

NVIS Compatible Rear-Mount LED Indicator

ML1638



communications
Electrodynamics, Inc.

The ML1638 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, Yellow & Green
- Compact Case Design
- Decorative Bezel
- Optional EMI Screen

ENVIRONMENTAL SPECIFICATIONS

Vibration: .06 D.A. or 20G PK, whichever is less, 10 HZ to 2 kHz, MIL STD 202, Method 204, Test Condition D.

Shock: 100 G's 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 10⁶ hours min. MTBF 25°C

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

MECHANICAL SPECIFICATIONS

Case: Aluminum, black anodized, standard.

Clear chromate case with EMI screen optional.

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

O-Ring: Fluorosilicone rubber

ELECTRO-OPTICAL CHARACTERISTIC SPECIFICATIONS

Absolute Maximum Ratings @Temp = 25°C

Color	NVIS Red	NVIS Yellow	NVIS Green B
Forward Voltage (VDC) typical @ 20mA	2.0	2.0	2.1
DC Forward Current (mA) ①	50	20	50
Reverse Voltage @ I _R = 100 μA	4	5	4
Power Dissipation (mW) typical	120	85	120
Luminous Intensity (mcd)			
@ I _F = 20 mA typical	200	3.0	20
Non Diffused	100	1.8	10
Diffused			
Chromaticity Per MIL-L-85762A & MIL-STD-3009	NVIS Red	NVIS Yellow	NVIS Green B
Dominant Wave Length (nm) typical	605	585	558
NVIS Radiance Per MIL-L-85762A & MIL-STD-3009			
	NR _B 1.4 x 10 ⁻⁷ @ 15 fL	NR _A 1.5 x 10 ⁻⁷ @ 15 fL NR _B 1.4 x 10 ⁻⁷ @ 15 fL	NR _A 1.7 x 10 ⁻¹⁰ @ 0.1 fL NR _B 1.7 x 10 ⁻¹⁰ @ 0.1 fL
Viewing Angle (2 Ø ^{1/2}) typical			
Non Diffused	30° x 50°	32°	32°
Diffused	50°	50°	50°
Operating Temperature (°C)	-40 to +100	-55 to +100	-40 to +100
Storage Temperature (°C)	-55 to +100	-55 to +100	-55 to +100

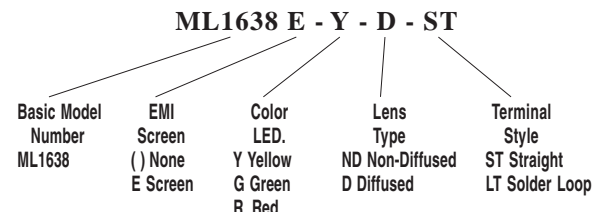
① DC Forward Current Derating. Yellow indicators, derate linearly from 50°C at 0.2 mA per °C. Green & Red indicators, derate linearly from 50°C at 0.5 mA per °C.

ORDERING INFORMATION

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

Consult factory for special configurations.

Example: Basic model, with an EMI screen, NVIS yellow LED, diffused lens, and straight leads would be ML1638 E-Y-D-ST.



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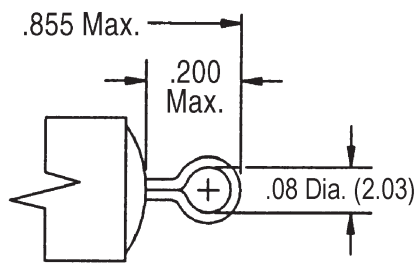
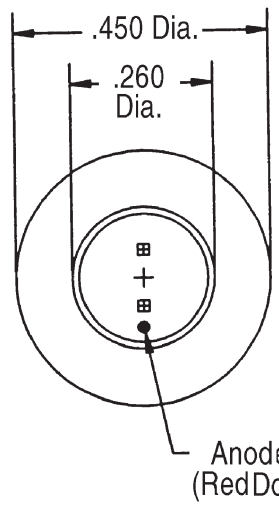
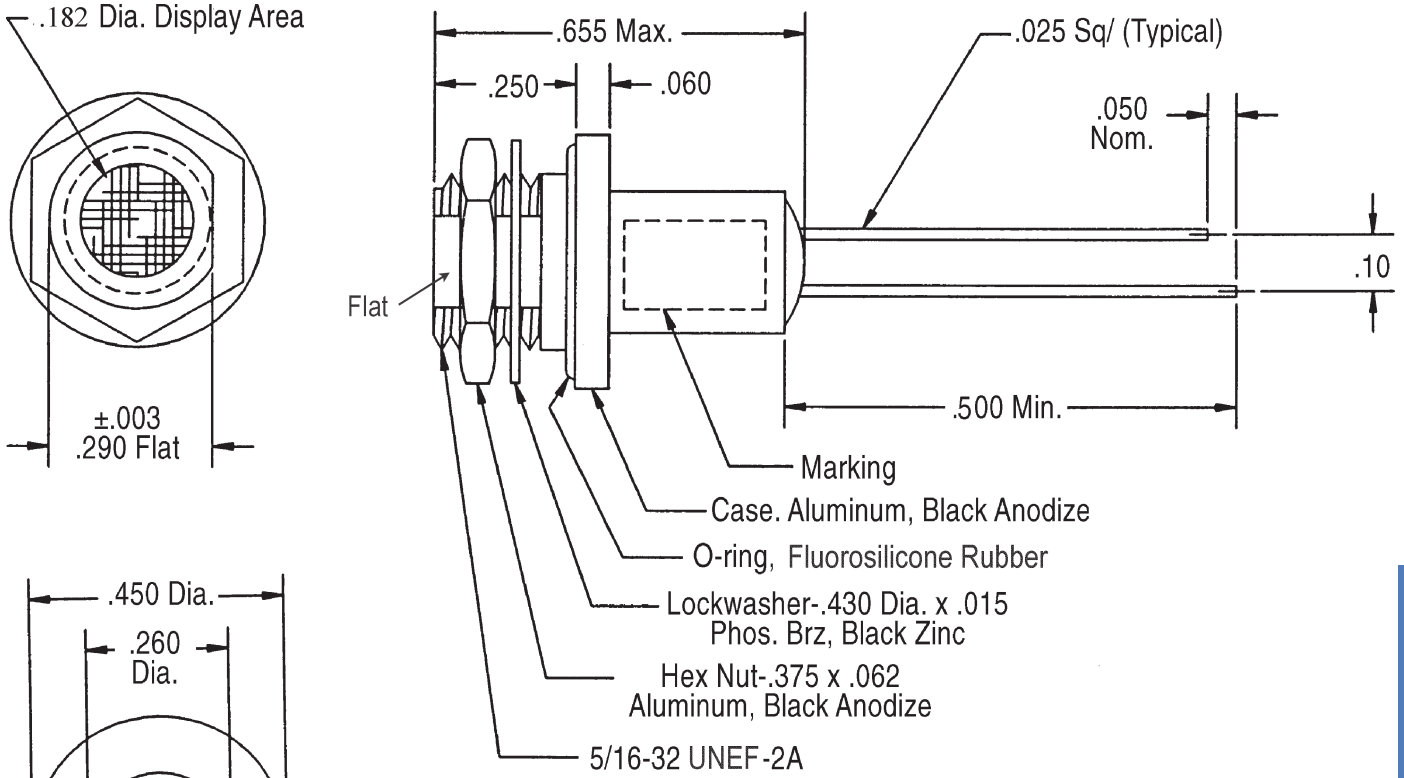
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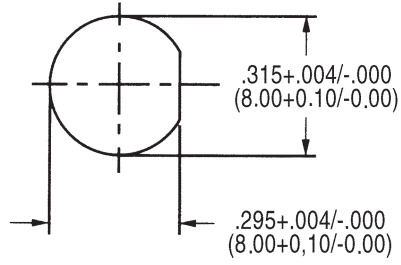
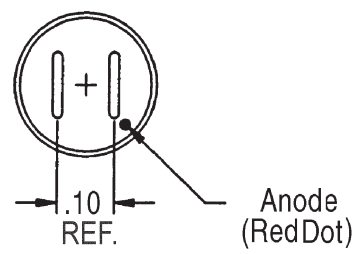
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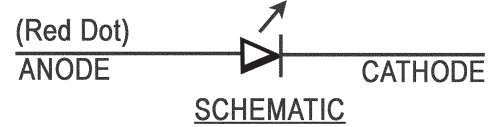
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Solder Loop Terminal



Recommended Mounting Hole



NOTE: Dimensions in () are mm. Tolerances: Decimals: ± .010 (0,25) Fractions: ± 1/64 Mounting Torque: 5-7 in. lbs.
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LED INDICATORS