ITW Switches

SERIES 48 - 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.



APPLICATIONS:

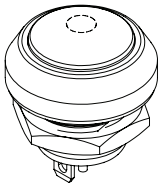
- Office equipment
- Medical equipment
- Industrial machinery
- Outdoor controls
- Mass transportation
- Food processing equipment

KEY FEATURES:

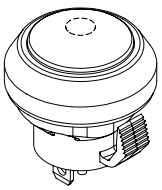
- Momentary or Maintained action
- Gold contacts (up to 1.5M cycles)
- Seven button colors
- Choice of LED colors (or non-illuminated versions)
- Solder or PC terminals
- Panel sealed to IP67 (Threaded Bush)
- Plastic bezel/ housing
- Raised button
- Snap action (see SA12 series)
- No Button Options for late dedication

PRODUCT DRAWINGS

THREADED BUSH



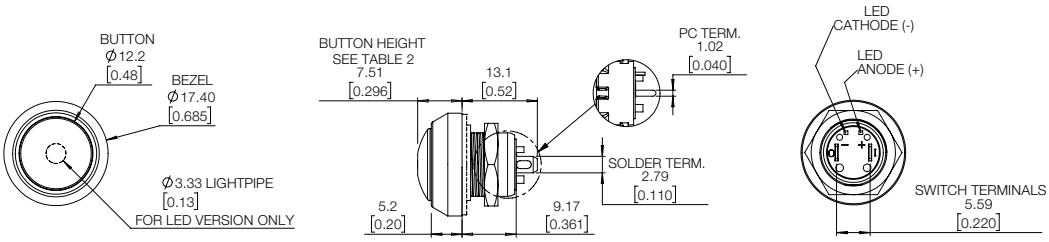
SNAP-FIT



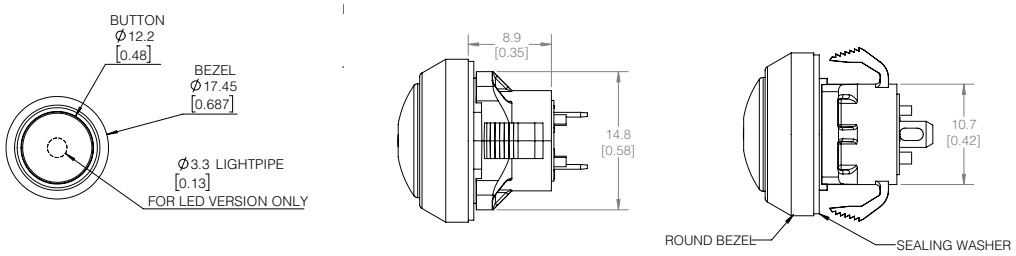
Contact an Authorized Distributor or Factory for Pricing

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THREADED BUSH



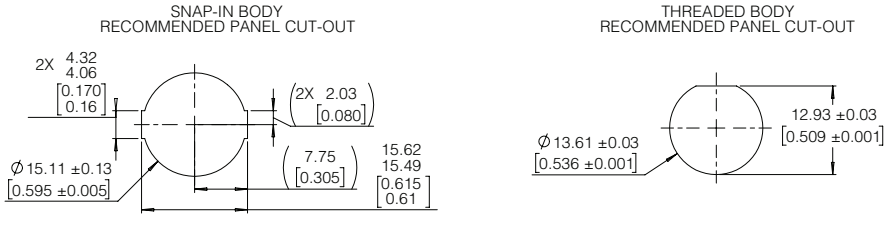
SNAP-FIT



BUTTON HEIGHT

	FREE POSITION	MAINTAINED
WITH LED	7.51 [0.296]	6.00 [0.236]
NO LED	8.19 [0.323]	6.67 [0.263]

PANEL CUT-OUT



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:
Threaded Bush - Supplied with Panel Seal and Hex Nut in bags with the product packaging.

Snap-Fit - Panel Seal supplied fitted to the switch

ENVIRONMENTAL SPECIFICATIONS

Actuator Ingress Protection:
IP67 (Threaded Bush)

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, 1.5 Million Cycles

48 (Maintained}
50K Cycles Nominal

Dielectric Strength:
1,000 VAC

Insulation Resistance:
1G Ohm

Contact Resistance:
50m Ohms

BUTTON PART NUMBER REFERENCE:

Part No	Description
80-481013-RED	48 RED Non Illuminated Button
80-481013-GRN	48 GREEN Non Illuminated Button
80-481013-BLK	48 BLACK Non Illuminated Button
80-481013-BLU	48 BLUE Non Illuminated Button
80-481013-YLW	48 YELLOW Non Illuminated Button
80-481013-WHT	48 WHITE Non Illuminated Button
80-481013-ORG	48 ORANGE Non Illuminated Button

ORDERING INFORMATION:

Series:
- **48** Gold Contact

Module Type:
- **1**
- **2**
- **5**
- **6**

Switch Function:
- Momentary
- Maintained
- Momentary
- Maintained

Switch Termination:
- Solder
- Solder
- PC
- PC

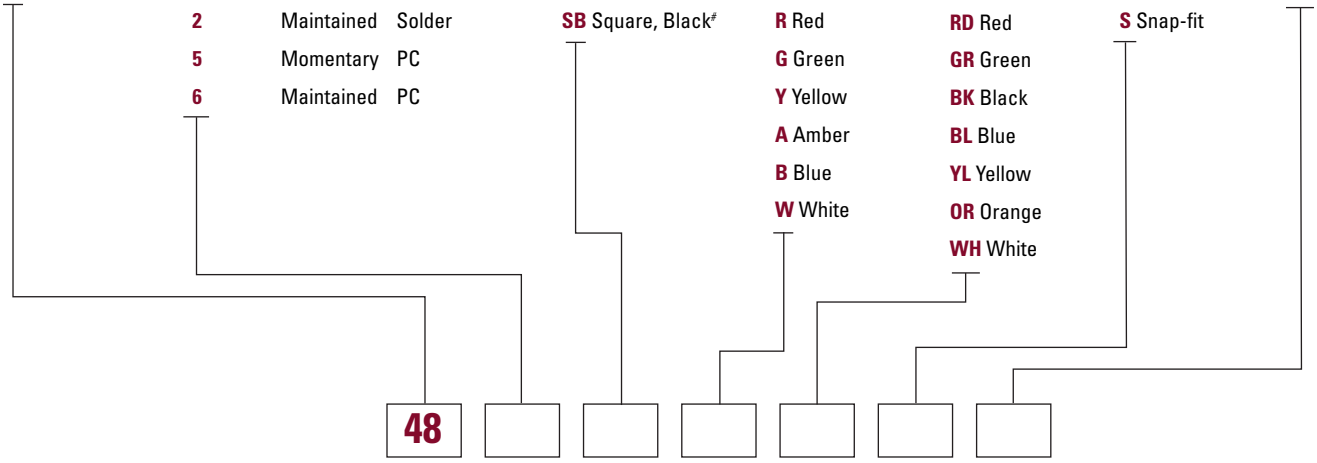
Bezel Type:
- **RB** Round, Black
- **SB** Square, Black#

Led:
- **N** None
- **R** Red
- **G** Green
- **Y** Yellow
- **A** Amber
- **B** Blue
- **W** White

Button Color:
- **NN** No Button£
- **RD** Red
- **GR** Green
- **BK** Black
- **BL** Blue
- **YL** Yellow
- **OR** Orange
- **WH** White

Mounting Type:
- **B** Bushing
- **S** Snap-fit

Voltage Resistor:
If Blank*/$
- **05** 5V Forward



* Current limiting resistor maybe required to limit LED forward current to 20mA
$ Other integrated LED voltages (12V and 24V) can be provided upon request depending on project volume
# A setup charge maybe required for the Square Bezel
£ See table above for non illuminated button colours (speak with your sales contact for Illuminated buttons)

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