

19MM PANEL SEALED METAL ELECTRO-MECHANICAL

Built on the proven series 48 platform these rugged switches come in stainless steel or chrome plated housings with either momentary or maintained action and lighted or unlighted versions. The variety of options in this compact package size make the 48M ideal for many applications

Series 48M-EM



ACTUAL SIZE

APPLICATIONS

- Outdoor Controls
- Security Equipment
- Medical Equipment
- Food Processing Equipment
- Military Equipment
- Industrial Machinery
- Transportation: Mass-Transit, Lift Trucks

KEY FEATURES:

- Momentary or Maintained Action
- Stainless Steel Housing
- Center Spot or Ring Illumination
- Variety of LED colors
- Electro-Mechanical
- Panel Sealed to IP67
- ROHS Compliant
- Gold Plated Contact and Terminals

ORDERING INFORMATION:

SWITCH FUNCTION:	HOUSING MATERIAL:	ILLUMINATION †:	LED COLOR:	VOLTAGE RESISTOR
1. MECHANICAL, MOMENTARY, SOLDER TERMINAL	1. STAINLESS STEEL	0. NON-LIT	N. NONE	IF BLANK *
2. MECHANICAL, MAINTAINED, SOLDER TERMINAL	2. ZINC ALLOY CHROME PLATED	1. CENTER SPOT ILLUMINATION	G. GREEN L.E.D.	05 5V FORWARD
5. MECHANICAL, MOMENTARY, PC TERMINAL		2. RING ILLUMINATION	R. RED L.E.D.	12 12V FORWARD **
6. MECHANICAL, MAINTAINED, PC TERMINAL		3. ILLUMINATED POWER SYMBOL	A. AMBER L.E.D.	24 24V FORWARD **
A. MECHANICAL, MOMENTARY, WIRE LEADS			B. BLUE L.E.D.	
B. MECHANICAL, MAINTAINED, WIRE LEADS			W. WHITE L.E.D.	
9. SPECIAL, DIGITS ARE IN SERIAL ORDER			RB. RED/BLUE L.E.D.	
			RG. RED/GREEN L.E.D.	

† Lighted switches come with wires on LEDs to protect from solder heat.

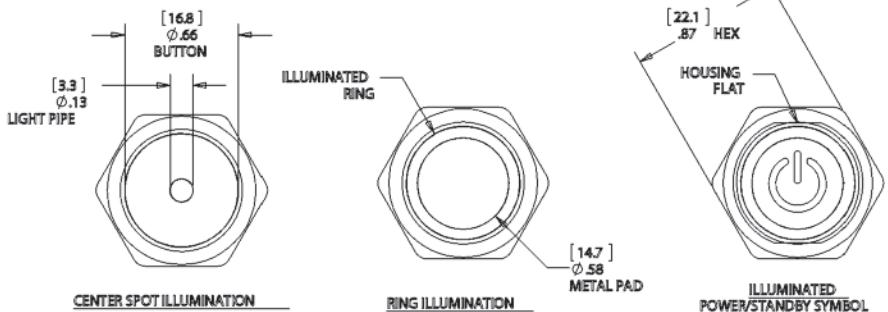
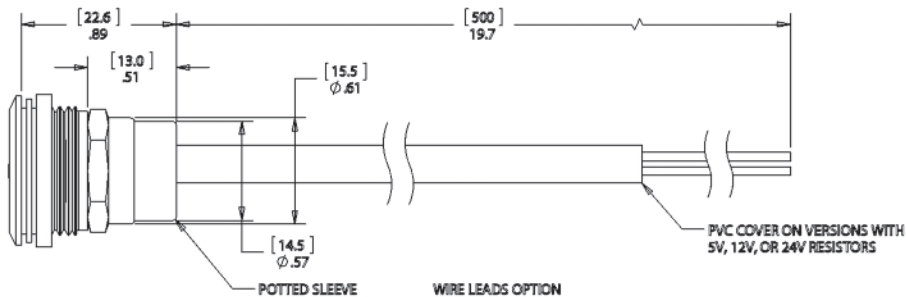
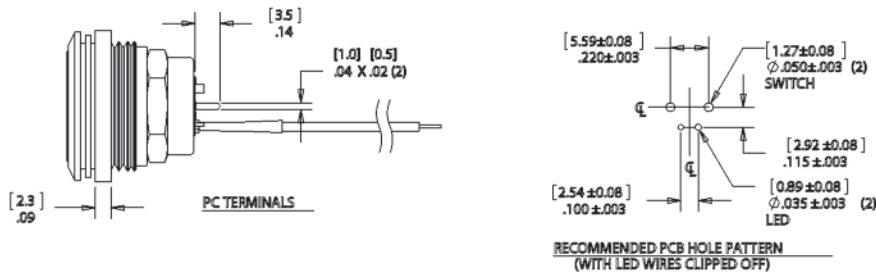
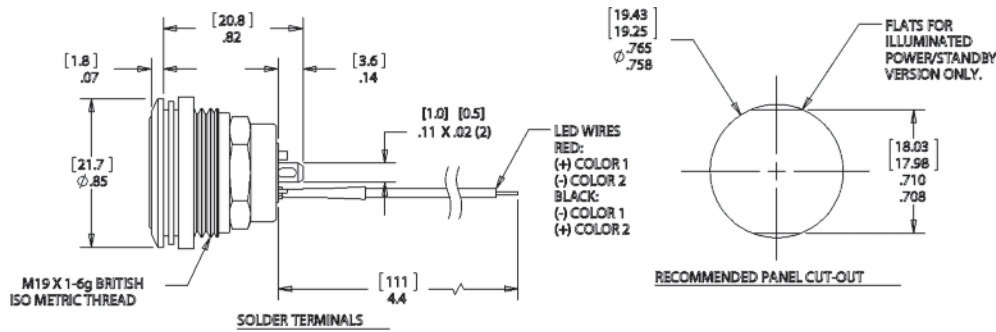
* Current limiting resistor is required to limit LED forward current to 20 mA (not included).

** 12 and 24 V resistors are available with wirelead versions only.

STANDARDS / AGENCY / RATINGS:



PRODUCT DRAWINGS



[MILLIMETERS]
[INCHES]

MECHANICAL CHARACTERISTICS

CIRCUIT:

SPST-NO-DB (FORM X)

BUTTON TRAVEL (NOM):

[2.3] .09

OPERATING FORCE (NOM):

[3N] 306g

CONTACT BOUNCE (NOM):

1 ms

PANEL THICKNESS:

[0.5 to 4.5] .02 to .18

NUT TORQUE (MAX):

[11.5 kgf/cm] 10 lb/in

HARDWARE:

BULK PACKAGED SEALING WASHER AND HEX NUT ARE INCLUDED.

ENVIRONMENTAL SPECIFICATIONS

ACTUATOR INGRESS

PROTECTION:

IP67

OPERATING TEMPERATURE:

NON-LIT: [-40 C to +85 C]

-40 F to +185 F

ILLUMINATED: [-25 C to +85 C]

-13 F to +185 F

ELECTRICAL SPECIFICATIONS

CURRENT RATING (resistive):

250mA @ 12VDC, 100K CYCLES

150mA @ 28VDC, 150K CYCLES (MOMENTARY)

100mA @ 48VDC, 100K CYCLES

10mA @ 12VDC, 1 MILLION CYCLES (MOMENTARY)

DIELECTRIC STRENGTH:

1,000 VAC

INSULATION RESISTANCE:

1G OHM

CONTACT RESISTANCE:

50m OHMS

WIRE LEADS:

UL STYLE 1007

26 AWG, STRANDED

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ITW Switches:

[48M110N](#) [48M210N](#) [48M111G](#) [48M211R](#) [48M211B](#) [48M211G](#) [48M211W](#) [48M112A](#) [48M212R](#) [48M212B](#) [48-M-113W](#) [48-M-113B](#) [48M-A12RG24](#) [48M213G](#)