



## Overview

### Description

Magnet wire wound on a molded 30% glass filled bobbin framed in steel and encapsulated with 30% glass filled polyester resin. Coil impregnated with anerobic sealant.

## Ratings

### Properties

Magnet wire	U.S. class H 180 °C (356 °F) minimum rating
Mating connector	DT06-2S-P012 - <b>Note:</b> DEUTSCH DT04-2P DELPHI/PACKARD number 12010973 - <b>Note:</b> Weather-Pack 2 terminal male, lead wires 18 AWG

### Electrical Parameters

Coil resistance at 20 °C (68 °F)	6.8 ohm ±3%	- <b>Note:</b> 10 Vdc coil
	9.8 ohm ±3%	- <b>Note:</b> 12 Vdc coil
	27.2 ohm ±5%	- <b>Note:</b> 20 Vdc coil
	39.3 ohm ±5%	- <b>Note:</b> 24 Vdc coil
	88.3 ohm ±5%	- <b>Note:</b> 36 Vdc coil
	765.5 ohm ±8%	- <b>Note:</b> 115 Vdc coil
Coil inductance at 20 °C (68 °F)	3035 ohm ±8%	- <b>Note:</b> 230 Vdc coil
	485.7 mH ±5%	- <b>Note:</b> 115 Vac coil
	2026.1 mH ±5%	- <b>Note:</b> 230 Vac coil
Coil initial current draw	1.47 A	- <b>Note:</b> 10 Vdc coil
	1.22 A	- <b>Note:</b> 12 Vdc coil
	0.74 A	- <b>Note:</b> 20 Vdc coil
	0.61 A	- <b>Note:</b> 24 Vdc coil
	0.41 A	- <b>Note:</b> 36 Vdc coil
	0.14 A	- <b>Note:</b> 115 Vac coil, @ 60 Hz
	0.15 A	- <b>Note:</b> 115 Vac coil, @ 50 Hz (calculated using winding inductance)
	0.07 A	- <b>Note:</b> 230 Vac coil, @ 60 Hz
	0.74 A	- <b>Note:</b> 230 Vac coil, @ 50 Hz (calculated using winding inductance)
	Coil initial power consumption	14.7 W
8.55 W		- <b>Note:</b> AC Coils

### Electrical Parameters

Stabilized AC current draw	98.4 mA	- <b>Note:</b> 115 Vac coil, @ 60 Hz
	49 mA	- <b>Note:</b> 230 Vac coil, @ 60 Hz

### Bridge Rectifier (AC coils)

Rectifier	4x IN5399
Average rectified forward current rating	1.5 A - <b>Note:</b> at 75 °C (167 °F)
Peak reverse voltage	1000 V

### Bidirectional Zener Diode Parameters

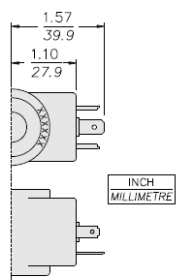
Maximum clamping voltage	45.7 V	- <b>Note:</b> 12 Vdc coil
	64.8 V	- <b>Note:</b> 24 Vdc coil
Maximum peak pulse current	13.2 A	- <b>Note:</b> 12 Vdc coil
	9.3 A	- <b>Note:</b> 24 Vdc coil
Reverse standoff voltage	28.2 V	- <b>Note:</b> 12 Vdc coil
	40.2 V	- <b>Note:</b> 24 Vdc coil
Maximum reverse leakage	5.0 µA	- <b>Note:</b> 12, 24 Vdc coil
Breakdown voltage	31.4 to 34.7 V	- <b>Note:</b> 12 Vdc coil
	44.7 to 49.4 V	- <b>Note:</b> 24 Vdc coil
Diode part number	6110163	- <b>Note:</b> 12 Vdc coil (ref)
	4000063	- <b>Note:</b> 24 Vdc coil (ref)

### Unidirectional Diode Parameters

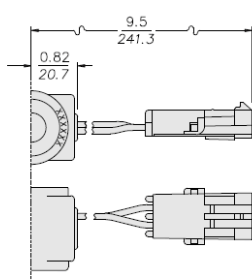
Average forward current	3.0 A	- <b>Note:</b> Maximum, 12 Vdc coil
	1 A	- <b>Note:</b> Maximum, 24 Vdc coil
Maximum repetitive peak reverse voltage	50 V	
Diode part number	4002474	



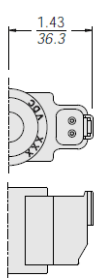
## Dimensions

**G**

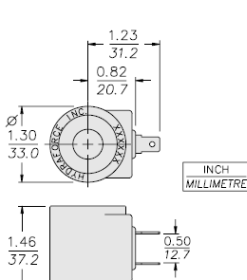
**DIN 43650 Connector**  
Pins 1 and 2 are not polarity-sensitive. Ground pin is not used.

**W**

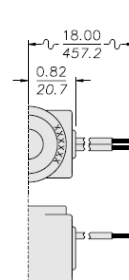
**Dual 18 Gauge Leads with Weather Pack® Connector**  
For use with Packard part no. 12015792 female plug

**DR**

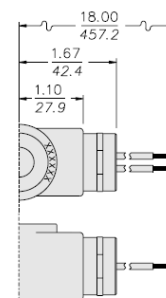
**Integral Deutsch Connector**  
DR Models without Diode  
DR/D Models with Diode  
DR/Z Models with Zener Diode

**S**

**Dual Spades SAE J858a**

**L**

**Dual Leads 18 Gauge**  
Optional 36-inch leads available. Consult factory.

**P**

**1/2" Conduit & 18 Gauge Leads**

## Coil Part Numbers

Model code	Part no.	Voltage	Connector	IP rating	Diode
24AG	6316024	24	DIN 43650		
115AG	6316115	115	DIN 43650		
230AG	6316230	230	DIN 43650		
24AP	6315024	24	1/2-14 NPT internal thread		
115AP	6315115	115	1/2-14 NPT internal thread		
230AP	6315230	230	1/2-14 NPT internal thread		
12DG	6306012	12	DIN 43650		
20DG	6306020	20	DIN 43650		
24DG	6306024	24	DIN 43650		
36DG	6306036	36	DIN 43650		
10DL	6302010	10	Dual leads/no connector		
12DL	6302012	12	Dual leads/no connector		
12DL	6307012	12	Dual leads/no connector		
24DL	6302024	24	Dual leads/no connector		
24DL	6307024	24	Dual leads/no connector		
12DL/W	6309412	12	Dual leads/no connector		
24DL/W	6309424	24	Dual leads/no connector		
12DL/W/D	6309737	12	Dual leads/no connector		Ultra-fast diode
12DR	4301512	12	Deutsch DT04-2P		
24DR	4301524	24	Deutsch DT04-2P		
10DR/D	4301871	10	Deutsch DT04-2P		Ultra-fast diode
12DR/D	4301872	12	Deutsch DT04-2P		Ultra-fast diode
24DR/D	4301874	24	Deutsch DT04-2P		Ultra-fast diode
12DR/Z	4301852	12	Deutsch DT04-2P		Bidirectional zener diode
24DR/Z	4301854	24	Deutsch DT04-2P		Bidirectional zener diode
10DS	6301010	10	Dual spade		
12DS	6301012	12	Dual spade		
20DS	6301020	20	Dual spade		
24DS	6301024	24	Dual spade		
36DS	6301036	36	Dual spade		