

# LED INDICATOR

## NVIS COMPATIBLE THREE LEAD BI-COLOR REAR-MOUNT



### Model ML1638 Bi-Color 3-Leaded

The ML1638 Bi-Color status indicator was designed to meet the requirements of MIL-L-85762A and MIL-STD-3009. This solid-state LED indicator has an infrared blocking lens that is compatible with NVIS environments. It is a rear-mount indicator and comes complete with O-ring and mounting hardware.

#### FEATURES

- Designed to meet MIL-L-85762A and MIL-STD-3009 lighting, aircraft, interior night vision imaging system (NVIS) compatible
- Environmentally sealed
- Panel mount seal
- Colors: red/green
- Compact case design
- Decorative bezel
- Optional EMI screen

#### MECHANICAL SPECIFICATIONS

**Case:** Aluminum, black anodized, standard. Clear chromate case with EMI screen option.

**Mounting:** Rear-mount by 5/16"-32 nut and lockwasher

**O-ring:** Fluorosilicone rubber

ML1638E Bi-Color



Case with EMI Screen

#### 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	NVIS Red	NVIS Green B
Forward Voltage (VDC) typical @ 20 mA	2.0	2.2
DC Forward Current (mA)	30	25
Reverse Voltage @ I <sub>R</sub> = 100 μA	5	5
Power Dissipation (mW) typical ①	120	120
Luminous Intensity (mcd) typical @ I <sub>F</sub> = 20 mA Diffused	12	1
Chromaticity per MIL-L-85762A & MIL-STD-3009	NVIS Red	NVIS Green B
Dominant Wave Length (nm) typical	600	558
NVIS Radiance per MIL-L-85762A & MIL-STD-3009	NR <sub>B</sub> 1.4 x 10 <sup>7</sup> @ 15 fL	NR <sub>A</sub> 1.7 x 10 <sup>-10</sup> @ 0.1 fL NR <sub>B</sub> 1.7 x 10 <sup>-10</sup> @ 0.1 fL
Viewing Angle (2 Ø <sup>1/2</sup> ) typical Diffused	60°	
Operating Temperature (°C)	-40 to +85	
Storage Temperature (°C)	-55 to +100	

**Notes:** ① Derate linearly from 25°C at ~1.2 mW per °C

This page consists of basic marketing information that is not defined as technical data under FAR Part 772.

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### ORDERING INFORMATION

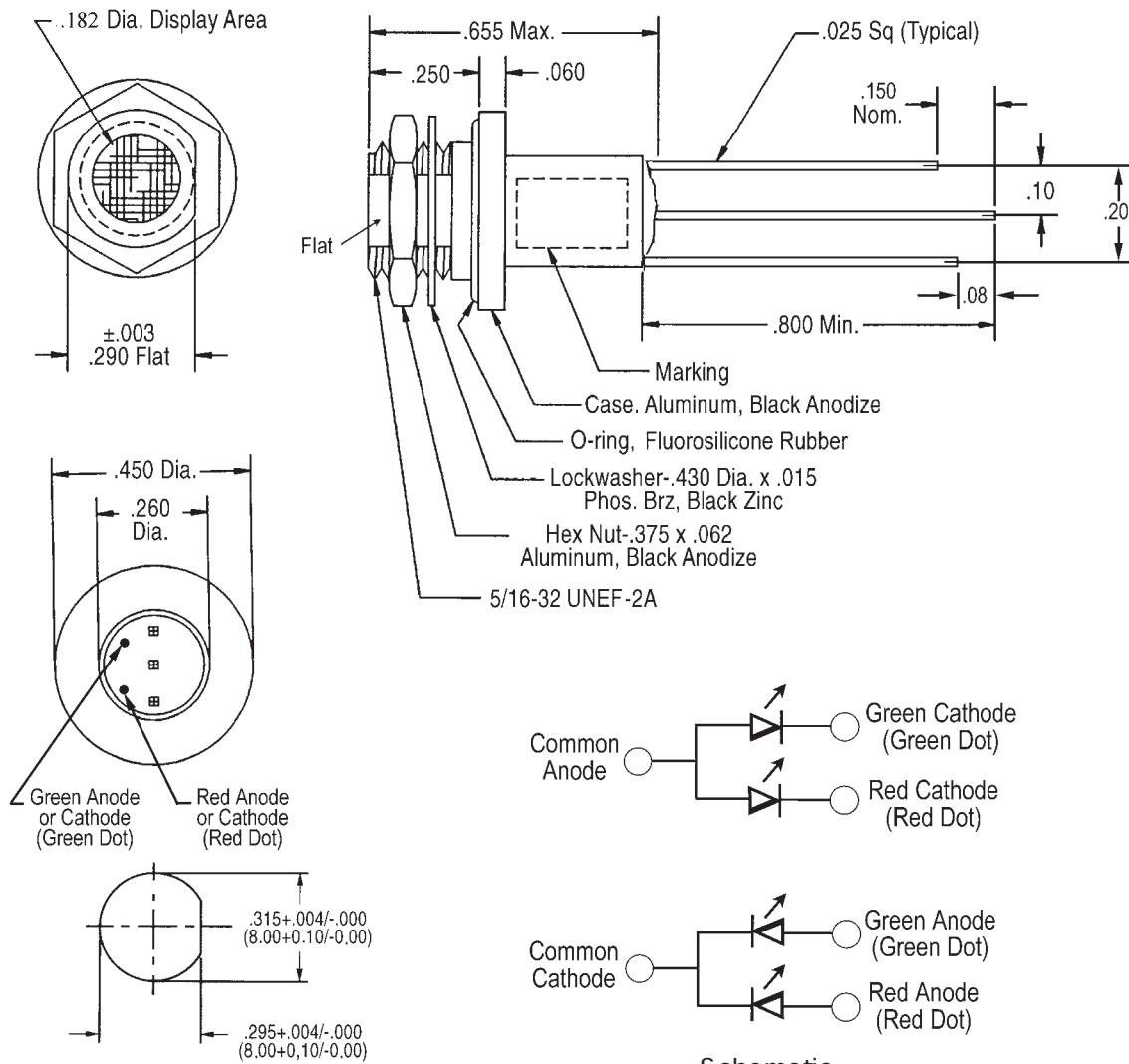
When ordering, show model number first, followed by EMI screen, LED color, common type, lens type, and terminal style. If this is a special part, a factory assigned modification number will be added at the end of the ordering number. Consult the factory for special configurations.

Example: Basic model with EMI screen, NVIS Red/Green Bi-Color LED, Anode Common, diffused lens, and straight leads would be ML1638E-R/G-CA-D-ST.

**ML1638E - R/G - CA - D - ST - ( )**

Standard factory options are designated by "-Sxxx"

Basic Model Number	EMI Screen	LED Color	Common Lead	Lens Type	Terminal Style
ML1638	( ) None E Screen	R/G Red/Green	CA Anode CC Cathode	D Diffused	ST Straight Leads LT Loop Terminals



ML1638 Bi-Color

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

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