

# MINIATURE LED INDICATOR PANEL MOUNT



## Models ML1620-S & ML1630-S

Designed for use as function indicators on aircraft, test equipment, machine tools, and wherever severe environmental conditions need to be met, especially vibration and EMI.

### FEATURES

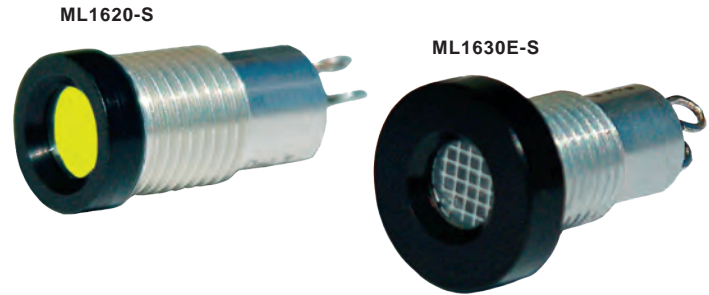
- Performs in severe environments
- Low power use
- High efficiency
- High luminosity
- Rugged construction
- Readily mounted on panel
- Optional EMI screen

### MECHANICAL SPECIFICATIONS

**Case:** Aluminum, black anodized front with conductive clear chromate back

**Mounting:** Front panel by 5/16"-32 nut and lockwasher

**Seal:** Environmentally sealed. Added front Panel O-ring seal for model ML1630.



### ENVIRONMENTAL SPECIFICATIONS

**Vibration:** .06" D.A. or 20 Gs Peak, whichever is less, 10Hz to 2kHz, MIL STD 202, Method 204, Test Condition D

**Shock:** 100 Gs MIL STD 202, Method 213, Test Condition I

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

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

**Reliability:** 3 x 10<sup>6</sup> hours min. MTBF @ 25°C

**Salt Atmosphere (Corrosion):** MIL STD 202, Method 101, Test Condition B

### ELECTRO-OPTICAL CHARACTERISTIC SPECIFICATIONS

Absolute Maximum Ratings @Temp = 25°C			
Color	Red	Yellow	Green
Forward Voltage (VDC) typical @ 20 mA	1.9	2.1	2.2
DC Forward Current (mA DC)	30	30	25
Reverse Voltage (VDC) @ I <sub>R</sub> = 100 µA	5	5	5
Power Dissipation (mW) ①	100	105	105
Luminous Intensity (mcd) typical @ I <sub>F</sub> = 20 mA DC Diffused	250	300	40
Dominant Wave Length (nm) typical	640	588	568
Viewing Angle (2 Ø <sup>1/2</sup> ) typical Diffused	60°		
Operating Temperature (°C)	-40 to +85		
Storage Temperature (°C)	-55 to +100		
Lead Soldering Temperature	260°C for 5 seconds		

**Notes:** ① Power derating: derate linearly from 25°. For Green and Yellow: -1.2mW/°C. For Red: -1.3mW/°C

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## ORDERING INFORMATION

When ordering, show basic part number first, then EMI screen, LED color, and lens type. If this is a special part, a factory assigned modification number will be added at the end of the ordering number. Consult the factory for special configurations.

Example: Basic model with an O-ring panel seal, an EMI screen, a red LED, a diffused lens, and straight leads would be ML1630E-SR-D-ST.

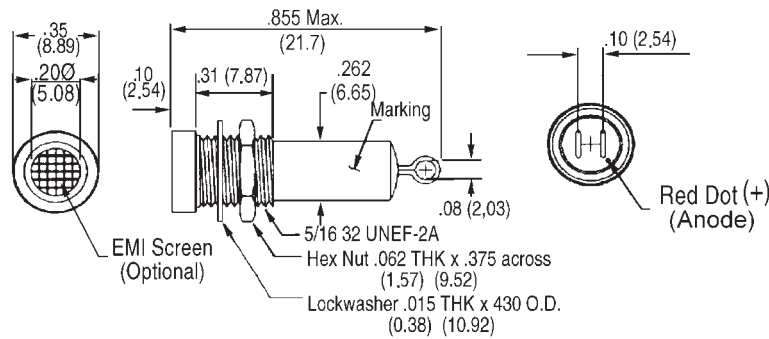
ML1630E - SR - D - ST - ( ) - ( )

Standard factory options are designated by "-Sxxx"

Basic Model Number	EMI Screen	LED Color	Lens Type	Terminal Style	Internal Resistor
ML1620 (w/o O-ring)	( ) None	SR Red	ND Non-diffused	ST Straight Leads	( ) No Resistor
ML1630 (with O-ring)	E Screen	SY Yellow SG Green	D Diffused	LT Loop Terminals	5 5V* 12 12V* 14 14V* 24 24V* 28 28V*

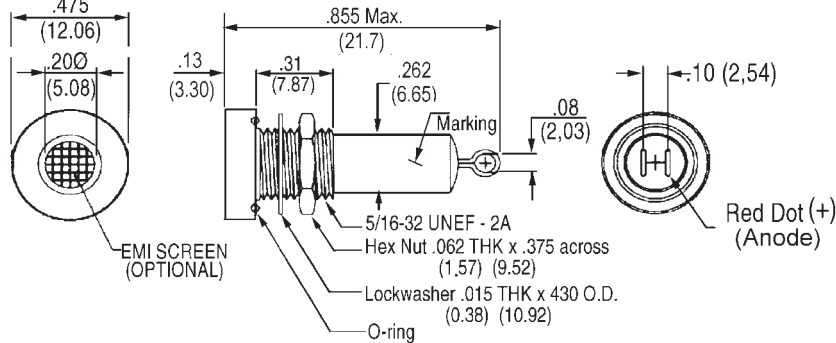
\*Operating temperature for internal resistor option is -40°C to +85°C

Case Length without Internal Resistor

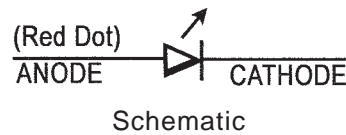


ML1620-S

Case Length without Internal Resistor



Recommended  
Mounting Hole



ML1630-S

NOTE: Dimensions in ( ) are mm. Tolerances: Decimals: ± .010 (0.25)  
Fractions: ± 1/64 Mounting Torque: 5-7 in. lbs.

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