

BITE Indicators

Model MI 6I SA Qualified to MIL-PRF-83287/1*

FEATURES

- Manual Reset Return
- Magnetic Latching
- Environmentally Sealed
- Random Vibration Capability

The MI61SA (MIL-PRF-83287/1) series magnetic latching fault indicator displays highly visible dual color internal flag when the indicator coil is pulsed by a BITE (Built-In Test Equipment) system. The “cloverleaf” pattern provides a high contrast visual indication and an effective warning of system results.

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 mechanically by rotating the knurled knob clockwise to 60°. The knob automatically returns to its normal position.

Optional features include insulated lead wire or solder loop termination, non-glare lens, and RFI panel shield. Consult your representative or the factory for details.

* See page 28 for additional /1 qualified designs.



communications
Electrodynamics, Inc.

ELECTRICAL SPECIFICATIONS

Standard Coil Voltages and Resistances

Nominal Voltage DC	Operating Voltage		DC Coil Resistance in Ohms
	Min	Max	
3	2.4	3.6	8.5-18
5	4.0	6.0	22-52.8
6	4.8	7.2	33-77
12	9.6	14.4	130-303
20	16.0	30.0	360-1225
24	19.2	28.8	530-880
28	22.4	30.0	720-1331

Pulse Power: One Watt.

Nominal Pulse Length: 40 milliseconds, minimum.

Dielectric Withstanding Voltage: 500 V RMS.

Insulation Resistance: 100 megohms minimum at 500 VDC.

Electromagnetic Interference and Magnetic Susceptibility:

Per MIL-PRF-83287. MI 6I SA 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: 13 Grams

Display Colors: “NO-FAULT” is black,
“FAULT” is black/white, as shown.

Leads: 8 inches of #26 Teflon Insulated standard wire or Solder loops.

ENVIRONMENTAL SPECIFICATIONS

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

Vibration*:

Sinusoidal: .06" D.A. or 20 G Peak, whichever is less,

10 Hz to 2 kHz per MIL STD 202, Method 204, Test Condition D.

Random: 11.6 G's rms 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.

Altitude: 100,000 ft., MIL STD 202, Method 105, Test Condition D.

Thermal Shock: MIL STD 202, Method 107, Test Condition 13.

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

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

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

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

Patent No. 4,661,813

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 all black for reset (no-fault) color and white for set (fault) color, loop terminals would be Model MI 6I SA -12- W/BLK-LT

Model MI 6I SA - 12 - W / BLK - LT-S

Basic Model Number	Coil Voltage	Fault Color	No Fault Color	Terminal Type	Factory Modification Number if Special S + ID No.
MI 6I SA	3	W/BLK	BLK Black	WL Wire Leads	
	5	White/Black		LT Loop Terminals	
	6				
	12				
	20				
	24				
	28				

BITE Indicators

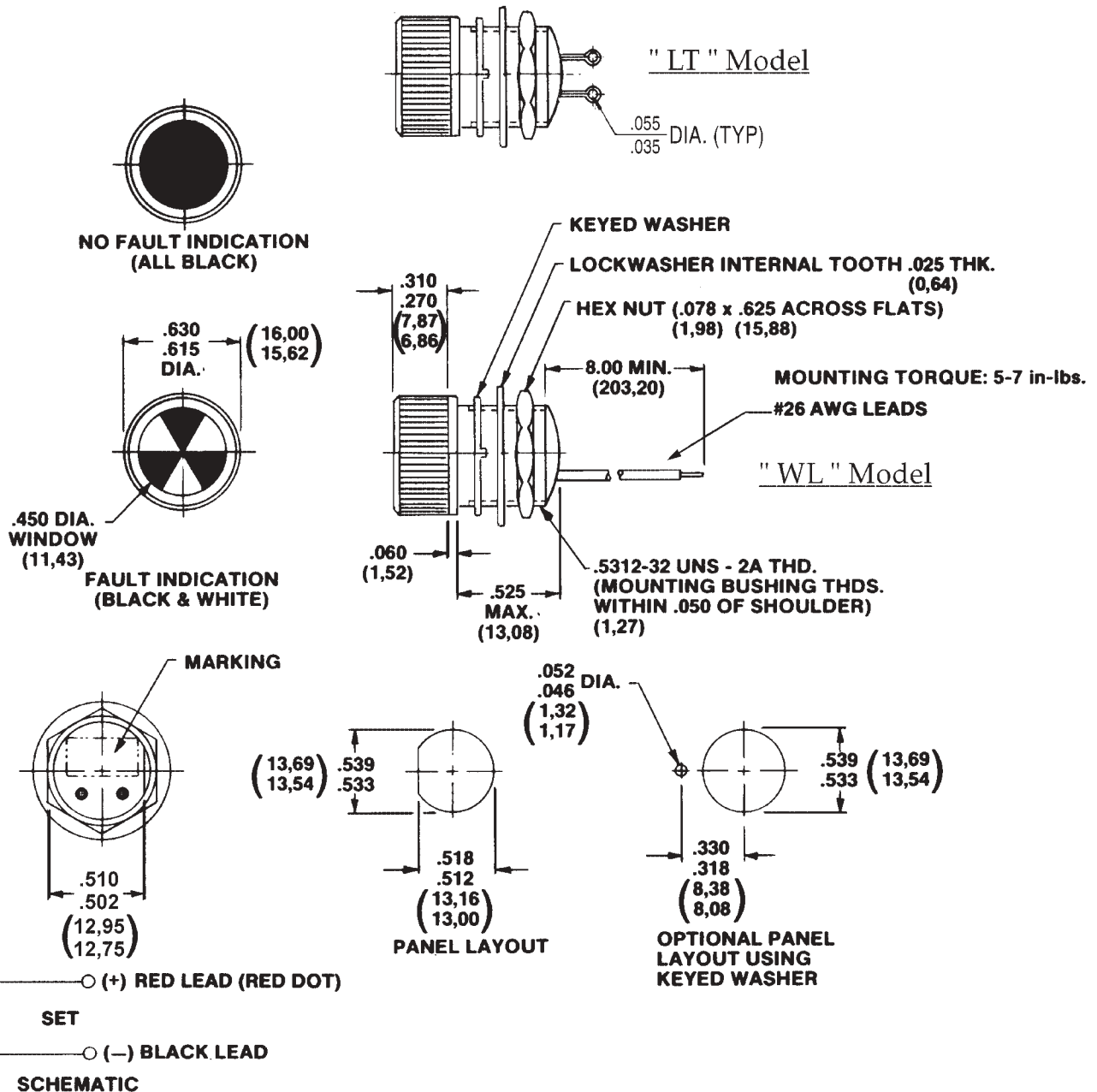
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FLAG INDICATORS

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.