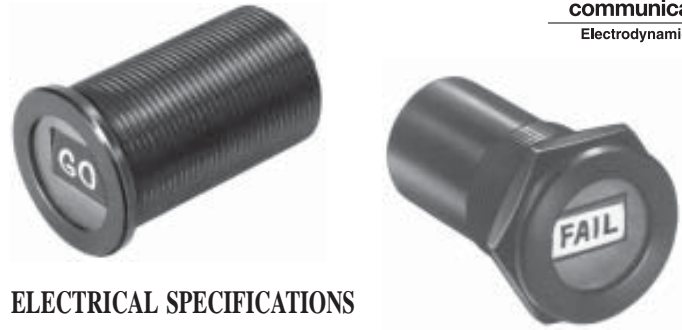




# BITE Indicators

## Latching or Self-Restoring

### Model MI 61 Series



### FEATURES

- Environmentally Sealed
- Choice of Self-restoring or Magnetic Latching Types
- Optional Legend Display

The MI 61 series magnetic latching fault indicator displays a highly visible dual color drum when the indicator coil is pulsed by a BITE (Built-In Test Equipment) system. The drum provides a high contrast visual indication and an effective warning of system faults. The drum can accommodate a legend such as "GO" or "FAIL" when specific information needs to be displayed.

### OPERATION

When the indicator coil is energized with a 50 millisecond or longer pulse, the drum rotates to display the message or system status.

**Model MI 61M** is a self-restoring, steady-state indicator that automatically returns to a neutral state when power is removed. It does not latch to the core magnet, but remains suspended in the position until power is removed. Self-restoring, steady-state indicator.

**Models MI 61L & MI 61LD** are latching indicators that remain magnetically latched to the core in the position last pulsed.

For MI 61L reset to the "no-fault" position is accomplished electrically by reversing the polarity of the pulse.

For the MI 61LD, a dual coil device, reset to the "no-fault" position is accomplished electronically by pulsing the reset coil.

### ELECTRICAL SPECIFICATIONS

Standard Coil Voltages and Resistance:  
Resistance  $\pm$  10% shown at 25°C.

DC Voltage	3	5	6	12	24	28
Resistance (Ohms)	6	20	24	103	385	520

**Power:** Steady state for model MI 61 - 1.5 watts.

**Pulse Power for Latching Models:** 1.5 watts, minimal.

**Pulse Length for Latching Models:** 50 ms min.

**Dielectric Withstanding Voltage:** 500 volts DC case to terminals.  
100 VDC coil to coil on dual coil units.

**Insulation Resistance:** 100 megohms minimum at 500 VDC.

### MECHANICAL SPECIFICATIONS

**Case:** Black, anodized aluminum with sealed glass window.

**Mounting:** Front panel mount.

**Weight:** 20 grams maximum.

**Display Colors:** Any combination of: Black (Blk), White (W), and Day Glow\* colors: Red (R), Orange (O), Yellow (Y), and Green (G).

**Legend:** Available maximum letter height 1/8".

**Hardware:** Units supplied with hex nut.

### ENVIRONMENTAL SPECIFICATIONS

**Operating Temperature Range:** -65°C to +125°C.

**Vibration\*\*:** 10 G's, 10 to 2kHz, MIL STD 202.

**Shock:** 50 G's - MIL STD 202, Method 213, Condition I.

**Humidity:** 95% relative humidity MIL STD 202,  
Method 103, Test Condition B.

**Salt Spray:** MIL STD 202, Method 101, Test Condition B.

**Thermal Shock:** MIL STD 202, Method 107, Test Condition A.

**Barometric Pressure:** 100,000 ft. MIL STD 202, Method 105, Test Condition D.

**Operational Life:** 10,000 cycles minimum.

\*Day-Glow Color Corp.

\*\*During vibration testing, caution should be taken to shield the indicator from the strong magnetic field.

Covered by U.S. & Foreign Patents.

### ORDERING INFORMATION

When ordering, show model number first, then coil voltage desired, then the color combination desired. If this is a special part, factory assigned modification number will be added at the end of the ordering number.

Example:

Dual coil magnetically latching unit for 24 volts with black for the fault color and red for reset color would be: Model MI 61LD-24-Blk/R

### MI 61LD - 24 - Blk / R - S

Basic Model Number	Coil Voltage	Fault or Set Color	Reset Color	Factory Modification Number if Special
MI61M	3	(R) Red	(R) Red	S.+ ID No.
MI 61L	5	(W) White	(W) White	
MI 61LD	6	(Blk) Black	(Blk) Black	
	12	(G) Green	(G) Green	
	24	(Y) Yellow	(Y) Yellow	
	28	(O) Orange	(O) Orange	

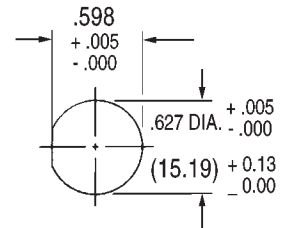
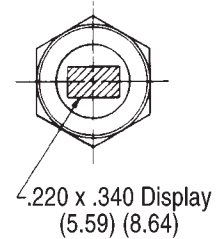
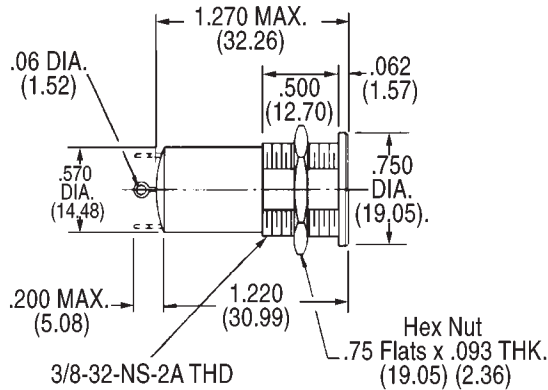
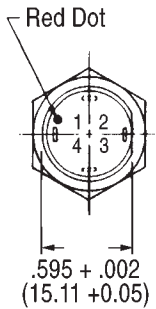


# BITE Indicators

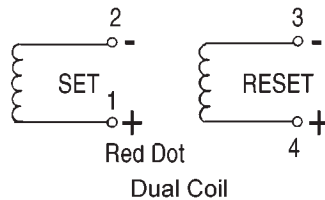
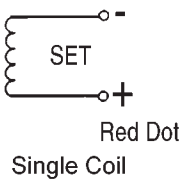
## Latching or Self-Restoring Model MI 61 Series



FLAG INDICATORS



Numbers are for Reference Only.



Panel Cut-out

**NOTE:**

Dimensions in ( ) are mm. Tolerances: Decimals:  $\pm .010$  (0,25), Fractions:  $\pm 1/64$ —All mounting hardware is black anodized aluminum. Mounting Torque: 5-7 in. lbs.



# BITE Indicators

## Model MI 57DA

### FEATURES

- Electrical Reset
- Magnetic Latching
- Positive Identification
- Environmentally Sealed
- Rear Mount



The MI57DA series magnetic latching fault indicator coil is pulsed by a BITE (Built-In Test Equipment) system. The “clover leaf” pattern provides a high contrast visual indication and an effective warning of system faults.

### OPERATION

When the indicator coil is energized with a 40 millisecond (or longer) pulse, the highly visible display disc rotates and latches to the magnetic core. The display disc will remain magnetically latched to the core in the position last pulsed. Even if the fault signal is removed, the indicator will “remember” that a fault had occurred.

Return to the “No-Fault” position is accomplished electronically by pulsing a separate internal coil.

### ELECTRICAL SPECIFICATIONS

Standard Coil Voltages and Resistances

Nominal Voltage DC	Operating Voltage		DC Coil Resistance in Ohms, ±10%
	Min	Max	
3.0	2.4	3.6	9.0
5.0	4.0	6.0	22.0
6.0	4.8	7.2	37.0
12.0	9.6	14.4	145.0
24.0	19.2	28.0	600.0
28.0	22.4	30.0	800.0

**Pulse Power:** One Watt. Nominal

**Pulse Length:** 40 milliseconds, minimum.

**Dielectric Withstanding Voltage:** 500 VAC RMS.

**Insulation Resistance:** 100 megohms minimum at 500 VDC.

### MECHANICAL SPECIFICATIONS

**Case:** Aluminum, black anodized. Gold also available.

**Mounting:** Front panel mount (D-hole or keyed washer).

**Weight:** 10 grams

**Display Colors:** “NO FAULT” is black, “FAULT” is black/ white, as shown. *Other colors available.*

**Leads:** WL - Eight inches of #26 AWG Teflon insulated stranded wire

LT - Solder Loops

TT - Turret Terminals

### ENVIRONMENTAL SPECIFICATIONS

**Operating Temperature Range:** -65°C to +125°C

**Vibrational:**

*Sinusoidal:* .06" D.A. or 20 G Peak, which ever is less, 10 Hz to 2 kHz per MIL STD 202, Method 204, Test Condition D.

*Random:* 11.6 G's per MIL STD 202, Method 214, Test Condition D, Curve 1.

**Shock:** 100 G's - MIL STD 202, Method 213, Test Condition I.

**Moisture Resistance:** (*Humidity*): MIL STD 202, Method 106.

**Thermal Shock:** MIL STD 202, Method 107, Test Condition B.

**Salt Spray:** MIL STD 202, Method 101, Test Condition B.

**Barometric Pressure:** MIL STD 202, Method 105, Test Condition D, with 350 Volts RMS.

**Life:** 100,000 cycles at cycling rate of 10 per minute.

*\*During vibration testing, caution should be taken to shield the indicator from the strong magnetic field.*

**Optional:** RFI panel shielding available.

Covered by U.S. & Foreign Patents.

### ORDERING INFORMATION

When ordering, show model number first, then coil voltage desired, then the color combination desired. If this is a special part, factory assigned modification number will be added at the end of the ordering number.

Example:

Basic model with front panel threaded case for 12 volts with white as set color and black as reset color would be Model MI57DA-12-W/BLK-LT.

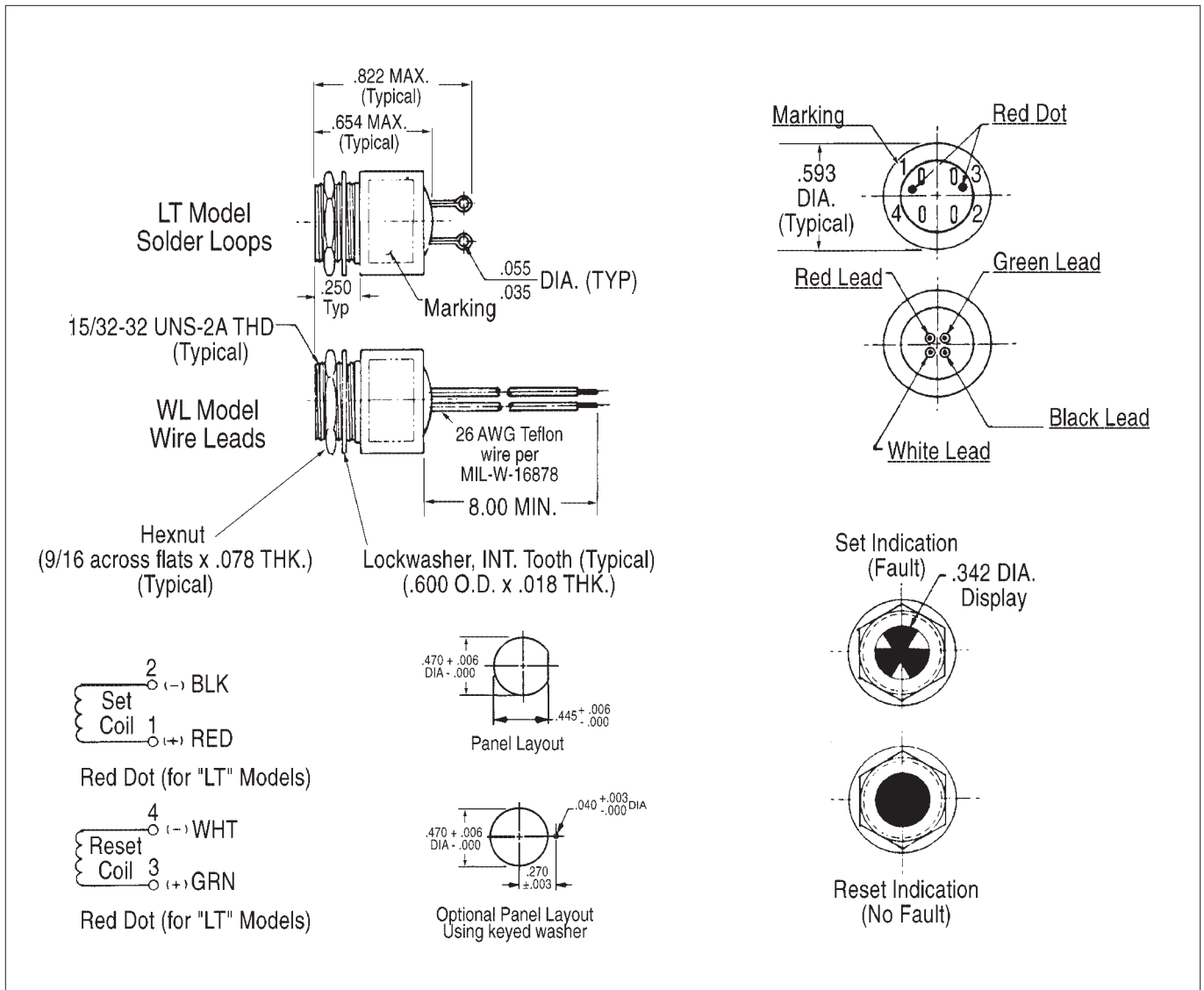
### MI57DA - 12 - W / BLK - LT- S

Basic Model Number	Coil Voltage	Fault or Set Color	No-Fault or Reset Color	Terminal Type	Factory Modification Number if Special
MI57DA	3	W White	BLK Black	LT-Solder Loops	S + ID No.
	5			WL-Wire Leads	
	6			TT-Turret Terminals	
	12				
	24				
	28				



# BITE Indicators

## Model MI 57DA



FLAG INDICATORS

**NOTE:**

Dimensions in ( ) are mm. Tolerances: Decimals: ± .010 (0,25), Fractions: ± 1/64—All mounting hardware is black anodized aluminum. Mounting Torque: 5-7 in. lbs.