ITW Switches
SENSORS, SWITCHES, ELECTRONIC CONTROLS

## SERIES 76-95 – VANDAL RESISTANT RANGE

Having been designed to withstand impacts of significant force, the 76-95 Series of pushbutton switches are extremely rugged making them particularly suited to applications in which vandal resistance is a necessity.

The switch body and buttons are machined from hard-wearing stainless steel and come in front and rear mounting styles. The front mounting versions have a low profile bezel that protrudes a maximum of 2.5mm from the front panel, including sealing washer, while the rear mounting version is capable of providing a flush interface when viewed from the front. Both switches make it very difficult for a vandal to get an object behind in order to lever the switch from its mounting.

The 76-95 Series all provide momentary action and are based on our proven Series 16 snap action microswitch. Connections are made via the solder terminals at the rear of the switch.



### APPLICATIONS:

- Vandal resistant requirements
- Military environments
- Robust industrial requirements
- Process control
- Railway carriage equipment
- External security door controls
- Elevators
- Marine equipment
- Crane gantry equipment
- Earth moving equipment

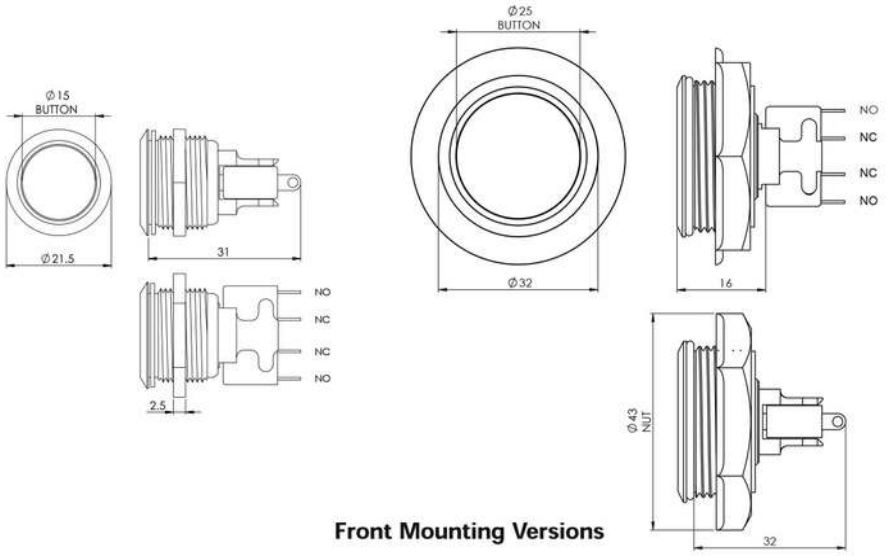
### KEY FEATURES:

- Vandal resistant
- Panel sealed to IP67
- Flush-with-panel requirements
- Form Z contacts to cover all switching requirements
- Attractively machined from stainless steel
- Wide temperature range
- Microswitch action
- Rear mounting version can be mounted to appear totally flush
- Solder terminals
- High contact rating

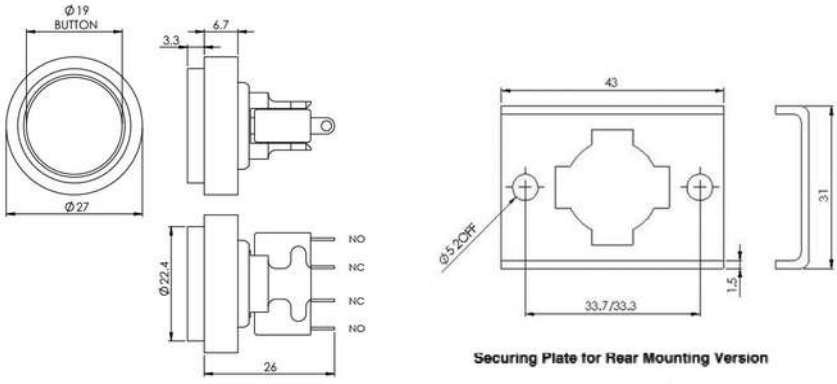
### NON-STANDARD OPTIONS:

- Solder/Faston terminals
- PCB terminals
- Gold contacts
- Two pole version
- Special operating forces

## PRODUCT DRAWINGS




Front Mounting Versions

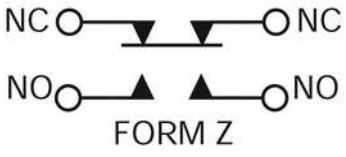



Securing Plate for Rear Mounting Version

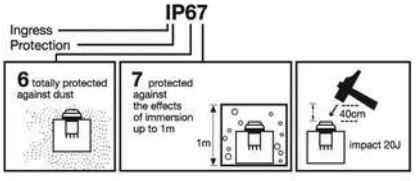
Rear Mounting Version

All dimensions in Millimetres

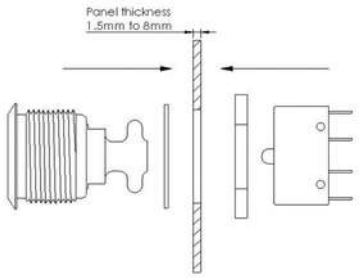
## CIRCUIT FORM:



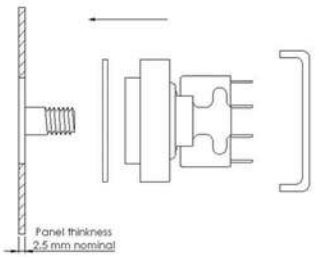

## INGRESS PROTECTION IMPACT KEY



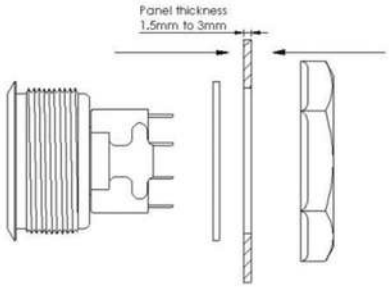
## PANEL MOUNTING DIAGRAMS




Mounting diagram for front panel, 15mm button option




Mounting diagram for rear panel, 19mm button option




Mounting diagram for front panel, 25mm button option

## PANEL MOUNTING & CONSTRUCTION INFORMATION:

The front panel 76-95 mounts from the front into either a 19.25mm or 30.1mm diameter panel cut out. Panel sealing is achieved by means of a sealing washer which is fitted to the switch body before it is inserted into the panel hole. The switch is then held in place by a lock-nut screwed on from the rear and with the 19.25mm diameter version the microswitch can then be snapped into position at the base of the switch body.

The rear panel 76-95 locates from the rear into a 22.5mm diameter cut out in the front panel. Panel sealing is once again achieved by means of a sealing washer placed over the shoulder of the switch before location. The switch is then clamped in place by a bracket (supplied) fitting over the switch body and two threaded studs pre-welded to the customer's panel. Two nuts then fasten the bracket to the panel and switch allowing access to the switches terminals.

## ORDERING INFORMATION:

| Series | Style and Material/Finish | Switch Element | Colour* |
|---|---|---|---|
| **76-95** | **10** - 15mm Button, Front Panel - Stainless Steel<br>**11** - 19mm Button, Rear Panel - Stainless Steel<br>**12** - 25mm Button, Front Panel - Stainless Steel<br>**13** - 15mm Button, Front Panel - Anodised Aluminium<br>**16** - 15mm Button, Front Panel - Brass<br>**17** - 25mm Button, Front Panel - Brass | **4044** - Solder terminals, single pole | **B** - Black<br>**G** - Green<br>**GO** - Gold<br>**N** - Blue<br>**P** - Purple<br>**R** - Red |

**76-95** [ ] [ ] [ ]

** For anodised aluminium options only*

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

## MECHANICAL / ELECTRICAL / ENVIRONMENTAL CHARACTERISTICS:

**Operating force:**
2.6N (typical)

**Panel thickness:**
1.5mm to 8mm (FP) – 15mm button
2.5mm nominal (RP) – 19mm button
1.5mm to 3mm (FP) – 25mm button

**Body diameter:**
M19 thread (FP) – 15mm button
27mm (RP) – 19mm button
M30 thread (FP) – 25mm button

**Panel cut out:**
ø19.25mm (FP) – 15mm button
ø 22.5mm (RP) – 19mm button
ø 30.1mm (FP) – 25mm button

**Life (min):**
1,000,000 cycles

**Dielectric strength:**
1KV AC 1 minute

**Insulation resistance:**
1GΩ @ 500V d.c.

**Contact resistance (initial):**
25mΩ

**Electrical load:**
10mA 5V d.c. min
10A 250V a.c. max

**Life:**
50,000 cycles (max load) @ 70°C

**Ingress protection:**
IP67 (Panel Sealed)

**Operating temperature range:**
-30°C to +105°C

**Body material:**
Stainless steel

**Actuator material:**
Stainless steel

**Contact material:**
Fine silver

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