

12MM MINIATURE SEALED ELECTRO-MECHANICAL

This rugged multi-option sealed pushbutton series offers the utmost in choices of mounting styles, colors, terminations, bezels, lighting and momentary or alternate-action switching. The Series 48 offers all these options in one compact package size.

Series 48-EM



ACTUAL SIZE

APPLICATIONS:

- Office equipment
- Medical equipment
- Industrial machinery
- Outdoor controls
- Mass transportation
- Food processing equipment

KEY FEATURES:

- Momentary or maintained action
- Gold contacts
- Many button colors
- Choice of LED colors (or non-lighted versions)
- Long life
- Solder, PC terminals or Wireleads
- Panel sealed to IP 67
- Metal, Plastic bezel / housing
- Raised button
- Snap action in SA series

ORDERING INFORMATION:

Series:	Module Type:	Switch Function:	Switch Termination:	Bezel Type:	Led [#]	Button [®] Color:	Mounting Type:	Voltage Resistor:
48 Gold Contact IP67	1	Momentary	Solder	Plastic Bezel:	N None	RD Red	B Bushing	If Blank*
	2	Maintained	Solder	RB Round, Black	R Red	GR Green	S Snap-fit	05 5V
	5	Momentary	PC	SB Square, Black	G Green	BK Black		Forward
	6	Maintained	PC		Y Yellow	BL Blue		12 12V
	A	Momentary	Wire Leads		A Amber	YL Yellow		Forward
	B	Maintained	Wire Leads		B Blue	OR Orange		24 24V
					W White	WH White		Forward

[#]Lighted switches come with wires on LEDs to protect from solder heat.

^{\$} Metal Bezel only for Momentary.

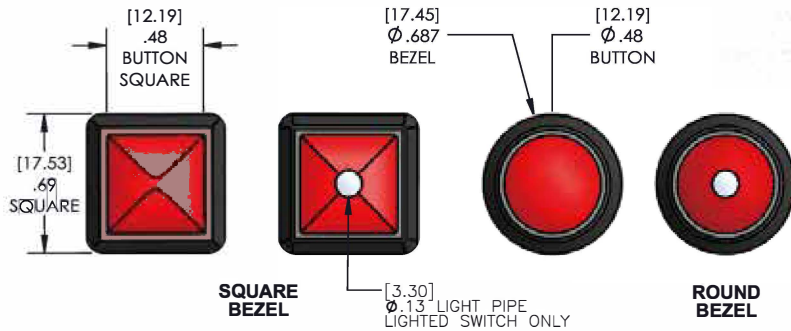
* Current limiting resistor is required to limit LED forward current to 20 mA (not included).

STANDARDS / AGENCY / RATINGS:

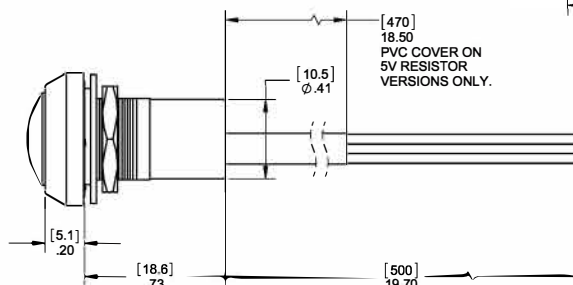
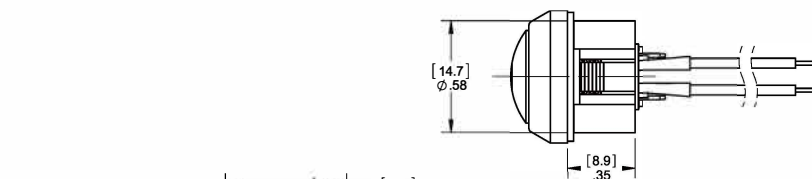
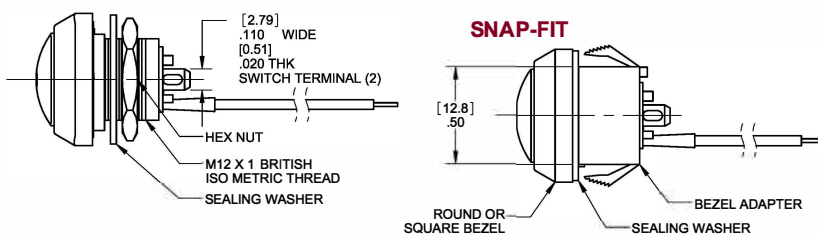
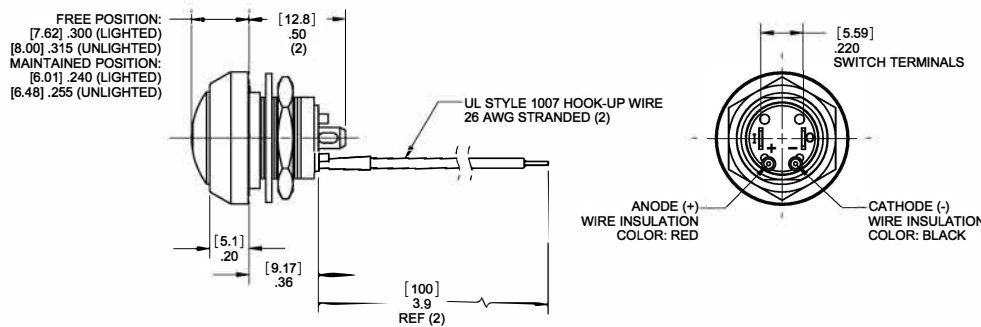


SERIES 48: 12MM MINIATURE SEALED ELECTRO-MECHANICAL

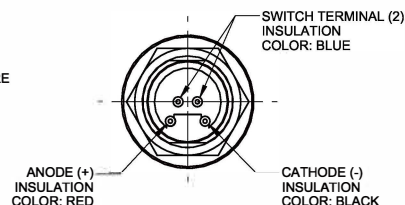
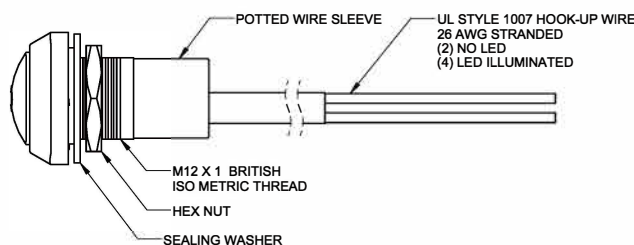
PRODUCT DRAWINGS



48 SERIES



WIRELEADS



MECHANICAL CHARACTERISTICS

SPST-NO-DB (FORM X)
BUTTON TRAVEL (NOM):
 [2.3] .09
OPERATING FORCE (NOM):
 [3N] 306g
CONTACT BOUNCE (NOM):
 1 ms
PANEL THICKNESS:
 BUSHING MOUNTING: [0.5-3.0]
 .02-.12
 SNAP-FIT MOUNTING: [1.3-3.0]
 .05-.12

NUT TORQUE (MAX):
 [6 kgf-cm] 5.2 lb-in
HARDWARE
 BUSHING MOUNTING: BULK
 PACKAGED SEALING WASHER
 AND HEX NUT ARE INCLUDED.

ENVIRONMENTAL SPECIFICATIONS

ACTUATOR INGRESS PROTECTION:
 IP67
OPERATING TEMPERATURE:
 [-40°C to +85°C] -40°F to +185°F

ELECTRICAL SPECIFICATIONS

CURRENT RATING (resistive):
48 (Momentary)
 250mA @ 12VDC, 100K CYCLES
 150mA @ 28VDC, 150K CYCLES
 100mA @ 48VDC, 100K CYCLES
 10mA @ 12VDC, 1 MILLION CYCLES

48 (Maintained)
 50K CYCLES NOMINAL

DIELECTRIC STRENGTH:
 1,000 VAC
INSULATION RESISTANCE:
 1G OHM

CONTACT RESISTANCE:
 50m OHMS
WIRE LEADS:
 UL STYLE 1007
 26 AWG, STRANDED