

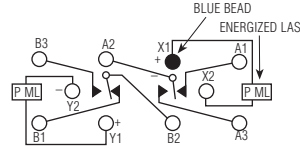
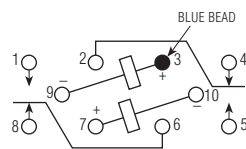
Double Pole, Magnetic Latching, 2 Amps and Less

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 μ A @ 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

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

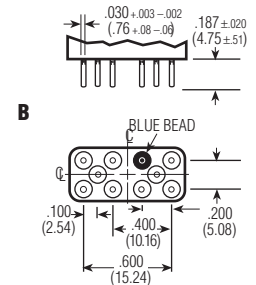
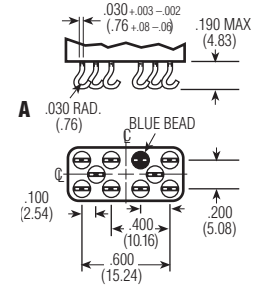
QPL Equiv. — 30 G's, 10 to 2,500 Hz

Shock Resistance —

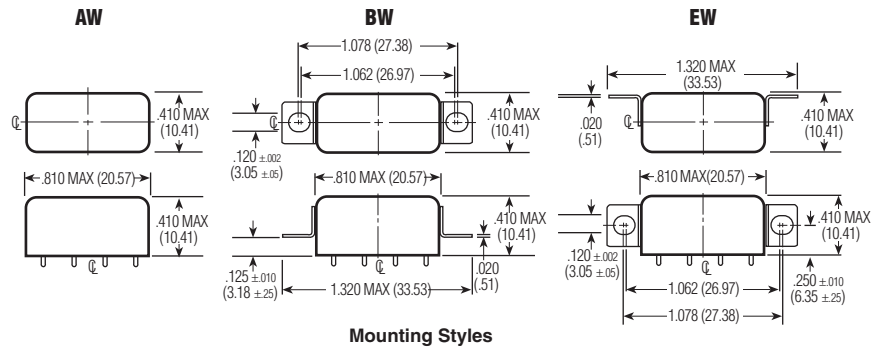
100 G's, 6 ±1 ms

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