

LED Status Indicator Series

Solid Front LED Indicator

Provides water tight panel seal

ML 2030E



FEATURES

- O-Ring Panel Seal
- Dual Finish Case
- EMI Screen Standard
- Performs in Severe Environments
- Low Power Use
- Sunlight Readable
- Rugged Construction
- Custom Configurations Available including Bi Color LED and NVIS compatible filtering

Designed for use where a watertight panel seal is required for system performance. Can be used as a function indicator on aircraft avionics systems, test equipment, medical equipment, machine tools, and wherever severe environmental conditions are present.

Environmental Specifications

Vibration: .06" D.A. or 20 G's Peak, 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.

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

Reliability: Operational 6×10^6 hours min. MTBF @ 25 °C

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

Mechanical Specifications

Case: Aluminum, black anodized front bezel with conductive clear chromate body.

Mounting: Front panel mount with 5/16-32" nut and lock washer.

Seal: Environmentally sealed case.

O-Ring: Fluoro-silicone rubber

ELECTRO-OPTICAL CHARACTERISTIC SPECIFICATIONS

Absolute Maximum Ratings

Color		Red	Yellow	Green
Forward Voltage (VDC)		1.9	2.0	2.1
Peak Forward Current (mA DC)		90	60	90
DC Forward Current (mA DC)*		30	20	30
Reverse Voltage (VDC) @ $I_R = 100 \mu A$		5	5	5
Power Dissipation (mW)		135	85	135
Luminous Intensity (mcd) typical @ $I_f = 10 \text{ mA DC}$	Non-diffused	2	2	2
	Diffused	8	8	8
Dominant Wave Length (nm) typical		626	585	569
Viewing Angle ($2 \theta^{1/2}$) typical	Non-diffused	30°	30°	30°
	Diffused	60°	60°	60°
Operating Temperature (°C)		-55 to +100	-55 to +100	-20 to +100
Storage Temperature (°C)		-55 to +100	-55 to +100	-55 to +100
Lead Soldering Temperature		260 °C for 5 seconds		

* For red and green, derate linearly from 50°C @ 0.5 mA/°C. For yellow derate linearly from 50°C @ 0.2 mA/°C

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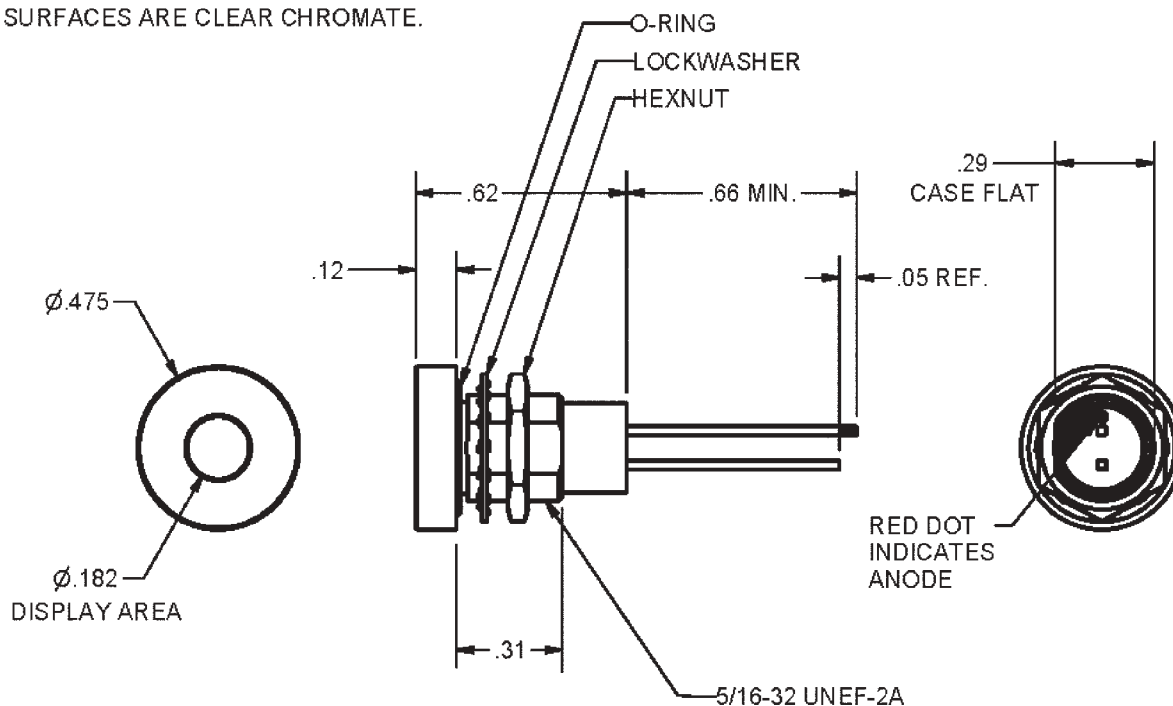
ML 2030E



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NOTE:

Ø .475 AND FRONT SURFACE OF FLANGE IS BLACK ANODIZED.
ALL OTHER SURFACES ARE CLEAR CHROMATE.



ML 2030E SERIES, SOLID FRONT

NOTE:

Dimensions in inches.

Tolerances: ± .010 for two-place decimals;
± .005 for three-place decimals.

ORDERING INFORMATION

When ordering, show basic part number first, LED color, lens type, and terminals. If this part requires customization, a special factory assigned modification number will be assigned to the end of the ordering number.

Example: Basic model with a red LED, a diffused lens, and straight leads would be ML 2030E-R-D-LT

ML 2030E - R - D - LT - S ()

Basic Model Number	LED. Color	Lens Type	Terminal Style	Factory Modification Number if Special
ML 2030E	R Red Y Yellow G Green	ND Non-Diffused D Diffused	ST Straight Leads LT Solder Loops	S.+ ID No.

LED INDICATORS