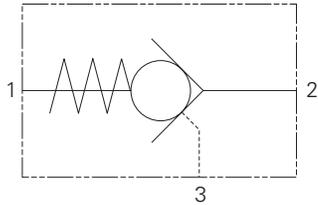


4CK90 - Check Valve

Pilot-to-open, poppet type

90 L/min (24 USgpm) • 350 bar (5000 psi)



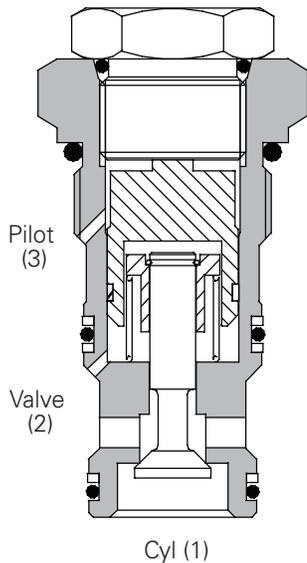
Operation

Pressure on the valve port 2 causes the poppet to lift against the spring force, allowing the flow to the cylinder port 1. Reverse flow is prevented by the poppet reseating. Pressure applied to the pilot port 3 will overcome the cylinder port pressure and lift the poppet from its seat, allowing flow from the cylinder to valve port.

Features

Hardened and ground poppet gives excellent flow capability for valve size, positive sealing and long working life. Cartridge construction allows installation in actuators, manifold blocks and Hydraulic Integrated Circuits. Fits the same cavity as the overcenter valves of a similar size.

Sectional View



Performance Data

Ratings and Specifications

Figures based on: Oil Temp = 40° C Viscosity = 32 cSt (150 SUS)

Rated flow	90 L/min (24 USgpm)	
Max pressure	350 bar (5000 psi)	
Pilot ratio	4:1	
Cartridge material	Working parts hardened and ground steel. Electroless zinc plated body.	
Standard housing material	Standard aluminium (up to 210 bar). Add suffix "377" for steel option.	
Mounting position	Unrestricted	
Cavity number	A12336 (See Section M)	
Torque cartridge into cavity	90 Nm (66 lbs ft)	
Weight	4CK90	0.27 kg (0.61 lbs)
	4CK95	1.33 kg (2.90 lbs)
	4CKK95	2.03 kg (4.51 lbs)
Seal kit number	SK832	(Nitrile)
	SK832V	(Viton®)
Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)	
Operating temperature	-30°C to +90°C (-22° to +194°F)	
Leakage	0.3 milliliters/min nominal (5 dpm)	
Nominal viscosity range	5 to 500 cSt	

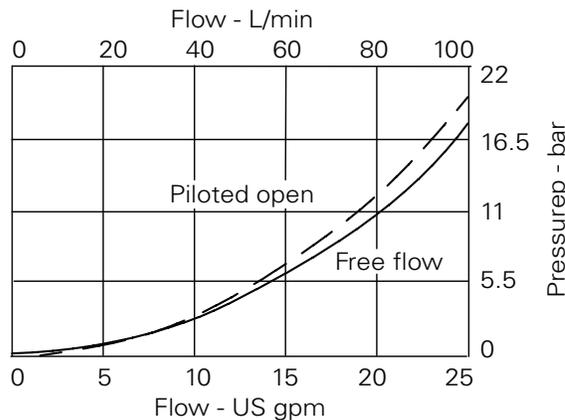
Viton is a registered trademark of E.I. DuPont

Description

Pilot check valves allow flow to pass in one direction, with a low pressure drop, then prevent reverse flow until pilot pressure is applied. There are many applications for this valve type, the most common being to lock and hold a cylinder, or another hydraulic actuator, in position.

These valves are ideally suited for fitting directly into a cylinder, giving economy of installation, direct control of cylinder movement and ease of servicing.

Pressure Drop



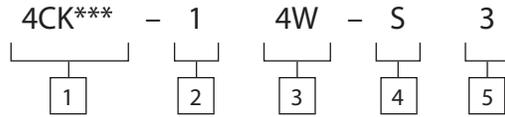
Where measurements are critical, request certified drawings. We reserve the right to change specifications without notice.

4CK90 - Check Valve

Pilot-to-open, poppet type

90 L/min (24 USgpm) • 350 bar (5000 psi)

Model Code



- 1 Basic Code**
 4CK90 - Cartridge Only
 4CK95 - Cartridge and Body
 4CKK95 - Cartridges and Dual Body

- 2 Pilot Port Sizes**
 1 - Internal

3 Port Sizes

Code	Port Size	Housing Number - Body Valves Only			
		Aluminium Single	Steel Single	Aluminium Double	Steel Double
4W	1/2" BSP 1/4" BSP Pilot Port	B13625	B13626	C13627	C13628
8T	1/2" SAE 1/4" SAE Pilot Port	B10806	B10922	C10807	C11561

- 4 Seals**
 S - Nitrile (For use with most industrial hydraulic oils)

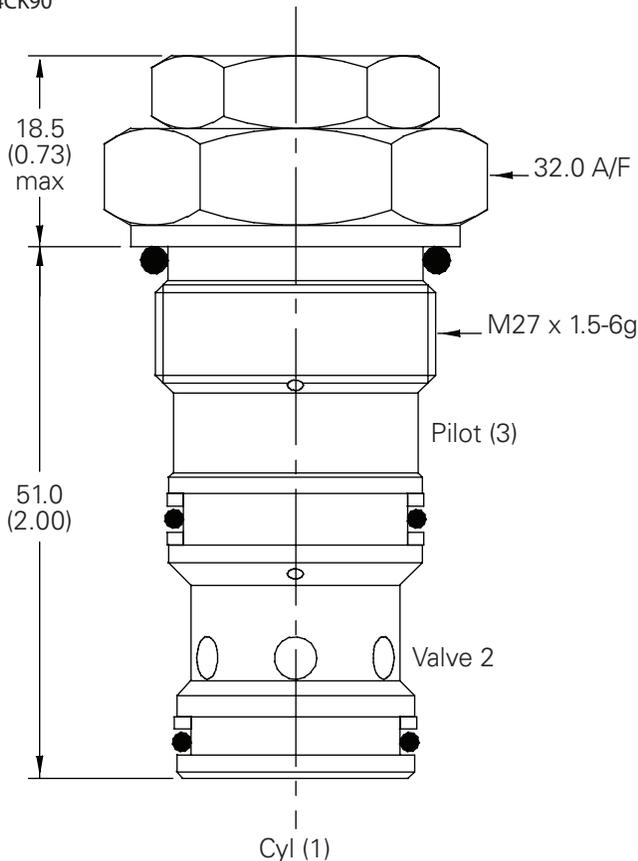
SV - Viton (For high temperature and most special fluid applications)

- 5 Optional Pilot Seal**
 Omit if not required

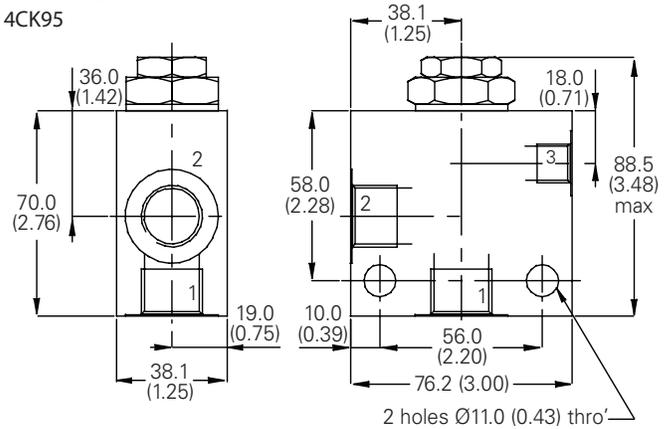
Dimensions

mm (inch)

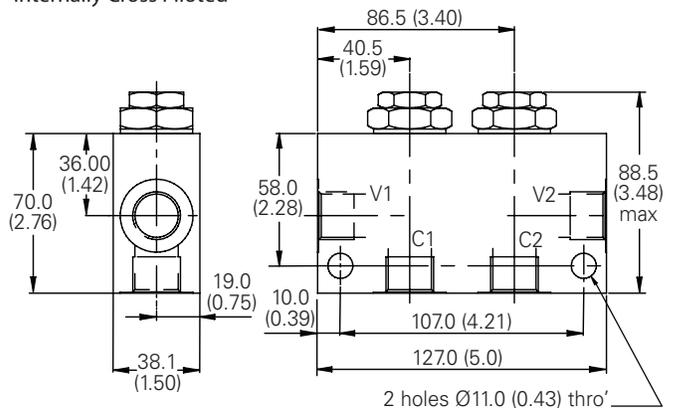
Cartridge Only
 Basic Code
 4CK90



Complete Valve
 1/2" Ports
 Basic Code
 4CK95



Dual Valve
 1/2" Ports
 Basic Code 4CKK95
 Internally Cross Piloted



Note: For applications above 210 bar (3000 psi) please consult our technical department.