

Miniature Panel Mount LED Indicator

ML 1620/ML 1630

FEATURES

- Performs in Severe Environments
- Low Power Use
- Long Life
- High Efficiency
- High Luminosity
- Rugged Construction
- Readily Mounted on Panel
- Optional EMI Screen
- Optional Internal Resistor



communications
Electrodynamics, Inc.

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.

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 202, Method 105, Test Condition D.

Reliability: Operational 6 x 10⁶ hours min. MTBF @ 25 C°

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

Mechanical Specification

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 ML 1630.

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 µA	5	5	5
Power Dissipation (mW)	135	85	135
Luminous Intensity (mcd) typical			
@ I _F = 20 mA DC	20	20	10.6
Non-diffused	8	8	8
Diffused			
Dominant Wave Length (nm) typical	626	585	569
Viewing Angle (2 Ø ^{1/2}) typical	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

ORDERING INFORMATION

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

Example: Basic model with an O-Ring panel seal, an EMI screen, a red LED, a diffused lens, straight leads and no internal resistor would be ML 1630-R-D-LT

ML 1630 E - R - D - LT - () - S ()

Basic Model Number	EMI Screen	LED Color	Lens Type	Terminal Style	Voltage Level	Factory Modification Number if Special
ML 1620 (w/o O-Ring)	() None E Screen	R Red Y Yellow G Green	ND Non-Diffused D Diffused	ST Straight Lead LT Loop Terminals	() no resistor 5 5V 14 14V 24 24V 28 28V	S+ ID No.
ML 1630 (w/ O-Ring)						

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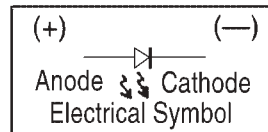
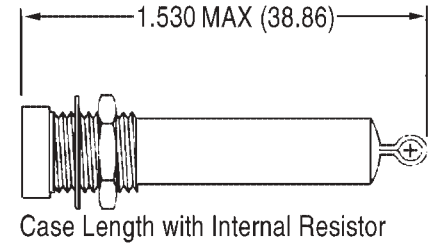
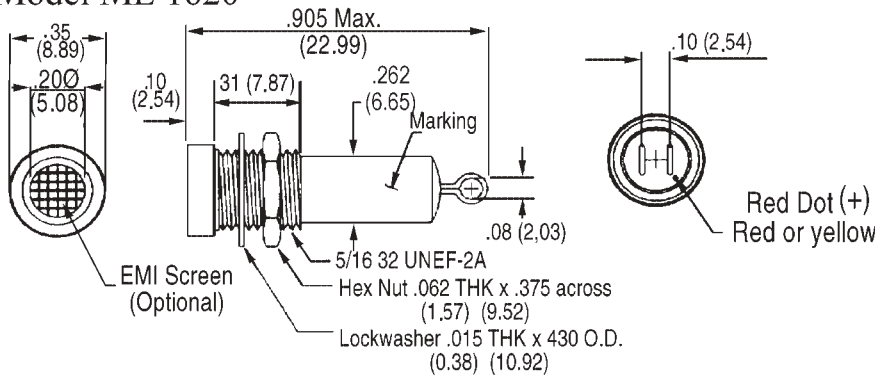


ML 1630

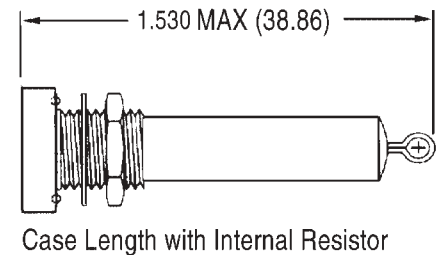
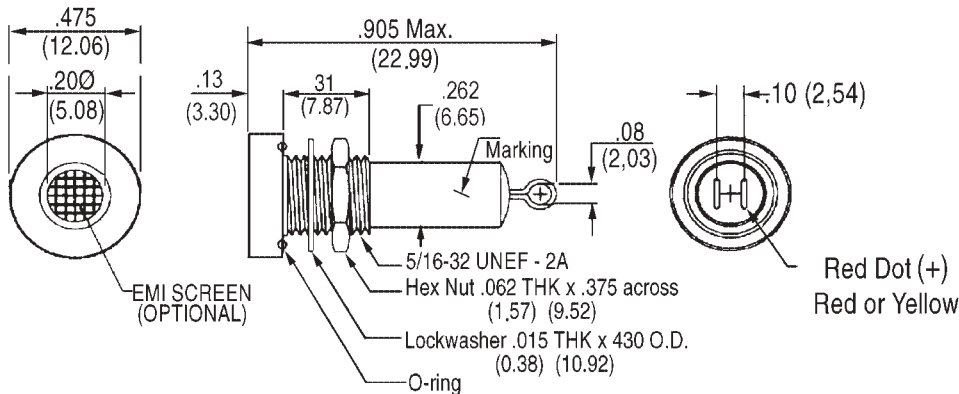


ML 1620

Model ML 1620



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NOTE:

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

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