## 19MM PANEL SEALED 5 AMP PUSHBUTTON SWITCHES

# Series SA48M

The ITW SA48M series pushbutton built on the proven series SA48 platform these rugged switches come in stainless steel or Zine alloy chrome plated housing with either momentary or maintained action and lighted or unlighted versions. These 5 AMP sealed switches have a positive snap action feel. They are ideal for rugged applications that good looks and long life.



## KEY FEATURES:

| | |
|---|---|
| Size | 19mm |
| Current Rating | 5A @ 28VDC |
| Mechanical Life | 25k Cycle Nominal |
| Operating Temperature | -40˚ to +185˚F [-40˚ to +85˚C] |
| Circuitry | 1NO/1NC |
| Ingress Protection | IP67 (Front Panel) |
| Standards | UL 61058 / IEC 61058 |
| Housing Material | Stainless / Zinc Alloy |
| Snap Action | Momentary / Maintained |
| Illumination | Green/ Red/ Blue/ White/ Yellow |

## APPLICATIONS

- Outdoor Controls
- Medical Equipment
- Industrial Machinery
- Security Equipment
- Food Processing Equipment
- Office Equipment
- Kiosks

## ORDERING INFORMATION:

**Switch Function:**
- **1** Momentary, Solder Terminal
- **A** Momentary, NO Wireleads
- **C** Momentary, NC Wireleads
- **E** Momentary, NO/NC Wireleads
- **2** Maintained, Solder Terminal
- **B** Maintained, NO Wireleads
- **D** Maintained, NC Wireleads
- **F** Maintained, NO/NC Wireleads

**Housing Material:**
- **1** Stainless Steel
- **2** Zinc Alloy, Chrome Plated

**Illumination:**
- **0** Non-Illumination
- **1** Center Spot Illumination
- **2** Ring Illumination
- **3** Power/ Standby Illumination

**LED Color:**
- **N** None
- **G** Green
- **R** Red
- **B** Blue
- **W** White
- **Y** Yellow

**Voltage Resistor:**
- If Blank*
- **05** 5V Forward
- **12** 12V Forward**
- **24** 24V Forward**

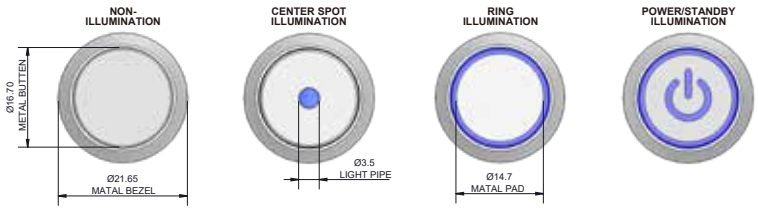
**Special Request:**
- If Blank N/A
- **xxx** Customer Special Request

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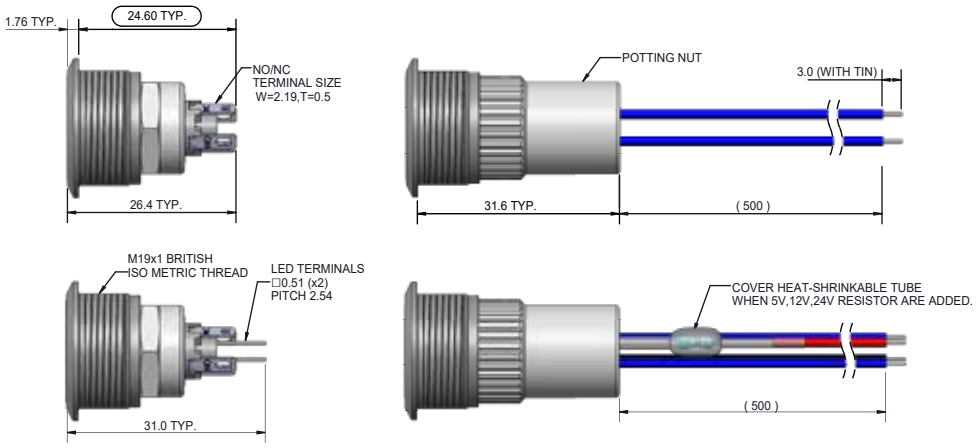
* Current limiting resistor is required to limit LED forward current to 20mA.(not included)
** 12 and 24V resistors are available with wirelead versions only.

# SERIES SA48M: 19MM SEALED 5 AMP PUSHBUTTON SWITCHES

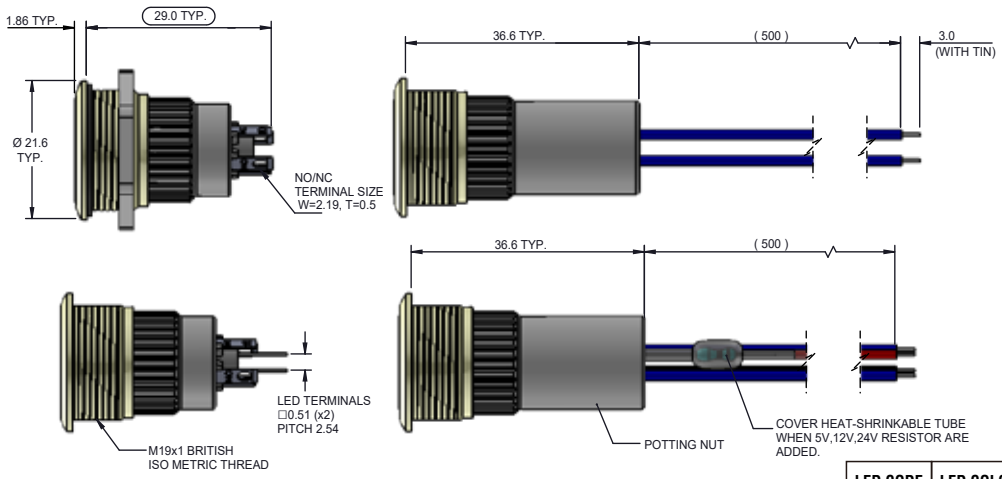
## PRODUCT DRAWINGS

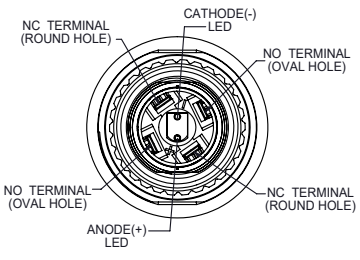



### MOMENTARY TYPE

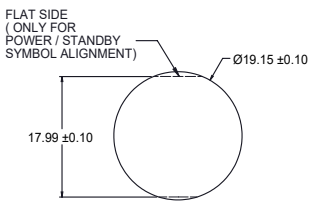



### MAINTAINED TYPE




DETAIL FOR TERMINAL POSITION




RECOMMENDED PANEL CUT-OUT

## MECHANICAL / ELECTRICAL CHARACTERISTICS:

**Circuit:**
SPDT-DB ( Form X )

**Pretravel (Nominal):**
0.050 inches [1.27mm]

**Overtravel (Nominal):**
0.010 inches [0.25mm]

**Total Travel (Nominal):**
0.060 inches [1.52mm]

**Operating Force (Nominal):**
5.15N [525g]

**Release Force (Nominal):**
3.45N [340g]

**Panel Thickness:**
0.020" - 0.177" [0.5 - 4.5mm]

**Contacts:**
Silver

**Nut Torque Force:**
Max 10 lb-in [11.5 kgf-cm]

**Actuator Ingress Protection:**
IP67 (Front Panel)

**Operating Temperature:**
-40˚ to +185˚F [-40˚ to +85˚C]

**Current Ratings (Nominal):**
5A@ 28 VDC

## ELECTRO-MEHANICAL:

**Dielectric Strength:**
1,000 VAC

**Insulation Resistance:**
1GΩ

**Contact Resistance:**
Max 50mΩ (Non-Wirelead)
Max 250mΩ (Wirelead)

| LED CODE | LED COLOR | CIRCUITRY | Vf (VDC) | If (mA) |
|---|---|---|---|---|
| R | RED | | 1.8~2.5 | 20 |
| B | BLUE | | 2.8~3.5 | 20 |
| G | GREEN | | 2.8~3.5 | 20 |
| Y | YELLOW | | 1.8~2.5 | 20 |
| W | WHITE | | 2.8~3.5 | 20 |

Notes:
1.) Lead Soldering Temperature (4mm above from body) : 280˚C for 5 seconds
2.) Hand Soldering Temperature (4mm above from body) : 320˚C for 3 seconds

| WIRELEADS TYPE | WIRELEADS SPECIFICATION | SW TERMINAL | | LED | |
|---|---|---|---|---|---|
| | | NO | NC | + | - |
| ILLUMINATION | AWG24 / UL1007 | BLUE | YELLOW | RED | BLACK |
| NON-ILLUMINATION | | BLUE | YELLOW | - | - |