Series H48M

19MM PANEL SEALED 10 AMP METAL PUSHBUTTONS

These rugged electromechanical pushbuttons are available in stainless steel or zinc alloy housings and come in momentary or maintained action. Lighting options include center spot, or ring illumination. This 19mm size make the H48M ideal for many applications in the transportation, security, food processing and medical markets.

APPLICATIONS

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

ACTUAL SIZE

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
- 16-4044 & 16-530004 (UL and CSA Certified): SPDT Form Z, Silver contacts

ORDERING INFORMATION:

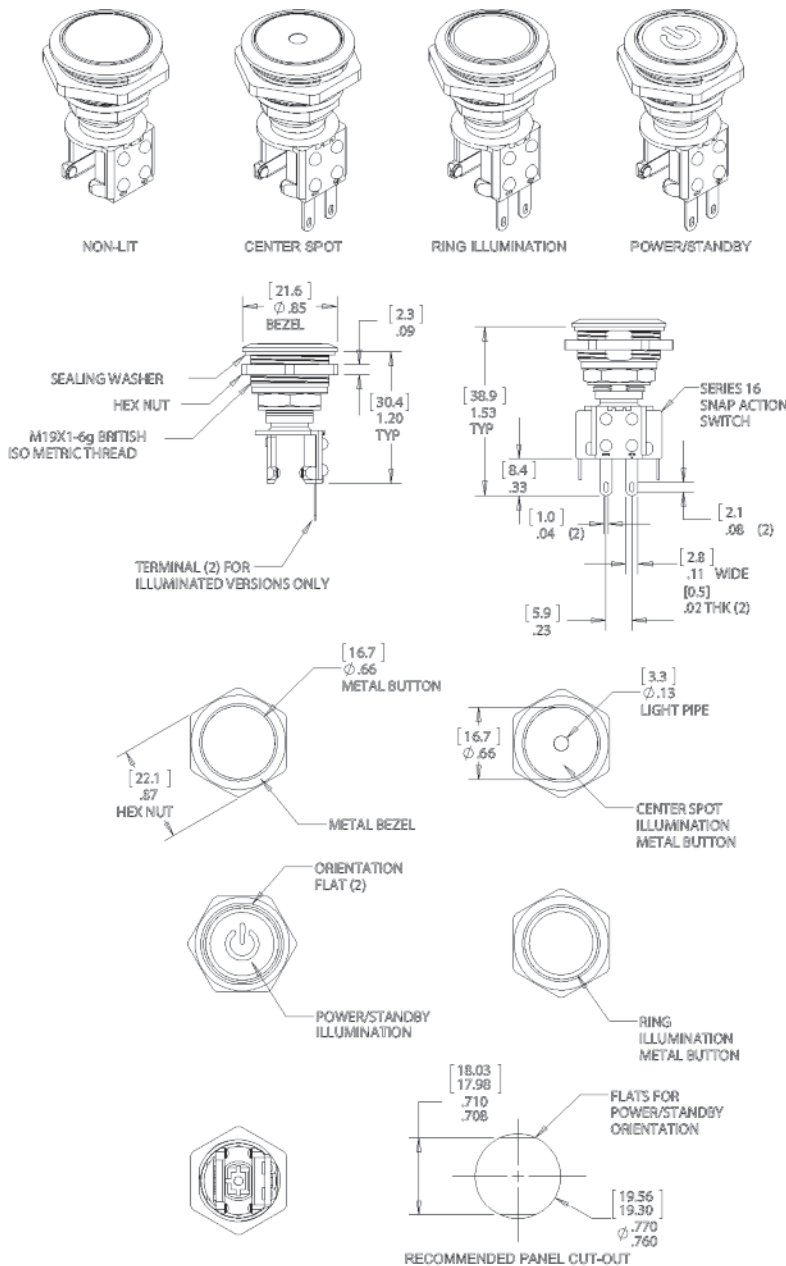| SWITCH FUNCTION:	HOUSING MATERIAL:	BUTTON STYLE:	LED COLOR:	VOLTAGE RESISTOR	SERIES 16 SWITCH
1 MECHANICAL, MOMENTARY	**1** STAINLESS STEEL	**0** NON-LIT	**N** NONE	IF BLANK *	**/4044** BOTTOM SOLDER TERMINALS
2 MECHANICAL, MAINTAINED	**2** ZINC ALLOY VELOUR CHROME PLATED	**1** CENTER SPOT	**G** GREEN	**05** 5V FORWARD	**/530004** BOTTOM QC .110 TERMINALS
		2 RING ILLUMINATION	**R** RED	**12** 12V FORWARD	
		3 STANDBY / POWER	**A** AMBER	**24** 24V FORWARD	
			B BLUE		
			W WHITE		
			Y YELLOW		
			RB RED / BLUE		
			RG RED / GREEN		

H48M-

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

LED forward voltage:
– Red, Amber & Yellow: 2 V
– Green, Blue & White: 3.4 V

STANDARDS / AGENCY / RATINGS:

MECHANICAL / ELECTRICAL CHARACTERISTICS:

Circuit:
SPDT-DB (Form Z)

Button travel (nominal):
0.09 inches (2.3 mm)

Operating force (nominal):
5.2N (520 grams)

Contact bounce (nominal):
1 millisecond

Panel thickness:
0.020"– 0.177" (0.5 – 4.5 mm)

Temperature index:
-40° C to +85° C (momentary)
-40° C to +65° C (maintained)

Torque (max):
10 inch pounds

LED operating temperature:
-13° F to +185° F
(-25° C to +85° C)

Current ratings:
10A @ 125/250 VAC (res)
10A @ 28 VDC (ind)

Actuator life (nominal):
500,000 cycles (momentary)
50,000 cycles (maintained)

ELECTRO-MECHANICAL

Dielectric strength:
1,000 VAC

Insulation resistance:
1 GΩ

Contact resistance:
50 mΩ max (initial)

PRODUCT DRAWINGS

NON-LIT   CENTER SPOT   RING ILLUMINATION   POWER/STANDBY

LED SPECIFICATIONS

LED CODE	LED		CIRCUITRY	Vf (VDC)		If (mA)
	Color 1	Color 2		Color 1	Color 2	
A	AMBER	-		1.6 ~ 2.0	-	20
R	RED	-		1.6 ~ 2.0	-	20
Y	YELLOW	-		1.6 ~ 2.0	-	20
B	BLUE	-		2.8 ~ 3.4	-	20
G	GREEN	-		2.8 ~ 3.4	-	20
W	WHITE	-		2.8 ~ 3.4	-	20
RB	RED	BLUE		1.6 ~ 2.0	2.8 ~ 3.4	20
RG	RED	GREEN		1.6 ~ 2.0	2.8 ~ 3.4	20

Notes:
1.) Lead Soldering Temperature (4mm from Body) : 280℃ for 5 seconds
2.) Hand Soldering Temperature (4mm from Body) : 320℃ for 3 seconds

PANEL MOUNTING INFORMATION

The series H48M mounts easily into panels of minimum 0.020" (0.5 mm) and maximum 0.177" (4.5 mm) thickness. Front panel sealing to IP67 is achieved by a sealing o-ring fitted to the body of the switch before it is inserted into the panel hole cut-out. It is held onto the panel by means of a metal hex nut tightened down to a torque of 10 inch pounds to achieve the correct sealing pressure. The Basic Switch (16-4044 or 16-530004) has to be installed after the pushbutton actuator is firmly secured to specified torque onto the panel.

ITW Switches
SENSORS, SWITCHES, ELECTRONIC CONTROLS

Designs and specifications are subject to change without notice due to product improvement.

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