150 B Interchange

FLUID TRANSFER
AND HYDRAULIC

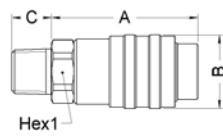


Figure 1

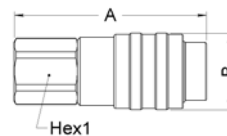


Figure 2

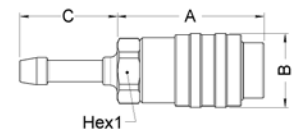


Figure 3

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|----|------|--------|------|------|-----|
| | | | | | | A | B | C | A | B | C | (mm) | (mm) | (mm) | lbs |
| IL0096014 | | 1/4 | 1/4-19 | Male BSPT | 1 | 2.16 | 1.09 | 0.51 | 0.87 | 55 | 27.7 | 13 | 22 | 0.30 | 135 |
| IL0096038 | | 3/8 | 3/8-19 | Male BSPT | 1 | 2.16 | 1.09 | 0.59 | 0.87 | 55 | 27.7 | 15 | 22 | 0.31 | 139 |
| IL0096012 | | 1/2 | 1/2-14 | Male BSPT | 1 | 2.16 | 1.09 | 0.67 | 0.87 | 55 | 27.7 | 17 | 22 | 0.34 | 152 |
| IL0097014 | | 1/4 | 1/4-19 | Female BSPP | 2 | 2.64 | 1.09 | - | 0.87 | 67 | 27.7 | - | 22 | 0.34 | 153 |
| IL0097038 | 3/8 | 3/8 | 3/8-19 | Female BSPP | 2 | 2.76 | 1.09 | - | 0.87 | 70 | 27.7 | - | 22 | 0.35 | 157 |
| IL0097012 | | 1/2 | 1/2-14 | Female BSPP | 2 | 2.87 | 1.09 | - | 1.06 | 73 | 27.7 | - | 27 | 0.41 | 187 |
| IL0095689 | | - | 8 mm | Hose Tail | 3 | 2.20 | 1.09 | 1.10 | 0.87 | 56 | 27.7 | 28 | 22 | 0.30 | 135 |
| IL0095690 | | - | 9 mm | Hose Tail | 3 | 2.20 | 1.09 | 1.10 | 0.87 | 56 | 27.7 | 28 | 22 | 0.30 | 138 |
| IL0095601 | | - | 10 mm | Hose Tail | 3 | 2.20 | 1.09 | 1.10 | 0.87 | 56 | 27.7 | 28 | 22 | 0.31 | 139 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.)

*Alternative end connections available upon request.

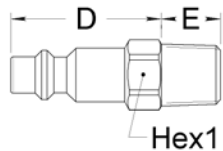


Figure 4

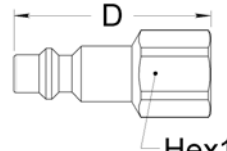


Figure 5

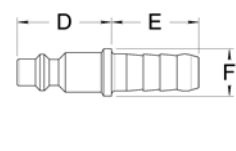


Figure 6

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|----|----|--------|------|------|------|
| | | | | | | D | E | F | D | E | F | (mm) | (mm) | (mm) | (mm) |
| IA0090614 | | 1/4 | 1/4-19 | Male BSPT | 4 | 1.34 | 0.51 | - | 0.63 | 34 | 13 | - | 16 | 0.07 | 32 |
| IA0090638 | | 3/8 | 3/8-19 | Male BSPT | 4 | 1.42 | 0.59 | - | 0.67 | 36 | 15 | - | 17 | 0.09 | 41 |
| IA0090612 | | 1/2 | 1/2-14 | Male BSPT | 4 | 1.57 | 0.67 | - | 0.91 | 40 | 17 | - | 23 | 0.12 | 56 |
| IA0090714 | | 1/4 | 1/4-19 | Female BSPP | 5 | 1.97 | - | - | 0.67 | 50 | - | - | 17 | 0.08 | 38 |
| IA0090738 | | 3/8 | 3/8-19 | Female BSPP | 5 | 1.97 | - | - | 0.83 | 50 | - | - | 21 | 0.11 | 49 |
| IA0090712 | 3/8 | 1/2 | 1/2-14 | Female BSPP | 5 | 2.09 | - | - | 1.02 | 53 | - | - | 26 | 0.15 | 69 |
| IA0090978 | | - | 7 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33 | 26 | 16 | - | 0.07 | 30 |
| IA0090989 | | - | 8 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33 | 26 | 16 | - | 0.07 | 30 |
| IA0090990 | | - | 9 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33 | 26 | 16 | - | 0.07 | 31 |
| IA0090901 | | - | 10 mm | Hose Tail | 6 | 1.30 | 1.02 | 0.63 | - | 33 | 26 | 16 | - | 0.07 | 32 |
| IA0090912 | | - | 12 mm | Hose Tail | 6 | 1.30 | 1.22 | 0.63 | - | 33 | 31 | 16 | - | 0.08 | 38 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 25,6 mm (1 in.)

*Alternative end connections available upon request.

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

I1000 Series European Profile



Eaton Gromelle™ I1000 Series is a single shut-off compressed air coupling with a European profile. This coupling offers excellent flow capacity and is used in many compressed air applications.

Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent plated steel
- Standard seal material: NBR

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Air Flow Rate* | | | | Working Temperature | |
|-------------------|-------------------------------|-------------------------|-------|-------------------------------|-------|-------------------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | Δp 0.6 bar/8.7 psi** (lpm) | (gpm) | Δp 1 bar/14.5 psi*** (lpm) | (gpm) | °C | °F |
| 3/8 | 10.3 | 20 | 290 | 3,000 | 790 | 3,700 | 980 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

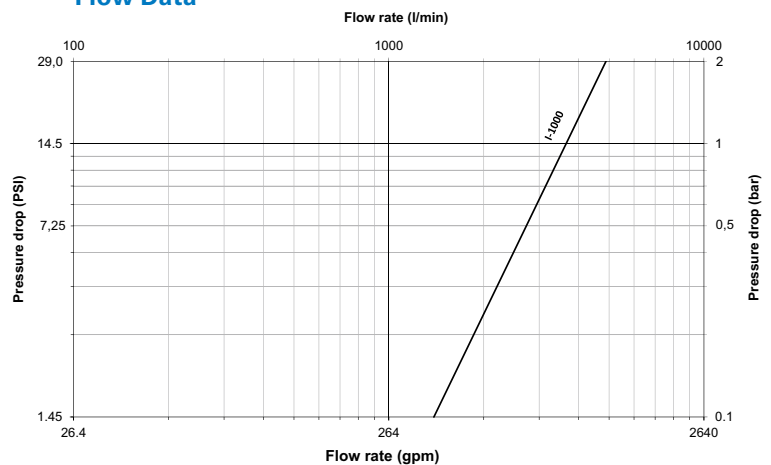
**This flow rate allows the optimum output from a pneumatic tool.

***This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- Compressed Air
- Pneumatic Tools

Flow Data



Air flow-rate at 6 bar (87 psi)

I1000 Series European Profile

FLUID TRANSFER
AND HYDRAULIC

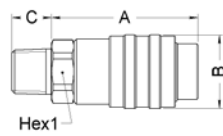


Figure 1

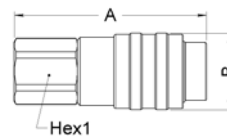


Figure 2

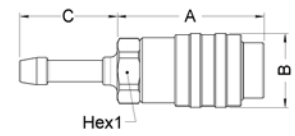


Figure 3

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Dimensions Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|-----------------|------------|------|------|------|----|------|--------|------|------|-----|
| | | | | | | A | B | C | A | B | C | (mm) | (mm) | lbs | g |
| IL0106014 | | 1/4 | 1/4-19 | Male BSPT | 1 | 2.16 | 1.09 | 0.51 | 0.87 | 53 | 27.7 | 13 | 22 | 0.29 | 130 |
| IL0106038 | | 3/8 | 3/8-19 | Male BSPT | 1 | 2.16 | 1.09 | 0.59 | 0.87 | 53 | 27.7 | 15 | 22 | 0.30 | 134 |
| IL0106012 | | 1/2 | 1/2-14 | Male BSPT | 1 | 2.16 | 1.09 | 0.67 | 0.87 | 53 | 27.7 | 17 | 22 | 0.32 | 147 |
| IL0107014 | | 1/4 | 1/4-19 | Female BSPP | 2 | 2.64 | 1.09 | - | 0.87 | 65 | 27.7 | - | 22 | 0.33 | 148 |
| IL0107038 | 3/8 | 3/8 | 3/8-19 | Female BSPP | 2 | 2.76 | 1.09 | - | 0.87 | 68 | 27.7 | - | 22 | 0.32 | 145 |
| IL0107012 | | 1/2 | 1/2-14 | Female BSPP | 2 | 2.87 | 1.09 | - | 1.06 | 71 | 27.7 | - | 27 | 0.40 | 182 |
| IL0105689 | | - | 8 mm | Hose Tail | 3 | 2.20 | 1.09 | 1.10 | 0.87 | 54 | 27.7 | 28 | 22 | 0.29 | 130 |
| IL0105690 | | - | 9 mm | Hose Tail | 3 | 2.20 | 1.09 | 1.10 | 0.87 | 54 | 27.7 | 28 | 22 | 0.29 | 133 |
| IL0105601 | | - | 10 mm | Hose Tail | 3 | 2.20 | 1.09 | 1.10 | 0.87 | 54 | 27.7 | 28 | 22 | 0.30 | 134 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 19,8 mm (0,78 in.)

*Alternative end connections available upon request.

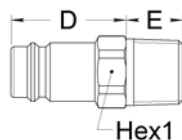


Figure 4

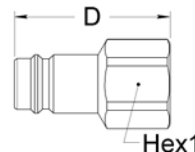


Figure 5



Figure 6

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Dimensions Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|-----------------|------------|------|------|------|------|------|--------|------|------|----|
| | | | | | | D | E | F | D | E | F | (mm) | (mm) | lbs | g |
| IA0100638 | | 3/8 | 3/8-19 | Male BSPT | 4 | 1.16 | 0.57 | - | 0.67 | 29.5 | 14.5 | - | 17 | 0.08 | 38 |
| IA0100612 | | 1/2 | 1/2-14 | Male BSPT | 4 | 1.30 | 0.67 | - | 0.87 | 33 | 17 | - | 22 | 0.12 | 56 |
| IA0100738 | | 3/8 | 3/8-19 | Female BSPP | 5 | 1.57 | - | - | 0.83 | 40 | - | - | 21 | 0.09 | 41 |
| IA0100712 | 3/8 | 1/2 | 1/2-14 | Female BSPP | 5 | 1.77 | - | - | 1.06 | 45 | - | - | 27 | 0.16 | 74 |
| IA0100990 | | - | 9 mm | Hose Tail | 6 | 0.85 | 1.02 | 0.59 | - | 21.5 | 26 | 15 | - | 0.04 | 20 |
| IA0100901 | | - | 10 mm | Hose Tail | 6 | 0.85 | 1.02 | 0.59 | - | 21.5 | 26 | 15 | - | 0.05 | 21 |
| IA0100912 | | - | 12 mm | Hose Tail | 6 | 0.98 | 1.02 | 0.71 | - | 25 | 26 | 18 | - | 0.06 | 26 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 19,8 mm (0,78 in.)

*Alternative end connections available upon request.

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

T1100 Series

ISO 6150 B Interchange



Eaton Gromelle™ T1100 Series is a single shut-off compressed air coupling that interchanges with ISO 6150 B and US A-A-59439 Standards requirements. This coupling offers excellent flow capacity and is used in many compressed air applications.

Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent plated steel
- Standard seal material: NBR

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Air Flow Rate* | | | | Working Temperature | |
|-------------------|-------------------------------|-------------------------|-------|-------------------------------|-------|-------------------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | Δp 0.6 bar/8.7 psi** (lpm) | (gpm) | Δp 1 bar/14.5 psi*** (lpm) | (gpm) | °C | °F |
| 1/2 | 11 | 20 | 290 | 3,450 | 910 | 4,300 | 1,130 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar/87 psi.

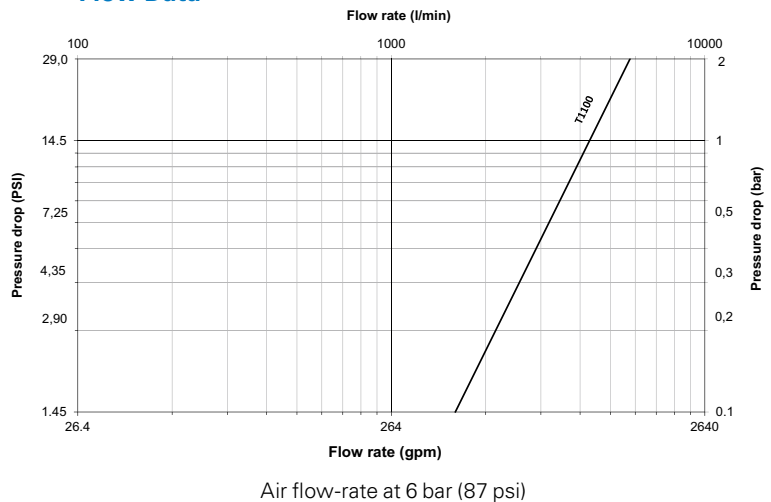
**This flow rate allows the optimum output from a pneumatic tool.

***This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

Applications & Markets

- Compressed Air
- Pneumatic Tools

Flow Data



T1100 Series

ISO 6150 B Interchange

FLUID TRANSFER
AND HYDRAULIC

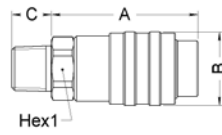


Figure 1

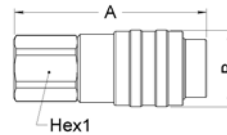


Figure 2

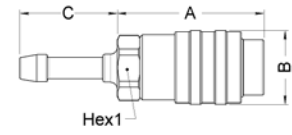


Figure 3

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Dimensions Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|-----------------|------------|------|------|------|------|------|--------|--------|------|-----|
| | | | | | | A | B | C | A | B | C | Hex1 | Weight | | |
| | | | | | | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | lbs | g |
| TL0112038 | | 3/8 | 3/8-19 | Male BSPT | 1 | 2.80 | 1.32 | 0.59 | 1.06 | 71 | 33.6 | 15 | 27 | 0.58 | 265 |
| TL0112012 | | 1/2 | 1/2-14 | Male BSPT | 1 | 2.80 | 1.32 | 0.67 | 1.06 | 71 | 33.6 | 17.0 | 27 | 0.60 | 270 |
| TL0112034 | | 3/4 | 3/4-14 | Male BSPT | 1 | 2.80 | 1.32 | 0.73 | 1.14 | 71 | 33.6 | 18.5 | 29 | 0.63 | 288 |
| TL0112138 | 1/2 | 3/8 | 3/8-19 | Female BSPP | 2 | 3.29 | 1.32 | - | 1.06 | 83.5 | 33.6 | - | 27 | 0.63 | 286 |
| TL0112112 | | 1/2 | 1/2-14 | Female BSPP | 2 | 3.29 | 1.32 | - | 1.06 | 83.5 | 33.6 | - | 27 | 0.59 | 266 |
| TL0112134 | | 3/4 | 3/4-14 | Female BSPP | 2 | 3.52 | 1.32 | - | 1.26 | 89.5 | 33.6 | - | 32 | 0.69 | 312 |
| TL0115601 | | - | 10 mm | Hose Tail | 3 | 2.85 | 1.32 | 1.10 | 1.06 | 72.5 | 33.6 | 28 | 27 | 0.58 | 264 |
| TL0115613 | | - | 13 mm | Hose Tail | 3 | 2.85 | 1.32 | 1.30 | 1.06 | 72.5 | 33.6 | 33 | 27 | 0.60 | 274 |
| TL0115616 | | - | 16 mm | Hose Tail | 3 | 2.85 | 1.32 | 1.30 | 1.06 | 72.5 | 33.6 | 33 | 27 | 0.62 | 279 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 34 mm (1,34 in.)
*Alternative end connections available upon request.

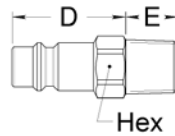


Figure 4

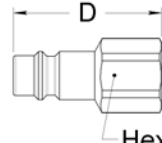


Figure 5

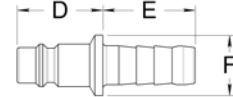


Figure 6

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Dimensions Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|-----------------|------------|------|------|------|------|------|--------|--------|------|----|
| | | | | | | D | E | F | D | E | F | Hex1 | Weight | | |
| | | | | | | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | lbs | g |
| TA0111538 | | 3/8 | 3/8-19 | Male BSPT | 4 | 1.71 | 0.57 | - | 0.67 | 43.5 | 14.5 | - | 17 | 0.11 | 51 |
| TA0111512 | | 1/2 | 1/2-14 | Male BSPT | 4 | 1.81 | 0.67 | - | 0.87 | 46 | 17 | - | 22 | 0.15 | 70 |
| TA0111638 | | 3/8 | 3/8-19 | Female BSPP | 5 | 2.09 | - | - | 0.83 | 53 | - | - | 21 | 0.12 | 55 |
| TA0111612 | 1/2 | 1/2 | 1/2-14 | Female BSPP | 5 | 2.28 | - | - | 1.06 | 58 | - | - | 27 | 0.19 | 88 |
| TA0111813 | | - | 13 mm | Hose Tail | 6 | 1.54 | 1.02 | 0.75 | - | 39 | 26 | 19 | - | 0.09 | 43 |
| TA0111816 | | - | 16 mm | Hose Tail | 6 | 1.54 | 1.02 | 0.87 | - | 39 | 26 | 22 | - | 0.10 | 47 |
| TA0111819 | | - | 19 mm | Hose Tail | 6 | 1.54 | 1.02 | 0.98 | - | 39 | 26 | 25 | - | 0.11 | 51 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 34 mm (1,34 in.)
*Alternative end connections available upon request.

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

T1300 Series Proprietary Profile

FLUID TRANSFER
AND HYDRAULIC



Eaton Gromelle™ T1300 Series is a proprietary profile single shut-off compressed air coupling. This coupling offers excellent flow capacity and is used in high flow compressed air applications.

PNEUMATIC

Product Features

- Automatic sleeve for one-hand push-to-connect operation with ball-locking mechanism
- Single shut-off valving
- Excellent flow capacity
- Easy to connect
- Standard body material (Socket): Nickel-plated brass
- Standard body material (Plug): Zinc trivalent plated steel
- Standard seal material: NBR

SPECIAL APPLICATIONS

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure | | Air Flow Rate* | | | | Working Temperature | |
|-------------------|-------------------------------|-------------------------|-------|-------------------------------|-------|-------------------------------|-------|---------------------|-----------|
| | | (bar) | (psi) | Δp 0.6 bar/8.7 psi** (lpm) | (gpm) | Δp 1 bar/14.5 psi*** (lpm) | (gpm) | °C | °F |
| 1/2 | 12 | 20 | 290 | 3,800 | 1,000 | 4,600 | 1,210 | -20° +100° | -4° +212° |

*Indicated values refer to an inlet pressure of 6 bar / 87 psi.

**This flow rate allows the optimum output from a pneumatic tool.

***This flow rate is the maximum recommended for a suitable output from a pneumatic tool. For applications needing higher flow rates, it is recommended to select a larger size coupling.

DIAGNOSTIC

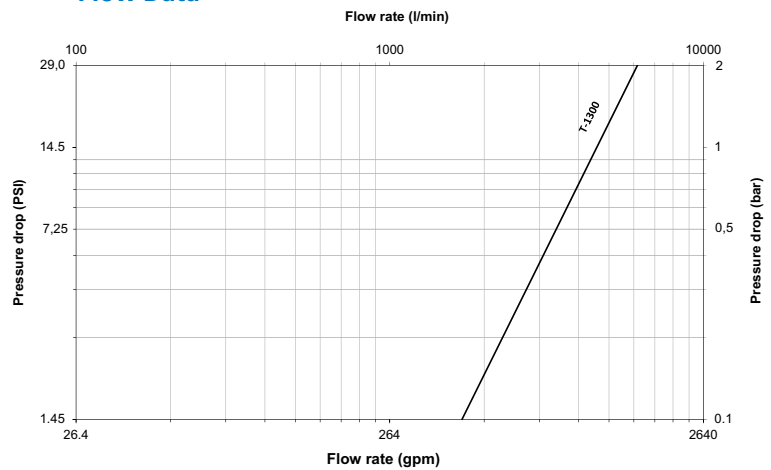
Applications & Markets

- Compressed Air
- Pneumatic Tools

AGRICULTURE

REFRIGERANT

Flow Data



Air flow-rate at 6 bar (87 psi)

T1300 Series Proprietary Profile

FLUID TRANSFER
AND HYDRAULIC

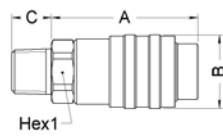


Figure 1

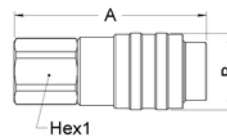


Figure 2

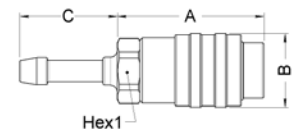


Figure 3

Sockets (Female)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|------|------|--------|--------|------|-----|
| | | | | | | A | B | C | A | B | C | Hex1 | Weight | | |
| | | | | | | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | lbs | g |
| TL0132038 | | 3/8 | 3/8-19 | Male BSPT | 1 | 2.74 | 1.32 | 0.59 | 1.06 | 69.7 | 33.6 | 15 | 27 | 0.54 | 247 |
| TL0132012 | | 1/2 | 1/2-14 | Male BSPT | 1 | 2.74 | 1.32 | 0.67 | 1.06 | 69.7 | 33.6 | 17.0 | 27 | 0.56 | 255 |
| TL0132034 | | 3/4 | 3/4-14 | Male BSPT | 1 | 2.74 | 1.32 | 0.73 | 1.14 | 69.7 | 33.6 | 18.5 | 29 | 0.62 | 279 |
| TL0132138 | 1/2 | 3/8 | 3/8-19 | Female BSPP | 2 | 3.24 | 1.32 | - | 1.06 | 82.2 | 33.6 | - | 27 | 0.60 | 272 |
| TL0132112 | | 1/2 | 1/2-14 | Female BSPP | 2 | 3.24 | 1.32 | - | 1.06 | 82.2 | 33.6 | - | 27 | 0.60 | 270 |
| TL0132134 | | 3/4 | 3/4-14 | Female BSPP | 2 | 3.47 | 1.32 | - | 1.26 | 88.2 | 33.6 | - | 32 | 0.65 | 295 |
| TL0135601 | | - | 10 mm | Hose Tail | 3 | 2.80 | 1.32 | 1.10 | 1.06 | 71.2 | 33.6 | 28 | 27 | 0.55 | 249 |
| TL0135613 | | - | 13 mm | Hose Tail | 3 | 2.80 | 1.32 | 1.30 | 1.06 | 71.2 | 33.6 | 33 | 27 | 0.57 | 259 |
| TL0135616 | | - | 16 mm | Hose Tail | 3 | 2.80 | 1.32 | 1.30 | 1.06 | 71.2 | 33.6 | 33 | 27 | 0.58 | 264 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 32,5 mm (1,28 in.)

*Alternative end connections available upon request.

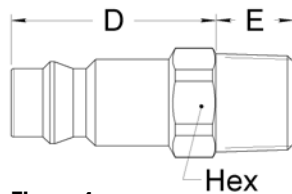


Figure 4

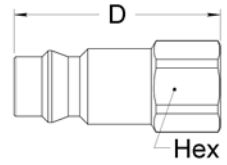


Figure 5



Figure 6

Plugs (Male)

| Part Number | Body Size | Port Size | Thread or Hose Diam.* | Type | Fig. | Dimensions | | | Hex1 | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|-------------|------|------------|------|------|------|------|------|--------|--------|------|----|
| | | | | | | D | E | F | D | E | F | Hex1 | Weight | | |
| | | | | | | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) | lbs | g |
| TA0131538 | | 3/8 | 3/8-19 | Male BSPT | 4 | 1.75 | 0.59 | - | 0.83 | 44.5 | 15 | - | 21 | 0.14 | 65 |
| TA0131512 | | 1/2 | 1/2-14 | Male BSPT | 4 | 1.83 | 0.67 | - | 0.87 | 46.5 | 17 | - | 22 | 0.19 | 85 |
| TA0131638 | | 3/8 | 3/8-19 | Female BSPP | 5 | 2.17 | - | - | 0.83 | 55 | - | - | 21 | 0.14 | 65 |
| TA0131612 | 1/2 | 1/2 | 1/2-14 | Female BSPP | 5 | 2.48 | - | - | 1.02 | 63 | - | - | 26 | 0.21 | 95 |
| TA0131813 | | - | 13 mm | Hose Tail | 6 | 1.52 | 1.22 | 0.79 | - | 38.5 | 31 | 20 | - | 0.13 | 57 |
| TA0131816 | | - | 16 mm | Hose Tail | 6 | 1.52 | 1.46 | 0.79 | - | 38.5 | 37 | 20 | - | 0.15 | 70 |
| TA0131819 | | - | 19 mm | Hose Tail | 6 | 1.52 | 1.65 | 1.06 | - | 38.5 | 42 | 27 | - | 0.19 | 87 |

To obtain connected length of coupling add dimensions A or A+C (Fig. 1, 2, 3) and D or D+E (Fig. 4, 5, 6) together and subtract 32,5 mm (1,28 in.)

*Alternative end connections available upon request.

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Blow-Guns

FLUID TRANSFER
AND HYDRAULIC



Eaton offers two styles of blow-guns to fit your application needs.

Product Features

100 Series

- Progressive flow-control
- The airtight version protects the operator against particle blow-back
- Body material: Nickel-plated brass
- Seals: NBR

200 Series

- Pressure reduces to 2 bar(30 PSI) if the nozzle is obstructed by an obstacle
- Complies with OSHA STD 01-13-2001 standard
- When in use, the gun is designed to produce low noise levels with the comfort of the operator in mind. Complies with Directive 2003/10/EC and OSHA 1910.95(b) standard

- The "soft touch" trigger and ergonomic design make it easy to grip and handle, even with work gloves. The graduated-opening system enables the operator to adjust the flow rate to his/her requirements.
- Body material: Nylon
- Nozzle: Stainless steel
- Seals: NBR

Physical Characteristics

| Series | Type | Connection | Max. Operating Pressure | | Temperature Range | |
|--------|---------|------------|-------------------------|-------|-------------------|-----------|
| | | | (bar) | (psi) | C | F |
| 100 | Metal | G ¼ | 20 | 290 | +100C/-20C | +212F/-4F |
| 200 | Plastic | G ¼ | 10 | 145 | +70C/-20C | +158F/-4F |

SPECIAL APPLICATIONS

DIAGNOSTIC

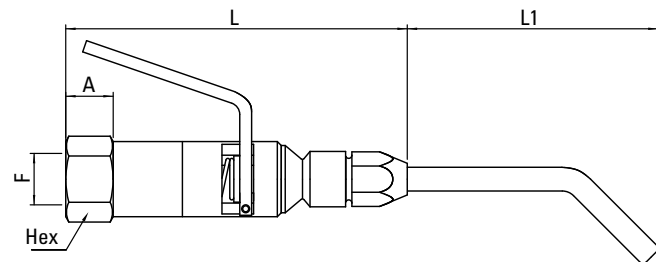


Figure 1

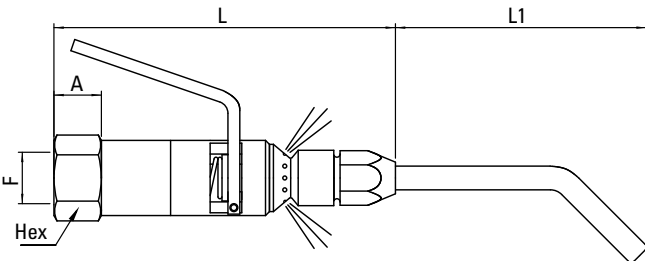


Figure 2

Series 100

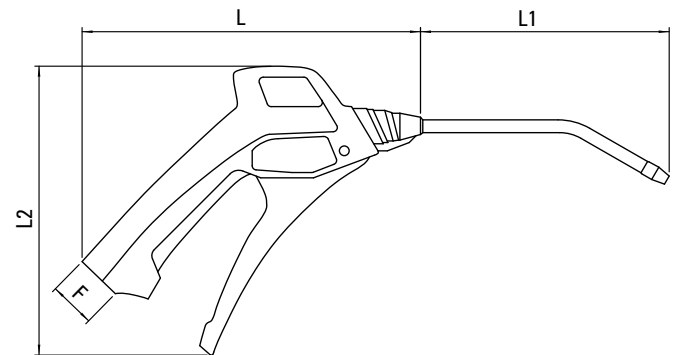


Figure 3

Series 200

Applications & Markets

- Pneumatic
- Manufacturing and Assembly

AGRICULTURE

REFRIGERANT

| Series | Part Number | Description | Fig. | F | L | L1 | Hex | A | Weight |
|--------|-------------|---------------------------|------|------|------|------|------|-----|--------|
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | |
| 100 | SA0017014 | Progressive-flow blow-gun | 1 | G¼ | 90 | 65 | 19 | 12 | 150 |
| 100 | SA0017514 | Blow-gun with airtight | 2 | G¼ | 90 | 65 | 19 | 12 | 150 |

| Series | Part Number | Description | Fig. | F | L | L1 | L2 | Weight |
|--------|-------------|----------------------------|------|------|------|------|-----|--------|
| | | | | (mm) | (mm) | (mm) | (g) | |
| 200 | SP0020014 | Blow-gun with metal nozzle | 3 | G¼ | 153 | 105 | 130 | 140 |

Adapters



200 Series

280 Series

700 Series

Product Features

200 Series

- Zinc-plated steel

280 Series

- Nickel-plated brass

700 Series

- Zinc-plated steel
- *EL is brass

Physical Characteristics

| Series | Max. Operating Pressure | |
|--------|-------------------------|-----------|
| | (bar) | (psi) |
| 200 | 120-250 | 1740-3625 |
| 280 | 60 | 870 |
| 700 | 35 | 508 |

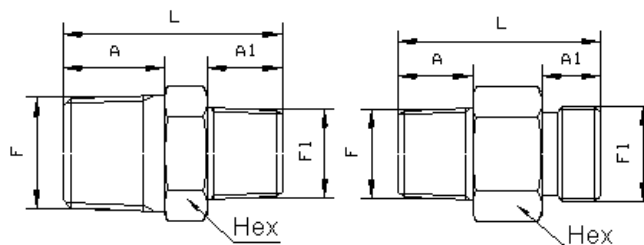


Figure 1

Figure 2

200 Series

Male BSP Taper Nipple

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | Hex | A1 | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| R 1/8 | R 1/8 | MA0024318 | 1 | 26 | 10 | 12 | 10 | 13 | 250 |
| R 1/4 | R 1/8 | MA0024484 | 1 | 31 | 14 | 14 | 10 | 20 | 250 |
| R 3/8 | R 1/8 | MA0024588 | 1 | 32 | 15 | 17 | 9 | 29 | 250 |
| R 1/4 | R 1/4 | MA0024314 | 1 | 35 | 14 | 14 | 14 | 25 | 250 |
| R 3/8 | R 1/4 | MA0024448 | 1 | 36 | 15 | 17 | 14 | 34 | 250 |
| R 1/2 | R 1/4 | MA0024524 | 1 | 41 | 19 | 22 | 14 | 62 | 250 |
| R 3/8 | R 3/8 | MA0024338 | 1 | 37 | 15 | 17 | 15 | 39 | 250 |
| R 1/2 | R 3/8 | MA0024482 | 1 | 42 | 19 | 22 | 15 | 67 | 250 |
| R 3/4 | R 3/8 | MA0024548 | 1 | 44 | 20 | 27 | 15 | 95 | 175 |
| R 1/2 | R 1/2 | MA0024312 | 1 | 46 | 19 | 22 | 19 | 68 | 250 |
| R 3/4 | R 1/2 | MA0024424 | 1 | 48 | 20 | 27 | 19 | 94 | 175 |
| R 1 | R 1/2 | MA0024512 | 1 | 53 | 24 | 36 | 19 | 191 | 150 |
| R 3/4 | R 3/4 | MA0024334 | 1 | 49 | 20 | 27 | 20 | 107 | 175 |
| R 1 | R 3/4 | MA0024441 | 1 | 54 | 24 | 36 | 20 | 182 | 150 |
| R 1 | R 1 | MA0024310 | 1 | 58 | 24 | 36 | 24 | 205 | 150 |

Male BSP Taper/Metric Male Nipple

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | Hex | A1 | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| R 1/4 | M 14 x 1.25 | MA0024145 | 2 | 31 | 13 | 16 | 12 | 24 | 250 |
| R 3/8 | M 18 x 1.25 | MA0024188 | 2 | 33 | 14 | 22 | 11 | 44 | 250 |

Adapters

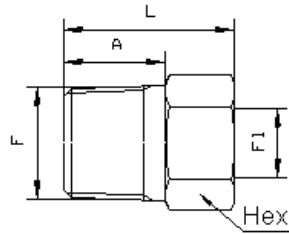


Figure 3

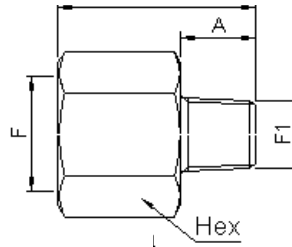


Figure 4

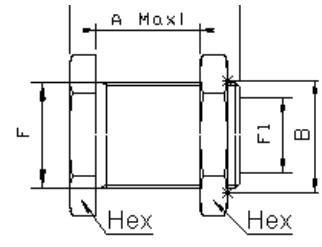


Figure 5

200 Series (cont.)

Reducing Bush

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | Hex | A1 | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| R 1/4 | G 1/8 | MA0025548 | 3 | 21 | 14 | 14 | - | 14 | 250 |
| R 3/8 | G 1/8 | MA0025688 | 3 | 22 | 15 | 17 | - | 27 | 250 |
| R 3/8 | G 1/4 | MA0025584 | 3 | 23 | 15 | 19 | - | 20 | 250 |
| R 1/2 | G 1/4 | MA0025624 | 3 | 27 | 19 | 22 | - | 49 | 250 |
| R 1/2 | G 3/8 | MA0025528 | 3 | 27 | 19 | 22 | - | 37 | 250 |
| R 3/4 | G 3/8 | MA0025648 | 3 | 29 | 20 | 27 | - | 77 | 175 |
| R 3/4 | G 1/2 | MA0025542 | 3 | 29 | 20 | 27 | - | 52 | 175 |
| R 1 | G 1/2 | MA0025612 | 3 | 34 | 24 | 36 | - | 139 | 150 |
| R 1 | G 3/4 | MA0025514 | 3 | 34 | 24 | 36 | - | 100 | 150 |

Female/Male Reducer

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | Hex | A1 | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| G 1/4 | R 1/8 | MA0024248 | 4 | 31 | 10 | 19 | - | 40 | 250 |
| G 3/8 | R 1/8 | MA0026888 | 4 | 32 | 10 | 22 | - | 49 | 250 |
| G 3/8 | R 1/4 | MA0024284 | 4 | 35 | 14 | 22 | - | 46 | 250 |
| G 1/2 | R 1/4 | MA0026824 | 4 | 41 | 14 | 27 | - | 84 | 250 |
| G 1/2 | R 3/8 | MA0024228 | 4 | 40 | 15 | 27 | - | 80 | 250 |
| G 3/4 | R 3/8 | MA0026848 | 4 | 44 | 15 | 36 | - | 172 | 175 |
| G 3/4 | R 1/2 | MA0024242 | 4 | 47 | 19 | 32 | - | 125 | 175 |
| G 1 | R 1/2 | MA0026812 | 4 | 56 | 19 | 41 | - | 230 | 150 |
| G 1 | R 3/4 | MA0024214 | 4 | 55 | 20 | 41 | - | 240 | 150 |

Bulkhead Reducer

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | | Weight | Pressure |
|--------------|---------------|-------------|------|------------|--------|------|------|--------|----------|
| | | | | L | A Max. | Hex | B | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| G 1/4 | G 1/8 | MA0027848 | 5 | 20 | 14 | 19 | 13.5 | 17 | 250 |
| G 3/8 | G 1/4 | MA0027884 | 5 | 28 | 20 | 22 | 17 | 29 | 250 |
| G 1/2 | G 3/8 | MA0027828 | 5 | 32 | 21 | 26 | 21.5 | 46 | 250 |
| G 3/4 | G 1/2 | MA0027842 | 5 | 36 | 24 | 32 | 27 | 86 | 120 |

Adapters

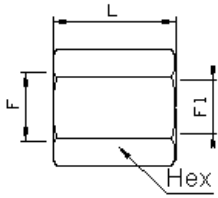


Figure 1

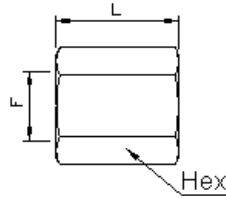


Figure 2

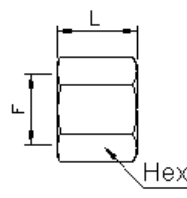


Figure 3

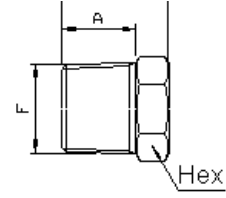


Figure 4

200 Series (cont.)

Reducing Socket

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | Hex | A1 | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | | | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| G ¼ | G ⅜ | MA0026748 | 1 | 24 | - | 19 | - | 39 | 250 |
| G ⅜ | G ¼ | MA0026784 | 1 | 27 | - | 22 | - | 53 | 250 |
| G ½ | G ⅜ | MA0026728 | 1 | 32 | - | 27 | - | 89 | 250 |
| G ¾ | G ½ | MA0026742 | 1 | 36 | - | 32 | - | 126 | 175 |
| G 1 | G ¾ | MA0026714 | 1 | 45 | - | 41 | - | 131 | 150 |

Equal Socket

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | Hex | A1 | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | | | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| G ⅜ | - | MA0026918 | 2 | 20 | - | 14 | - | 17 | 250 |
| G ¼ | - | MA0026914 | 2 | 25 | - | 19 | - | 35 | 250 |
| G ⅜ | - | MA0026938 | 2 | 27 | - | 22 | - | 45 | 250 |
| G ½ | - | MA0026912 | 2 | 35 | - | 27 | - | 76 | 250 |
| G ¾ | - | MA0026934 | 2 | 40 | - | 32 | - | 113 | 175 |
| G 1 | - | MA0026910 | 2 | 45 | - | 41 | - | 217 | 150 |

Female-Threaded Cap

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | Hex | A1 | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | | | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| G ⅜ | - | MA0024618 | 3 | 17 | - | 14 | - | 23 | 250 |
| G ¼ | - | MA0024614 | 3 | 22 | - | 19 | - | 29 | 250 |
| G ⅜ | - | MA0024638 | 3 | 24 | - | 22 | - | 38 | 250 |
| G ½ | - | MA0024612 | 3 | 30 | - | 27 | - | 70 | 250 |
| G ¾ | - | MA0024634 | 3 | 32 | - | 32 | - | 91 | 175 |
| G 1 | - | MA0024610 | 3 | 41 | - | 41 | - | 176 | 150 |

Male-Threaded Cap

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | Hex | A1 | Weight | Pressure |
|--------------|---------------|-------------|------|------------|------|------|------|--------|----------|
| | | | | L | A | | | | |
| | | | | (mm) | (mm) | (mm) | (mm) | (g) | (bar) |
| R ⅜ | - | MA0026618 | 4 | 16 | 10 | 12 | - | 10 | 250 |
| R ¼ | - | MA0026614 | 4 | 21 | 14 | 14 | - | 22 | 250 |
| R ⅜ | - | MA0026638 | 4 | 22 | 15 | 17 | - | 31 | 250 |
| R ½ | - | MA0026612 | 4 | 27 | 19 | 22 | - | 55 | 250 |
| R ¾ | - | MA0026634 | 4 | 29 | 20 | 27 | - | 89 | 175 |
| R 1 | - | MA0026610 | 4 | 34 | 24 | 36 | - | 164 | 150 |

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Adapters

FLUID TRANSFER
AND HYDRAULIC

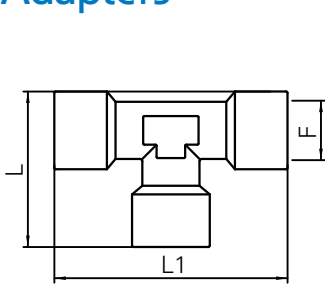


Figure 1

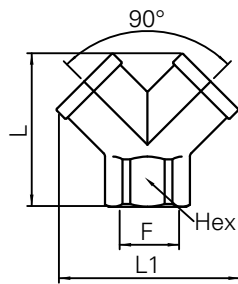


Figure 2

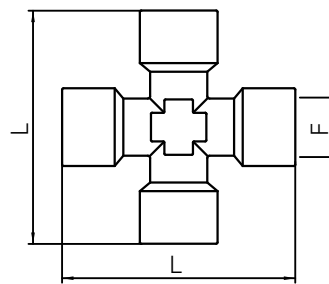


Figure 3

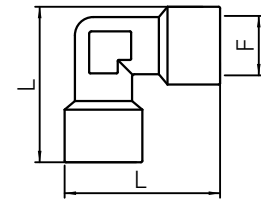


Figure 4

280 Series

Female Tee

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | Weight |
|--------------|---------------|-------------|------|------------|------|------|--------|
| | | | | L | L1 | Hex | |
| | | | | (mm) | (mm) | (mm) | (g) |
| G 1/8 | - | ML0028018 | 1 | 28 | 42 | - | 28 |
| G 1/4 | - | ML0028014 | 1 | 34 | 51 | - | 57 |
| G 3/8 | - | ML0028038 | 1 | 39 | 56 | - | 83 |
| G 1/2 | - | ML0028012 | 1 | 46 | 67 | - | 144 |
| G 3/4 | - | ML0028034 | 1 | 53 | 73 | - | 201 |
| G 1 | - | ML0028010 | 1 | 64 | 90 | - | 321 |

Female Y-piece

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | Weight |
|--------------|---------------|-------------|------|------------|------|------|--------|
| | | | | L | L1 | Hex | |
| | | | | (mm) | (mm) | (mm) | (g) |
| G 1/8 | - | ML0028618 | 2 | 27 | 29 | 13 | 19 |
| G 1/4 | - | ML0028614 | 2 | 32 | 36 | 17 | 34 |
| G 3/8 | - | ML0028638 | 2 | 37 | 41 | 20 | 44 |
| G 1/2 | - | ML0028612 | 2 | 45 | 53 | 25 | 93 |

Female Cross

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | Weight |
|--------------|---------------|-------------|------|------------|------|------|--------|
| | | | | L | L1 | Hex | |
| | | | | (mm) | (mm) | (mm) | (g) |
| G 1/8 | - | ML0028118 | 3 | 42 | - | - | 48 |
| G 1/4 | - | ML0028114 | 3 | 51 | - | - | 73 |
| G 3/8 | - | ML0028138 | 3 | 56 | - | - | 107 |
| G 1/2 | - | ML0028112 | 3 | 67 | - | - | 185 |

90 Degree Female Elbow

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | | Weight |
|--------------|---------------|-------------|------|------------|------|------|--------|
| | | | | L | L1 | Hex | |
| | | | | (mm) | (mm) | (mm) | (g) |
| G 1/8 | - | ML0028218 | 4 | 28 | - | - | 21 |
| G 1/4 | - | ML0028214 | 4 | 34 | - | - | 40 |
| G 3/8 | - | ML0028238 | 4 | 39 | - | - | 58 |
| G 1/2 | - | ML0028212 | 4 | 47 | - | - | 106 |
| G 3/4 | - | ML0028234 | 4 | 50 | - | - | 130 |
| G 1 | - | ML0028210 | 4 | 64 | - | - | 227 |

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Adapters

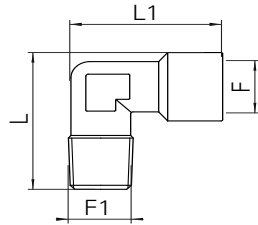


Figure 5

280 Series (cont.)

90 Degree Male/Female Elbow

| Connection F | Connection F1 | Part Number | Fig. | Dimensions | | Hex | Weight |
|--------------|---------------|-------------|------|------------|------|------|--------|
| | | | | L | L1 | | |
| | | | | (mm) | (mm) | (mm) | (g) |
| G 1/8 | - | ML0028418 | 5 | 26 | 26 | - | 17 |
| G 1/4 | - | ML0028414 | 5 | 32 | 32 | - | 34 |
| G 3/8 | - | ML0028438 | 5 | 37 | 37 | - | 50 |
| G 1/2 | - | ML0028412 | 5 | 44 | 44 | - | 89 |
| G 3/4 | - | ML0028434 | 5 | 50 | 50 | - | 124 |
| G 1 | - | ML0028410 | 5 | 60 | 60 | - | 206 |

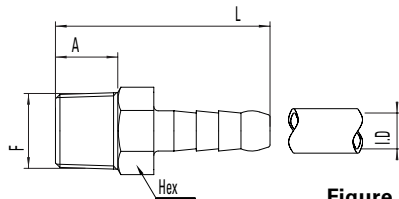


Figure 1

700 Series

Male-Threaded Hose Tail

| Connection F | Hose I.D. | Part Number | Fig. | Dimensions | | Hex | Weight |
|--------------|-----------|-------------|------|------------|------|------|--------|
| | | | | L | A | | |
| | | | | (mm) | (mm) | (mm) | (g) |
| R 1/8 | 6 | EL0070267 | 1 | 32 | 7.5 | 12 | 10 |
| R 1/8 | 7 | EA0070278 | 1 | 41 | 9 | 14 | 15 |
| R 1/8 | 8 | EA0070289 | 1 | 41 | 9 | 14 | 16 |
| R 1/8 | 9 | EA0070290 | 1 | 41 | 9 | 14 | 18 |
| R 1/4 | 6 | EA0070467 | 1 | 45 | 13 | 14 | 18 |
| R 1/4 | 7 | EA0070478 | 1 | 45 | 13 | 14 | 19 |
| R 1/4 | 8 | EA0070489 | 1 | 45 | 13 | 14 | 20 |
| R 1/4 | 9 | EA0070490 | 1 | 45 | 13 | 14 | 20 |
| R 1/4 | 10 | EA0070401 | 1 | 45 | 13 | 14 | 21 |
| R 1/4 | 11 | EA0070411 | 1 | 50 | 13 | 14 | 24 |
| R 1/4 | 12 | EA0070412 | 1 | 50 | 13 | 17 | 31 |
| R 1/4 | 13 | EA0070413 | 1 | 50 | 13 | 17 | 36 |
| R 3/8 | 7 | EA0070678 | 1 | 48 | 14 | 17 | 31 |
| R 3/8 | 8 | EA0070689 | 1 | 48 | 14 | 17 | 32 |
| R 3/8 | 9 | EA0070690 | 1 | 48 | 14 | 17 | 33 |
| R 3/8 | 10 | EA0070601 | 1 | 48 | 14 | 17 | 33 |
| R 3/8 | 11 | EA0070611 | 1 | 49 | 14 | 17 | 33 |
| R 3/8 | 12 | EA0070612 | 1 | 53 | 14 | 17 | 36 |
| R 3/8 | 13 | EA0070613 | 1 | 53 | 14 | 19 | 43 |
| R 3/8 | 16 | EA0070616 | 1 | 60 | 14 | 19 | 50 |
| R 1/2 | 8 | EA0070889 | 1 | 52 | 17 | 22 | 50 |
| R 1/2 | 11 | EA0070811 | 1 | 57 | 17 | 22 | 55 |
| R 1/2 | 12 | EA0070812 | 1 | 57 | 17 | 22 | 55 |
| R 1/2 | 13 | EA0070813 | 1 | 57 | 17 | 22 | 58 |
| R 1/2 | 16 | EA0070816 | 1 | 63 | 17 | 22 | 61 |
| R 1/2 | 19 | EA0070819 | 1 | 69 | 17 | 22 | 73 |
| R 3/4 | 16 | EA0071016 | 1 | 65 | 19 | 27 | 85 |
| R 3/4 | 19 | EA0071019 | 1 | 71 | 19 | 27 | 100 |
| R 3/4 | 25 | EA0071025 | 1 | 77 | 19 | 27 | 130 |
| R 1 | 19 | EA0072019 | 1 | 76 | 22 | 35 | 165 |
| R 1 | 25 | EA0072025 | 1 | 82 | 22 | 35 | 203 |
| R 1 | 30 | EA0072030 | 1 | 94 | 22 | 35 | 270 |

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Adapters

FLUID TRANSFER
AND HYDRAULIC

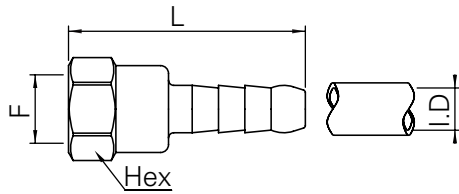


Figure 2

700 Series (cont.)

Female-Threaded Hose Tail

| Connection F | Hose I.D. (mm) | Part Number | Fig. | Dimensions | | Hex (mm) | Weight (g) |
|--------------|-------------------|-------------|------|------------|-----------|-------------|---------------|
| | | | | L (mm) | A (mm) | | |
| G ¼ | 6 | EA0078167 | 2 | 45 | - | 17 | 23 |
| G ¼ | 7 | EA0078178 | 2 | 45 | - | 17 | 23 |
| G ¼ | 8 | EA0078189 | 2 | 45 | - | 17 | 25 |
| G ¼ | 9 | EA0078190 | 2 | 45 | - | 17 | 26 |

PNEUMATIC

SPECIAL APPLICATIONS

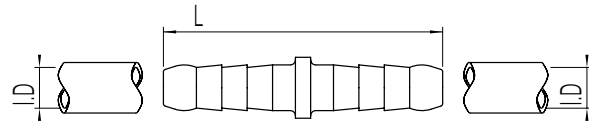


Figure 3

Hose Splicer

| Connection F | Hose I.D. (mm) | Part Number | Fig. | Dimensions | | Hex (mm) | Weight (g) |
|--------------|-------------------|-------------|------|------------|-----------|-------------|---------------|
| | | | | L (mm) | A (mm) | | |
| - | 6 | EA0079767 | 3 | 55 | - | - | 10 |
| - | 7 | EA0079778 | 3 | 55 | - | - | 13 |
| - | 8 | EA0079789 | 3 | 55 | - | - | 14 |
| - | 9 | EA0079790 | 3 | 55 | - | - | 16 |
| - | 10 | EA0079701 | 3 | 55 | - | - | 19 |
| - | 12 | EA0079712 | 3 | 55 | - | - | 24 |
| - | 16 | EA0079716 | 3 | 78 | - | - | 50 |
| - | 19 | EA0079719 | 3 | 88 | - | - | 81 |

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Hose Reels



Eaton offers air hose reels and coil assemblies for pneumatic applications.

Product Features

SPUBD Series

- Tube material: Polyurethane
- Swivel connections: Nickel-plated brass

ENR Series

- Guard material: Steel
- Polyurethane braided hose

- Plug material: Brass
- Swivel joint material: Steel

Physical Characteristics

| Series | Connection | Max. Operating Pressure | | Temperature Range | |
|--------|------------|-------------------------|-------|-------------------|------------|
| | | (bar) | (psi) | C | F |
| SPUBD | G ¼ x G ¼ | 9 | 130.5 | +50C/-40C | +122F/-40F |
| ENR | R ¼ | 15 | 220 | +60C/-5C | +140F/+23F |

Applications & Markets

- Pneumatic
- Manufacturing and Assembly

| Series | Part Number | Connection | Hose I.D./O.D. | Max. Length | Min. Length | Coil Diameter | Color |
|--------|-------------|------------|----------------|-------------|-------------|---------------|-------|
| | | | (mm) | (m) | (cm) | (mm) | |
| SPUBD | SPUBD0584E | G ¼ x G ¼ | 5 x 8 | 4 | 25 | 60 | Blue |
| SPUBD | SPUBD65104E | G ¼ x G ¼ | 6.5 x 10 | 4 | 32 | 70 | Blue |

| Series | Part Number | End Connection | Hose I.D./O.D. | L1 | L2 | H | I1 | I2 | Hose Length | Weight |
|--------|---------------|----------------|----------------|------|------|------|------|------|-------------|--------|
| | | | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (m) | (g) |
| ENR | ENRTPU081210E | R ¼ | 8 x 12 | 345 | 380 | 320 | 121 | 170 | 10 | 9.5 |

FD17 Series



The Eaton FD17 high pressure coupling can be connected by hand while under pressure up to 5,500 psi/380 bar. This quick disconnect coupling is most commonly used in SCBA transfilling and buddy-breathing applications and is commonly found on SCBA equipment certified to various NIOSH, NFPA and CBRN standards.

Product Features

- Connect and disconnect under pressure up to 5,500 psi/380 bar
- Certified on SCBA equipment that meets NIOSH, NFPA and CBRN requirements
- Complies with NFPA 1981 and NFPA 2013
- Standard body material: Stainless steel, aluminum

Physical Characteristics

| Series | Max. Operating Pressure | | Min. Burst Pressure | | Rated Flow* | | Rated Temperature |
|--------|-------------------------|-------|---------------------|--------|-------------|------|------------------------------|
| | (bar) | (psi) | (bar) | (psi) | (lpm) | scfm | |
| FD17 | 380 | 5,500 | 1140 | 16,500 | 125 | 4.4 | -40°F (-40°C)/+160°F (+71°C) |

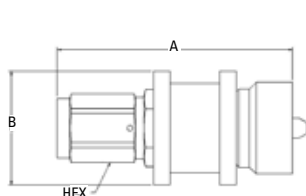


Figure 1

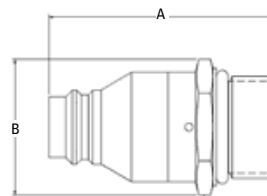


Figure 2

| Part Number | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------|---------------|-----------|-----------|---------|------|------|------------|--------|----------|--------|--------|----------|
| | | | | | | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) |
| FD17-1003-04-04 | Socket/Female | ¼ | -4 | 7/16-20 | ORB | 1 | 2.85 | 1.38 | 0.75 | 72.4 | 35.1 | 19.1 |
| FD17-1082-10-04 | Plug/Male | ¼ | -10 | 7/8-14 | ORB | 2 | 1.93 | 1.43 | 1 | 49.0 | 36.3 | 25.4 |



Male Dust Cap

Part Number

FD17-1064-04*



Female Dust Cap

Part Number

FD17-1062-04

* Indicates patented product

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD69 Series

10,000 psi Water Blast



Eaton's FD69 Series design has a greater surface contact area for long service life in rugged high pressure and water blast applications. The maximum operating pressure is 10,000 psi with 40,000 psi minimum burst pressure.

Product Features

- Safety sleeve lock guards against accidental disconnection
- Smooth bore "straight through" design for high flow fluid requirements
- Heavy duty back-up ring to prevent O-Ring extrusion
- Available in plated steel and stainless steel for added corrosion resistance
- Standard seal material: Buna-N
- Standard body material: High resistance carbon steel with Zinc trivalent plating or stainless steel

Physical Characteristics

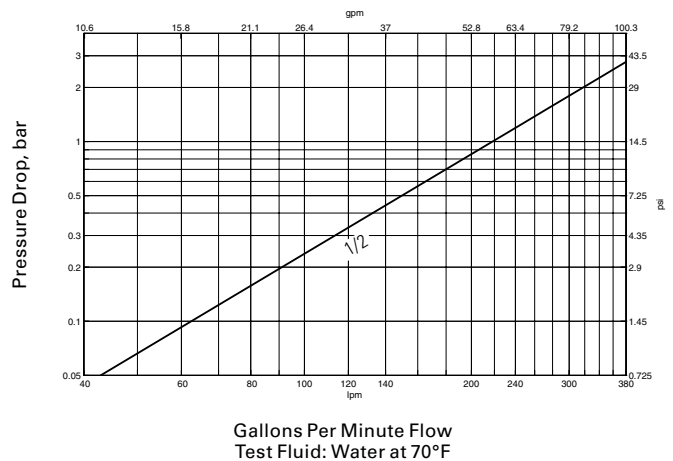
| Coupling Size | Max. Operating Pressure | | Min. Burst Pressure Connected | | Vacuum Connected Only | Rated Flow | | Air Inclusion | Fluid Loss |
|---------------|-------------------------|--------|-------------------------------|--------|-----------------------|------------|-------|---------------|------------|
| | (in) | (bar) | (psi) | (bar) | (psi) | (in./Hg) | (lpm) | (gpm) | cc. max. |
| 1/2 | 689 | 10,000 | 2,758 | 40,000 | 28 | 170 | 45 | - | - |

Applications & Markets

- High pressure WaterBlast
- Bridge/Concrete Repair
- Paint Stripping
- Shipyards

Flow Data

Pressure Drop Versus Flow Graph



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD69 Series

10,000 psi Water Blast

FLUID TRANSFER
AND HYDRAULIC

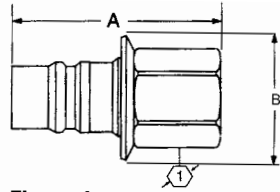


Figure 1

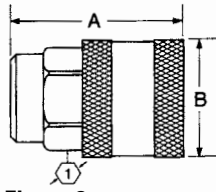


Figure 2

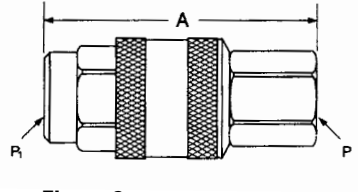


Figure 3

Dimensions (Female NPT)

| Part Number | Buna-N | FKM | EPDM | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex ① | | | | |
|------------------------|-----------------|-----------------|-----------------|---------------|-----------|-----------|--------|------------|------|------------|--------|-------|--------|------|--------|------|
| | | | | | | | | | | A | B | | | | | |
| Steel | | | | | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD69-1002-06-08 | FD69-1002-06-08 | FD69-1002-06-08 | FD69-1002-06-08 | Plug/Male* | 1/2 | 3/8 | 3/8-18 | Female NPT | 1 | 47.0 | (1.85) | 41.7 | (1.64) | 25.4 | (1.00) | |
| FD69-1001-06-08 | FD69-1026-06-08 | FD69-1028-06-08 | FD69-1028-06-08 | Socket/Female | 1/2 | 3/8 | 3/8-18 | Female NPT | 2 | 54.1 | (2.13) | 41.1 | (1.62) | 31.8 | (1.25) | |
| FD69-1002-08-08 | FD69-1002-08-08 | FD69-1002-08-08 | FD69-1002-08-08 | Plug/Male* | 1/2 | 1/2 | 1/2-14 | Female NPT | 1 | 59.4 | (2.34) | 41.7 | (1.64) | 28.4 | (1.12) | |
| FD69-1001-08-08 | FD69-1026-08-08 | FD69-1028-08-08 | FD69-1028-08-08 | Socket/Female | 1/2 | 1/2 | 1/2-14 | Female NPT | 2 | 54.1 | (2.13) | 41.1 | (1.62) | 31.8 | (1.25) | |
| Stainless Steel | | | | | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD69-1012-08-08 | FD69-1012-08-08 | FD69-1012-08-08 | FD69-1012-08-08 | Plug/Male* | 1/2 | 1/2 | 1/2-14 | Female NPT | 1 | 59.4 | (2.34) | 41.7 | (1.64) | 28.4 | (1.12) | |
| FD69-1011-08-08 | - | - | - | Socket/Female | 1/2 | 1/2 | 1/2-14 | Female NPT | 2 | 54.1 | (2.13) | 41.1 | (1.62) | 33.3 | (1.31) | |

*Male halves contain no seals.

PNEUMATIC

| Part Number | Buna-N | FKM | EPDM | Coupling Type | Body Size | Port Size | Thread | | Type | Fig. | Dimensions | |
|------------------------|------------------|------------------|------------------|---------------|-----------|-----------|--------|--------|------------|------|------------|--------|
| | | | | | | | (P) | (P1) | | | A | |
| Steel | | | | | | | | | | | mm | (in) |
| FD69-1000-080808 | FD69-1027-080808 | FD69-1029-080808 | FD69-1029-080808 | Complete | 1/2 | 1/2 | 1/2-14 | 1/2-14 | Female NPT | 3 | 87.1 | (3.43) |
| FD69-1000-080806 | FD69-1027-080806 | FD69-1029-080806 | FD69-1029-080806 | Complete | 1/2 | 1/2 & 3/8 | 1/2-14 | 3/8-18 | Female NPT | 3 | 87.1 | (3.43) |
| FD69-1000-060808 | FD69-1027-060808 | FD69-1029-060808 | FD69-1029-060808 | Complete | 1/2 | 3/8 & 1/2 | 3/8-18 | 1/2-14 | Female NPT | 3 | 74.7 | (2.94) |
| FD69-1000-060806 | FD69-1027-060806 | FD69-1029-060806 | FD69-1029-060806 | Complete | 1/2 | 3/8 | 3/8-18 | 3/8-18 | Female NPT | 3 | 74.7 | (2.94) |
| Stainless Steel | | | | | | | | | | | mm | (in) |
| FD69-1010-080808 | - | - | - | Complete | 1/2 | 1/2 | 1/2-14 | 1/2-14 | Female NPT | 3 | 87.1 | (3.43) |

SPECIAL APPLICATIONS

Repair Kit, Female Interface Seal

| Part Number | Coupling Size |
|-------------|---------------|
| FF10166 | 1/2 |

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD83 Series

Full Flow Dual Interlock



Eaton's FD83 is designed for fluid transfer and electronics cooling applications where full flow, fluid compatibility and safety are essential. The FD83 identical halves include two interlock features to eliminate spills and ensure maximum safety. Valves cannot be opened until the coupling halves are mated and coupling halves cannot be disconnected until both halves are closed. The FD83 coupling system can be used in a wide variety of low pressure industrial applications.

Product Features

- Dual interlock safety feature eliminates accidental opening of coupling when disconnected with the use of a patented locking pin design and lever handle
- Design provides reliable performance and minimal spillage during maintenance or service
- Standard seal material: EPDM, additional material available on request
- Standard body material: 303 stainless steel, additional material available on request
- Full-flow capability
- Available color coded bumper seals available
- Identical coupling halves
- Maintenance and service friendly
- 303 stainless steel material provides broad fluid compatibility
- ¾" and 1" Female NPT port threads or hose barb

Physical Characteristics

| Coupling Size (in) | Max. Operating Pressure | | | | | | Min. Burst Pressure | | | | | | Rated Flow (lpm) (gpm) | Fluid Loss cc. max |
|--------------------|-------------------------|-------------|--------------------|-------------|--------------------|-------------|---------------------|-------------|--------------------|-------------|--------------------|-------------|------------------------|--------------------|
| | Connected | | Socket/Female Half | | Socket/Female Half | | Connected | | Socket/Female Half | | Socket/Female Half | | | |
| (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (bar) (psi) | (lpm) (gpm) | cc. max |
| 10 (150) | 10 (150) | 10 (150) | 10 (150) | 10 (150) | 10 (150) | 20 (300) | 20 (300) | 20 (300) | 20 (300) | 20 (300) | 20 (300) | 20 (300) | 189 (50) | 5.0 |

Dimensions

| Part Number | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | Hex Ⓛ | |
|-----------------|-----------|-----------|---------|--------------|------|------------|--------|------|--------|-------|--------|
| | | | | | | A | | B | | mm | (in) |
| FD83-2052-16-16 | 1 | 1 | 1-11- ½ | Female NPT | 1 | 95.5 | (3.76) | 71.6 | (2.82) | 41 | (1.63) |
| FD83-2052-12-16 | 1 | ¾ | ¾-14 | Female NPT | 1 | 70.1 | (2.76) | 71.6 | (2.83) | 41 | (1.63) |
| FD83-2046-16-16 | 1 | 1 | NA | 1" Hose Barb | 2 | 84.2 | (3.31) | 71.6 | (2.82) | - | - |

Hose barb adapters available upon request.

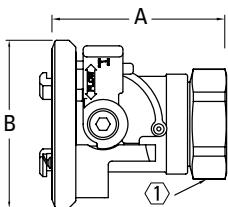


Figure 1

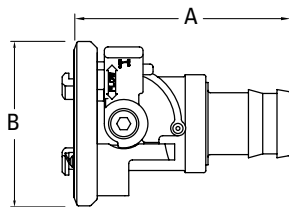
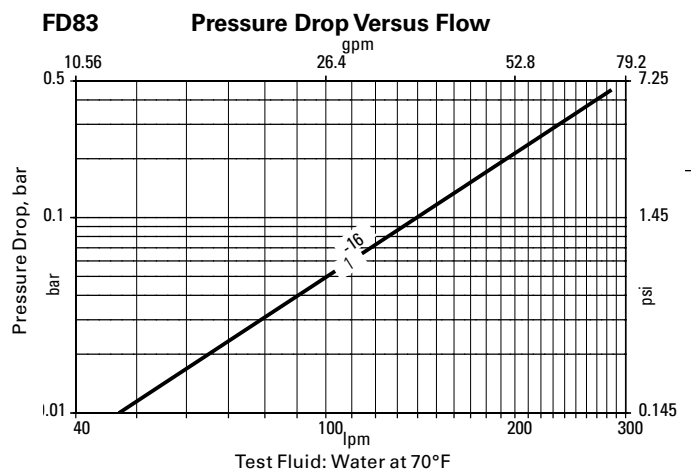


Figure 2

Applications & Markets

- Electronics Liquid Based Cooling
- Thermal Management Systems
- Industrial Fluid Transfer

Flow Data



2HKIG/2HKIL Series



Eaton's 2HKIG/2HKIL Series stainless steel couplings can be used with various liquids and gases. They are functionally identical, but do not interchange. They can be used where it is necessary to avoid crossing lines.

Product Features

- Ball lock
- Proprietary interchange with all stainless steel construction
- Female/Socket halves available with 90° connections
- Standard seal material: Buna-N
- Standard body material: Stainless steel

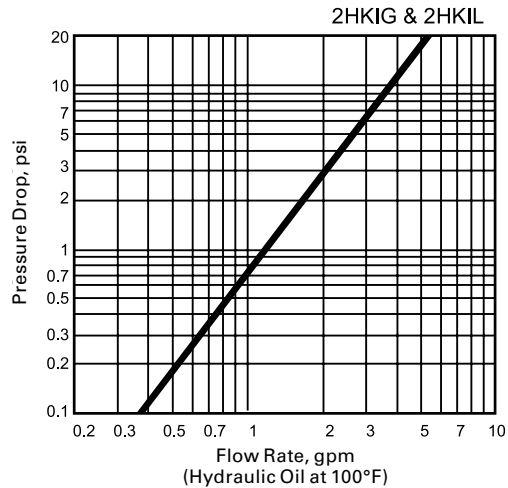
Physical Characteristics

| Body Size (in) | Max. Operating Pressure Connected | | Min. Burst Pressure | | Rated Flow | | All Inclusion | Fluid Loss |
|-------------------|-----------------------------------|-------|---------------------|-------|------------|-------|---------------|------------|
| | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) | cc. max. | cc. max. |
| 1/4 | 103 | 1,500 | 412 | 6,000 | 8.3 | 2.2 | 2.2 | 1 |

Applications & Markets

- Chemical
- Food and Beverage
- Military
- Aerospace

Flow Data



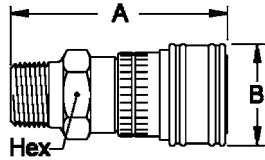


Figure 1

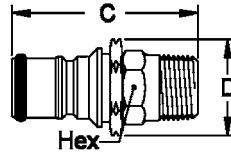


Figure 2

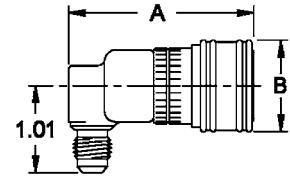


Figure 3

Male End Connections

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | A | B | Hex |
|-------------|---------------|-----------|--------------|------|------------|------|------|------|------|------|
| | | | | | A | B | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2HIG10 | Socket/Female | ¼ | ½-27 NPTF | 1 | 2.18 | 1.06 | 0.81 | 55.4 | 26.9 | 20.6 |
| 2HIG15 | Socket/Female | ¼ | ¼-18 NPTF | 1 | 2.31 | 1.06 | 0.81 | 58.7 | 26.9 | 20.6 |
| 2HIG20 | Socket/Female | ¼ | ⅜-18 NPTF | 1 | 2.31 | 1.06 | 0.81 | 58.7 | 26.9 | 20.6 |
| 2HIG720 | Socket/Female | ¼ | 7/16-20 NPTF | 1 | 2.27 | 1.06 | 0.81 | 57.7 | 26.9 | 20.6 |
| 2HIGLLRA720 | Socket/Female | ¼ | 7/16-20 NPTF | 3 | 2.09 | 1.06 | — | 53.1 | 26.9 | — |

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | C | D | Hex |
|-------------|---------------|-----------|-----------|------|------------|------|------|------|------|------|
| | | | | | C | D | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2KIGF15 | Plug/Male | ¼ | ¼-18 NPTF | 2 | 1.98 | 1.01 | 0.69 | 50.3 | 25.7 | 17.5 |
| 2KIGF20 | Plug/Male | ¼ | ⅜-18 NPTF | 2 | 1.98 | 1.01 | 0.69 | 50.3 | 25.7 | 17.5 |

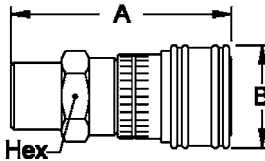


Figure 1

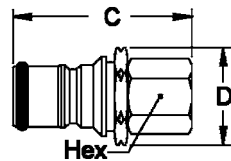


Figure 2

Female End Connections

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | A | B | Hex |
|-------------|---------------|-----------|-----------|------|------------|------|------|------|------|------|
| | | | | | A | B | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2HIG11 | Socket/Female | ¼ | ½-27 NPTF | 1 | 2.18 | 1.06 | 0.81 | 55.4 | 26.9 | 20.6 |
| 2HIG16 | Socket/Female | ¼ | ¼-18 NPTF | 1 | 2.26 | 1.06 | 0.81 | 57.4 | 26.9 | 20.6 |

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | C | D | Hex |
|-------------|---------------|-----------|-----------|------|------------|------|------|------|------|------|
| | | | | | C | D | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2KIGF16 | Plug/Male | ¼ | ¼-18 NPTF | 2 | 1.84 | 1.01 | 0.69 | 46.7 | 25.7 | 17.5 |
| 2KIGF720 | Plug/Male | ¼ | 7/16-20 | 2 | 1.61 | 1.01 | 0.69 | 40.9 | 25.7 | 17.5 |
| 2KIGF | Plug/Male | ¼ | ⅝-18 | 2 | 1.17 | 1.01 | 0.68 | 29.7 | 25.7 | 17.3 |

FLUID TRANSFER AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

2HKIL Series

FLUID TRANSFER
AND HYDRAULIC

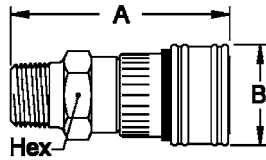


Figure 1

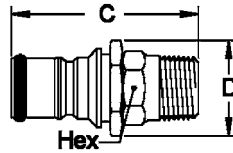


Figure 2

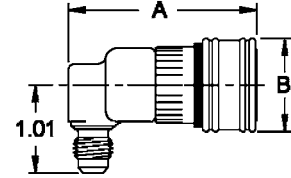


Figure 3

Male End Connections

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | A | B | Hex |
|-------------|---------------|-----------|--------------|------|------------|------|------|------|------|------|
| | | | | | A | B | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2HIL10 | Socket/Female | ¼ | ⅛-27 NPTF | 1 | 2.18 | 1.06 | 0.81 | 55.4 | 26.9 | 20.6 |
| 2HIL15 | Socket/Female | ¼ | ¼-18 NPTF | 1 | 2.31 | 1.06 | 0.81 | 58.7 | 26.9 | 20.6 |
| 2HIL20 | Socket/Female | ¼ | ⅜-18 NPTF | 1 | 2.31 | 1.06 | 0.81 | 58.7 | 26.9 | 20.6 |
| 2HIL720 | Socket/Female | ¼ | 7/16-20 NPTF | 1 | 2.27 | 1.06 | 0.81 | 57.7 | 26.9 | 20.6 |
| 2HILLRA720 | Socket/Female | ¼ | 7/16-20 NPTF | 3 | 2.09 | 1.06 | — | 53.1 | 26.9 | — |

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | C | D | Hex |
|-------------|---------------|-----------|-----------|------|------------|------|------|------|------|------|
| | | | | | C | D | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2KILF15 | Plug/Male | ¼ | ¼-18 NPTF | 2 | 1.98 | 1.01 | 0.69 | 50.3 | 25.7 | 17.5 |
| 2KILF20 | Plug/Male | ¼ | ⅜-18 NPTF | 2 | 1.98 | 1.01 | 0.69 | 50.3 | 25.7 | 17.5 |

PNEUMATIC

SPECIAL APPLICATIONS

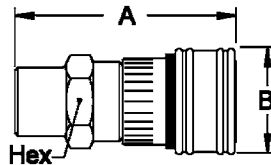


Figure 1

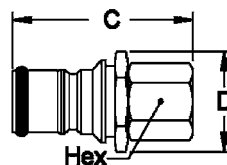


Figure 2

Female End Connections

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | A | B | Hex |
|-------------|---------------|-----------|-----------|------|------------|------|------|------|------|------|
| | | | | | A | B | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2HIL11 | Socket/Female | ¼ | ⅛-27 NPTF | 1 | 2.18 | 1.06 | 0.81 | 55.4 | 26.9 | 20.6 |
| 2HIL16 | Socket/Female | ¼ | ¼-18 NPTF | 1 | 2.26 | 1.06 | 0.81 | 57.4 | 26.9 | 20.6 |

| Part Number | Coupling Type | Body Size | Thread | Fig. | Dimensions | | Hex | C | D | Hex |
|-------------|---------------|-----------|------------|------|------------|------|------|------|------|------|
| | | | | | C | D | | | | |
| | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 2KILF16 | Plug/Male | ¼ | ¼ -18 NPTF | 2 | 1.84 | 1.01 | 0.69 | 46.7 | 25.7 | 17.5 |
| 2KILF720 | Plug/Male | ¼ | 7/16-20 | 2 | 1.61 | 1.01 | 0.69 | 40.9 | 25.7 | 17.5 |
| 2KILF | Plug/Male | ¼ | 9/16-18 | 2 | 1.17 | 1.01 | 0.68 | 29.7 | 25.7 | 17.3 |

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

J50000 Series



Eaton's J50000 Series is commonly seen in injection molding applications on cooling and heating lines. Stainless steel and vibration-resistant structure allows for use in demanding cooling and heating environments.

Product Features

- Offers double sealing when connected
- Vibration resistant
- Flat face valves with ball locking
- Standard body material: Stainless steel
- Standard seal material: FKM

Physical Characteristics

| DN/ND (mm) | Max. Operating Pressure | | Rated Flow | | Fluid Loss |
|---------------|-------------------------|-------|------------|-------|------------|
| | (bar) | (psi) | (lpm) | (gpm) | ml max. |
| 6 | 50 | 725 | 18 | 4.76 | 0.01 |
| 9 | 50 | 725 | 43 | 11.36 | 0.02 |

Applications & Markets

- Injection Molding
- Electronic Cooling
- Heat-transfer Fluid

Temperature

-15 C + 150 C / +5 F +302 F

-15 C + 200 C / +5 F +392 F

Flow Data

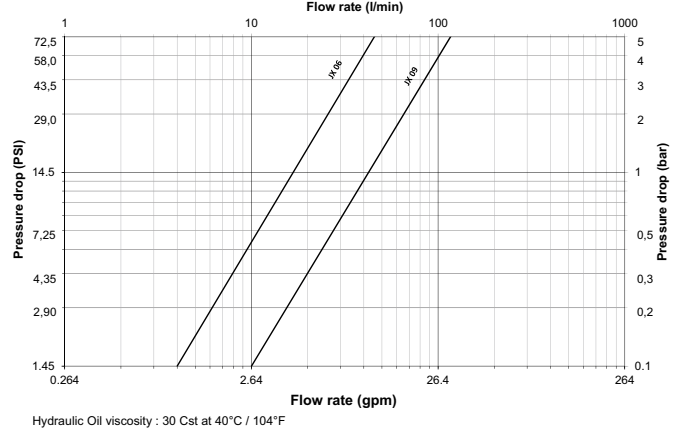


Figure 1



Figure 2

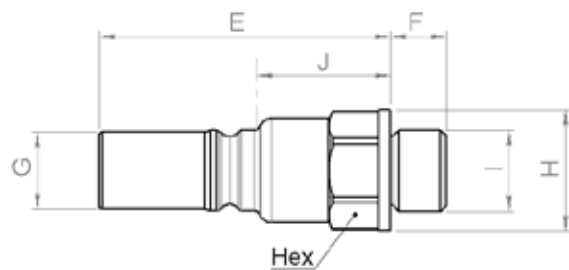


Figure 3

| DN/ND (mm) | Socket/Female Part Number | Coupling Type | Connection (F) | Fig. | Dimensions | | | |
|---------------|------------------------------|-------------------|----------------|------|------------|------------|------------|-------------|
| | | | | | L (mm) | L1 (mm) | ø1 (mm) | Hex (mm) |
| 6 | JX5062614 | Female Thread | G ¼ | 1 | 60 | - | 22 | 20 |
| 9 | JX5092638 | Female Thread | G ¾ | 1 | 74.5 | - | 28 | 24 |
| 6 | JX5068214 | 90° Female Thread | G ¼ | 2 | 57.5 | 35 | 22 | 22 |

| DN/ND (mm) | Plug/Male Part Number | Coupling Type | Connection (F) | Fig. | Dimensions | | | | |
|---------------|--------------------------|------------------|----------------|------|------------|-----------|------------|------------|-------------|
| | | | | | L (mm) | A (mm) | ø1 (mm) | ø2 (mm) | Hex (mm) |
| 6 | JX5067215 | Male Thread | G ¼ | 3 | 44 | 9 | 19.5 | 12.5 | 17 |
| 9 | JX5097239 | Male Thread | G ¾ | 3 | 56 | 10 | 27 | 17 | 24 |

J70000 Series

FLUID TRANSFER
AND HYDRAULIC



Eaton's J70000 Series is commonly seen in injection molding applications on cooling and heating lines. Brass and vibration-resistant structure allows for use in demanding cooling and heating environments.

PNEUMATIC

Product Features

- Standard body material: Brass
- Standard seal material: Viton

Physical Characteristics

| DN/ND | Max. Operating Pressure | | Temperature |
|-------|-------------------------|-------|--|
| | (bar) | (psi) | |
| 8 | 15 | 217 | -15 °C + 200 °C / +5 °F +392 °F |
| 12 | 15 | 217 | -15 °C + 110 °C / +5 °F +230 °F with identification ring |

SPECIAL APPLICATIONS

Applications & Markets

- Injection Molding
- Cooling Water
- Heat-transfer Fluid

DIAGNOSTIC

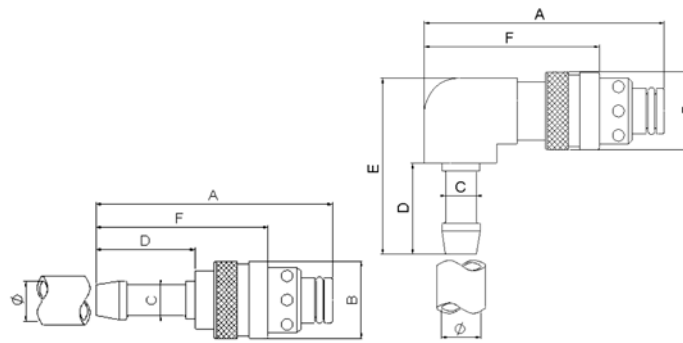


Figure 1

Figure 2

AGRICULTURE

| DN/ND | Socket/ Female Part Number | Coupling Type | Hose Size ø | Fig. | Dimensions | | | | | | | | | | Weight | | | |
|-------|-------------------------------------|------------------------------|----------------|------|------------|------|------|------|------|------|------|------|------|------|--------|------|------|------|
| | | | | | A | | | | | B | | | | | C | | D | |
| | | | | | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) |
| 8 | JL7086789 | Plug with straight hose tail | 8 mm | 1 | 2.38 | 0.79 | 0.31 | 1.08 | 1.77 | 60.5 | 20 | 8 | 27.5 | 45 | 0.104 | 47 | | |
| 8 | JL7086701 | Plug with straight hose tail | 10 mm | 1 | 2.38 | 0.79 | 0.39 | 1.08 | 1.77 | 60.5 | 20 | 10 | 27.5 | 45 | 0.110 | 50 | | |
| 8 | JL7086712 | Plug with straight hose tail | 12 mm | 1 | 2.60 | 0.79 | 0.47 | 1.30 | 1.99 | 66 | 20 | 12 | 33 | 50.5 | 0.119 | 54 | | |
| 12 | JL7126713 | Plug with straight hose tail | 13 mm | 1 | 2.95 | 1.10 | 0.51 | 1.30 | 2.17 | 75 | 28 | 13 | 33 | 55 | 0.271 | 123 | | |
| 12 | JL7126716 | Plug with straight hose tail | 16 mm | 1 | 2.95 | 1.10 | 0.63 | 1.30 | 2.17 | 75 | 28 | 16 | 33 | 55 | 0.291 | 132 | | |

REFRIGERANT

| DN/ND | Plug/Male Part Number | Coupling Type | Hose Size ø | Fig. | Dimensions | | | | | | | | | | Weight | | | |
|-------|-----------------------------|-------------------------|----------------|------|------------|------|------|------|------|------|------|------|------|------|--------|------|-------|------|
| | | | | | A | | | | | B | | | | | C | | D | |
| | | | | | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (mm) | (mm) | (mm) | (mm) |
| 8 | JL7088289 | Plug with 90° hose tail | 8 mm | 2 | 2.17 | 0.79 | 0.31 | 1.08 | 1.93 | 1.56 | 55 | 20 | 8 | 27.5 | 49 | 39.5 | 0.179 | 81 |
| 8 | JL7088201 | Plug with 90° hose tail | 10 mm | 2 | 2.17 | 0.79 | 0.39 | 1.08 | 1.93 | 1.56 | 55 | 20 | 10 | 27.5 | 49 | 39.5 | 0.181 | 82 |
| 8 | JL7088212 | Plug with 90° hose tail | 12 mm | 2 | 2.17 | 0.79 | 0.47 | 1.30 | 2.17 | 1.56 | 55 | 20 | 12 | 33 | 55 | 39.5 | 0.190 | 86 |

J70000 Series

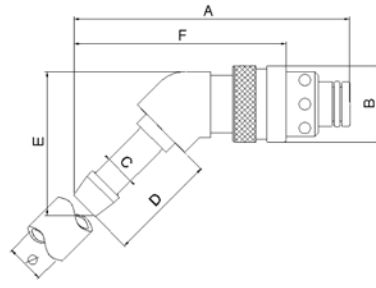


Figure 3

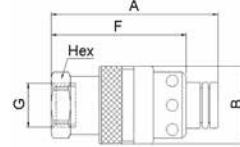


Figure 4

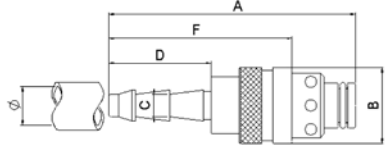


Figure 5

| DN/ND | Plug/Male Part Number | Coupling Type | Hose Size ø | Fig. | Dimensions | | | | | | Weight | | | | | | | |
|-------|-----------------------|--------------------------|-------------|------|------------|------|------|------|------|------|--------|-----|----|-----|------|------|-------|----|
| | | | | | A | B | C | D | E | F | (lbs) | (g) | | | | | | |
| 8 | JL7088389 | Plug with 135° hose tail | 8 mm | 3 | 2.78 | 0.79 | 0.31 | 1.08 | 1.44 | 2.17 | 70.5 | 20 | 8 | 275 | 36.5 | 55 | 0.152 | 69 |
| 8 | JL7088301 | Plug with 135° hose tail | 10 mm | 3 | 2.80 | 0.79 | 0.39 | 1.08 | 1.46 | 2.19 | 71 | 20 | 10 | 275 | 37 | 55.5 | 0.154 | 70 |
| 12 | JL7088312 | Plug with 135° hose tail | 12 mm | 3 | 2.97 | 0.79 | 0.47 | 1.30 | 1.63 | 2.36 | 75.5 | 20 | 12 | 33 | 41.5 | 60 | 0.165 | 75 |

| DN/ND | Plug/Male Part Number | Coupling Type | Thread Female G | Fig. | Dimensions | | | | | | Weight | | | |
|-------|-----------------------|-------------------------|-----------------|------|------------|------|------|------|----|----|--------|-----|-------|-----|
| | | | | | A | B | F | Hex | A | B | F | Hex | (lbs) | (g) |
| 8 | JL7086214 | Plug with female thread | G ¼ | 4 | 1.77 | 0.79 | 1.18 | 0.67 | 45 | 20 | 30 | 17 | 0.119 | 54 |
| 12 | JL7126212 | Plug with female thread | G ½ | 4 | 2.28 | 1.10 | 1.52 | 0.94 | 58 | 28 | 38.5 | 24 | 0.300 | 136 |

| DN/ND | Plug/Male Part Number | Coupling Type | Hose Size ø | Fig. | Dimensions | | | | | | Weight | | | | | |
|-------|-----------------------|---|---------------|------|------------|------|------|------|------|----|--------|------|----|------|-------|-----|
| | | | | | A | B | C | D | F | A | B | C | D | F | (lbs) | (g) |
| 8 | JL7086838 | Plug with straight push-on type hose tail | 9,5 mm (3/8) | 5 | 2.28 | 0.79 | 0.26 | 0.94 | 1.89 | 58 | 20 | 6.5 | 24 | 48 | 0.110 | 50 |
| 8 | JL7086812 | Plug with straight push-on type hose tail | 12,7 mm (1/2) | 5 | 2.52 | 0.79 | 0.50 | 1.10 | 2.15 | 64 | 20 | 12.7 | 28 | 54.5 | 0.119 | 54 |

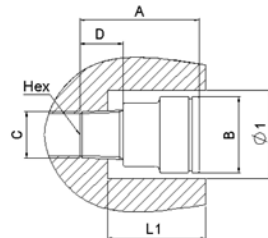


Figure 6

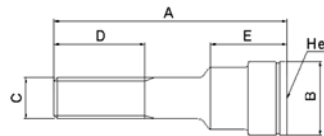


Figure 7

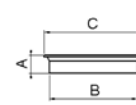


Figure 8

| DN/ND | Plug/Male Part Number | Coupling Type | Thread Size (Male) | Fig. | Dimensions | | | | | | Weight | | | | | |
|-------|-----------------------|-------------------------|--------------------|------|------------|------|------|------|------|------|--------|------|------|-----|-------|-----|
| | | | | | A | B | C | D | Hex | A | B | C | D | Hex | (lbs) | (g) |
| 8 | JL7083618 | Socket with male thread | R ½ | 6 | 1.10 | 0.83 | 0.38 | 0.30 | 0.20 | 28 | 21 | 9.6 | 7.5 | 5 | 0.046 | 21 |
| 8 | JL7083614 | Socket with male thread | R ¼ | 6 | 1.22 | 0.83 | 0.51 | 0.43 | 0.31 | 31 | 21 | 13 | 11 | 8 | 0.053 | 24 |
| 8 | JL7083638 | Socket with male thread | R ¾ | 6 | 1.22 | 0.83 | 0.65 | 0.45 | 0.39 | 31 | 21 | 16.5 | 11.5 | 10 | 0.066 | 30 |
| 12 | JL7123638 | Socket with male thread | R ¾ | 6 | 1.56 | 1.26 | 0.65 | 0.45 | 0.39 | 39.5 | 32 | 16.5 | 11.5 | 10 | 0.141 | 64 |
| 12 | JL7123612 | Socket with male thread | R ½ | 6 | 1.61 | 1.26 | 0.82 | 0.55 | 0.47 | 41 | 32 | 20.8 | 14 | 12 | 0.165 | 75 |

| DN/ND | Plug/Male Part Number | Coupling Type | Thread Size (Male) | Fig. | Dimensions | | | | | | Weight | | | | | |
|-------|-----------------------|----------------------------------|--------------------|------|------------|------|------|------|------|-----|--------|-----|----|----|-------|-----|
| | | | | | A | B | C | D | E | A | B | C | D | E | (lbs) | (g) |
| 8 | JL7083118 | Extended socket with male thread | G ½ | 7 | 1.97 | 0.83 | 0.38 | 1.06 | 0.83 | 50 | 21 | 9.6 | 27 | 21 | 0.068 | 31 |
| 8 | JL7083218 | Extended socket with male thread | G ½ | 7 | 3.94 | 0.83 | 0.38 | 2.36 | 0.83 | 100 | 21 | 9.6 | 60 | 21 | 0.117 | 53 |
| 8 | JL7083318 | Extended socket with male thread | G ½ | 7 | 5.91 | 0.83 | 0.38 | 2.36 | 0.83 | 150 | 21 | 9.6 | 60 | 21 | 0.168 | 76 |
| 8 | JL7083114 | Extended socket with male thread | G ¼ | 7 | 1.97 | 0.83 | 0.51 | 1.06 | 0.79 | 50 | 21 | 13 | 27 | 20 | 0.084 | 38 |
| 8 | JL7083214 | Extended socket with male thread | G ¼ | 7 | 3.94 | 0.83 | 0.51 | 2.36 | 0.79 | 100 | 21 | 13 | 60 | 20 | 0.161 | 73 |
| 8 | JL7083314 | Extended socket with male thread | G ¼ | 7 | 5.91 | 0.83 | 0.51 | 2.36 | 0.79 | 150 | 21 | 13 | 60 | 20 | 0.240 | 109 |
| 8 | JL7083414 | Extended socket with male thread | G ¼ | 7 | 7.87 | 0.83 | 0.51 | 2.36 | 0.79 | 200 | 21 | 13 | 60 | 20 | 0.317 | 144 |

To obtain connected length of coupling add Dimensions F (Fig. 1, 2, 3, 4 or 5) and A (Fig. 6 or Fig. 7) together.

| DN/ND | Plug/Male Part Number | Coupling Type | Color | Fig. | Dimensions | | | Dimensions | | |
|-------|-----------------------|---------------------|-------|------|------------|------|------|------------|----|------|
| | | | | | A | B | C | A | B | C |
| 8 | J62P082 | Identification ring | Red | 8 | 0.18 | 0.87 | 0.96 | 4.5 | 22 | 24.5 |
| 8 | J62P083 | Identification ring | Blue | 8 | 0.18 | 0.87 | 0.96 | 4.5 | 22 | 24.5 |
| 12 | J62P122 | Identification ring | Red | 8 | 0.18 | 1.30 | 1.42 | 4.5 | 33 | 36 |
| 12 | J62P123 | Identification ring | Blue | 8 | 0.18 | 1.30 | 1.42 | 4.5 | 33 | 36 |

FLUID TRANSFER AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

ST Series



Eaton's ST Series is a straight-through coupling that is designed for use where minimum pressure drop is required and valving is not needed. These couplings are suited for various and versatile fluid transfer type systems.

Product Features

- Ball-latching mechanism
- Smooth bore permits free flow of liquid or gas
- Available in NPTF, BSPP and Hose stem end connections
- Standard seal material: Buna-N
- Standard body material: Brass, 303 stainless steel, steel

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases.

Physical Characteristics

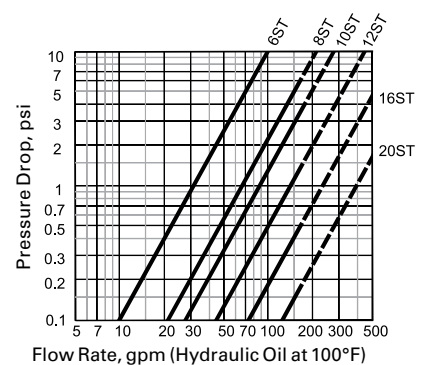
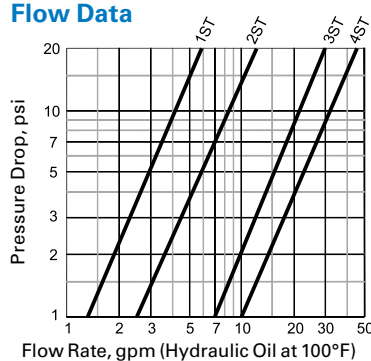
| Series | Body Size (in) | Max. Operating Pressure Brass Socket & Plug** | | Max. Operating Pressure Brass Socket & Steel Plug** | | Max. Operating Pressure Stainless Socket & Plug** | | Max. Operating pressure for Hazardous liquids and gases Group 1 | | Min. Burst Pressure* | | Rated Flow | |
|--------|----------------|---|-------|---|-------|---|-------|---|-------|----------------------|--------|------------|-------|
| | | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (lpm) | (gpm) |
| 1ST | 1/8 | 193 | 2,800 | 234 | 3,400 | 290 | 4,200 | *** | *** | 772 | 11,200 | 10 | 2.7 |
| 2ST | 1/4 | 359 | 5,200 | 379 | 5,500 | 517 | 7,500 | *** | *** | 1,436 | 20,800 | 21 | 5.6 |
| 3ST | 3/8 | 193 | 2,800 | 290 | 4,200 | 434 | 6,300 | *** | *** | 772 | 11,200 | 57 | 15 |
| 4ST | 1/2 | 152 | 2,200 | 241 | 3,500 | 248 | 3,600 | *** | *** | 608 | 8,800 | 83 | 22 |
| 6ST | 3/4 | 117 | 1,700 | 145 | 2,100 | 207 | 3,000 | *** | *** | 468 | 6,800 | 250 | 66 |
| 8ST | 1 | 90 | 1,300 | 138 | 2,000 | 138 | 2,000 | *** | *** | 360 | 5,200 | 530 | 140 |
| 10ST | 1 1/4 | 117 | 1,700 | 186 | 2,700 | 152 | 2,200 | *** | *** | 468 | 6,800 | 697 | 184 |
| 12ST | 1 1/2 | 97 | 1,400 | 152 | 2,200 | 172 | 2,500 | 33 | 480 | 388 | 5,600 | 1,124 | 297 |
| 16ST | 2 | 97 | 1,400 | 152 | 2,200 | 103 | 1,500 | 27 | 390 | 388 | 5,600 | 1,855 | 490 |
| 20ST | 2 1/2 | 62 | 900 | 103 | 1,500 | — | — | 20 | 290 | 248 | 3,600 | 3,131 | 827 |

* For Brass socket and plug. Other materials have 4 to 1 safety factor
 ** Operating pressure for Non Hazardous liquids and gases from Group 2
 *** Operating pressure is same as Non Hazardous liquids and gases from Group 2 for this size

Applications & Markets

- Fluid Transfer
- Chemical
- Food and Beverage
- Injection Molding
- Marine
- Medical
- Pressure Washing
- Steam Cleaning

Flow Data



ST Series

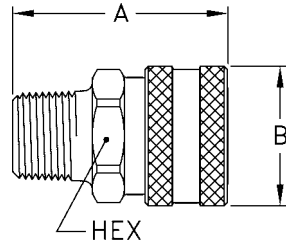


Figure 1

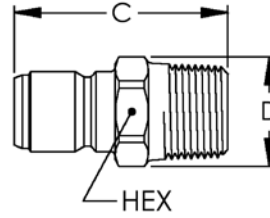


Figure 2

Male End Connections

| Part Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | | |
|-------------|-------|----------|---------------|---------------|-----------|--------------|--------|------|------|------------|------|-------|------|------|------|------|
| | | | | | | | | | | A | B | Hex | A | B | Hex | |
| | | | | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 1S10 | — | LL1S10 | Socket/Female | 1/8 | 1/8 | 1/8-27 | NPTF | 1 | 1.06 | 0.72 | 0.56 | 26.9 | 18.3 | 14.2 | | |
| 1S10BS | — | — | Socket/Female | 1/8 | 1/8 | 1/8-28 | BSPP | 1 | 1.00 | 0.72 | 0.56 | 25.4 | 18.3 | 14.2 | | |
| 2S15 | — | LL2S15 | Socket/Female | 1/4 | 1/4 | 1/4-18 | NPTF | 1 | 1.72 | 0.97 | 0.81 | 43.7 | 24.6 | 20.6 | | |
| 3S20 | — | LL3S20 | Socket/Female | 3/8 | 3/8 | 3/8-18 | NPTF | 1 | 1.75 | 1.16 | 1.00 | 44.5 | 29.5 | 25.4 | | |
| 3S20BS | — | LL3S20BS | Socket/Female | 3/8 | 3/8 | 3/8-19 | BSPP | 1 | 1.71 | 1.16 | 1.00 | 43.4 | 29.5 | 25.4 | | |
| 4S25 | — | LL4S25 | Socket/Female | 1/2 | 1/2 | 1/2-14 | NPTF | 1 | 2.03 | 1.34 | 1.13 | 51.6 | 34.0 | 28.7 | | |
| 4S25BS | — | LL4S25BS | Socket/Female | 1/2 | 1/2 | 1/2-14 | BSPP | 1 | 1.80 | 1.34 | 1.13 | 45.7 | 34.0 | 28.7 | | |
| 6S30 | — | LL6S30 | Socket/Female | 3/4 | 3/4 | 3/4-14 | NPTF | 1 | 2.22 | 1.72 | 1.44 | 56.4 | 43.7 | 36.6 | | |
| 6S30BS | — | — | Socket/Female | 3/4 | 3/4 | 3/4-14 | BSPP | 1 | 2.03 | 1.72 | 1.44 | 51.6 | 43.7 | 36.6 | | |
| 8S35 | — | — | Socket/Female | 1 | 1 | 1-11 1/2 | NPTF | 1 | 2.53 | 2.03 | 1.75 | 64.3 | 51.6 | 44.5 | | |
| 8S35BS | — | — | Socket/Female | 1 | 1 | 1-11 | BSPP | 1 | 2.37 | 2.03 | 1.75 | 60.2 | 51.6 | 44.5 | | |
| Part Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | | |
| | | | | | | | | | | C | D | Hex | C | D | Hex | |
| | | | | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| B1T10 | 1T10E | LL1T10 | Plug/Male | 1/8 | 1/8 | 1/8-27 | NPTF | 2 | 1.06 | 0.51 | 0.44 | 26.9 | 13.0 | 11.2 | | |
| B1T15 | 1T15 | — | Plug/Male | 8 | 1/4 | 1/4-18 | NPTF | 2 | 1.22 | 0.65 | 0.56 | 31.0 | 16.5 | 14.2 | | |
| B2T15 | 2T15 | LL2T15 | Plug/Male | 1/4 | 1/4 | 1/4-18 | NPTF | 2 | 1.56 | 0.65 | 0.56 | 39.6 | 16.5 | 14.2 | | |
| — | — | HL2T15** | Plug/Male | 1/4 | 1/4 | 1/4-18 | NPTF | 2 | 1.56 | 0.65 | 0.56 | 39.6 | 16.5 | 14.2 | | |
| B2T15BS | — | LL2T15BS | Plug/Male | 1/4 | 1/4 | 1/4-19 | BSPP | 2 | 1.46 | 0.87 | 0.75 | 37.1 | 22.1 | 19.1 | | |
| B3T20 | 3T20 | LL3T20 | Plug/Male | 3/8 | 3/8 | 3/8-18 | NPTF | 2 | 1.69 | 0.79 | 0.69 | 42.9 | 20.1 | 17.5 | | |
| — | — | HL3T20** | Plug/Male | 3/8 | 3/8 | 3/8-18 | NPTF | 2 | 1.69 | 0.79 | 0.69 | 42.9 | 20.1 | 17.5 | | |
| B3T20BS | — | LL3T20BS | Plug/Male | 3/8 | 3/8 | 3/8-19 | BSPP | 2 | 1.50 | 1.01 | 0.88 | 38.1 | 25.7 | 22.4 | | |
| B4T25 | 4T25 | LL4T25 | Plug/Male | 1/2 | 1/2 | 1/2-14 | NPTF | 2 | 2.01 | 1.01 | 0.88 | 51.1 | 25.7 | 22.4 | | |
| B4T25BS | — | LL4T25BS | Plug/Male | 1/2 | 1/2 | 1/2-14 | BSPP | 2 | 1.82 | 1.15 | 1.00 | 46.2 | 29.2 | 25.4 | | |
| B6T30 | 6T30 | LL6T30 | Plug/Male | 3/4 | 3/4 | 3/4-14 | NPTF | 2 | 2.2 | 1.23 | 1.06 | 55.9 | 31.2 | 26.9 | | |
| B6T30BS | — | LL6T30BS | Plug/Male | 3/4 | 3/4 | 3/4-14 | BSPP | 2 | 2.08 | 1.44 | 1.25 | 52.8 | 36.6 | 31.8 | | |
| B8T35 | 8T35 | LL8T35 | Plug/Male | 1 | 1 | 1-11 1/2 | NPTF | 2 | 2.49 | 1.59 | 1.38 | 63.2 | 40.4 | 35.1 | | |
| B8T35BS | — | — | Plug/Male | 1 | 1 | 1-11 | BSPP | 2 | 2.36 | 2.02 | 1.75 | 59.9 | 51.3 | 44.5 | | |
| B10T40 | 10T40 | LL10T40 | Plug/Male | 1 1/4 | 1 1/4 | 1 1/4-11 1/2 | NPTF | 2 | 2.72 | 2.02 | 1.75 | 69.1 | 51.3 | 44.5 | | |
| B10T40BS | — | — | Plug/Male | 1 1/4 | 1 1/4 | 1 1/4-11 | BSPP | 2 | 2.55 | 2.31 | 2.00 | 64.8 | 58.7 | 50.8 | | |
| B12T45 | 12T45 | — | Plug/Male | 1 1/2 | 1 1/2 | 1 1/2-11 1/2 | NPTF | 2 | 3.31 | 2.6 | 2.25 | 84.1 | 66.0 | 57.2 | | |
| B12T45BS | — | — | Plug/Male | 1 1/2 | 1 1/2 | 1 1/2-11 | BSPP | 2 | 3.06 | 2.6 | 2.25 | 77.7 | 66.0 | 57.2 | | |
| B16T50 | 16T50 | LL16T50 | Plug/Male | 2 | 2 | 2-11 1/2 | NPTF | 2 | 3.5 | 3.18 | 2.75 | 88.9 | 80.8 | 69.9 | | |
| B20T55 | — | — | Plug/Male | 2 1/2 | 2 1/2 | 2 1/2-8 | NPTF | 2 | 4.24 | 3.75 | 3.25 | 107.7 | 95.3 | 82.6 | | |

**High impulse heat treated 416 stainless steel

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

ST Series

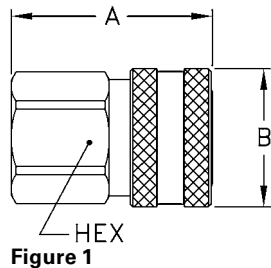


Figure 1

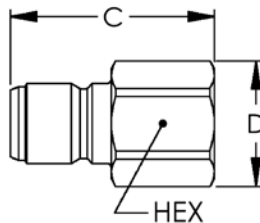


Figure 2

Female End Connections

| Part Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | | |
|-------------|-------|-------|-----------|---------------|-----------|-----------|--------------|------|------|------------|------|------|------|-------|------|------|
| | | | | | | | | | | A | B | Hex | A | B | Hex | |
| | | | | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| 1S11 | — | — | LL1S11 | Socket/Female | 1/8 | 1/8 | 1/8-27 | NPTF | 1 | 1.06 | 0.72 | 0.56 | 26.9 | 18.3 | 14.2 | |
| 1S11BS | — | — | LL1S11BS | Socket/Female | 1/8 | 1/8 | 1/8-28 | BSPP | 1 | 1.03 | 0.72 | 0.56 | 26.2 | 18.3 | 14.2 | |
| 2S16 | — | — | LL2S16 | Socket/Female | 1/4 | 1/4 | 1/4-18 | NPTF | 1 | 1.5 | 0.97 | 0.81 | 38.1 | 24.6 | 20.6 | |
| 2S16BS | — | — | LL2S16BS | Socket/Female | 1/4 | 1/4 | 1/4-19 | BSPP | 1 | 1.5 | 0.97 | 0.81 | 38.1 | 24.6 | 20.6 | |
| 3S21 | — | — | LL3S21 | Socket/Female | 3/8 | 3/8 | 3/8-18 | NPTF | 1 | 1.59 | 1.16 | 1.00 | 40.4 | 29.5 | 25.4 | |
| 3S21BS | — | — | LL3S21BS | Socket/Female | 3/8 | 3/8 | 3/8-19 | BSPP | 1 | 1.59 | 1.16 | 1.00 | 40.4 | 29.5 | 25.4 | |
| 4S26 | — | — | LL4S26 | Socket/Female | 1/2 | 1/2 | 1/2-14 | NPTF | 1 | 1.91 | 1.34 | 1.13 | 48.5 | 34.0 | 28.7 | |
| 4S26BS | — | — | LL4S26BS | Socket/Female | 1/2 | 1/2 | 1/2-14 | BSPP | 1 | 1.91 | 1.34 | 1.13 | 48.5 | 34.0 | 28.7 | |
| 6S31 | — | — | LL6S31 | Socket/Female | 3/4 | 3/4 | 3/4-14 | NPTF | 1 | 2.06 | 1.72 | 1.44 | 52.3 | 43.7 | 36.6 | |
| 6S31BS | — | — | LL6S31BS | Socket/Female | 3/4 | 3/4 | 3/4-14 | BSPP | 1 | 2.06 | 1.72 | 1.44 | 52.3 | 43.7 | 36.6 | |
| 8S36 | — | — | LL8S36 | Socket/Female | 1 | 1 | 1-11 1/2 | NPTF | 1 | 2.33 | 2.03 | 1.75 | 59.2 | 51.6 | 44.5 | |
| 8S36BS | — | — | LL8S36BS | Socket/Female | 1 | 1 | 1-11 | BSPP | 1 | 2.33 | 2.03 | 1.75 | 59.2 | 51.6 | 44.5 | |
| 10S41* | — | — | LL10S41 | Socket/Female | 1 1/4 | 1 1/4 | 1 1/4-11 1/2 | NPTF | 1 | 2.44 | 2.5 | 2.00 | 62.0 | 63.5 | 50.8 | |
| 10S41BS* | — | — | — | Socket/Female | 1 1/4 | 1 1/4 | 1 1/4-11 | BSPP | 1 | 2.51 | 2.5 | 2.00 | 63.8 | 63.5 | 50.8 | |
| 12S46* | — | — | LL12S46 | Socket/Female | 1 1/2 | 1 1/2 | 1 1/2-11 1/2 | NPTF | 1 | 2.88 | 3.13 | 2.60 | 73.2 | 79.5 | 66.0 | |
| 12S46BS* | — | — | LL12S46BS | Socket/Female | 1 1/2 | 1 1/2 | 1 1/2-11 | BSPP | 1 | 2.88 | 3.13 | 2.63 | 73.2 | 79.5 | 66.8 | |
| 16S51* | — | — | LL16S51 | Socket/Female | 2 | 2 | 2-11 1/2 | NPTF | 1 | 3.09 | 3.75 | 3.00 | 78.5 | 95.3 | 76.2 | |
| 16S51BS* | — | — | LL16S51BS | Socket/Female | 2 | 2 | 2-11 | BSPP | 1 | 3.3 | 3.75 | 3.00 | 83.8 | 95.3 | 76.2 | |
| 20S56* | — | — | — | Socket/Female | 2 1/2 | 2 1/2 | 2 1/2-8 | NPTF | 1 | 3.44 | 4.5 | 3.50 | 87.4 | 114.3 | 88.9 | |

| Part Number | Brass | Steel | Stainless | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | | |
|-------------|-------|-------|-----------|---------------|-----------|-----------|--------------|------|------|------------|------|------|------|------|------|------|
| | | | | | | | | | | C | D | Hex | C | D | Hex | |
| | | | | | | | | | | | (in) | (in) | (in) | (mm) | (mm) | (mm) |
| B1T11 | — | 1T11 | LL1T11 | Plug/Male | 1/8 | 1/8 | 1/8-27 | NPTF | 2 | 0.97 | 0.58 | 0.50 | 24.6 | 14.7 | 12.7 | |
| B1T11BS | — | — | LL1T11BS | Plug/Male | 1/8 | 1/8 | 1/8-28 | BSPP | 2 | 0.97 | 0.65 | 0.56 | 24.6 | 16.5 | 14.2 | |
| B2T16 | — | 2T16 | LL2T16 | Plug/Male | 1/4 | 1/4 | 1/4-18 | NPTF | 2 | 1.45 | 0.79 | 0.69 | 36.8 | 20.1 | 17.5 | |
| — | — | — | HL2T16** | Plug/Male | 1/4 | 1/4 | 1/4-18 | NPTF | 2 | 1.45 | 0.79 | 0.69 | 36.8 | 20.1 | 17.5 | |
| B2T16BS | — | — | LL2T16BS | Plug/Male | 1/4 | 1/4 | 1/4-19 | BSPP | 2 | 1.45 | 0.87 | 0.75 | 36.8 | 22.1 | 19.1 | |
| B3T21 | — | 3T21 | LL3T21 | Plug/Male | 3/8 | 3/8 | 3/8-18 | NPTF | 2 | 1.63 | 0.94 | 0.81 | 41.4 | 23.9 | 20.6 | |
| — | — | — | HL3T21** | Plug/Male | 3/8 | 3/8 | 3/8-18 | NPTF | 2 | 1.63 | 0.94 | 0.81 | 41.4 | 23.9 | 20.6 | |
| B3T21BS | — | — | LL3T21BS | Plug/Male | 3/8 | 3/8 | 3/8-19 | BSPP | 2 | 1.63 | 1.01 | 0.88 | 41.4 | 25.7 | 22.4 | |
| B4T26 | — | 4T26 | LL4T26 | Plug/Male | 1/2 | 1/2 | 1/2-14 | NPTF | 2 | 1.92 | 1.15 | 1.00 | 48.8 | 29.2 | 25.4 | |
| B4T26BS | — | — | LL4T26BS | Plug/Male | 1/2 | 1/2 | 1/2-14 | BSPP | 2 | 1.92 | 1.23 | 1.06 | 48.8 | 31.2 | 26.9 | |
| B6T31 | — | 6T31 | LL6T31 | Plug/Male | 3/4 | 3/4 | 3/4-14 | NPTF | 2 | 2.01 | 1.37 | 1.19 | 51.1 | 34.8 | 30.2 | |
| B6T31BS | — | — | LL6T31BS | Plug/Male | 3/4 | 3/4 | 3/4-14 | BSPP | 2 | 2.01 | 1.51 | 1.31 | 51.1 | 38.4 | 33.3 | |
| B8T36 | — | 8T36 | LL8T36 | Plug/Male | 1 | 1 | 1-11 1/2 | NPTF | 2 | 2.21 | 1.8 | 1.56 | 56.1 | 45.7 | 39.6 | |
| B8T36BS | — | — | LL8T36BS | Plug/Male | 1 | 1 | 1-11 | BSPP | 2 | 2.23 | 1.8 | 1.56 | 56.6 | 45.7 | 39.6 | |
| B10T41 | — | 10T41 | LL10T41 | Plug/Male | 1 1/4 | 1 1/4 | 1 1/4-11 1/2 | NPTF | 2 | 2.34 | 2.31 | 2.00 | 59.4 | 58.7 | 50.8 | |
| B10T41BS | — | — | LL10T41BS | Plug/Male | 1 1/4 | 1 1/4 | 1 1/4-11 | BSPP | 2 | 2.53 | 2.31 | 2.00 | 64.3 | 58.7 | 50.8 | |
| B12T46 | — | 12T46 | LL12T46 | Plug/Male | 1 1/2 | 1 1/2 | 1 1/2-11 1/2 | NPTF | 2 | 2.88 | 2.6 | 2.25 | 73.2 | 66.0 | 57.2 | |
| B12T46BS | — | — | LL12T46BS | Plug/Male | 1 1/2 | 1 1/2 | 1 1/2-11 | BSPP | 2 | 2.88 | 2.6 | 2.25 | 73.2 | 66.0 | 57.2 | |
| B16T51 | — | 16T51 | — | Plug/Male | 2 | 2 | 2-11 1/2 | NPTF | 2 | 3.03 | 3.18 | 2.75 | 77.0 | 80.8 | 69.9 | |
| B16T51BS | — | — | — | Plug/Male | 2 | 2 | 2-11 | BSPP | 2 | 3.25 | 3.18 | 2.75 | 82.6 | 80.8 | 69.9 | |
| B20T56 | — | 20T56 | — | Plug/Male | 2 1/2 | 2 1/2 | 2 1/2-8 | NPTF | 2 | 3.37 | 3.75 | 3.25 | 85.6 | 95.3 | 82.6 | |

*With Steel Sleeve

** High impulse heat treated 416 stainless steel

ST Series

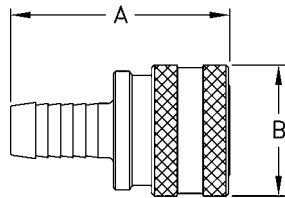


Figure 1

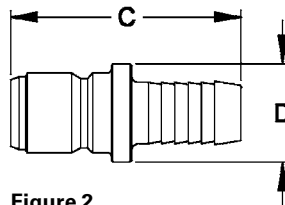


Figure 2

Hose Stem End Connections

| Part Number | Brass | Stainless | Steel | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions | | | |
|-------------|-------|-----------|-------|---------------|-----------|-----------|------|------------|------|------|------|
| | | | | | | | | A | B | A | B |
| | | | | | | | | (in) | (in) | (mm) | (mm) |
| 1S12 | | LL1S12 | — | Socket/Female | 1/8 | 3/16 | 1 | 1.41 | 0.72 | 35.8 | 18.3 |
| 1S17 | | LL1S17 | — | Socket/Female | 1/8 | 1/4 | 1 | 1.41 | 0.72 | 35.8 | 18.3 |
| 2S17 | | LL2S17 | — | Socket/Female | 1/4 | 1/4 | 1 | 2.10 | 0.97 | 53.3 | 24.6 |
| 3S22 | | LL3S22 | — | Socket/Female | 3/8 | 3/8 | 1 | 2.09 | 1.16 | 53.1 | 29.5 |
| 4S27 | | LL4S27 | — | Socket/Female | 1/2 | 1/2 | 1 | 2.19 | 1.34 | 55.6 | 34.0 |
| 6S32 | | LL6S32 | — | Socket/Female | 3/4 | 3/4 | 1 | 3.19 | 1.72 | 81.0 | 43.7 |
| 8S37 | | LL8S37 | — | Socket/Female | 1 | 1 | 1 | 3.32 | 2.03 | 84.3 | 51.6 |

| Part Number | Brass | Stainless | Steel | Coupling Type | Body Size | Hose I.D. | Fig. | Dimensions | | | |
|-------------|-------|-----------|-------|---------------|-----------|-----------|------|------------|------|------|------|
| | | | | | | | | C | D | C | D |
| | | | | | | | | (in) | (in) | (mm) | (mm) |
| B1T12 | | LL1T12 | — | Plug/Male | 1/8 | 3/16 | 2 | 1.28 | 0.44 | 32.5 | 11.2 |
| B1T17 | | LL1T17 | — | Plug/Male | 1/8 | 1/4 | 2 | 1.28 | 0.44 | 32.5 | 11.2 |
| B2T17 | | LL2T17 | — | Plug/Male | 1/4 | 1/4 | 2 | 1.93 | 0.56 | 49.0 | 14.2 |
| B3T22 | | LL3T22 | — | Plug/Male | 3/8 | 3/8 | 2 | 2.09 | 0.69 | 53.1 | 17.5 |
| B4T27 | | LL4T27 | — | Plug/Male | 1/2 | 1/2 | 2 | 2.17 | 0.88 | 55.1 | 22.4 |
| B6T32 | | LL6T32 | — | Plug/Male | 3/4 | 3/4 | 2 | 3.17 | 1.19 | 80.5 | 30.2 |
| B8T37 | | — | 8T37 | Plug/Male | 1 | 1 | 2 | 3.28 | 1.5 | 83.3 | 38.1 |

Dust Caps and Dust Plugs

| Series | Dust Cap | Dust Plug |
|--------|----------|-----------|
| 2ST | — | PSDC1HK |
| 3ST | — | PSDC2HK |
| 6ST | PPDC4HK | PSDC4HK |
| 8ST | PPDC6HK | — |
| 10ST | PPDC8HK | — |



FLUID TRANSFER AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

L7000 Series Full Flow (Steel)



Eaton's L7000 Series steel quick disconnect coupling is a full-flow coupling with a rugged construction. Similar to the Eaton H5000 Series, the heat treatment and hardened materials give the coupling excellent resistance to mechanical and hydraulic demands. It is suited for applications where maximum flow capacity is a requirement and valving is not needed.

Product Features

- Proprietary profile
- Full flow pull-to-connect couplings
- Ball-locking
- Excellent flow performance
- Standard body material: Zinc trivalent plated steel
- Optional dust caps and plugs (made of anodized aluminum)
- Standard seal material: NBR, FKM, EPDM

European Pressure Equipment Directive*

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases.

*Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets

- Fluid Transfer Lines
- Refrigerant Circuits
- Applications where maximum flow capacity is required

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure (connected)* | | | |
|-------------------|-------------------------------|--|--------|--------------------------------------|--------|
| | | Non hazardous liquids & gases in Group 2 | | Hazardous liquids & gases in Group 1 | |
| | | bar | (psi) | bar | (psi) |
| 1/8 | 8 | 1,000 | 14,500 | 1,000 | 14,500 |
| 1/4 | 10 | 700 | 10,150 | 700 | 10,150 |
| 3/8 | 12 | 600 | 8,700 | 600 | 8,700 |
| 1/2 | 15 | 500 | 7,250 | 500 | 7,250 |
| 3/4 | 20 | 400 | 5,800 | 400 | 5,800 |
| 1 | 25 | 300 | 4,350 | 300 | 4,350 |
| 1 1/4 | 33 | 200 | 2,900 | 30 | 435 |
| 1 1/2 | 40 | 150 | 2,175 | 24 | 345 |
| 2 | 50 | 100 | 1,450 | 19 | 275 |

Flow Data

The nominal flow diameter of the coupling has no impact on pressure drop, as it is wider than the circuit diameter.

Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |
| FKM (Fluorocarbon) | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

*For reference only, based on Eaton recommended temperatures.

**In accordance with NF L 17-241 or NAS 1613 rev. 5, depending on size.

Contact Eaton technical support for further information on fluid compatibility.

L7000 Series Full Flow (Steel)

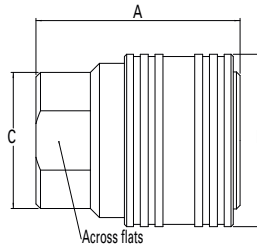


Figure 1

Sockets (Female)

| Part Number | | | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size** (Female) BSPP | Fig. | Dimensions | | | | | | | | Weight | |
|-------------|-----------|-----------|-------------------|-------------------------------|-----------------------------------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|--------|-------|
| NBR* | FKM | EPDM | | | | | A (in) | B (in) | C (in) | Across flats (in) | A (mm) | B (mm) | C (mm) | Across flats (mm) | lbs | grams |
| LA0700100 | LA07001V0 | LA07001E0 | 1/8 | 8 | 1/8-28 | 1 | 1.63 | 0.94 | 0.83 | 0.63 | 41.5 | 24 | 21 | 16 | 0.19 | 86 |
| LA0701100 | LA07011V0 | LA07011E0 | 1/4 | 10 | 1/4-19 | 1 | 1.42 | 1.10 | 0.83 | 0.75 | 36 | 28 | 21 | 19 | 0.19 | 87 |
| LA0702100 | LA07021V0 | LA07021E0 | 3/8 | 12 | 3/8-19 | 1 | 1.50 | 1.34 | 1.02 | 0.90 | 38 | 34 | 26 | 23 | 0.28 | 129 |
| LA0703100 | LA07031V0 | LA07031E0 | 1/2 | 15 | 1/2-14 | 1 | 1.77 | 1.50 | 1.18 | 1.06 | 45 | 38 | 30 | 27 | 0.39 | 177 |
| LA0704100 | LA07041V0 | LA07041E0 | 3/4 | 20 | 3/4-14 | 1 | 2.20 | 1.89 | 1.50 | 1.38 | 56 | 48 | 38 | 35 | 0.78 | 355 |
| LA0705100 | LA07051V0 | LA07051E0 | 1 | 25 | 1-11 | 1 | 2.40 | 2.05 | 1.77 | 1.61 | 61 | 52 | 45 | 41 | 0.97 | 440 |
| - | LA07061V0 | LA07061E0 | 1 1/4 | 33 | 1 1/4-11 | 1 | 2.64 | 2.95 | 2.36 | 2.16 | 67 | 75 | 60 | 55 | 2.15 | 975 |
| - | LA07071V0 | LA07071E0 | 1 1/2 | 40 | 1 1/2-11 | 1 | 3.38 | 3.35 | 2.83 | 2.56 | 86 | 85 | 72 | 65 | 3.85 | 1745 |
| - | LA07091V0 | LA07091E0 | 2 | 50 | 2-11 | 1 | 3.46 | 3.82 | 3.27 | 2.95 | 88 | 97 | 83 | 75 | 4.11 | 1865 |

*Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

**Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together

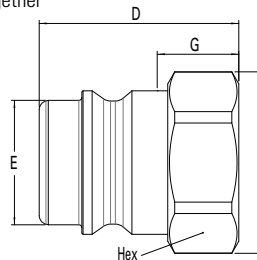


Figure 2

Plugs (Male)

| Part Number | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) BSPP | Fig. | Dimensions | | | | | | | | Weight | | | |
|-------------|-------------------|-------------------------------|----------------------------------|------|------------|--------|--------|--------|----------|--------|--------|--------|--------|----------|------|-------|
| | | | | | D (in) | E (in) | F (in) | G (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Hex (mm) | lbs | grams |
| LA0700200 | 1/8 | 8 | 1/8-28 | 2 | 1.02 | 0.43 | 0.72 | 0.41 | 0.63 | 26 | 11 | 18.4 | 10.5 | 16 | 0.04 | 19 |
| LA0701200 | 1/4 | 10 | 1/4-19 | 2 | 1.00 | 0.56 | 0.82 | 0.41 | 0.75 | 25.5 | 14.2 | 21 | 10.5 | 19 | 0.06 | 26 |
| LA0702200 | 3/8 | 12 | 3/8-19 | 2 | 1.10 | 0.75 | 1.02 | 0.42 | 0.90 | 28 | 19 | 26 | 10.7 | 23 | 0.10 | 45 |
| LA0703200 | 1/2 | 15 | 1/2-14 | 2 | 1.30 | 0.81 | 1.18 | 0.51 | 1.06 | 33 | 20.6 | 30 | 13 | 27 | 0.12 | 54 |
| LA0704200 | 3/4 | 20 | 3/4-14 | 2 | 1.57 | 1.10 | 1.50 | 0.55 | 1.38 | 40 | 27.9 | 38 | 14 | 35 | 0.26 | 117 |
| LA0705200 | 1 | 25 | 1-11 | 2 | 1.73 | 1.27 | 1.77 | 0.73 | 1.61 | 44 | 32.4 | 45 | 18.5 | 41 | 0.34 | 155 |
| LA0706200 | 1 1/4 | 33 | 1 1/4-11 | 2 | 2.12 | 1.73 | 2.36 | 0.83 | 2.16 | 54 | 44 | 60 | 21 | 55 | 0.94 | 424 |
| LA0707200 | 1 1/2 | 40 | 1 1/2-11 | 2 | 2.32 | 2.10 | 2.83 | 0.87 | 2.56 | 59 | 53.5 | 71.9 | 22 | 65 | 1.45 | 656 |
| LA0709200 | 2 | 50 | 2-11 | 2 | 2.68 | 2.47 | 3.27 | 1.06 | 2.95 | 68 | 62.8 | 83 | 27 | 75 | 1.85 | 839 |

*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.

Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part Number Anodized Aluminum | Plug Dust Cap Part Number Anodized Aluminum |
|-------------------|---|--|
| 1/8 | HD0510100 | HD0510200 |
| 1/4 | HD0511100 | HD0511200 |
| 3/8 | HD0512100 | HD0512200 |
| 1/2 | HD0513100 | HD0513200 |
| 3/4 | HD0514100 | HD0514200 |
| 1 | HD0515100 | HD0515200 |
| 1 1/4 | HD0516100 | HD0516200 |
| 1 1/2 | HD0517100 | HD0517200 |
| 2 | HD0519100 | HD0519200 |

Socket Dust Plug



Plug Dust Cap



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

L7000 Series Full Flow (Brass)



Eaton's L7000 Series brass quick disconnect coupling is a full-flow coupling suited for applications where maximum flow capacity is required and valving is not needed. Mainly used in fluid transfer applications where stainless steel is not a requirement, it can vehicle a wide range of media and offers good corrosion resistance.

Product Features

- Proprietary profile
- Full flow pull-to-connect couplings
- Ball-locking
- Excellent flow performance
- Standard body material: Nickel-plated brass
- Optional dust caps and plugs (made of anodized aluminum)
- Standard seal material: NBR, FKM, EPDM

European Pressure Equipment Directive*

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC.

Couplings with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey gases in Group 1 (hazardous).

* Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets

- Pressure Washing
- Steam-Cleaning Equipment
- Fluid Transfer Lines
- Refrigerant Circuits
- Applications where maximum flow capacity is required

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure (connected)* | | | |
|-------------------|-------------------------------|--------------------------------------|-------|------------------|-------|
| | | Liquids in Groups 1 and 2 | | Gases in Group 2 | |
| | | bar | (psi) | bar | (psi) |
| 1/8 | 8 | 300 | 4,350 | 300 | 4,350 |
| 1/4 | 10 | 230 | 3,335 | 230 | 3,335 |
| 3/8 | 12 | 175 | 2,535 | 175 | 2,535 |
| 1/2 | 15 | 150 | 2,175 | 150 | 2,175 |
| 3/4 | 20 | 125 | 1,810 | 125 | 1,810 |
| 1 | 25 | 100 | 1,450 | 100 | 1,450 |
| 1 1/4 | 33 | 60 | 870 | 30 | 435 |
| 1 1/2 | 40 | 49 | 710 | 24 | 348 |
| 2 | 50 | 39 | 565 | 19 | 275 |

*Nominal diameters over 25 mm should not be used to convey gases in Group 1 (as per PED 97/23 EC).

Flow Data

The nominal flow diameter of the coupling has no impact on pressure drop, as it is wider than the circuit diameter.

Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |
| FKM (Fluorocarbon) | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

*For reference only, based on Eaton recommended temperatures.

**In accordance with NF L 17-241 or NAS 1613 rev. 5, depending on size.

Contact Eaton technical support for further information on fluid compatibility.

L7000 Series Full Flow (Brass)

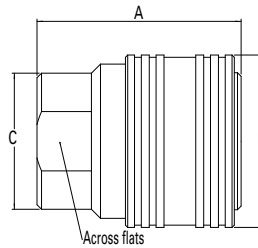


Figure 1

Sockets (Female)

| Part Number | | | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size** (Female) BSPP | Fig. | Dimensions | | | | | | | | Weight | |
|-------------|-----------|-----------|-------------------|-------------------------------|-----------------------------------|------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|--------|-------|
| NBR* | FKM | EPDM | | | | | A (in) | B (in) | C (in) | Across flats (in) | A (mm) | B (mm) | C (mm) | Across flats (mm) | lbs | grams |
| LL0700100 | LL07001V0 | LL07001E0 | 1/8 | 8 | 1/8-28 | 1 | 1.63 | 0.94 | 0.83 | 0.63 | 41.5 | 24 | 21 | 16 | 0.21 | 95 |
| LL0701100 | LL07011V0 | LL07011E0 | 1/4 | 10 | 1/4-19 | 1 | 1.42 | 1.10 | 0.83 | 0.75 | 36 | 28 | 21 | 19 | 0.21 | 96 |
| LL0702100 | LL07021V0 | LL07021E0 | 3/8 | 12 | 3/8-19 | 1 | 1.50 | 1.34 | 1.02 | 0.90 | 38 | 34 | 26 | 23 | 0.31 | 142 |
| LL0703100 | LL07031V0 | LL07031E0 | 1/2 | 15 | 1/2-14 | 1 | 1.77 | 1.50 | 1.18 | 1.06 | 45 | 38 | 30 | 27 | 0.43 | 195 |
| LL0704100 | LL07041V0 | LL07041E0 | 3/4 | 20 | 3/4-14 | 1 | 2.20 | 1.89 | 1.50 | 1.38 | 56 | 48 | 38 | 35 | 0.86 | 391 |
| LL0705100 | LL07051V0 | LL07051E0 | 1 | 25 | 1-11 | 1 | 2.40 | 2.05 | 1.77 | 1.61 | 61 | 52 | 45 | 41 | 1.07 | 484 |
| - | LL07061V0 | LL07061E0 | 1 1/4 | 33 | 1 1/4-11 | 1 | 2.64 | 2.95 | 2.36 | 2.16 | 67 | 75 | 60 | 55 | 2.37 | 1073 |
| - | LL07071V0 | LL07071E0 | 1 1/2 | 40 | 1 1/2-11 | 1 | 3.38 | 3.35 | 2.83 | 2.56 | 86 | 85 | 72 | 65 | 4.23 | 1920 |
| - | LL07091V0 | LL07091E0 | 2 | 50 | 2-11 | 1 | 3.46 | 3.82 | 3.27 | 2.95 | 88 | 97 | 83 | 75 | 4.52 | 2052 |

* Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

** Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together

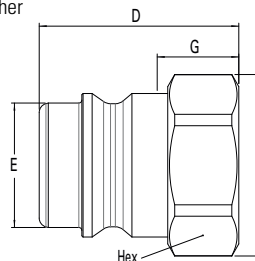


Figure 2

Plugs (Male)

| Part Number | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size* (Female) BSPP | Fig. | Dimensions | | | | | | | | | | Weight | |
|-------------|-------------------|-------------------------------|----------------------------------|------|------------|--------|--------|--------|----------|--------|--------|--------|--------|----------|--------|-------|
| | | | | | D (in) | E (in) | F (in) | G (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Hex (mm) | lbs | grams |
| LL0700200 | 1/8 | 8 | 1/8-28 | 2 | 1.02 | 0.43 | 0.72 | 0.41 | 0.63 | 26 | 11 | 18.4 | 10.5 | 16 | 0.05 | 21 |
| LL0701200 | 1/4 | 10 | 1/4-19 | 2 | 1.00 | 0.56 | 0.82 | 0.41 | 0.75 | 25.5 | 14.2 | 21 | 10.5 | 19 | 0.06 | 29 |
| LL0702200 | 3/8 | 12 | 3/8-19 | 2 | 1.10 | 0.75 | 1.02 | 0.42 | 0.90 | 28 | 19 | 26 | 10.7 | 23 | 0.11 | 50 |
| LL0703200 | 1/2 | 15 | 1/2-14 | 2 | 1.30 | 0.81 | 1.18 | 0.51 | 1.06 | 33 | 20.6 | 30 | 13 | 27 | 0.13 | 59 |
| LL0704200 | 3/4 | 20 | 3/4-14 | 2 | 1.57 | 1.10 | 1.50 | 0.55 | 1.38 | 40 | 27.9 | 38 | 14 | 35 | 0.28 | 129 |
| LL0705200 | 1 | 25 | 1-11 | 2 | 1.73 | 1.27 | 1.77 | 0.73 | 1.61 | 44 | 32.4 | 45 | 18.5 | 41 | 0.38 | 171 |
| LL0706200 | 1 1/4 | 33 | 1 1/4-11 | 2 | 2.12 | 1.73 | 2.36 | 0.83 | 2.16 | 54 | 44 | 60 | 21 | 55 | 1.03 | 466 |
| LL0707200 | 1 1/2 | 40 | 1 1/2-11 | 2 | 2.32 | 2.10 | 2.83 | 0.87 | 2.56 | 59 | 53.5 | 71.9 | 22 | 65 | 1.59 | 722 |
| LL0709200 | 2 | 50 | 2-11 | 2 | 2.68 | 2.47 | 3.27 | 1.06 | 2.95 | 68 | 62.8 | 83 | 27 | 75 | 2.04 | 923 |

*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.

Dust Plugs and Dust Caps

| Body Size (in) | Socket Dust Plug Part Number Anodized Aluminum | Plug Dust Cap Part Number Anodized Aluminum |
|-------------------|---|--|
| 1/8 | HD0510100 | HD0510200 |
| 1/4 | HD0511100 | HD0511200 |
| 3/8 | HD0512100 | HD0512200 |
| 1/2 | HD0513100 | HD0513200 |
| 3/4 | HD0514100 | HD0514200 |
| 1 | HD0515100 | HD0515200 |
| 1 1/4 | HD0516100 | HD0516200 |
| 1 1/2 | HD0517100 | HD0517200 |
| 2 | HD0519100 | HD0519200 |

Socket Dust Plug



Plug Dust Cap



FLUID TRANSFER
AND HYDRAULIC

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SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

L7000 Series

Full Flow (Stainless Steel)



Eaton's L7000 Series stainless steel quick disconnect coupling is a full-flow coupling suited for applications where maximum flow capacity is required and valving is not needed. Mainly used in fluid transfer applications and offers excellent corrosion resistance.

Product Features

- Proprietary profile
- Full flow pull-to-connect couplings
- Ball-locking
- Excellent flow performance
- Standard body material: AISI 316L Stainless steel
- Optional dust caps and plugs (made of anodized aluminum)
- Standard seal material: FKM, EPDM

European Pressure Equipment Directive*

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases.

*Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets

- Pressure Washing
- Steam-cleaning Equipment
- Fluid Transfer Lines
- Refrigerant Circuits
- Applications where maximum flow capacity is required

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure (connected) | | | |
|-------------------|-------------------------------|---------------------------------------|-------|---------------------------------------|-------|
| | | Non hazardous liquids & gases Group 2 | | Non hazardous liquids & gases Group 1 | |
| | | (bar) | (psi) | (bar) | (psi) |
| 1/8 | 8 | 300 | 4,350 | 300 | 4,350 |
| 1/4 | 10 | 230 | 3,335 | 230 | 3,335 |
| 3/8 | 12 | 175 | 3,535 | 175 | 3,535 |
| 1/2 | 15 | 150 | 2,175 | 150 | 2,175 |
| 3/4 | 20 | 125 | 1,810 | 125 | 1,810 |
| 1 | 25 | 100 | 1,450 | 100 | 1,450 |
| 1 1/4 | 33 | 100 | 1,450 | 100 | 1,450 |
| 1 1/2 | 40 | 75 | 1,085 | 38 | 550 |
| 2 | 50 | 40 | 580 | 28 | 405 |

Flow Data

The nominal flow diameter of the coupling has no impact on pressure drop, as it is wider than the circuit diameter.

Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| FKM (Fluorocarbon) | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

*For reference only, based on Eaton recommended temperatures.

**In accordance with NF L 17-241 or NAS 1613 rev. 5, depending on size.

Contact Eaton technical support for further information on fluid compatibility.

L7000 Series Full Flow (Stainless Steel)

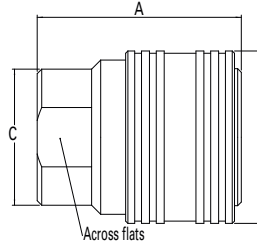


Figure 1

Sockets (Female)

| Part Number | Body Size | Nominal Flow Diameter | Thread Size* (Female) | Fig. | Dimensions | | | | | | | | | Weight | |
|-------------|-----------|-----------------------|-----------------------|----------|------------|--------|--------|-------------------|--------|--------|--------|-------------------|-----|--------|------|
| | | | | | A (in) | B (in) | C (in) | Across flats (in) | A (mm) | B (mm) | C (mm) | Across flats (mm) | lbs | grams | |
| LZ07001V0 | LZ07001E0 | 1/8 | 8 | 1/8-28 | 1 | 1.63 | 0.94 | 0.83 | 0.63 | 41.5 | 24 | 21 | 16 | 0.19 | 86 |
| LZ07011V0 | LZ07011E0 | 1/4 | 10 | 1/4-19 | 1 | 1.42 | 1.10 | 0.83 | 0.75 | 36 | 28 | 21 | 19 | 0.19 | 87 |
| LZ07021V0 | LZ07021E0 | 3/8 | 12 | 3/8-19 | 1 | 1.50 | 1.34 | 1.02 | 0.90 | 38 | 34 | 26 | 23 | 0.28 | 129 |
| LZ07031V0 | LZ07031E0 | 1/2 | 15 | 1/2-14 | 1 | 1.77 | 1.50 | 1.18 | 1.06 | 45 | 38 | 30 | 27 | 0.39 | 177 |
| LZ07041V0 | LZ07041E0 | 3/4 | 20 | 3/4-14 | 1 | 2.20 | 1.89 | 1.50 | 1.38 | 56 | 48 | 38 | 35 | 0.78 | 355 |
| LZ07051V0 | LZ07051E0 | 1 | 25 | 1-11 | 1 | 2.40 | 2.05 | 1.77 | 1.61 | 61 | 52 | 45 | 41 | 0.97 | 440 |
| LZ07061V0 | LZ07061E0 | 1 1/4 | 33 | 1 1/4-11 | 1 | 2.64 | 2.95 | 2.36 | 2.16 | 67 | 75 | 60 | 55 | 2.15 | 975 |
| LZ07071V0 | LZ07071E0 | 1 1/2 | 40 | 1 1/2-11 | 1 | 3.38 | 3.35 | 2.83 | 2.56 | 86 | 85 | 72 | 65 | 3.85 | 1745 |
| LZ07091V0 | LZ07091E0 | 2 | 50 | 2-11 | 1 | 3.46 | 3.82 | 3.27 | 2.95 | 88 | 97 | 83 | 75 | 4.11 | 1865 |

*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together

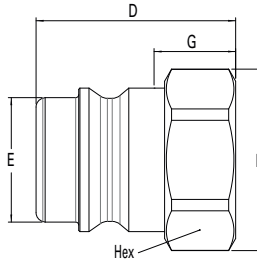


Figure 2

Plugs (Male)

| Part Number | Body Size | Nominal Flow Diameter | Thread Size* (Female) | Fig. | Dimensions | | | | | | | | | | Weight | |
|-------------|-----------|-----------------------|-----------------------|------|------------|--------|--------|--------|----------|--------|--------|--------|--------|----------|--------|-------|
| | | | | | D (in) | E (in) | F (in) | G (in) | Hex (in) | D (mm) | E (mm) | F (mm) | G (mm) | Hex (mm) | lbs | grams |
| LZ0700200 | 1/8 | 8 | 1/8-28 | 2 | 1.02 | 0.43 | 0.72 | 0.41 | 0.63 | 26 | 11.0 | 18.4 | 10.5 | 16 | 0.04 | 19 |
| LZ0701200 | 1/4 | 10 | 1/4-19 | 2 | 1.00 | 0.56 | 0.82 | 0.41 | 0.75 | 25.5 | 14.2 | 21 | 10.5 | 19 | 0.06 | 26 |
| LZ0702200 | 3/8 | 12 | 3/8-19 | 2 | 1.10 | 0.75 | 1.02 | 0.42 | 0.90 | 28 | 19.0 | 26 | 10.7 | 23 | 0.10 | 45 |
| LZ0703200 | 1/2 | 15 | 1/2-14 | 2 | 1.30 | 0.81 | 1.18 | 0.51 | 1.06 | 33 | 20.6 | 30 | 13 | 27 | 0.12 | 54 |
| LZ0704200 | 3/4 | 20 | 3/4-14 | 2 | 1.57 | 1.10 | 1.50 | 0.55 | 1.38 | 40 | 27.9 | 38 | 14 | 35 | 0.26 | 117 |
| LZ0705200 | 1 | 25 | 1-11 | 2 | 1.73 | 1.27 | 1.77 | 0.73 | 1.61 | 44 | 32.4 | 45 | 18.5 | 41 | 0.34 | 155 |
| LZ0706200 | 1 1/4 | 33 | 1 1/4-11 | 2 | 2.12 | 1.73 | 2.36 | 0.83 | 2.16 | 54 | 44.0 | 60 | 21 | 55 | 0.94 | 424 |
| LZ0707200 | 1 1/2 | 40 | 1 1/2-11 | 2 | 2.32 | 2.10 | 2.83 | 0.87 | 2.56 | 59 | 53.5 | 71.9 | 22 | 65 | 1.45 | 656 |
| LZ0709200 | 2 | 50 | 2-11 | 2 | 2.68 | 2.47 | 3.27 | 1.06 | 2.95 | 68 | 62.8 | 83 | 27 | 75 | 1.85 | 839 |

*Alternative end connections available upon request.

To obtain connected length of coupling add dimensions A (Fig. 1) and G (Fig. 2) together.

Dust Plugs and Dust Caps

| Body Size | Socket Dust Plug Part Number | Plug Dust Cap Part Number |
|-----------|------------------------------|---------------------------|
| (in) | Anodized Aluminum | Anodized Aluminum |
| 1/8 | HD0510100 | HD0510200 |
| 1/4 | HD0511100 | HD0511200 |
| 3/8 | HD0512100 | HD0512200 |
| 1/2 | HD0513100 | HD0513200 |
| 3/4 | HD0514100 | HD0514200 |
| 1 | HD0515100 | HD0515200 |
| 1 1/4 | HD0516100 | HD0516200 |
| 1 1/2 | HD0517100 | HD0517200 |
| 2 | HD0519100 | HD0519200 |



FLUID TRANSFER AND HYDRAULIC

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SPECIAL APPLICATIONS

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AGRICULTURE

REFRIGERANT

R4000 Series (Steel)



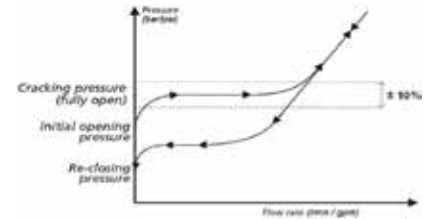
The Eaton R4000 Series steel check valves are designed for multipurpose hydraulic applications to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request.

Product Features

- Standard body material: Zinc-plated steel
- Standard seal material: NBR, FKM, EPDM

Operating Guidelines

The Eaton R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Eaton technical support.



European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Check valves with nominal diameters greater than 25 mm are designed and manufactured with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Our series R4000 check valves must not be used as safety devices (as per PED 97/23 EC).

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure** | | | | Rated Flow* | |
|----------------|----------------------------|---------------------------|--------|-----|--------|-------------|--------|
| | | bar | (psi) | bar | (psi) | L/min | (gpm) |
| 1/8 | 3.8 | 700 | 10,150 | 700 | 10,150 | 4.5 | 1.19 |
| 1/4 | 5.7 | 700 | 10,150 | 700 | 10,150 | 14.2 | 3.75 |
| 3/8 | 7.6 | 700 | 10,150 | 700 | 10,150 | 22 | 5.81 |
| 1/2 | 10.3 | 500 | 7,250 | 500 | 7,250 | 32 | 8.45 |
| 3/4 | 14.2 | 500 | 7,250 | 500 | 7,250 | 72 | 19 |
| 1 | 16.5 | 500 | 7,250 | 500 | 7,250 | 117 | 30.9 |
| 1 1/4 | 20.5 | 300 | 4,350 | 300 | 4,350 | 188 | 49.66 |
| 1 1/2 | 25.8 | 300 | 4,350 | 38 | 550 | 232 | 61.29 |
| 2 | 34.7 | 300 | 4,350 | 28 | 405 | 393 | 103.81 |

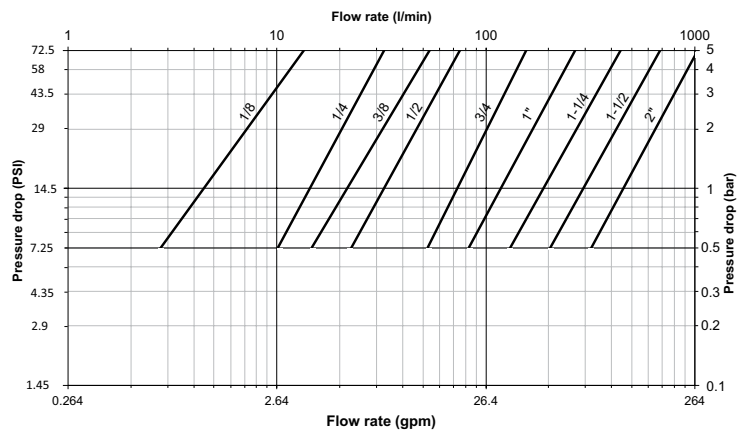
*Indicated values refer to a 1 bar/14.5 psi pressure drop.

**Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets

- All Industries
- Agriculture
- Construction
- Fluid Transfer Lines

Flow Data



Test Fluid: Oil viscosity 30 cSt at 40°C / 104°F

Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |
| FKM (Fluorocarbon) | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

*For reference only, based on Eaton recommended temperatures.

**In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

R4000 Series (Steel)

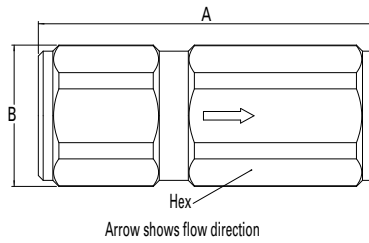


Figure 1

Cracking Pressure 0.5 bar (7.25 psi)

| Part Number | Body Size | | Nominal Flow Diameter | Thread Size** (Female) | Dimensions | | | | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|------------------------|------------|-----|------|------|---------|------|--------|--------|--------|----------|
| | | | | | NBR* | FKM | EPDM | (in) | (mm) | BSPP | Fig. | A (in) | B (in) | Hex (in) |
| RA0400000 | RA04000V0 | RA04000E0 | 1/8 | 3.8 | 1/8 | 1 | 1.46 | 0.69 | 0.63 | 37 | 17.5 | 16 | 0.10 | 45 |
| RA0401000 | RA04010V0 | RA04010E0 | 1/4 | 5.7 | 1/4 | 1 | 1.97 | 0.83 | 0.75 | 50 | 21 | 19 | 0.18 | 80 |
| RA0402000 | RA04020V0 | RA04020E0 | 3/8 | 7.6 | 3/8 | 1 | 2.36 | 0.98 | 0.90 | 60 | 25 | 23 | 0.29 | 130 |
| RA0403000 | RA04030V0 | RA04030E0 | 1/2 | 10.3 | 1/2 | 1 | 2.75 | 1.15 | 1.06 | 70 | 29.2 | 27 | 0.44 | 200 |
| RA0404000 | RA04040V0 | RA04040E0 | 3/4 | 14.2 | 3/4 | 1 | 3.38 | 1.50 | 1.38 | 86 | 38 | 35 | 0.93 | 420 |
| RA0405000 | RA04050V0 | RA04050E0 | 1 | 16.5 | 1 | 1 | 3.94 | 1.77 | 1.61 | 100 | 45 | 41 | 1.41 | 640 |
| - | RA04060V0 | RA04060E0 | 1 1/4 | 20.5 | 1 1/4 | 1 | 5.12 | 2.40 | 2.16 | 130 | 61 | 55 | 3.46 | 1570 |
| - | RA04070V0 | RA04070E0 | 1 1/2 | 25.8 | 1 1/2 | 1 | 5.31 | 2.83 | 2.56 | 135 | 72 | 65 | 5.16 | 2340 |
| - | RA04090V0 | RA04090E0 | 2 | 34.7 | 2 | 1 | 5.90 | 3.30 | 2.95*** | 150 | 84 | 75*** | 6.57 | 2980 |

*Body size 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

**Alternative end connections available upon request. depending on size (please contact Eaton technical support).

***Across flat dimension.

Cracking Pressure 1 bar (14.5 psi)

| Part Number | Body Size | | Nominal Flow Diameter | Thread Size** (Female) | Dimensions | | | | | | Weight | | | |
|-------------|-----------|-----------|-----------------------|------------------------|------------|-----|------|------|---------|------|--------|--------|--------|----------|
| | | | | | NBR* | FKM | EPDM | (in) | (mm) | BSPP | Fig. | A (in) | B (in) | Hex (in) |
| RA040000B | RA04000VB | RA04000EB | 1/8 | 3.8 | 1/8 | 1 | 1.46 | 0.69 | 0.63 | 37 | 17.5 | 16 | 0.10 | 45 |
| RA040100B | RA04010VB | RA04010EB | 1/4 | 5.7 | 1/4 | 1 | 1.97 | 0.83 | 0.75 | 50 | 21 | 19 | 0.18 | 80 |
| RA040200B | RA04020VB | RA04020EB | 3/8 | 7.6 | 3/8 | 1 | 2.36 | 0.98 | 0.90 | 60 | 25 | 23 | 0.29 | 130 |
| RA040300B | RA04030VB | RA04030EB | 1/2 | 10.3 | 1/2 | 1 | 2.75 | 1.15 | 1.06 | 70 | 29.2 | 27 | 0.44 | 200 |
| RA040400B | RA04040VB | RA04040EB | 3/4 | 14.2 | 3/4 | 1 | 3.38 | 1.50 | 1.38 | 86 | 38 | 35 | 0.93 | 420 |
| RA040500B | RA04050VB | RA04050EB | 1 | 16.5 | 1 | 1 | 3.94 | 1.77 | 1.61 | 100 | 45 | 41 | 1.41 | 640 |
| - | RA04060VB | RA04060EB | 1 1/4 | 20.5 | 1 1/4 | 1 | 5.12 | 2.40 | 2.16 | 130 | 61 | 55 | 3.46 | 1570 |
| - | RA04070VB | RA04070EB | 1 1/2 | 25.8 | 1 1/2 | 1 | 5.31 | 2.83 | 2.56 | 135 | 72 | 65 | 5.16 | 2340 |
| - | RA04090VB | RA04090EB | 2 | 34.7 | 2 | 1 | 5.90 | 3.30 | 2.95*** | 150 | 84 | 75*** | 6.57 | 2980 |

*Body size 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

**Alternative end connections available upon request. depending on size (please contact Eaton technical support).

***Across flat dimension.

FLUID TRANSFER
AND HYDRAULIC

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SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

R4000 Series (Brass)



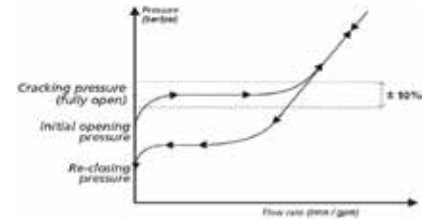
The Eaton R4000 Series brass check-valves are designed to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request. It is designed to handle liquids in all industries and for fluid transfer lines.

Product Features

- Standard body material: Nickel-plated brass
- Standard seal material: NBR, FKM, EPDM

Operating Guidelines

The Eaton R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Eaton technical support.



European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Check valves with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey gases in Group 1 (hazardous). Working pressures for liquids of Group 1 (hazardous) and gases of Group 2 (non-hazardous) are reduced. Please refer to "Physical Characteristics" table. Our series R4000 check valves must not be used as safety devices (as per PED 97/23 EC).

Applications & Markets

- All Industries
- Agriculture
- Construction
- Fluid Transfer Lines

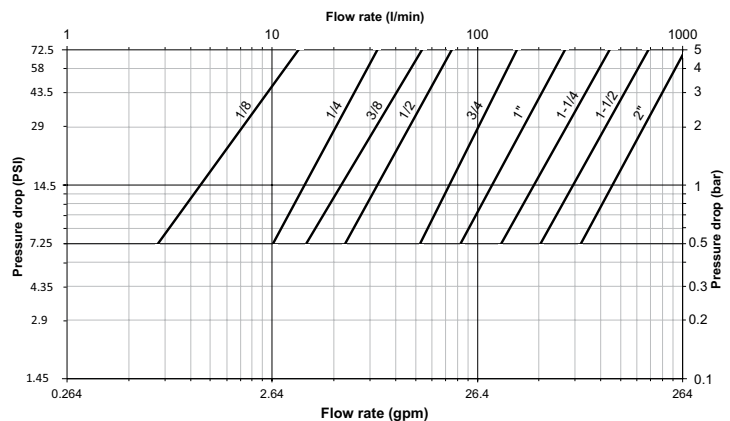
Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure** | | | | Rated Flow* | |
|----------------|----------------------------|---------------------------|-------|---|-------|-------------|--------|
| | | bar | (psi) | Hazardous liquids & Non-Hazardous Gases | bar | (psi) | L/min |
| 1/8 | 3.8 | 400 | 5,800 | 400 | 5,800 | 4.5 | 1.19 |
| 1/4 | 5.7 | 400 | 5,800 | 400 | 5,800 | 14.2 | 3.75 |
| 3/8 | 7.6 | 400 | 5,800 | 400 | 5,800 | 22 | 5.81 |
| 1/2 | 10.3 | 250 | 3,625 | 250 | 3,625 | 32 | 8.45 |
| 3/4 | 14.2 | 250 | 3,625 | 250 | 3,625 | 72 | 19 |
| 1 | 16.5 | 250 | 3,625 | 250 | 3,625 | 117 | 30.9 |
| 1 1/4 | 20.5 | 150 | 2,175 | 150 | 2,175 | 188 | 49.66 |
| 1 1/2 | 25.8 | 150 | 2,175 | 75 | 1,085 | 232 | 61.29 |
| 2 | 34.7 | 100 | 1,450 | 25 | 360 | 393 | 103.81 |

*Indicated values refer to a 1 bar/14.5 psi pressure drop.

**Group 1 = Hazardous media / Group 2 = Other media

Flow Data



Applicable to valves with 0.5 bar (7.25 psi) cracking pressure

Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| NBR (Nitrile) | -20°C +100°C/-4°F +212°F |
| FKM (Fluorocarbon) | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

*For reference only, based on Eaton recommended temperatures.

**In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

R4000 Series (Brass)

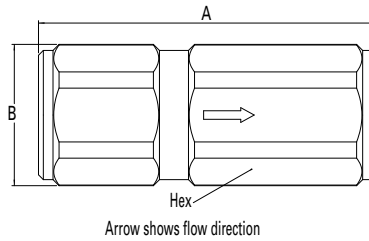


Figure 1

Cracking Pressure 0.5 bar (7.25 psi)

| Part Number | | | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size** (Female) BSPP | Fig. | Dimensions | | | | | | Weight | |
|-------------|-----------|-----------|-------------------|-------------------------------|-----------------------------------|------|------------|--------|----------|--------|--------|----------|--------|-------|
| NBR* | FKM | EPDM | | | | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) | lbs | grams |
| RL0400000 | RL04000V0 | RL04000E0 | 1/8 | 3.8 | 1/8 | 1 | 1.46 | 0.69 | 0.63 | 37 | 17.5 | 16 | 0.11 | 50 |
| RL0401000 | RL04010V0 | RL04010E0 | 1/4 | 5.7 | 1/4 | 1 | 1.97 | 0.83 | 0.75 | 50 | 21 | 19 | 0.19 | 85 |
| RL0402000 | RL04020V0 | RL04020E0 | 3/8 | 7.6 | 3/8 | 1 | 2.36 | 0.98 | 0.9 | 60 | 25 | 23 | 0.31 | 140 |
| RL0403000 | RL04030V0 | RL04030E0 | 1/2 | 10.3 | 1/2 | 1 | 2.75 | 1.15 | 1.06 | 70 | 29.2 | 27 | 0.47 | 215 |
| RL0404000 | RL04040V0 | RL04040E0 | 3/4 | 14.2 | 3/4 | 1 | 3.38 | 1.50 | 1.38 | 86 | 38 | 35 | 1.01 | 460 |
| RL0405000 | RL04050V0 | RL04050E0 | 1 | 16.5 | 1 | 1 | 3.94 | 1.77 | 1.61 | 100 | 45 | 41 | 1.52 | 690 |
| - | RL04060V0 | RL04060E0 | 1 1/4 | 20.5 | 1 1/4 | 1 | 5.12 | 2.40 | 2.16 | 130 | 61 | 55 | 3.73 | 1690 |
| - | RL04070V0 | RL04070E0 | 1 1/2 | 25.8 | 1 1/2 | 1 | 5.31 | 2.83 | 2.56 | 135 | 72 | 65 | 5.71 | 2590 |
| - | RL04090V0 | RL04090E0 | 2 | 34.7 | 2 | 1 | 5.90 | 3.30 | 2.95*** | 150 | 84 | 75*** | 7.50 | 3400 |

*Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

**Alternative end connections available upon request, depending on size (please contact Eaton technical support).

***Across flat dimension.

Cracking Pressure 1 bar (14.5 psi)

| Part Number | | | Body Size (in) | Nominal Flow Diameter (mm) | Thread Size** (Female) BSPP | Fig. | Dimensions | | | | | | Weight | |
|-------------|-----------|-----------|-------------------|-------------------------------|-----------------------------------|------|------------|--------|----------|--------|--------|----------|--------|-------|
| NBR* | FKM | EPDM | | | | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) | lbs | grams |
| RL040000B | RL04000VB | RL04000EB | 1/8 | 3.8 | 1/8 | 1 | 1.46 | 0.69 | 0.63 | 37 | 17.5 | 16 | 0.11 | 50 |
| RL040100B | RL04010VB | RL04010EB | 1/4 | 5.7 | 1/4 | 1 | 1.97 | 0.83 | 0.75 | 50 | 21 | 19 | 0.19 | 85 |
| RL040200B | RL04020VB | RL04020EB | 3/8 | 7.6 | 3/8 | 1 | 2.36 | 0.98 | 0.90 | 60 | 25 | 23 | 0.31 | 140 |
| RL040300B | RL04030VB | RL04030EB | 1/2 | 10.3 | 1/2 | 1 | 2.75 | 1.15 | 1.06 | 70 | 29.2 | 27 | 0.47 | 215 |
| RL040400B | RL04040VB | RL04040EB | 3/4 | 14.2 | 3/4 | 1 | 3.38 | 1.50 | 1.38 | 86 | 38 | 35 | 1.01 | 460 |
| RL040500B | RL04050VB | RL04050EB | 1 | 16.5 | 1 | 1 | 3.94 | 1.77 | 1.61 | 100 | 45 | 41 | 1.52 | 690 |
| - | RL04060VB | RL04060EB | 1 1/4 | 20.5 | 1 1/4 | 1 | 5.12 | 2.40 | 2.16 | 130 | 61 | 55 | 3.73 | 1690 |
| - | RL04070VB | RL04070EB | 1 1/2 | 25.8 | 1 1/2 | 1 | 5.31 | 2.83 | 2.56 | 135 | 72 | 65 | 5.71 | 2590 |
| - | RL04090VB | RL04090EB | 2 | 34.7 | 2 | 1 | 5.90 | 3.30 | 2.95*** | 150 | 84 | 75*** | 7.50 | 3400 |

*Body sizes 1 1/4, 1 1/2 and 2 are supplied with FKM seals as a standard.

**Alternative end connections available upon request, depending on size (please contact Eaton technical support).

***Across flat dimension.

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SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

R4000 Series (Stainless Steel)



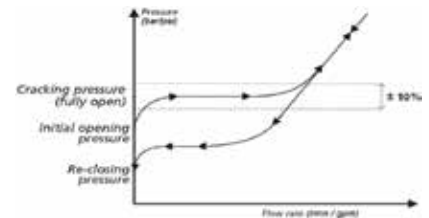
The Eaton R4000 Series stainless steel check-valves are designed to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request. It is designed to handle liquids in all industries and for fluid transfer lines. The material used offers excellent corrosion resistance.

Product Features

- Standard body material: AISI 316L Stainless steel
- Standard seal material: FKM, EPDM

Operating Guidelines

The Eaton R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Eaton technical support.



European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Check valves with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Our series R4000 check valves must not be used as safety devices (as per PED 97/23 EC).

Physical Characteristics

| Body Size (in) | Nominal Flow Diameter (mm) | Max. Operating Pressure** | | | | Rated Flow* | |
|-------------------|-------------------------------|---------------------------------------|-------|-----------------------------------|-------|-------------|--------|
| | | Non hazardous liquids & gases Group 2 | | Hazardous liquids & gases Group 1 | | L/min | (gpm) |
| 1/8 | 3.8 | 400 | 5,800 | 400 | 5,800 | 4.5 | 1.19 |
| 1/4 | 5.7 | 400 | 5,800 | 400 | 5,800 | 14.2 | 3.75 |
| 3/8 | 7.6 | 400 | 5,800 | 400 | 5,800 | 22 | 5.81 |
| 1/2 | 10.3 | 250 | 3,625 | 250 | 3,625 | 32 | 8.45 |
| 3/4 | 14.2 | 250 | 3,625 | 250 | 3,625 | 72 | 19.00 |
| 1 | 16.5 | 250 | 3,625 | 250 | 3,625 | 117 | 30.90 |
| 1 1/4 | 20.5 | 150 | 2,175 | 150 | 2,175 | 188 | 49.66 |
| 1 1/2 | 25.8 | 150 | 2,175 | 38 | 550 | 232 | 61.29 |
| 2 | 34.7 | 100 | 1,450 | 28 | 405 | 393 | 103.81 |

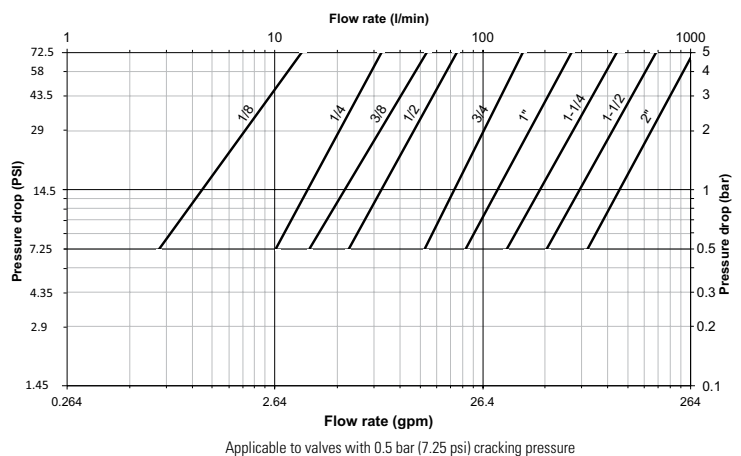
*Indicated values refer to a 1 bar / 14.5 psi pressure drop.

**Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets

- All Industries
- Agriculture
- Construction
- Fluid Transfer Lines

Flow Data



Seal Elastomer Data*

| Seal Elastomer | Max. Operation Temperature Range |
|-----------------------------|----------------------------------|
| FKM (Fluorocarbon)* | -20°C +200°C/-4°F +392°F |
| EPDM (Ethylene-Propylene)** | -40°C +150°C/-40°F +302°F |

*For reference only, based on Eaton recommended temperatures.

**In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

R4000 Series (Stainless Steel)

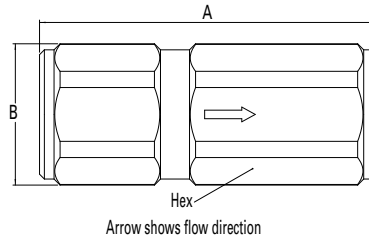


Figure 1

Cracking Pressure 0.5 bar (7 psi)

| Part Number | | Body Size | Nominal Flow Diameter | Thread Size* (Female) | Fig. | Dimensions | | | | | | Weight | |
|-------------|-----------|-----------|-----------------------|-----------------------|------|------------|--------|----------|--------|--------|----------|--------|-------|
| FKM | EPDM | (in) | (mm) | BSP | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) | lbs | grams |
| RZ04000V0 | RZ04000E0 | 1/8 | 3.8 | 1/8 | 1 | 1.46 | 0.69 | 0.63 | 37 | 17.5 | 16 | 0.10 | 45 |
| RZ04010V0 | RZ04010E0 | 1/4 | 5.7 | 1/4 | 1 | 1.97 | 0.83 | 0.75 | 50 | 21 | 19 | 0.18 | 80 |
| RZ04020V0 | RZ04020E0 | 3/8 | 7.6 | 3/8 | 1 | 2.36 | 0.98 | 0.90 | 60 | 25 | 23 | 0.29 | 130 |
| RZ04030V0 | RZ04030E0 | 1/2 | 10.3 | 1/2 | 1 | 2.75 | 1.15 | 1.06 | 70 | 29.2 | 27 | 0.44 | 200 |
| RZ04040V0 | RZ04040E0 | 3/4 | 14.2 | 3/4 | 1 | 3.38 | 1.50 | 1.38 | 86 | 38 | 35 | 0.93 | 420 |
| RZ04050V0 | RZ04050E0 | 1 | 16.5 | 1 | 1 | 3.94 | 1.77 | 1.61 | 100 | 45 | 41 | 1.41 | 640 |
| RZ04060V0 | RZ04060E0 | 1 1/4 | 20.5 | 1 1/4 | 1 | 5.12 | 2.40 | 2.16 | 130 | 61 | 55 | 3.46 | 1570 |
| RZ04070V0 | RZ04070E0 | 1 1/2 | 25.8 | 1 1/2 | 1 | 5.31 | 2.83 | 2.56 | 135 | 72 | 65 | 5.16 | 2340 |
| RZ04090V0 | RZ04090E0 | 2 | 34.7 | 2 | 1 | 5.90 | 3.30 | 2.95** | 150 | 84 | 75** | 6.57 | 2980 |

*Alternative end connections available upon request, depending on size (please contact Eaton technical support).

**Across flat dimension.

Cracking Pressure 1 bar (14.5 psi)

| Part Number | | Body Size | Nominal Flow Diameter | Thread Size* (Female) | Fig. | Dimensions | | | | | | Weight | |
|-------------|-----------|-----------|-----------------------|-----------------------|------|------------|--------|----------|--------|--------|----------|--------|-------|
| FKM | EPDM | (in) | (mm) | BSP | | A (in) | B (in) | Hex (in) | A (mm) | B (mm) | Hex (mm) | lbs | grams |
| RZ04000VB | RZ04000EB | 1/8 | 3.8 | 1/8 | 1 | 1.46 | 0.69 | 0.63 | 37 | 17.5 | 16 | 0.10 | 45 |
| RZ04010VB | RZ04010EB | 1/4 | 5.7 | 1/4 | 1 | 1.97 | 0.83 | 0.75 | 50 | 21 | 19 | 0.18 | 80 |
| RZ04020VB | RZ04020EB | 3/8 | 7.6 | 3/8 | 1 | 2.36 | 0.98 | 0.90 | 60 | 25 | 23 | 0.29 | 130 |
| RZ04030VB | RZ04030EB | 1/2 | 10.3 | 1/2 | 1 | 2.75 | 1.15 | 1.06 | 70 | 29.2 | 27 | 0.44 | 200 |
| RZ04040VB | RZ04040EB | 3/4 | 14.2 | 3/4 | 1 | 3.38 | 1.50 | 1.38 | 86 | 38 | 35 | 0.93 | 420 |
| RZ04050VB | RZ04050EB | 1 | 16.5 | 1 | 1 | 3.94 | 1.77 | 1.61 | 100 | 45 | 41 | 1.41 | 640 |
| RZ04060VB | RZ04060EB | 1 1/4 | 20.5 | 1 1/4 | 1 | 5.12 | 2.40 | 2.16 | 130 | 61 | 55 | 3.46 | 1570 |
| RZ04070VB | RZ04070EB | 1 1/2 | 25.8 | 1 1/2 | 1 | 5.31 | 2.83 | 2.56 | 135 | 72 | 65 | 5.16 | 2340 |
| RZ04090VB | RZ04090EB | 2 | 34.7 | 2 | 1 | 5.90 | 3.30 | 2.95** | 150 | 84 | 75** | 6.57 | 2980 |

*Alternative end connections available upon request depending on size (please contact Eaton technical support).

**Across flat dimension.

FD15 Series Oil Sampling Valve



Eaton's FD15 Series Oil Sampling Valve is designed for in-line sampling of system fluids without system shutdown, usually in less than one minute, and without fluid contamination.

Product Features

- Standard seal material: Buna-N
- Corrosion resistant plated steel with brass internal components
- Operating Temperature Range: -65°F to +275°F (-53°C to +135°C)
- Minimum Burst Pressure: 12,000 psi
- Minimum Particle Restriction: 500 microns
- Maximum Torque to Operate: 10 in. lbs.
- FD15-1000-04 is qualified to the MIL-V-81940/2-1

Note: This valve is not intended for aerospace applications.

Applications & Markets

- Engine oil
- Lubricating oil
- Transmission fluid and hydraulic fluids in mobile construction equipment, military vehicles, trucks and stationary equipment

Operation

- For best results, Eaton FD15 Oil Sampling Valves should be installed in dynamic fluid lines in low pressure and return lines. If only one sampling point can be chosen, it should be in the return line, upstream of any return line filter. This will insure a representative sample of all components in the fluid system for their present condition.

Instructions

1. Remove metal dustcover on discharge port.
2. Discharge approximately 200 ml of oil to flush valve by turning knurled knob ¼ turn to the right. Dispose of this sample in the appropriate manner.
3. Locate clean oil sample bottle under discharge port. (Sample bottles are usually supplied by the oil analysis lab.)
4. Turn knurled knob ¼ turn to the right until bottle is filled to the desired level. The knob can be backed off to throttle the rate of flow.
5. When bottle is filled let go of the knurled knob, the valve will close automatically. Replace metal dustcover wrench tight.

Notes

As required in MIL-V-81940/2-1 this valve's flow rate is between 100 and 1500 milliliters per minute at pressures from 0-50 psi. (MIL-V-81940/2-1 applies only to pressures from 50-300 psi.)

The ¼" NPTF version is qualified to MIL-V-81940/2-1 and its performance is representative of the other inlet port configurations listed above. QPL-81940-9 6-5-89

FD15 Series Oil Sampling Valve

**Male Pipe Thread
50-300 psi**

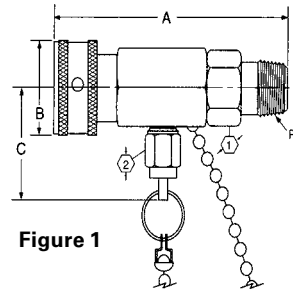


Figure 1

**Male SAE O-Ring Thread
50-300 psi**

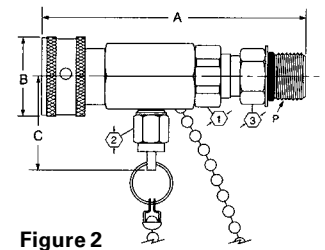


Figure 2

Dimensions (Male Pipe Thread)

| Part Number | Buna-N | Sampling Type | Port Size | Thread | Type | Fig. | Dimensions | | | Hex ① | Hex ② | Hex ③ |
|--------------|--------|---------------|-----------|--------|------------------|------|-------------|-------------|-------------|------------|-----------|---------|
| | | | | | | | A | B | C | | | |
| | | | | | | | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) |
| FD15-1000-02 | | 50-300 psi | 1/8 | 1/8-27 | Male Pipe Thread | 1 | 61.5 (2.42) | 25.4 (1.00) | 33.0 (1.30) | 17.5 (.69) | 9.7 (.38) | - |
| FD15-1000-04 | | 50-300 psi | 1/4 | 1/4-18 | Male Pipe Thread | 1 | 65.0 (2.56) | 25.4 (1.00) | 33.0 (1.30) | 17.5 (.69) | 9.7 (.38) | - |

Dimensions (Male SAE O-Ring Thread)

| Part Number | Buna-N | Sampling Type | Port Size | Thread | Type | Fig. | Dimensions | | | Hex ① | Hex ② | Hex ③ |
|--------------|--------|---------------|-----------|---------|------------------------|------|-------------|-------------|-------------|------------|-----------|------------|
| | | | | | | | A | B | C | | | |
| | | | | | | | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) |
| FD15-1002-04 | | 50-300 psi | 7/16 | 7/16-20 | Male SAE O-Ring Thread | 2 | 70.9 (2.79) | 25.4 (1.00) | 33.0 (1.30) | 17.5 (.69) | 9.7 (.38) | 14.2 (.56) |

Dimensions (Male Pipe Thread)

| Part Number | Buna-N | Sampling Type | Port Size | Thread | Type | Fig. | Dimensions | | | Hex ① | Hex ② | Hex ③ |
|--------------|--------|---------------|-----------|--------|------------------|------|-------------|-------------|-------------|------------|-----------|---------|
| | | | | | | | A | B | C | | | |
| | | | | | | | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) |
| FD15-1026-04 | | 0-50 psi | 1/4 | 1/4-18 | Male Pipe Thread | 3 | 65.0 (2.56) | 25.4 (1.00) | 33.0 (1.30) | 17.5 (.69) | 9.7 (.38) | - |

Dimensions Male SAE O-Ring Thread)

| Part Number | Buna-N | Sampling Type | Port Size | Thread | Type | Fig. | Dimensions | | | Hex ① | Hex ② | Hex ③ |
|--------------|--------|---------------|-----------|---------|------------------------|------|-------------|-------------|-------------|------------|-----------|------------|
| | | | | | | | A | B | C | | | |
| | | | | | | | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) | mm (in) |
| FD15-1025-04 | | 0-50 psi | 7/16 | 7/16-20 | Male SAE O-Ring Thread | 4 | 70.9 (2.79) | 25.4 (1.00) | 33.0 (1.30) | 17.5 (.69) | 9.7 (.38) | 14.2 (.56) |

**Male Pipe Thread
0-50 psi**

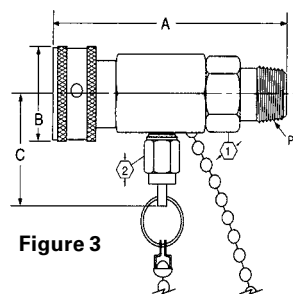


Figure 3

**Male SAE O-Ring Thread
0-50 psi**

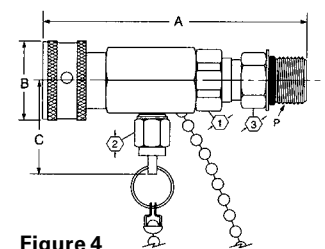


Figure 4

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD90 Series Diagnostic Coupling SAE J1502 Interchange



Eaton's FD90 Series diagnostic coupling is designed to connect and disconnect pressure gauges to hydraulic systems, eliminating the need for permanent gauges. The maximum operating pressure is 7,000 psi.

Product Features

- Automatic sleeve for one hand push-to-connect operation
- Flush face valving provides minimal fluid loss and low air inclusion
- Self-sealing valve design allows connection and disconnection at 500 psi
- Broad range of end configurations for system accessibility
- Standard seal material: Buna-N
- Standard seal material: High resistance carbon steel with Zinc trivalent plating
- Diagnostic pressure testing for hydraulic systems

Physical Characteristics

| Coupling Body Size (in) | Max. Operating Pressure | | Min. Burst Pressure Connected | | Vacuum Connected Only (in./Hg) | Rated Flow | | Air Inclusion cc. max. | Fluid Loss cc.max. |
|----------------------------|-------------------------|-------|-------------------------------|--------|-----------------------------------|------------|-------|---------------------------|-----------------------|
| | (bar) | (psi) | (bar) | (psi) | | (lpm) | (gpm) | | |
| 1/4 | 483 | 7,000 | 1,931 | 28,000 | 28 | 1.89 | 0.6 | 0.02 | 0.10 |

Dimensions (Female Pipe, Valved)

| Part Number Buna-N | Part Number with Dust Cap Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------------|--|------------------|--------------|--------------|----------|------------|------|------------|--------|------|--------|-------|--------|
| | | | | | | | | A | | B | | Hex ① | |
| | | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD90-1034-02-04 | FD90-1035-02-04 | Plug/Male | 1/4 | 1/8 | 1/8 - 27 | Female NPT | 1 | 43.2 | (1.70) | - | - | 15.7 | (0.62) |
| FD90-1021-02-04 | — | Socket/Female | 1/4 | 1/8 | 1/8 - 27 | Female NPT | 2 | 49.5 | (1.95) | 25.4 | (1.00) | 19.1 | (0.75) |
| FD90-1034-04-04 | FD90-1035-04-04 | Plug/Male | 1/4 | 1/4 | 1/4 - 18 | Female NPT | 1 | 48.3 | (1.90) | - | - | 19.1 | (0.75) |
| FD90-1021-04-04 | — | Socket/Female | 1/4 | 1/4 | 1/4 - 18 | Female NPT | 2 | 57.2 | (2.25) | 25.4 | (1.00) | 19.1 | (0.75) |

Dimensions (Male SAE O-Ring, Valved)

| Part Number Buna-N | Part Number with Dust Cap Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------------|--|------------------|--------------|--------------|-----------|-----------------|------|------------|--------|----|------|-------|--------|
| | | | | | | | | A | | B | | Hex ① | |
| | | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD90-1044-03-04 | FD90-1004-03-04 | Plug/Male | 1/4 | 3/8 | 3/8 - 24 | Male SAE O-Ring | 3 | 38.6 | (1.52) | - | - | 15.7 | (0.62) |
| FD90-1044-04-04 | FD90-1004-04-04 | Plug/Male | 1/4 | 7/16 | 7/16 - 20 | Male SAE O-Ring | 3 | 40.1 | (1.58) | - | - | 15.7 | (0.62) |
| FD90-1044-05-04 | FD90-1004-05-04 | Plug/Male | 1/4 | 1/2 | 1/2 - 20 | Male SAE O-Ring | 3 | 33.5 | (1.32) | - | - | 15.7 | (0.62) |
| FD90-1044-06-04 | FD90-1004-06-04 | Plug/Male | 1/4 | 9/16 | 9/16 - 18 | Male SAE O-Ring | 3 | 33.5 | (1.32) | - | - | 17.5 | (0.69) |

Dimensions (Male Pipe, Valved)

| Part Number Buna-N | Part Number with Dust Cap Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | | |
|-----------------------|--|------------------|--------------|--------------|----------|----------|------|------------|--------|----|------|-------|--------|
| | | | | | | | | A | | B | | Hex ① | |
| | | | | | | | | mm | (in) | mm | (in) | mm | (in) |
| FD90-1012-02-04 | FD90-1045-02-04 | Plug/Male | 1/4 | 1/8 | 1/8 - 27 | Male NPT | 4 | 40.6 | (1.60) | - | - | 15.7 | (0.62) |
| FD90-1012-04-04 | FD90-1045-04-04 | Plug/Male | 1/4 | 1/4 | 1/4 - 18 | Male NPT | 4 | 37.8 | (1.49) | - | - | 17.5 | (0.69) |

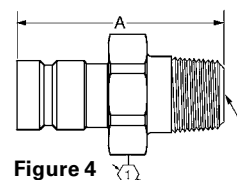
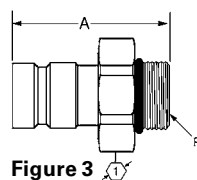
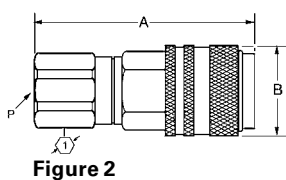
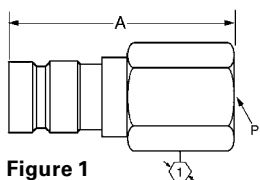


Figure 1

Figure 2

Figure 3

Figure 4

FD90 Series

Diagnostic Coupling

SAE J1502 Interchange

FLUID TRANSFER
AND HYDRAULIC

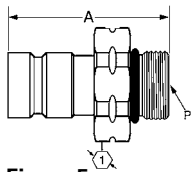


Figure 5

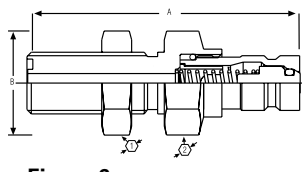


Figure 6

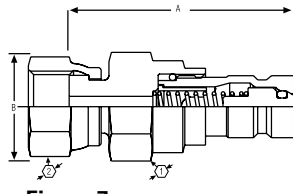


Figure 7

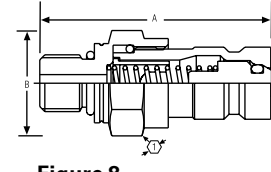


Figure 8

Dimensions (Metric Male O-Ring, Valved)

| Part Number Buna-N | Part Number with Dust Cap Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex Ⓛ | |
|-----------------------|--|------------------|--------------|--------------|---------|-------------|------|-------------|---|---------|-------------|
| | | | | | | | | A | B | mm (in) | mm (in) |
| FD90-1046-06-04 | FD90-1047-06-04 | Plug/Male | ¼ | M14 | M14x1.5 | Male O-Ring | 5 | 38.5 (1.52) | - | - | 19.1 (0.75) |

Dimensions (Female SAE O-Ring, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex Ⓛ | |
|-----------------------|------------------|--------------|--------------|-----------|-------------------|------|-------------|--------------|-------------|---------|
| | | | | | | | A | B | mm (in) | mm (in) |
| FD90-1041-04-04 | Socket/Female | ¼ | 7/16 | 7/16 - 20 | Female SAE O-Ring | 2 | 55.9 (2.20) | 25.40 (1.00) | 19.1 (0.75) | |

Dimensions (Male ORS Bulkhead, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex Ⓛ | |
|-----------------------|------------------|--------------|--------------|-----------|-------------------|------|-------------|-------------|-------------|---------|
| | | | | | | | A | B | mm (in) | mm (in) |
| FD90-1206-04-04 | Plug/Male | ¼ | 9/16 | 9/16 - 18 | Male ORS Bulkhead | 6 | 62.5 (2.46) | 20.6 (0.81) | 20.6 (0.81) | |

Dimensions (Male ORS Bulkhead, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex Ⓛ | |
|-----------------------|------------------|--------------|--------------|------------|-------------------|------|-------------|-------------|-------------|---------|
| | | | | | | | A | B | mm (in) | mm (in) |
| FD90-1061-04-04 | Plug/Male | ¼ | 9/16 | 9/16 - 18 | Female ORS Swivel | 7 | 46.5 (1.79) | 22.1 (0.87) | 17.5 (0.69) | |
| FD90-1061-06-04 | Plug/Male | ¼ | 11/16 | 11/16 - 16 | Female ORS Swivel | 7 | 46.5 (1.83) | 23.9 (0.94) | 20.6 (0.81) | |
| FD90-1061-08-04 | Plug/Male | ¼ | 13/16 | 13/16 - 16 | Female ORS Swivel | 7 | 49.0 (1.93) | 27.4 (1.08) | 23.9 (0.94) | |

Dimensions (Male Metric O-Ring, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex Ⓛ | |
|-----------------------|------------------|--------------|--------------|--------|---------------|------|-------------|-------------|---------|---------|
| | | | | | | | A | B | mm (in) | mm (in) |
| FD90-1090-10-04 | Plug/Male | ¼ | M10 | M10x1 | Mertic O-Ring | 8 | 40.1 (1.58) | 18.3 (0.72) | — | — |

Dust Cap for Plug/Male Halves

| Body Size | Part Number |
|-----------|--------------|
| ¼ | FD90-1040-04 |



Dust Cap for
Plug/Male Halves

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

FD48 Series Parker Bruning SM-250 Interchange



Eaton's FD48 Series coupling is poppet style quick disconnect coupling designed to interchange with Parker Bruning SM-250 couplings where excellent high and low pressure sealing is required. The FD48 operates with pressures up to 3,000 psi.

Product Features

- Self-sealing poppet valves provide excellent high and low pressure sealing
- PUSH-PULL™ ball-latch design allows quick and easy connection and disconnection of fluid lines
- Heat-treated and plated steel for wear and corrosion resistance
- Standard seal material: Buna-N
- Standard seal material: High-resistance carbon steel with Zinc trivalent plating

Applications & Markets

- Hydraulic and Fluid Transfer
- Agricultural Equipment

Physical Characteristics

| Body Size (in) | Max. Operating Pressure | | Min. Burst Pressure Connected | | Vacuum Connected Only | Rated Flow | | Air Inclusion | Fluid Loss |
|-------------------|-------------------------|-------|-------------------------------|--------|-----------------------|------------|-------|---------------|------------|
| | (bar) | (psi) | (bar) | (psi) | (in./Hg) | (lpm) | (gpm) | cc. max. | cc.max. |
| 1/4 | 210 | 3,000 | 840 | 12,000 | 28 | 11 | 3 | .50 | 1.10 |

Dimensions (Female NPT, Valved)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | | | Hex Ⓛ | |
|-----------------------|---------------|-----------|-----------|--------|------------|------|------------|--------|---------|--------|-------|-------|
| | | | | | | | A mm | (in) | B mm | (in) | mm | (in) |
| FD48-1002-04-04 | Plug/Male | 1/4 | 1/4 | 1/4-18 | Female NPT | 1 | 36.8 | (1.45) | - | - | 19.0 | (.75) |
| FD48-1001-04-04 | Socket/Female | 1/4 | 1/4 | 1/4-18 | Female NPT | 2 | 51.1 | (2.01) | 26.9 | (1.06) | 20.6 | (.81) |

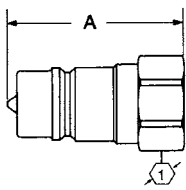


Figure 1

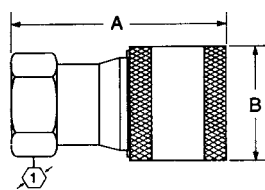
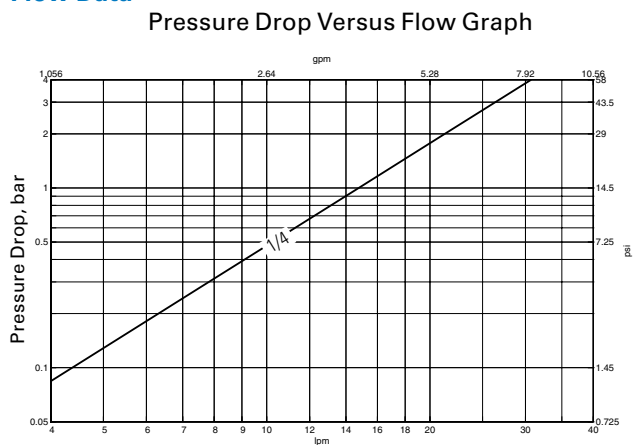


Figure 2

Flow Data



Dust Cap/Plug

| Part Number (Buna-N) | Body Size |
|-------------------------|-----------|
| FD48-1042-04* | 1/4 |

*Fits both plug/male and socket/female halves

Dust Cap/Plug



FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

K8000 Series



Eaton's K8000 series hydraulic screw-to-connect quick disconnect coupling is best for applications where vibration is present and a threaded solution is needed to lock in place.

Product Features

- Connection by screwing up the locking sleeve
- Offers internal flat face valve to minimize air inclusion and fluid loss
- Proprietary interchange
- Standard body material: Zinc trivalent plated steel
- Standard seal material: NBR

Physical Characteristics

| DN/ND | Max. Operating Pressure | | Rated Flow | | Air Inclusion |
|-------|-------------------------|-------|------------|-------|---------------|
| | (bar) | (psi) | (bar) | (gpm) | ml max. |
| 8 | 250 | 3,625 | 12 | 3.17 | 0.09 |

Applications & Markets

- Agriculture and Forestry Equipment

Flow Data

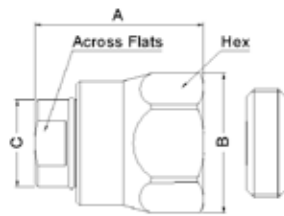
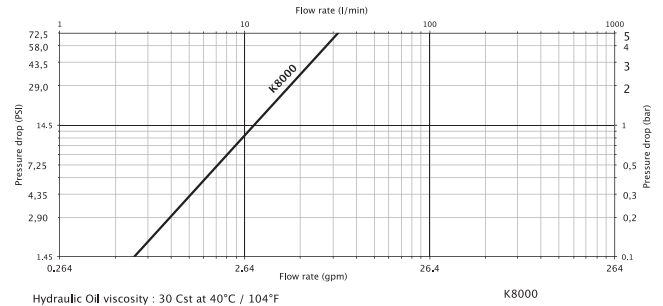


Figure 1

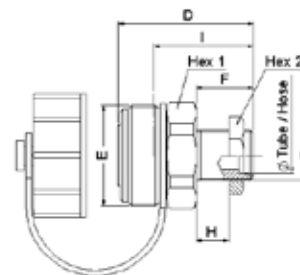


Figure 2

| DN/ND | Socket and Dust Plug | Socket Dust Plug Only | Coupling Type | Connection | Fig. | Dimensions | | | | | | | | |
|-------|----------------------|-----------------------|---------------|------------|------|------------|------|------|--------------|------|------|------|-------|------|
| | | | | | | A | B | C | Across Flats | Hex | | | | |
| | | | | | | (mm) | (mm) | (mm) | (mm) | (mm) | | | | |
| 8 | KA0832718 | KA0812700 | Socket/Female | M18X150 | 1 | 55 | 45.1 | 279 | 23 | 41 | | | | |
| DN/ND | Plug and Dust Cap | Plug Dust Cap Only | Coupling Type | Connection | Fig. | Dimensions | | | | | | | | |
| | | | | | | D | E | F | G | H | I | Tube | Hex 1 | Hex2 |
| | | | | | | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) | (mm) |
| | KA0832412 | | Plug/Male | M18X150 | 2 | 52 | 36 | 23 | M18X1,50 | 5 | 38 | 12 | 36 | 27 |
| 8 | KA0832413 | KP0812400 | Plug/Male | M20X150 | 2 | 51 | 36 | 23 | M20X1,50 | 5 | 37 | 13 | 36 | 27 |
| | KA0802412 | | Plug/Male | G 1/2* | 2 | 48 | 36 | 15 | G 1/2-14* | - | 34 | - | 36 | - |

Q9000 Series



Eaton's Q9000 Series is a brake away coupling used on agriculture and forestry vehicles.

Product Features

- Pull-to-connect double shut off
- Minimum air inclusion and fluid loss
- Profile in accordance to ISO 5676 and NFU 16-006 standards
- Standard seal material: NBR
- Standard body material: Zinc trivalent plated steel

Physical Characteristics

| DN/ND | Max. Operating Pressure | | Rated Flow | | Air Inclusion |
|-------|-------------------------|-------|------------|-------|---------------|
| | (bar) | (psi) | (bar) | (gpm) | ml max. |
| 8 | 150 | 2,175 | 19 | 5.02 | 0.80 |

Applications & Markets

- Trailer Brake Circuits on Agriculture and Forestry Vehicles

Flow Data

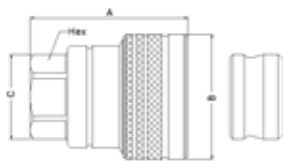
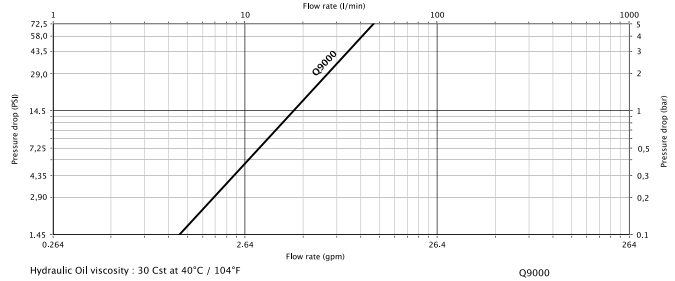


Figure 1

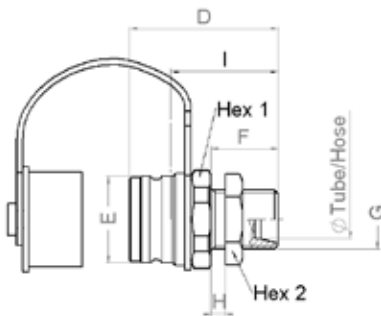


Figure 2

| DN/ND | Socket and Dust Plug | Socket Dust Plug Only | Coupling Type | Connection | Fig. | A | Dimensions | | | | | | |
|-------|----------------------|-----------------------|---------------|------------|------|------|------------|------|----------|---|----|-------|------|
| (mm) | | | | | | (mm) | B | C | Hex | | | | |
| 8 | QA0932118 | QA0912100 | Socket/Female | M18X150 | 1 | 55.5 | 44 | 30.2 | 27 | | | | |
| DN/ND | Plug and Dust Cap | Plug Dust Cap Only | Coupling Type | Connection | Fig. | D | Dimensions | | | | | | |
| (mm) | | | | | | (mm) | E | F | G | H | I | Hex 1 | Hex2 |
| 8 | QA0932212 | QP0912200 | Plug/Male | M18X150 | 2 | 49 | 30 | 21 | M18x1,50 | 5 | 34 | 32 | 24 |
| | QA0932213 | | Plug/Male | M20X150 | 2 | 51.0 | 30 | 23 | M20x1,50 | 5 | 36 | 32 | 27 |

H55000 Series

FLUID TRANSFER
AND HYDRAULIC



Eaton's H55000 series hydraulic ball valved quick disconnect coupling is ideal for agriculture and forestry equipment.

Product Features

- May interchange with other makes of couplings with same profile
- Pull-to-connect double shut off valve
- Standard body material: Zinc trivalent plated steel
- Stainless steel ball valves and springs
- Standard seal: NBR

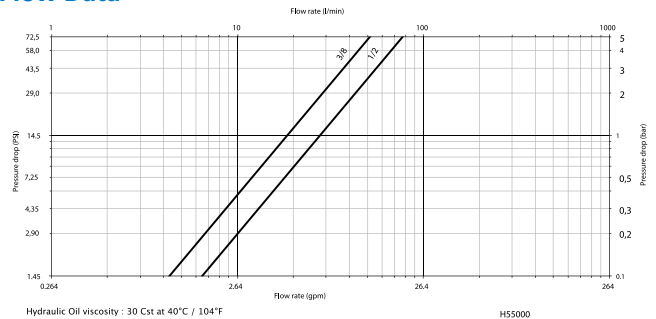
Physical Characteristics

| Coupling Size | DN/ND | Max. Operating Pressure | | Rated Flow (lpm) | Fluid Loss | |
|---------------|-------|-------------------------|-------|---------------------|------------|---------|
| | | (bar) | (psi) | | (gpm) | ml max. |
| 3/8" | 7.4 | 250 | 3,625 | 19 | 5.02 | 0.50 |
| 1/2" | 8.9 | 250 | 3,625 | 28 | 7.40 | 1.32 |

Applications & Markets

- Hydraulic Circuits and Equipment
- Forestry
- Agriculture
- Iron and Steel Industry

Flow Data



PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

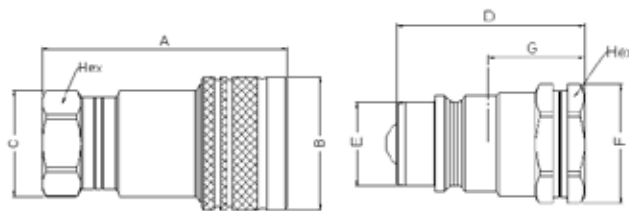


Figure 1

Figure 2

| DN/ND (mm) | Socket/ Female | Socket Dust Plug | Coupling Type | Body Size | Thread | Fig. | Dimensions | | | | |
|---------------|-------------------|---------------------------|------------------|--------------|--------|------|------------|----|----|-----|--|
| | | | | | | | A | B | C | Hex | |
| 7.4 | HA5502100 | HD0512100* | Socket/Female | 3/8" | G 3/8 | 1 | 63 | 34 | 27 | 24 | |
| 8.9 | HA5503100 | HD0513100* HP1513100** | Socket/Female | 1/2" | G 1/2 | 1 | 70 | 38 | 30 | 27 | |

| DN/ND | Plug/Male | Plug Dust Cap | Coupling Type | Body Size | Thread | Fig. | Dimensions | | | | |
|-------|-----------|---------------------------|------------------|--------------|--------|------|------------|------|----|------|-----|
| | | | | | | | D | E | F | G | Hex |
| 7.4 | HA5502200 | HD0512200* | Plug/Male | 3/8" | G 3/8 | 2 | 42.5 | 19 | 27 | 22.5 | 24 |
| 8.9 | HA5503200 | HD0513200* HP1513200** | Plug/Male | 1/2" | G 1/2 | 2 | 48.0 | 20.6 | 30 | 26.5 | 27 |

*Dural/Aluminum
**PVC

AGRICULTURE

REFRIGERANT

5400 Series Low Air Inclusion Refrigerant



Eaton's 5400 Series low air inclusion product line is designed for air conditioning, refrigerant, gaseous and fluid transfer applications.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Product Features

- Brazed or threaded end connections for versatility of installation on tubing or hose
- Tubular valve construction for low fluid loss and air inclusion
- Thread together design allows connection and disconnection against pressure
- Lock washer and jam nut standard for optional bulkhead mounting
- Standard seal material: Neoprene
- Guardian Seal™ plating for excellent corrosion resistance

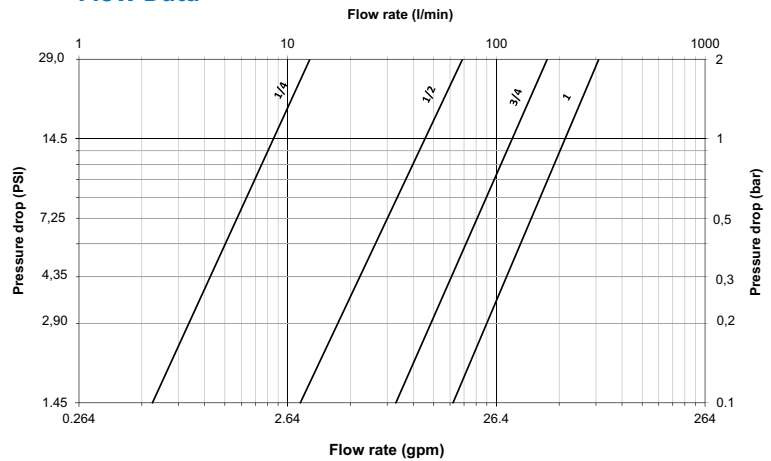
Physical Characteristics

| Coupling Size (in) | Max. Operating Pressure Connected | | Min. Burst Pressure Connected | | Max. Operating Pressure Disconnected Male Half | | | | Vacuum Connected Only (in./Hg) | Rated Flow | | Air Inclusion cc. max. | Fluid Loss cc.max. |
|-----------------------|-----------------------------------|-------|-------------------------------|-------|--|-------|-------|-------|-----------------------------------|------------|-------|---------------------------|-----------------------|
| | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | (bar) | (psi) | | (lpm) | (gpm) | | |
| ¼ | 207 | 3,000 | 621 | 9,000 | 172 | 2,500 | 52 | 750 | 28 | 8 | 2 | .10 | .05 |
| ½ | 121 | 1,750 | 359 | 5,200 | 121 | 1,750 | 52 | 750 | 28 | 53 | 14 | .10 | .10 |
| ¾ | 48 | 700 | 145 | 2,100 | 48 | 700 | 45 | 650 | 28 | 132 | 35 | .30 | .10 |
| 1 | 48 | 700 | 145 | 2,100 | 48 | 700 | 21 | 300 | 28 | 284 | 75 | .50 | .20 |

Applications & Markets

- Mobile Air Conditioning and Refrigerant

Flow Data



5400 Series Low Air Inclusion Refrigerant

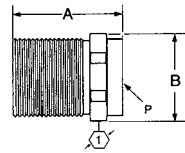


Figure 1

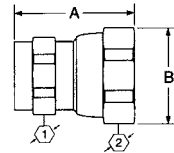


Figure 2

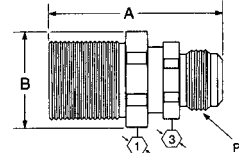


Figure 3

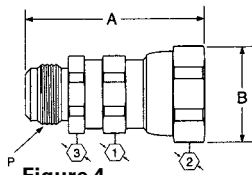


Figure 4

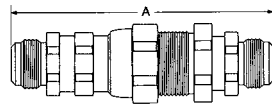


Figure 5

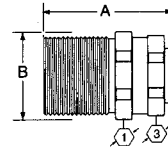


Figure 6

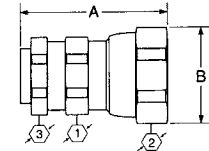


Figure 7

Dimensions – No Adapter

| Part Number Neoprene | Coupling Type | Body Size | Type | Fig. | Dimensions | | Hex ① | | Hex ② | | Hex ③ | | | |
|-------------------------|------------------|--------------|------------|------|------------|--------|-------|--------|-------|--------|-------|--------|----|------|
| | | | | | A | B | mm | (in) | mm | (in) | mm | (in) | mm | (in) |
| 5400-S2-4 | Male | ¼ | No Adapter | 1 | 27.4 | (1.08) | 21.1 | (.83) | 19 | (.75) | - | - | - | - |
| 5400-S5-4 | Female | ¼ | No Adapter | 2 | 28.7 | (1.13) | 21.1 | (.83) | 16.0 | (.63) | 19 | (.75) | - | - |
| 5400-S2-8 | Male | ½ | No Adapter | 1 | 34.8 | (1.37) | 32.0 | (1.26) | 29.0 | (1.14) | - | - | - | - |
| 5400-S5-8 | Female | ½ | No Adapter | 2 | 40.6 | (1.60) | 33.0 | (1.30) | 26.0 | (1.02) | 30.0 | (1.18) | - | - |
| 5400-S2-12 | Male | ¾ | No Adapter | 1 | 44.2 | (1.74) | 46.4 | (1.83) | 41.0 | (1.61) | - | - | - | - |
| 5400-S5-12 | Female | ¾ | No Adapter | 2 | 55.1 | (2.17) | 45.0 | (1.77) | 35.0 | (1.38) | 41.0 | (1.61) | - | - |
| 5400-S2-16 | Male | 1 | No Adapter | 1 | 46.5 | (1.83) | 53.0 | (2.10) | 48.0 | (1.89) | - | - | - | - |
| 5400-S5-16 | Female | 1 | No Adapter | 2 | 61.1 | (2.41) | 56.0 | (2.20) | 45.0 | (1.77) | 50.0 | (1.97) | - | - |

Dimensions – SAE 37° (JIC) (Dimensional reference only)

| Part Number Buna-N | Coupling Type | Body Size | Port Size | Thread | Type | Fig. | Dimensions | | Hex ① | | Hex ② | | Hex ③ | | | |
|--|------------------|--------------|--------------|-----------|---------------|------|------------|--------|-------|--------|-------|--------|-------|--------|------|--------|
| | | | | | | | A | B | mm | (in) | mm | (in) | mm | (in) | mm | (in) |
| *Couplings must be ordered by components as shown on page 147. | | | | | | | mm | (in) | mm | (in) | mm | (in) | mm | (in) | | |
| 5410-S17-4-4* | Male | ¼ | 7/16 | 7/16-20 | SAE 37° (JIC) | 3 | 47.8 | (1.88) | 21.1 | (.83) | 19 | (.75) | - | - | 16.0 | (.63) |
| 5410-S14-4-4* | Female | ¼ | 7/16 | 7/16-20 | SAE 37° (JIC) | 4 | 49.0 | (1.93) | 21.1 | (.83) | 16.0 | (.63) | 19 | (.75) | 15.7 | (.62) |
| 5410-4-4* | Complete | ¼ | 7/16 | 7/16-20 | SAE 37° (JIC) | 5 | 89.9 | (3.54) | - | - | - | - | - | - | - | |
| 5410-S17-6-4* | Male | ¼ | 9/16 | 9/16-18 | SAE 37° (JIC) | 3 | 48.0 | (1.89) | 21.1 | (.83) | 19 | (.75) | - | - | 16.0 | (.63) |
| 5410-S14-6-4* | Female | ¼ | 9/16 | 9/16-18 | SAE 37° (JIC) | 4 | 49.3 | (1.94) | 21.1 | (.83) | 16.0 | (.63) | 19 | (.75) | 15.7 | (.62) |
| 5410-6-4* | Complete | ¼ | 9/16 | 9/16-18 | SAE 37° (JIC) | 5 | 90.4 | (3.56) | - | - | - | - | - | - | - | |
| 5410-S17-6-8* | Male | ¼ | 9/16 | 9/16-18 | SAE 37° (JIC) | 3 | 55.4 | (2.18) | 31.8 | (1.25) | 29 | (1.14) | - | - | 25.4 | (1.00) |
| 5410-S14-6-8* | Female | ½ | 9/16 | 9/16-18 | SAE 37° (JIC) | 4 | 61.7 | (2.43) | 33.3 | (1.31) | 26 | (1.02) | 30 | (1.18) | 25.4 | (1.00) |
| 5410-6-8* | Complete | ½ | 9/16 | 9/16-18 | SAE 37° (JIC) | 5 | 107.4 | (4.23) | - | - | - | - | - | - | - | |
| 5410-S17-8-8* | Male | ½ | ¾ | ¾-16 | SAE 37° (JIC) | 3 | 57.9 | (2.28) | 31.8 | (1.25) | 29 | (1.14) | - | - | 25.4 | (1.00) |
| 5410-S14-8-8* | Female | ½ | ¾ | ¾-16 | SAE 37° (JIC) | 4 | 64.3 | (2.53) | 33.3 | (1.31) | 26 | (1.02) | 30 | (1.18) | 25.4 | (1.00) |
| 5410-8-8* | Complete | ½ | ¾ | ¾-16 | SAE 37° (JIC) | 5 | 112.8 | (4.44) | - | - | - | - | - | - | - | |
| 5410-S17-10-12* | Male | ¾ | 7/8 | 7/8-14 | SAE 37° (JIC) | 3 | 69.9 | (2.75) | 46.5 | (1.83) | 41 | (1.62) | - | - | 35.1 | (1.38) |
| 5410-S14-10-12* | Female | ¾ | 7/8 | 7/8-14 | SAE 37° (JIC) | 4 | 80.3 | (3.16) | 45.7 | (1.80) | 35 | (1.38) | 41 | (1.62) | 35.1 | (1.38) |
| 5410-10-12* | Complete | ¾ | 7/8 | 7/8-14 | SAE 37° (JIC) | 5 | 135.4 | (5.33) | - | - | - | - | - | - | - | |
| 5410-S17-12-12* | Male | ¾ | 1 1/16 | 1 1/16-12 | SAE 37° (JIC) | 3 | 72.6 | (2.86) | 46.5 | (1.83) | 41 | (1.62) | - | - | 35.1 | (1.38) |
| 5410-S14-12-12* | Female | ¾ | 1 1/16 | 1 1/16-12 | SAE 37° (JIC) | 4 | 83.1 | (3.27) | 45.7 | (1.80) | 35 | (1.38) | 41 | (1.62) | 35.1 | (1.38) |
| 5410-12-12* | Complete | ¾ | 1 1/16 | 1 1/16-12 | SAE 37° (JIC) | 5 | 140.7 | (5.54) | - | - | - | - | - | - | - | |
| 5410-S17-16-16* | Male | 1 | 1 5/16 | 1 5/16-12 | SAE 37° (JIC) | 3 | 75.9 | (2.99) | 53.3 | (2.10) | 48 | (1.89) | - | - | 44.5 | (1.75) |
| 5410-S14-16-16* | Female | 1 | 1 5/16 | 1 5/16-12 | SAE 37° (JIC) | 4 | 89.7 | (3.53) | 56.9 | (2.24) | 45 | (1.77) | 50 | (1.97) | 44.5 | (1.75) |
| 5410-16-16* | Complete | 1 | 1 5/16 | 1 5/16-12 | SAE 37° (JIC) | 5 | 149.6 | (5.89) | - | - | - | - | - | - | - | |

Above items must be ordered at the component level - see page 148.

FLUID TRANSFER
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REFRIGERANT

5400 Series

Low Air Inclusion Refrigerant

Dimensions – Braze Tubing Adapter (Dimensional reference only)

| Part Number Neoprene | Coupling Type | Body Size | Tube O.D. Size | Type | Fig. | Dimensions | | | | | | | | | |
|--|------------------|--------------|-------------------|----------------------|------|------------|--------|------|--------|-------|--------|-------|--------|-------|--------|
| | | | | | | A | | B | | Hex ① | | Hex ② | | Hex ③ | |
| *Couplings must be ordered by components as shown on page 147. | | | | | | mm | (in) | mm | (in) | mm | (in) | mm | (in) | mm | (in) |
| 5401-S17-4-4* | Male | ¼ | ¼ | Braze Tubing Adapter | 6 | 38.6 | (1.52) | 21.1 | (.83) | 19 | (.75) | - | - | 16.0 | (.63) |
| 5401-S14-4-4* | Female | ¼ | ¼ | Braze Tubing Adapter | 7 | 39.9 | (1.57) | 21.1 | (.83) | 16.0 | (.63) | 19 | (.75) | 16.0 | (.63) |
| 5401-S17-6-4* | Male | ¼ | ⅜ | Braze Tubing Adapter | 6 | 38.6 | (1.52) | 21.1 | (.83) | 19 | (.75) | - | - | 16.0 | (.63) |
| 5401-S14-6-4* | Female | ¼ | ⅜ | Braze Tubing Adapter | 7 | 39.9 | (1.57) | 21.1 | (.83) | 16.0 | (.63) | 19 | (.75) | 16.0 | (.63) |
| 5410-S17-6-8* | Male | ½ | ⅜ | Braze Tubing Adapter | 6 | 44.5 | (1.75) | 33.3 | (1.31) | 29 | (1.14) | - | - | 25.4 | (1.00) |
| 5401-S14-6-8* | Female | ½ | ⅜ | Braze Tubing Adapter | 7 | 50.8 | (2.00) | 33.3 | (1.31) | 26 | (1.02) | 30 | (1.18) | 25.4 | (1.00) |
| 5401-S17-8-8* | Male | ½ | ½ | Braze Tubing Adapter | 6 | 44.5 | (1.75) | 33.3 | (1.31) | 29 | (1.14) | - | - | 25.4 | (1.00) |
| 5401-S14-8-8* | Female | ½ | ½ | Braze Tubing Adapter | 7 | 50.8 | (2.00) | 33.3 | (1.31) | 26 | (1.02) | 30 | (1.18) | 25.4 | (1.00) |
| 5401-S17-10-12* | Male | ¾ | ⅝ | Braze Tubing Adapter | 6 | 62.7 | (2.47) | 45.7 | (1.80) | 41 | (1.62) | - | - | 35.1 | (1.38) |
| 5401-S14-10-12* | Female | ¾ | ⅝ | Braze Tubing Adapter | 7 | 73.2 | (2.88) | 45.7 | (1.80) | 35 | (1.38) | 41 | (1.62) | 35.1 | (1.38) |
| 5401-S17-12-12* | Male | ¾ | ¾ | Braze Tubing Adapter | 6 | 62.7 | (2.47) | 45.7 | (1.80) | 41 | (1.62) | - | - | 35.1 | (1.38) |
| 5401-S14-12-12* | Female | ¾ | ¾ | Braze Tubing Adapter | 7 | 73.2 | (2.88) | 45.7 | (1.80) | 35 | (1.38) | 41 | (1.62) | 35.1 | (1.38) |
| 5401-S17-16-16* | Male | 1 | 1 | Braze Tubing Adapter | 6 | 71.1 | (2.80) | 56.9 | (2.24) | 48 | (1.89) | - | - | 44.5 | (1.75) |
| 5401-S14-16-16* | Female | 1 | 1 | Braze Tubing Adapter | 7 | 84.8 | (3.34) | 56.9 | (2.24) | 45 | (1.77) | 50 | (1.97) | 44.5 | (1.75) |

Dust Caps and Dust Plugs

| Dust Cap with Gasket | Dust Plug with Gasket | Body Size |
|----------------------|-----------------------|-----------|
| 5400-S6-4 | 5400-S8-4 | ¼ |
| 5400-S6-8 | 5400-S8-8 | ½ |
| 5400-S6-12 | 5400-S8-12 | ¾ |
| 5400-S6-16 | 5400-S8-16 | 1 |

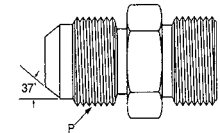
Dust Cap Dust Plug



Adapter SAE 37° (JIC)

| O-Ring | Brass | Steel | Body Size | Thread | Tube O.D. Size |
|----------|-------------|---------------|-----------|--------|----------------|
| 22546-12 | 202220-4-4B | 202220-4-4S | ¼ | ⅝-20 | ¼ |
| 22546-12 | 202220-6-4B | 202220-6-4S | ¼ | ⅝-18 | ⅜ |
| 22546-17 | - | 202220-6-8S | ½ | ⅝-18 | ⅜ |
| 22546-17 | 202220-8-8B | 202220-8-8S | ½ | ¾-16 | ½ |
| 22546-23 | - | 202220-10-12S | ¾ | ⅞-14 | ⅝ |
| 22546-23 | - | 202220-12-12S | ¾ | 1 ⅛-12 | ¾ |
| 22546-28 | - | 202220-16-16S | ¾ | 1 ⅝-12 | 1 |

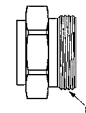
Adapter SAE 37° (JIC)



Adapter – Braze

| O-Ring | Brass | Steel | Body Size | Thread | Tube O.D. Size |
|----------|---------------|---------------|-----------|--------|----------------|
| 22546-12 | 202208-4-4B | - | ¼ | ½-20 | ¼ |
| 22546-17 | 202208-4-8B | - | ½ | ⅞-20 | ¼ |
| 22546-12 | 202208-6-4B | - | ¼ | ½-20 | ⅜ |
| 22546-17 | 202208-6-8B | - | ½ | ⅞-20 | ⅜ |
| 22546-17 | 202208-8-8B | - | ½ | ⅞-20 | ½ |
| 2254617 | 202208-10-8B | 202208-10-8S | ½ | ⅞-20 | ⅝ |
| 22546-23 | 202208-10-12B | 202208-10-12S | ¾ | 1 ¼-18 | ⅝ |
| 22546-23 | 202208-12-12B | - | ¾ | 1 ¼-18 | ¾ |
| 22546-23 | 202208-14-12B | - | ¾ | 1 ¼-18 | ⅞ |
| 22546-28 | 202208-14-16B | - | 1 | 1 ⅞-20 | ⅞ |
| 22546-28 | 202208-16-16B | - | 1 | 1 ⅞-20 | 1 |
| 22546-28 | 202208-18-16B | - | 1 | 1 ⅞-20 | 1 ⅛ |
| 22546-28 | 202208-20-16B | - | 1 | 1 ⅞-20 | 1 ⅜ |
| 22546-28 | 202208-22-16B | - | 1 | 1 ⅞-20 | 1 ¼ |

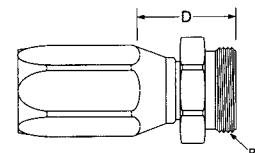
Adapter – Braze
(O-Ring Required)



Hose Fitting SAE 100R5†

| O-Ring | Fitting Assembly | Body Size | Hose Size | Thread | Dimensions D | |
|----------|------------------|-----------|-----------|--------|-----------------|--------|
| | | | | | mm | (in) |
| 22546-12 | 487-4-4S | ¼ | -4 | ½-20 | 23.4 | (.92) |
| 22546-12 | 487-4-6S | ¼ | -6 | ½-20 | 24.4 | (.96) |
| 22546-17 | 487-8-6S | ½ | -6 | ⅞-20 | 24.4 | (.96) |
| 22546-17 | 487-8-8S | ½ | -8 | ⅞-20 | 26.9 | (1.06) |
| 22546-23 | 487-12-10S | ¾ | -10 | 1 ¼-18 | 27.2 | (1.07) |
| 22546-23 | 487-12-12S | ¾ | -12 | 1 ¼-18 | 27.2 | (1.07) |
| 22546-28 | 487-16-16S | 1 | -16 | 1 ⅞-20 | 25.7 | (1.01) |

Hose Fitting SAE 100R5
(O-Ring Required)



†Additional dash styles available.

FLUID TRANSFER
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5400 Series

Low Air Inclusion Refrigerant

For assemblies, order by components as shown by base number and dash (-) size below. Example, if a 5401-S14-10-12 is required, order as components, (1) 5400-S5-12, (1) 202208-10-12B Adapter and (1) 22546-23 O-Ring.

| Assembly Part Number | 5400-S2 Male Half | Quantity | 5400-S5 Female Half | Quantity | 202208-Brass Braze-On Adapter | Quantity | 202220-Steel 37° SAE Adapter | Quantity | 22546 O-Ring | Quantity |
|----------------------|-------------------|----------|---------------------|----------|-------------------------------|----------|------------------------------|----------|--------------|----------|
| 5401-S14-10-12 | | | -12 | 1 | -10 -12B | 1 | | | -23 | 1 |
| 5401-S14-10-8 | | | -8 | 1 | -10 -8B | | | | -17 | 1 |
| 5401-S14-12-12 | | | -12 | 1 | -12 -12B | 1 | | | -23 | 1 |
| 5401-S14-16-16 | | | -16 | 1 | -16 -16B | 1 | | | -28 | 1 |
| 5401-S14-4-4 | | | -4 | 1 | -4 -4B | 1 | | | -12 | 1 |
| 5401-S14-6-4 | | | -4 | 1 | -6 -4B | 1 | | | -12 | 1 |
| 5401-S14-6-8 | | | -8 | 1 | -6 -8B | 1 | | | -17 | 1 |
| 5401-S14-8-8 | | | -8 | 1 | -8 -8B | 1 | | | -17 | 1 |
| 5401-S17-10-12 | -12 | 1 | | | -10 -12B | 1 | | | -23 | 1 |
| 5401-S17-10-8 | -8 | 1 | | | -10 -8B | 1 | | | -17 | 1 |
| 5401-S17-12-12 | -12 | 1 | | | -12 -12 | 1 | | | -23 | 1 |
| 5401-S17-14-16 | -16 | 1 | | | -16 -16 | 1 | | | -28 | 1 |
| 5401-S17-4-4 | -4 | 1 | | | -4 -4B | 1 | | | -17 | 1 |
| 5401-S17-6-4 | -4 | 1 | | | -6 -4B | 1 | | | -12 | 1 |
| 5401-S17-6-8 | -8 | 1 | | | -6 -8B | 1 | | | -17 | 1 |
| 5401-S17-8-8 | -8 | 1 | | | -8 -8B | 1 | | | -17 | 1 |
| 5410-12-12 | -12 | 1 | -12 | 1 | | | -12 -12S | 2 | -23 | 2 |
| 5410-16-16 | -16 | 1 | -16 | 1 | | | -16 -16S | 2 | -28 | 2 |
| 5410-4-4 | -4 | 1 | -4 | 1 | | | -4 -4S | 2 | -12 | 2 |
| 5410-6-8 | -8 | 1 | -8 | 1 | | | -6 -8S | 2 | -17 | 2 |
| 5410-8-8 | -8 | 1 | -8 | 1 | | | -8 -8S | 2 | -17 | 2 |
| 5410-S14-10-12 | | | -12 | 1 | | | -10 -12S | 1 | -23 | 1 |
| 5410-S14-12-12 | | | -12 | 1 | | | -12 -12S | 1 | -23 | 1 |
| 5410-S14-16-16 | | | -16 | 1 | | | -16 -16S | 1 | -28 | 1 |
| 5410-S14-4-4 | | | -4 | 1 | | | -4 -4S | 1 | -12 | 1 |
| 5410-S14-6-4 | | | -4 | 1 | | | -6 -4S | 1 | -12 | 1 |
| 5410-S14-6-8 | | | -8 | 1 | | | -6 -8S | 1 | -17 | 1 |
| 5410-S14-8-8 | | | -8 | 1 | | | -8 -8S | 1 | -17 | 1 |
| 5410-S17-10-12 | -12 | 1 | | | | | -10 -12S | 1 | -23 | 1 |
| 5410-S17-12-12 | -12 | 1 | | | | | -12 -12S | 1 | -23 | 1 |
| 5410-S17-16-16 | -16 | 1 | | | | | -16 -16S | 1 | -28 | 1 |
| 5410-S17-4-4 | -4 | 1 | | | | | -4 -4S | 1 | -12 | 1 |
| 5410-S17-6-4 | -4 | 1 | | | | | -6 -4S | 1 | -12 | 1 |
| 5410-S17-6-8 | -8 | 1 | | | | | -6 -8S | 1 | -17 | 1 |
| 5410-S17-8-8 | -8 | 1 | | | | | -8 -8S | 1 | -17 | 1 |

FLUID TRANSFER AND HYDRAULIC

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SPECIAL APPLICATIONS

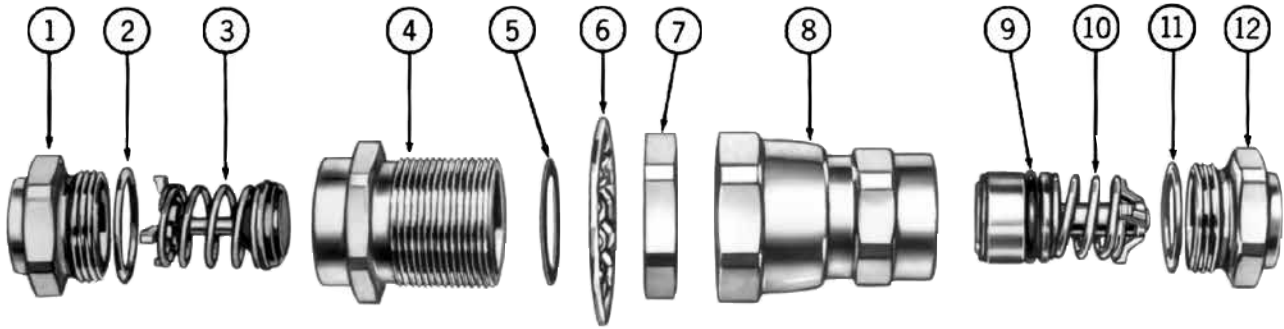
DIAGNOSTIC

AGRICULTURE

REFRIGERANT

5400 Series Low Air Inclusion Refrigerant

Assembly Instructions/Component Part Numbers



Typical Male Coupling Half (S2)

Assembly Instructions

Steps:

- After tubing or hose has been connected to adapters ① and ②, install O-Rings ③ and ④ on adapters. Be sure O-Rings are not twisted.
- Oil O-Rings ③ and ④ liberally with system fluid to prevent them from scuffing and tearing when coupling body is threaded on adapter.
- S2 Half—Lubricate poppet face with system fluid. Insert poppet valve assembly ③ into body ④. Tighten body ④ on adapter ①. After body and adapter make metal-to-metal contact, tighten by rotating body ④ 1/8" with respect to adapter ① or torque per table value.

S5 Half—Oil O-Ring ⑤ liberally with system fluid. Insert valve and sleeve assembly 10 into body ⑥. Tighten body ⑥ on adapter ②. After body and adapter make metal-to-metal contact, tighten by rotating body ⑥ 1/8" with respect to adapter ② or torque per table value.

- Coupling Connection—Lubricate gasket seal ⑤ on 5400-S2 half with system fluid. Thread union nut ⑦ on 5400-S2 half. Tighten union nut to torque values shown in table. Be sure S2 and S5 bodies do not rotate during connection.

Typical Female Coupling Half (S5)

Bulkhead Mounting — S2 Half

Install lock washer ⑥ on S2 half. Insert S2 half through bulkhead, and tighten jam nut ⑦ so that lock washer teeth are fully compressed.

NOTE: Lock washer 6 must be between hex of S2 half and bulkhead.

Maximum Bulkhead Thickness

| Body Size | Lock Washer Installed | Lock Washer Not Used |
|-----------|-----------------------|----------------------|
| 1/4 | .206 | .256 |
| 1/2 | .136 | .203 |
| 3/4 | .232 | .292 |
| 1 | .101 | .161 |

Torque Values

Recommended torque values in ft. lbs., are listed below.

| Dash Size | Adapter to Body | | |
|-----------|------------------------|-------------------------------|--------------------|
| | Braze Type or Aluminum | Non-braze Type Steel or Brass | S2 Half to S5 Half |
| -4 | 6-8 | 12-15 | 10-12 |
| -8 | 15-20 | 35-45 | 35-37 |
| -12 | 35-40 | 45-55 | 45-47 |
| -16 | 50-60 | 55-65 | 65-67 |

[†]IMPORTANT: Generous lubrication is required for all gaskets and O-Rings. Use refrigeration oil only when used in refrigerant system.

Component Part Numbers

| Item Number | Dash Size O.D. Tube Size | -4 1/4"-3/8" | -8 1/4"-5/8" | -12 5/8"-7/8" | -16 7/8"-13/8" | Line Ref. |
|----------------------------|-----------------------------|-----------------|-----------------|------------------|-------------------|-----------|
| Typical Male Half | | | | | | 1 |
| 1 | Tubing Adapter | 202208-* -4 | 202208-* -8 | 202208-* -12 | 202208-* -16 | 2 |
| 2 | O-Ring | 22546-12 | 22546-17 | 22546-23 | 22546-28 | 3 |
| 3 | Poppet Valve Assembly | 5400-S20-4 | 5400-S20-8 | 5400-S20-12 | 5400-S20-16 | 4 |
| 4 | Body | 5400-17-4S | 5400-17-8S | 5400-17-12S | 5400-17-16S | 5 |
| 5 | Gasket Seal | 22008-4 | 22008-8 | 22008-12 | 22008-16 | 6 |
| 6 | Lock Washer | 5400-54-4S | 5400-54-8S | 5400-54-12S | 5400-54-16S | 7 |
| 7 | Jam Nut | 5400-53-4S | 5400-53-8S | 5400-53-12S | 5400-53-16S | 8 |
| Typical Female Half | | | | | | 9 |
| 8 | Union Nut and Body Assembly | 5400-S16-4 | 5400-S16-8 | 5400-S16-12 | 5400-S16-16 | 10 |
| 9 | O-Ring | FF91178-10 | FF91178-112 | FF91178-116 | FF91178-214 | 11 |
| 10 | Valve and Sleeve Assembly | 5400-S19-4 | 5400-S19-8 | 5400-S19-12 | 5400-S19-16 | 12 |
| 11 | O-Ring | 22546-12 | 22546-17 | 22546-23 | 22546-28 | 13 |
| 12 | Tubing Adapter | 202208-* -4 | 202208-* -8 | 202208-* -12 | 202208-* -16 | 14 |

*Specify O.D. Tubing size of adapter required in 16th of an inch. Example: -4 coupling with 3/8" O.D. tubing is 6/16 or -6. Part number is then 202208-6-4.

Part Number Index

| Part Number | Page Number | Part Number | Page Number |
|--------------------|--------------------|--------------------|--------------------|
| 10 | 76, 87, 92 | 10FFS56ORM | 35 |
| 11 | 76, 87, 92 | 10FFS56UN | 34 |
| 13 | 87 | 10FFS75ORM | 35 |
| 14 | 87 | 10FFS75UN | 34 |
| 16 | 88 | 10FFS87UN | 34 |
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