

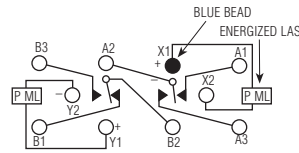
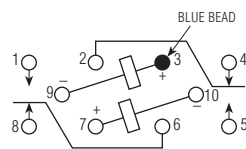
## Double Pole, Magnetic Latching, 2 Amps and Less

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 $\mu$ 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)**

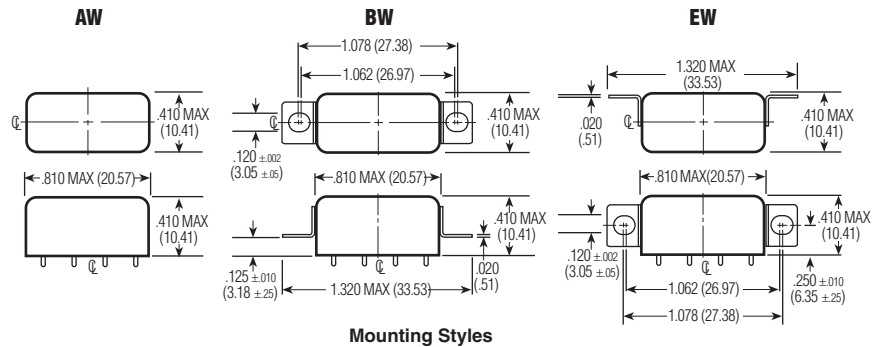
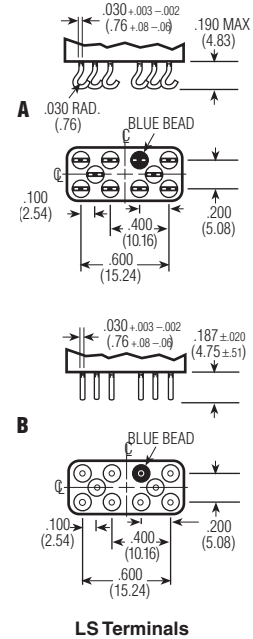
**LS (Continued)**

**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



**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** LS      **Mountings** BW-      **Contacts** 2C-      **Coils** 24      **Terminals** B