

# LOW POWER (50 mW) BITE Indicators

Model MI 51LP

Qualified to MIL-PRF-83287/4\*



## FEATURES

- 50 Milliwatt Sensitivity
- Manual Reset
- Magnetic Latching
- Environmentally Sealed

The MI 51LP is a miniature dual drum magnetic latching indicator featuring a nonvolatile two-drum display, excellent positive indication of a fault condition with superior visibility in high ambient light. It is fully qualified to MIL-PRF-83287 and is designed to monitor electronic systems where space is limited.

## OPERATION

When the indicator coil is energized with a 25 millisecond (or longer) pulse, the highly visible drums spin 180 degrees and latches to the magnetic core. The drums 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.

Reset is accomplished manually by rotating the knurled ring clockwise 60 degrees. The knob returns to its normal position automatically.

\* See page 27 for additional /4 qualified designs.



**communications**  
Electrodynamics, Inc.

## ELECTRICAL SPECIFICATIONS

Standard Coil Voltages and Resistances

Nominal Voltage DC	Operating Voltage		DC Coil Resistance in Ohms, ±10%
	Min	Max	
1.5	1.2	1.8	45
3	2.4	3.6	180
5	4.0	6.0	500
6	4.8	7.2	720
12	9.6	14.4	2,880
24	19.2	28.8	11,500
28	22.4	30.0	15,700

**Pulse Power:** 50 mw.

**Nominal Pulse Length:** 25 milliseconds, minimum.

**Dielectric Withstanding Voltage:** 500 VAC RMS

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

**Electromagnetic Interference and Magnetic Susceptibility:**

Per MIL-PRF-83287. The MI 51LP will not malfunction or false transfer when subjected to a 20 ampere turn field at 400 Hertz.

## MECHANICAL SPECIFICATIONS

**Case:** Black, anodized aluminum.

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

**Weight:** 6.5 grams

**Display Colors:** “NO FAULT” (reset) is black, “FAULT” (set) is white, as shown.

**Terminations:** Solder terminals (turret type), and wire leads standard per MIL-PRF- 83287. *Solder loops also available.*

**Designations are:**

Turret Terminals TT (Standard)

Wire Leads WL (Standard)

Loop Terminals LT (Special)

## ENVIRONMENTAL SPECIFICATIONS

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

**Vibration\*:** .06" D.A. or 15 G Peak, whichever is less, 10 Hz to 2 kHz per MIL STD 202, Method 204, Test Condition B.

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

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

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

**Thermal Shock:** MIL STD 202, Method 105, Test Condition B.

**Salt Spray:** MIL STD 202, Method 105, Test Condition B.

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

During vibration testing caution should be taken to shield the indicator from the strong magnetic field.  
Patent No. 3,465,333

### MI 51LP - 12 - W/BLK - TT - S

Basic Model	Coil Voltage	Fault Color	Terminal Type	Factory Modification Number if Special S + ID No.
MI 51LP	1.5	W/BLK	LT- Loop Terminals	
	3	(White/Black)	WL-Wire Leads	
	5		TT-Turret Terminals	
	6			
	12			
	24			
	28			

**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 for 12 volts with white as set color and black as reset color and Turret terminals would be model MI51LP-12-W/BLK-TT.

# LOW POWER (50 mW) BITE Indicators

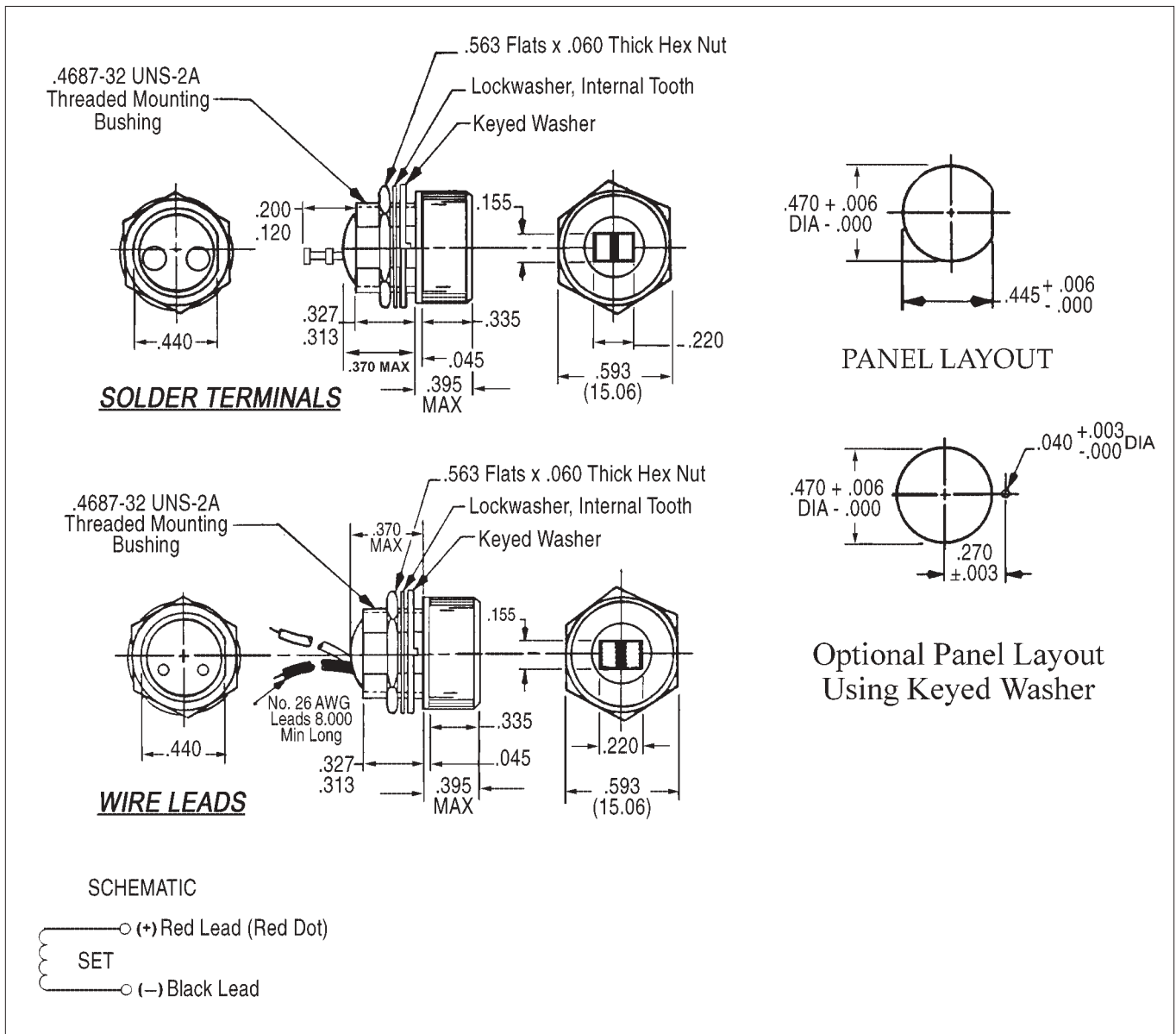
Model MI 51LP

Qualified to MIL-PRF-83287/4 \*



Model MI 51LP

\* See page 27 for additional /4 qualified designs.



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.