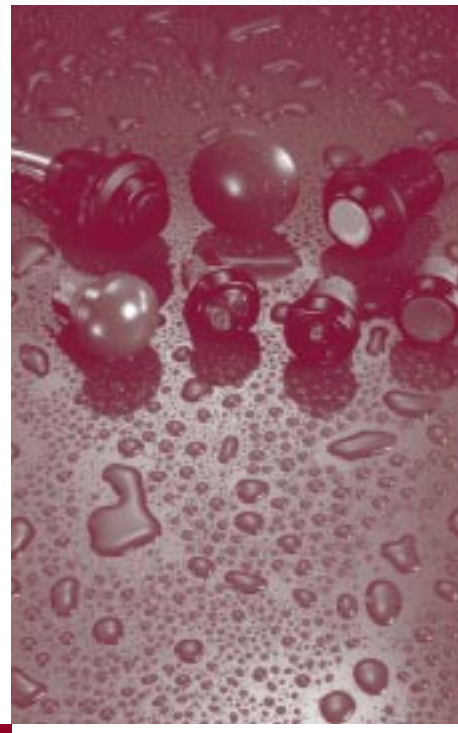
Data Sheet no. 76-94700



SERIES 76-94 – PANEL SEALED RANGE

FEATURES

- Non-spark material
- Explosive-proof materials used
- Wide temperature range
  – from -40°C to +125°C
- Panel sealed product
  – Protection against immersion
- Impact rating - 20J
- Choice of actuators and styles
  -Push-buttons, rotary and
  panel lamp

NON-STANDARD OPTIONS

- PCB terminals
- Gold contacts
- 2 poles available
- Colour variants
- In-filled engraving
  (Push-button only)

ITW Switches

Technical Information

Series 76-94

The 76-94 Series has been designed to cover a wide range of harsh environmental applications.

The range is available in 3 styles, push-button, rotary and panel lamp.

The push-button comes in 4 button styles with 3 colour options and has solder/faston terminals as standard. The rotary is a single pole, 2 position, snap action switch with green or red spot indicator on the black actuator. To complete the range an indicator version is available with red, green or amber lens.

The entire range is panel sealed to IP67 and due to the construction and the materials used, are all capable of surviving the impact of a 5kg mass dropped from 40cm (20J). All the bezels and the actuators of the push-buttons and rotaries are made from a non-sparking zinc alloy whilst the panel lamp lens is manufactured from polycarbonate, which maintains the specification of the range.

Non-standard options for the range include custom colours, PCB terminals, gold contacts and 2 pole variants.

The features of the Series makes it ideal for robust, potentially explosive environments, such as the mining industry.

Specification

The push-button and rotary variants utilise ITW Switches' proven Series 16 snap action microswitch.

Mechanical

Travel	2,5mm (PB)
Life (nom)	2 x 10^6 cycles (PB), 50,000 cycles (R) 1 x 10^5 cycles (Latched Push-button)
Operating force	7N (PB)
Contact bounce	5ms (PB, R)
Panel thickness (max)	6mm (PB, R, L)

Electrical

Dielectric strength	1000V RMS (PB, R)
Insulation resistance	1GΩ (PB, R)
Contact resistance (initial)	25mΩ (PB, R)
Current rating (max)	10A resistive 250V a.c. (PB, R)
Life	100,000 cycles 20°C (PB, R) 50,000 cycles 70°C (PB, R)
Illumination type	T1¾ Wedge base bulb (L)

Environmental & Physical

Ingress protection	IP67 (PB, R, L)
Impact rating	20J (PB, R, L)
Shock	50g (PB, R, L)
Operating temperature range	-40°C to +125°C (PB, R, L)
Body material	Zinc alloy (PB, R, L)
Actuator material	Zinc alloy (PB, R)
Lens material	Polycarbonate (L)
Contact material	Fine silver (PB, R)
Terminal material	5µm bright acid tin plate nickel flash undercoat (PB, R, L)

Key

PB	Push-button
R	Rotary
L	Panel Lamp Indicator

Ordering Information

76-94 [ ][ ] /xxxxxx [ ]

Button Style

Flush	1
Raised	2
Large circular (latching)	3
Large circular (momentary)	4
Domed	5
Panel lamp indicator	6
Rotary	7

Indicator Colour

Push-button & rotary	0
Red	R
Green	G
Amber	A

(No addition to the part number is required for the indicator after this)

Termination & No. of Poles

Solder/faston	1 pole	439088
Solder	1 pole	4044
Solder	2 poles	804

Indicator Colour

Black	B
Red	R
Green	G

(For rotary: standard black actuator, specify colour of dot indicator, red & green only)

Panel Mounting & construction information

The 76-94 mounts easily into panels not exceeding 6mm thickness. Front panel sealing to IP67 is achieved by use of the sealing washer which is fitted to the switch before it is inserted into the panel hole cut out. It is held into the panel by means of a zinc lock nut, tightened down to a torque of between 1,5Nm to 2,85Nm to achieve the correct sealing pressure.

It is mounted into a standard 22,5mm diameter hole and a double 'D' flat is provided to prevent rotation if required.

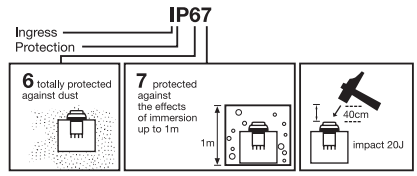
Lamp Construction & Multi-pole Information

The 76-94 panel lamp variant is supplied with a quick release bulb holder that will accept a T1¾ wedge base filament lamp. Because of the wide range of illumination available (different voltage lamps, multi chip LEDs etc.), we do not supply a bulb as standard although we are prepared to do so if required.

The push-button and rotary versions have a non-standard option of 2 poles. The 2 pole switch is provided separate to the switch body and must be fitted, via a spring clip, after the switch body has been mounted in the panel.

For more information, please contact the Sales Office.

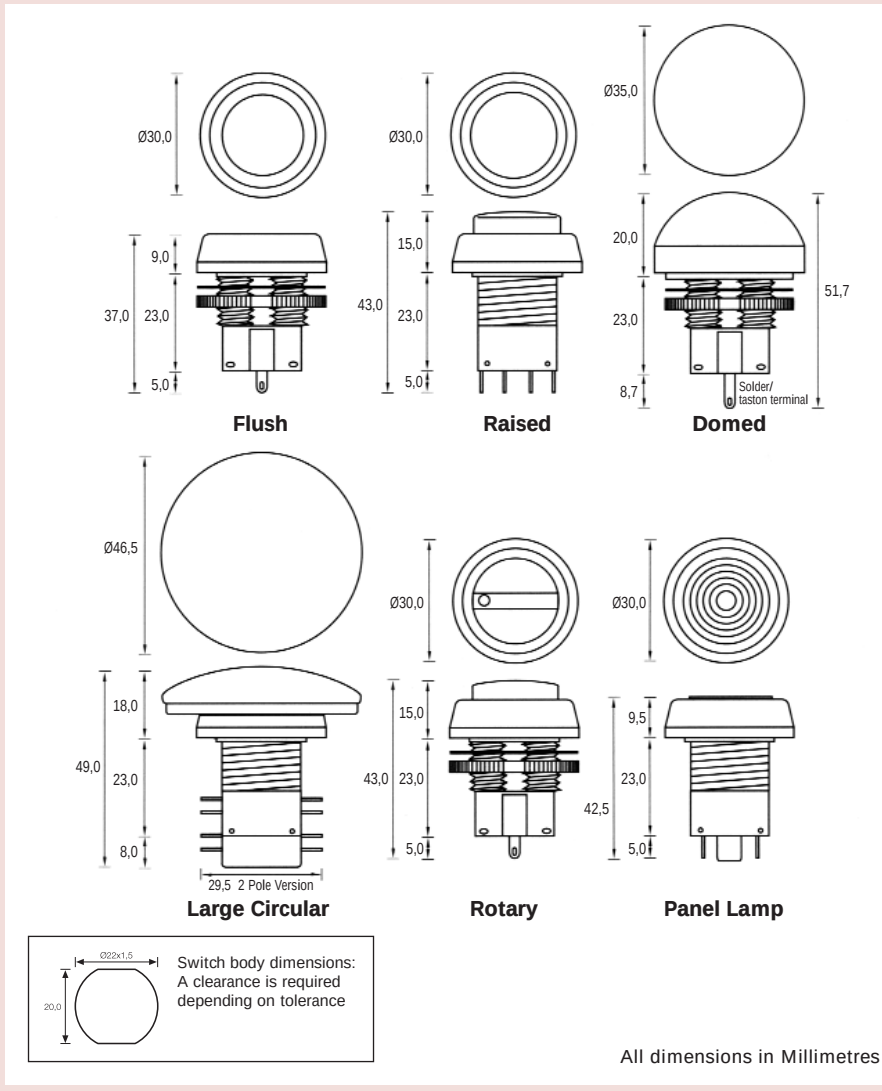
Ingress Protection Impact Key



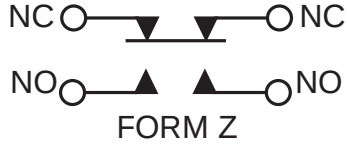
SERIES 76-94
Panel Sealed Range

Technical Information

Product Drawings



Circuit Form



Application References

- Military environments
- Robust industrial
- Vandal resistant requirements
- Mining industry
- Petrochemical
- Process control
- Material handling

Further Information

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

ITW Switches

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Due to our policy of continuous product development, ITW Switches retain the right to change the specification at any time without prior notice.
Designed & printed in the UK.