ITW **Switches**

SERIES 57 – MINIATURE VANDAL RESISTANT PUSHBUTTON

FEATURES

- Vandal Resistant
- Wide temperature range
  – up to 125°C
- Panel sealed to IP67
- High environmental
  specifications
- Gold contacts
- Status illumination
- Solder terminals
- Mounts virtually flush to panel

ITW **Switches**

Technical Information

Description

The Series 57 is a range of miniature, momentary action, rugged panel sealed push-button switches with a round button and bezel.

The Series is available with or without LED status illumination. A locknut is supplied with each switch.

The body and button are manufactured from a non-spark zinc alloy and are velour chrome plated. It is panel sealed to IP67 and is designed to be impact resistant. The small size, robustness and panel sealing make this switch ideal in harsh environments.

Status Illuminated Version

The illuminated version is available with a choice of 2 high brightness LED colours.

Mechanical

Travel (nom)	2.3mm
Life (nom)	1,000,000 cycles
Operating force (nom)	3N
Contact bounce (nom)	1ms
Panel thickness (max)	3mm

Electrical
Switch & LED

SWITCH	
Dielectric strength	1000V a.c.
Insulation resistance	1GΩ
Contact resistance (initial)	50mΩ
Current rating (typical)	400mA at 32V a.c. resistive
	100mA at 50V d.c. resistive
	125mA at 125V a.c. resistive
Life (min)	500,000 cycles
Switching power (max)	16VA a.c.
LED	
Typical fwd voltage (Vf at I operating)	2,2V
Max fwd voltage (Vf at I operating)	3,0V
Forward current (I operating)	20mA
Meantime between failures	100,000 hours
Luminous intensity (Iv at Iopr)	Red LED – 100mcd
Luminous intensity (Iv at Iopr)	Green LED – 160mcd

Environmental & Physical

Ingress protection	IP67 (panel sealed)
Shock	100g
Vibration	DEF STD 07-55
Non-Illuminated	
Operating temperature range	-40°C to + 125°C

Environmental & Physical

(continued)

Illuminated

Operating temperature range	-35°C to +85°C
Body and Button material	Velour chrome plated zinc alloy
Contacts	Gold plated palladium nickel
Terminal	Gold plated brass
Salt mist	BS2011 Part 2:1
Soldering information	320°C max for 3s

57 – ☐☐☐☐

Body Style

Standard round bezel	**1**

Termination

Solder Terminals	**1**

Button Colour

Non-illuminated	**1**
Illuminated	**2**

LED Colour

Red	**R**
Green	**G**

(This digit is only required for illuminated part numbers)

Panel mounting

& construction information

The Series 57 mounts easily into panels of maximum 3mm thickness. Front panel sealing to IP67 is achieved by the use of a sealing washer which is fitted behind the bezel of 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 brass locknut, tightened down by a 20mm spanner, to a torque of maximum 1,5Nm to achieve the correct sealing pressure.

A 'D' flat is provided to prevent rotation.

Ingress Protection Impact Key

IP67

Ingress Protection

6 totally protected against dust

7 protected against the effects of immersion up to 1m

1m
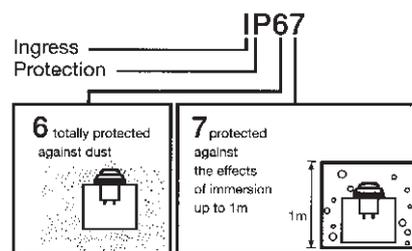
SERIES 57
Miniature Vandal Resistant Pushbutton

Technical Information

Product Dimensions

Non-illuminated Round Bezel

Illuminated Round Bezel

ø18.50

12.15 Button

ø18.50

0.75 Button

1.70

18.00

Sealing Washer

M16 x 1-6g

1.70

0.75 Button

Sealing Washer

28.0

M16 x 1-6g

5.15 Terminal Spacing

5.25 LED Pinout

Suggested Panel Cutout

ø16.1/16.0

14.75/14.90

All dimensions in Millimetres

Circuit Form

NO ▲   ▲ NO
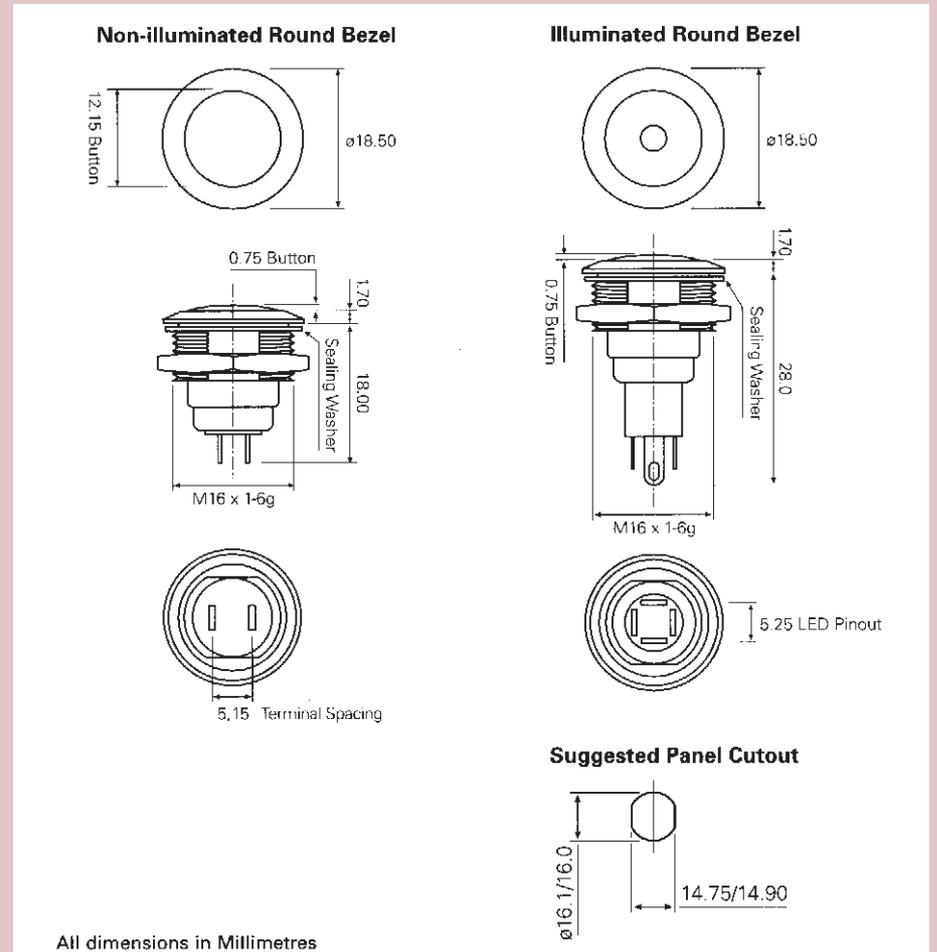
Application References

- Vandal resistant requirements
- Military environments
- Robust industrial requirements
- Flush-with-panel requirements
- Process control
- Railway carriage equipment
- External security door controls

- Elevators
- Fishing vessels
- Crane gantry equipment
- Earth moving equipment
- Upper deck yachting equipment
- Medical instrumentation

Further Information

For further information on our complete range of switch products, visit our website – www.itwswitches.co.uk or contact our Sales Office.