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 - **Note:** DEUTSCH DT04-2P DELPHI/PACKARD number 12010973 - **Note:** Weather-Pack 2 terminal male, lead wires 18 AWG

Electrical Parameters

Coil resistance	6.8 ohm ±3% - **Note:** At 20 °C (68 °F), 10 Vdc coil 9.8 ohm ±3% - **Note:** At 20 °C (68 °F), 12 Vdc coil 27.2 ohm ±5% - **Note:** At 20 °C (68 °F), 20 Vdc coil 39.3 ohm ±5% - **Note:** At 20 °C (68 °F), 24 Vdc coil 88.3 ohm ±5% - **Note:** At 20 °C (68 °F), 36 Vdc coil 765.5 ohm ±8% - **Note:** At 20 °C (68 °F), 115 Vdc coil 3035 ohm ±8% - **Note:** At 20 °C (68 °F), 230 Vdc coil
Coil inductance	485.7 mH ±5% - **Note:** At 20 °C (68 °F), 115 Vac coil 2026.1 mH ±5% - **Note:** At 20 °C (68 °F), 230 Vac coil
Coil initial current draw	1.47 A - **Note:** 10 Vdc coil 1.22 A - **Note:** 12 Vdc coil 0.74 A - **Note:** 20 Vdc coil 0.61 A - **Note:** 24 Vdc coil 0.41 A - **Note:** 36 Vdc coil 0.14 A - **Note:** 115 Vac coil, @ 60 Hz 0.15 A - **Note:** 115 Vac coil, @ 50 Hz (calculated using winding inductance) 0.07 A - **Note:** 230 Vac coil, @ 60 Hz 0.74 A - **Note:** 230 Vac coil, @ 50 Hz (calculated using winding inductance)
Stabilized AC current draw	98.4 mA - **Note:** 115 Vac coil, @ 60 Hz 49 mA - **Note:** 230 Vac coil, @ 60 Hz
Coil initial power consumption	14.7 W - **Note:** DC Coils 8.55 W - **Note:** AC Coils

Brigde Rectifier (AC coils)

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

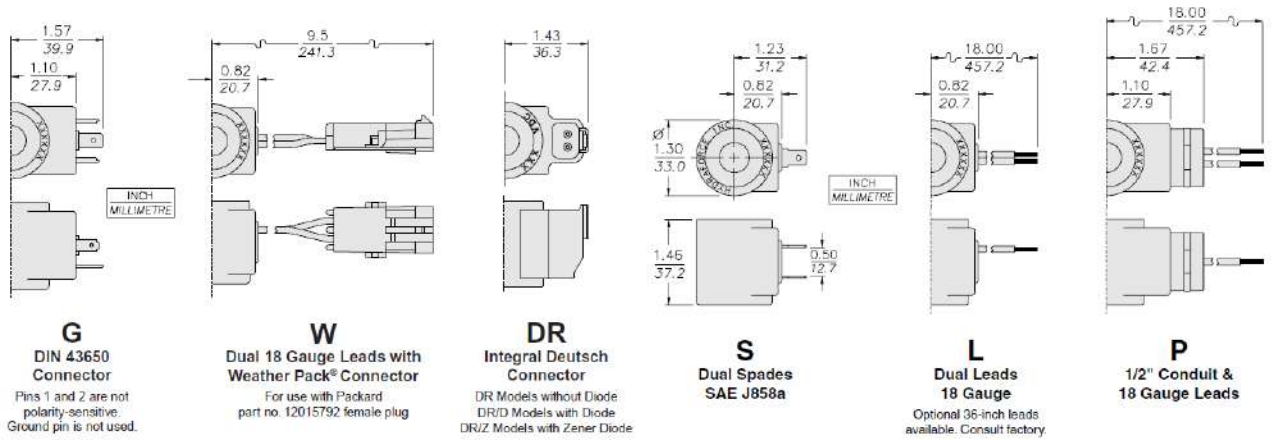
Bidirectional Zener Diode Parameters

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

Unidirectional Diode Parameters

Average forward current	3.0 A - **Note:** Maximum, 12 Vdc coil 1 A - **Note:** 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		

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 - **Note:** DEUTSCH DT04-2P DELPHI/PACKARD number 12010973 - **Note:** Weather-Pack 2 terminal male, lead wires 18 AWG

Electrical Parameters

Coil resistance	4.83 ohm ±3% - **Note:** At 20 °C (68 °F), 10 Vdc coil 7.2 ohm ±3% - **Note:** At 20 °C (68 °F), 12 Vdc coil 19.0 ohm ±5% - **Note:** At 20 °C (68 °F), 20 Vdc coil 28.8 ohm ±5% - **Note:** At 20 °C (68 °F), 24 Vdc coil 64.8 ohm ±5% - **Note:** At 20 °C (68 °F), 36 Vdc coil 568 ohm - **Note:** At 20 °C (68 °F), 115 Vdc coil 2304 ohm - **Note:** At 20 °C (68 °F), 230 Vdc coil
Coil initial current draw	2.07 A - **Note:** 10 Vdc coil 1.67 A - **Note:** 12 Vdc coil 1.05 A - **Note:** 20 Vdc coil 0.83 A - **Note:** 24 Vdc coil 0.56 A - **Note:** 36 Vdc coil 0.17 A - **Note:** 115 Vac coil 0.09 A - **Note:** 230 Vac coil
Coil initial power consumption	20 W

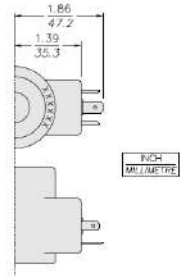
Bidirectional Zener Diode Parameters

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

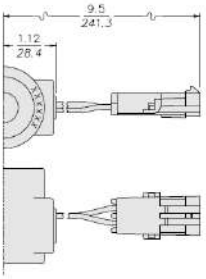
Unidirectional Diode Parameters

Average forward current	3.0 A - **Note:** Maximum, 12 Vdc coil 1 A - **Note:** Maximum, 24 Vdc coil
Maximum repetitive peak reverse voltage	50 V - **Note:** 12 Vdc coils 400 V - **Note:** 24 Vdc coils

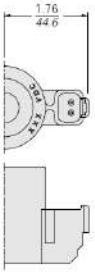
Dimensions



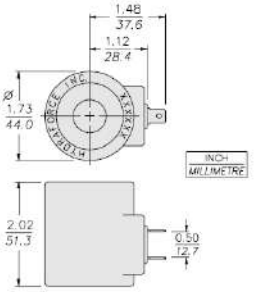
G
DIN 43650 Connector
Pins 1 and 2 are not polarity-sensitive. Ground pin is not used.



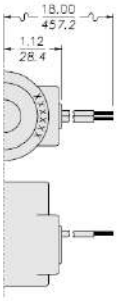
W
Dual 18 Gauge Leads with Weather Pack® Connector
For use with Packard part no. 12015792 female plug



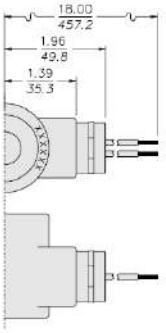
DR
Integral Deutsch Connector
DR Models without Diode
DR/D Models with Diode
DR/Z Models with Zener Diode



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	6366024	24	DIN 43650		
115AG	6366115	115	DIN 43650		
230AG	6366230	230	DIN 43650		
24AP	6365024	24	1/2-14 NPT internal thread		
115AP	6365115	115	1/2-14 NPT internal thread		
230AP	6365230	230	1/2-14 NPT internal thread		
10DG	6356010	10	DIN 43650		
12DG	6356012	12	DIN 43650		
24DG	6356024	24	DIN 43650		
10DL	6352010	10	Dual leads/no connector		
12DL	6352012	12	Dual leads/no connector		
12DL	6357012	12	Dual leads/no connector		
24DL	6352024	24	Dual leads/no connector		
12DL/W	6359412	12	Dual leads/no connector		
24DL/W	6359424	24	Dual leads/no connector		
12DL/W/D	6359732	12	Dual leads/no connector		Ultra-fast diode
24DL/W/D	6359739	24	Dual leads/no connector		Ultra-fast diode
24DP	6355024	24	1/2-14 NPT internal thread		
12DR	4301612	12	Deutsch DT04-2P		
24DR	4301624	24	Deutsch DT04-2P		
10DR/D	4301891	10	Deutsch DT04-2P		Ultra-fast diode
12DR/D	4301892	12	Deutsch DT04-2P		Ultra-fast diode
20DR/D	4301893	20	Deutsch DT04-2P		Ultra-fast diode
24DR/D	4301894	24	Deutsch DT04-2P		Ultra-fast diode
12DR/Z	4301862	12	Deutsch DT04-2P		Bidirectional zener diode
10DS	6351010	10	Dual spade		
12DS	6351012	12	Dual spade		
20DS	6351020	20	Dual spade		
24DS	6351024	24	Dual spade		
36DS	6351036	36	Dual spade		

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

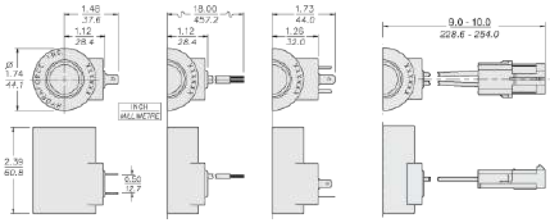
Properties

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

Electrical Parameters

Coil resistance	4.65 to 5.15 ohm - **Note:** At 20 °C (68 °F), 12 Vdc coil 18.34 to 19.80 ohm - **Note:** At 20 °C (68 °F), 24 Vdc coil
Maximum control current	1.5 A - **Note:** 12 Vdc coil 0.75 A - **Note:** 24 Vdc coil
Coil initial power consumption	11 W - **Note:** At maximum control current, 12 V coil 10.8 W - **Note:** At maximum control current, 24 V coil

Dimensions



Coil Part Numbers

Model code	Part no.	Voltage	Connector	IP rating	Diode
12DS	6507112	12	Dual spade		
24DS	6507124	24	Dual spade		
12DL	6507212	12	Dual leads/no connector		
24DL	6507224	24	Dual leads/no connector		
12DG	6507612	12	DIN 43650		
24DG	6507624	24	DIN 43650		
12DL/W	6507912	12	Dual leads/no connector		