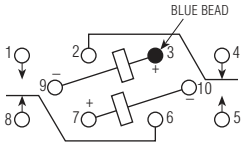
Double Pole, Magnetic Latching, 2 Amps and Less

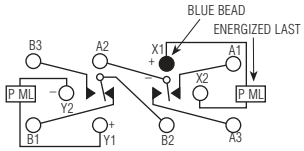
LS

LS

Magnetic Latching Half Size High Performance Relay

DESIGNED to MIL-R-39016/45





Terminal View

Standard Schematic Contacts will switch from the indicated position when either coil is energized with polarity as shown.

MIL-R-39016/45 SCHEMATIC Contacts will switch from the indicated position when either coil is energized with polarity as shown.

Product Facts

- **Hermetically sealed**
- **Up to 2 amps switching**
- **High shock & vibration ratings**
- **Optional terminals & mounting styles**
- **Latching design**

Electrical Characteristics

Contact Arrangement — 2 Form C (DPDT)

Contact Material — Stationary — Gold plated hardened silver alloy Moveable — Gold plated hardened silver alloy

Contact Resistance — Before Life — 50 milliohms max. (measured at 10 mA @ 6 Vdc) After Life — 100 milliohms max. (measured @ 2 A @ 28 Vdc)

Mechanical Life Expectancy — 1 million operations min.

Coil Voltage — 5 to 48 Vdc

Coil Power — 1.0 watts max.

Duty Cycle — Continuous

Pick-up Voltage — Approximately 50% of nominal coil voltage

Pick-up Sensitivity — 170 mW

Contact Ratings

Contact Load	Type	Operations Min.
2 A @ 28 Vdc	Resistive	100,000
0.3 A @ 115 Vac, 60 Hz & 400 Hz	Resistive	100,000
0.75 A @ 28 Vdc	Inductive (200mH)	100,000
0.1 A @ 28 Vdc	Intermediate	50,000
0.160 A @ 28 Vdc	Lamp	100,000
30 µA @ 50 mVdc	Low Level	1,000,000

RF Performance

Frequency (MHz)	RF Losses (dB)	VSWR	Isolation (dB)
100	0.1	1.15:1	38
500	0.3	1.19:1	31
1000	0.6	1.32:1	45

Catalog 5-1773450-5
Revised 3-13

www.te.com

Dimensions are shown for reference purposes only. Specifications subject to change.

Dimensions are in millimeters unless otherwise specified.

USA: +1 800 522 6752
Asia Pacific: +86 0 400 820 6015
UK: +44 800 267 666

For additional support numbers please visit www.te.com

Double Pole, Magnetic Latching, 2 Amps and Less (Continued)

LS (Continued)

Operating Characteristics

Timing —
Set-Reset Time — 5.0 ms max.

Contact Bounce —
2.0 ms max.

Dielectric Withstanding Voltage —
Between Open Contacts —
500 Vrms 60 Hz
Between Adjacent Contacts —
1000 Vrms 60 Hz
Between Contacts and Coil —
1000 Vrms 60 Hz

Insulation Resistance —
10,000 megohms min. @ 500 Vdc

Environmental Characteristics

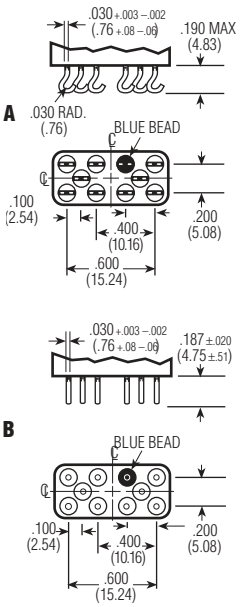
Temperature Range —
-65°C to +125°C

Weight — .46 oz (13 gms) max.

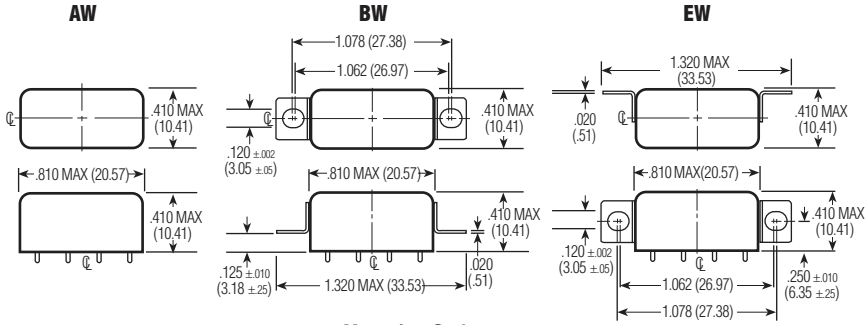
Vibration Resistance —
Standard — 20 G's, 10 to 2,000 Hz
QPL Equiv. — 30 G's, 10 to 2,500 Hz

Shock Resistance —
100 G's, 6 ±1 ms

QPL Equivalent —
MIL-R-39016/45



LS Terminals



Mounting Styles

Standard Coil Data

Nom. Coil Voltage (Vdc)	Coil Resistance in Ohms ±10% @ 25°C	Pickup Voltage Vdc (Max.) @ 25°C	Pickup Voltage Vdc (Max.) @ 125°C	Pickup Voltage Vdc (Min.) @ 25°C	Pickup Voltage Vdc (Min.) @ -65°C	Nom. Coil Power (mW) @ 25°C	Max. Coil Voltage	Coil Desig.
5.0	45	2.7	3.8	1.6	1.0	556	6.7	5
6.0	63	3.25	4.5	2.0	1.3	571	8.0	6
12.0	254	6.5	9.0	4.0	2.6	567	16.0	12
26.5	1,000	13.0	18.0	8.0	5.2	702	32.0	24
48.0	3,800	26.0	36.0	16.0	10.4	606	64.0	48

Ordering Instructions

Catalog-selected Relays: The catalog number is derived by choosing the proper CODE for each of the six relay characteristics in the order in which the codes are listed.

Specifying a Part Number Example:	Type	Mountings	Contacts	Coils	Terminals
	LS	BW-	2C-	24	B

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