

SERIES 59 – MINIATURE SEALED PUSHBUTTON

The Series 59 is a range of miniature, momentary action, rugged panel sealed pushbutton switches.

The Series is available with square or round bezel versions, with or without LED status illumination.

A locknut is supplied with each switch. A choice of body material is provided of either a non spark zinc alloy or a hard wearing moulded PBT therefore making this switch suitable for use in most applications.

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.

Non-Illuminated Version

The non-illuminated range includes a choice of 7 button colours with solder terminal connection. PCB terminals, a high round bezel, surface and sublimation printing are available as non-standard.

Status Illuminated Version

An illuminated version is available in the round bezel versions with a choice of 3 button colours and 2 high brightness LED colours. Non standard options include additional button and LED colours (subject to minimum order quantities).



APPLICATIONS:

- Communications
- Instrumentation
- Data entry
- Military environments
- Environmentally demanding keypads
- Mass transport controls

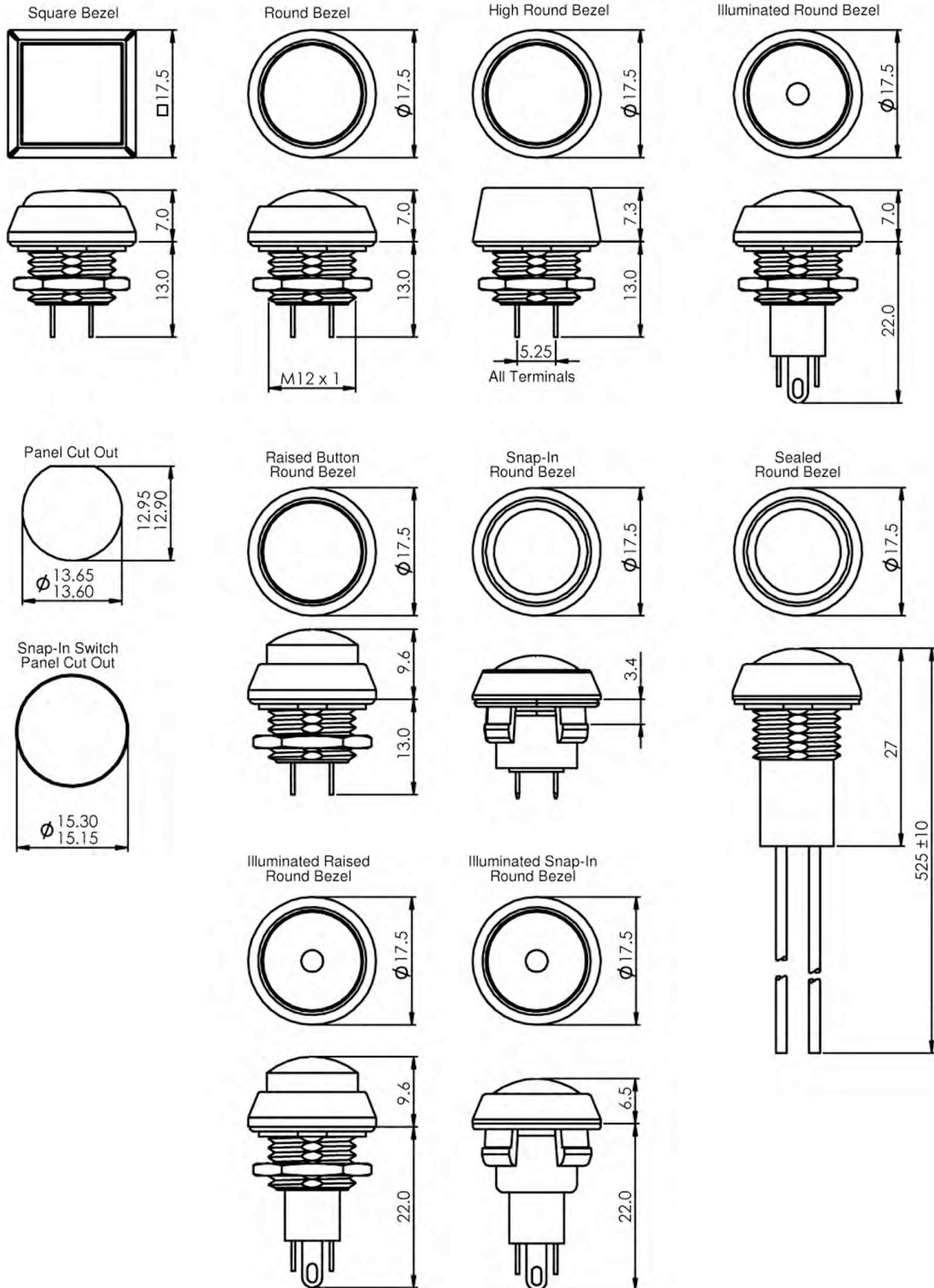
KEY FEATURES:

- Non-spark material
- Wide temperature range
- Panel sealed – To IP67
- High environmental specifications
- Gold contacts
- Status illumination

NON-STANDARD OPTIONS:

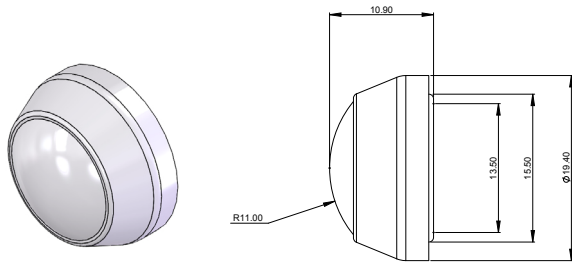
- Overboot available for protection against icing
- Surface or sublimation legend printing on the button (non-illuminated version)

PRODUCT DRAWINGS



All dimensions in Millimetres

COVER SEAL

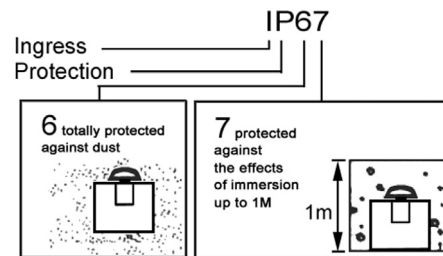


| Part Number | Material |
|-------------|----------------------------|
| 80-599189 | COVER SEAL-CLEAR |
| 80-599216 | COVER SEAL (CLEAR SILICON) |

CIRCUIT FORM:



INGRESS PROTECTION RATING KEY:



LED CHARACTERISTICS:

Typical fwd voltage (VF at I operating): 2.2V

Max fwd voltage (VF at I operating): 3.0V

Forward current (I operating): 20mA

PANEL MOUNTING & CONSTRUCTION INFORMATION:

The Series 59 mounts easily into panels of minimum 1.5mm and maximum 3mm thickness. Front panel sealing to IP67 is achieved by the use of a sealing 'O' ring 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 14mm spanner, to a torque of between 1.0Nm to 2.0Nm to achieve the correct sealing pressure.

A 'D' flat is provided to prevent rotation.

ORDERING INFORMATION:

| Series | Body Style | Termination | Button Colour * | LED Colour ** |
|--------|-------------------------------------|----------------------|-----------------|---------------|
| 59 - | 1 - Round Bezel - Metal | 1 - Solder terminals | 1 - Black | R - Red |
| | 2 - Square Bezel - Metal | 2 - PCB terminals | 2 - Red | G - Green |
| | 3 - High Round Bezel - Metal | 3 - Sealed terminals | 3 - Green | |
| | 4 - Illuminated Round Bezel - Metal | | 4 - White | |
| | 5 - Round Bezel - Plastic | | 5 - Yellow | |
| | 6 - Square Bezel - Plastic | | 6 - Blue | |
| | | | 7 - Orange | |

* Illuminated version only available with Black, Red & Green as standard. Non-standard colours subject to MOQ's.

** This digit is only required for illuminated switches.

| Part Number | Description |
|-------------|---------------------------------------|
| 59-900067 | Rnd Plastic Snap In Red |
| 59-900068 | Rnd Plastic Snap In Black |
| 59-900069 | Rnd Plastic Snap In Green |
| 59-900072 | Rnd Plastic Snap In Blue |
| 59-900073 | Rnd Plastic Snap In Orange |
| 59-900078 | Rnd Metal Raised Button Orange |
| 59-900089 | Rnd Metal Raised Button Red |
| 59-900090 | Rnd Metal Raised Button Green |
| 59-900091 | Rnd Metal Raised Button Black |
| 59-900122 | Rnd Metal Raised Button Red LED Green |
| 59-900124 | Rnd Metal Raised Button Grn LED Black |
| 59-900127 | Rnd Metal Raised Button Grn LED Green |
| 59-900181 | Rnd Metal Raised Button Yellow |
| 59-900201 | Rnd Metal Raised Button Blue |
| 59-900254 | Rnd Plastic Raised Button Blue |
| 59-900255 | Rnd Plastic Raised Button Black |
| 59-900260 | Rnd Metal Raised Button White |

MECHANICAL / ELECTRICAL CHARACTERISTICS:

Travel (nom): 2.3mm
Life (max): 1,000,000 cycles
Operating force (nom): 3N
Contact bounce (nom): 1ms
Panel thickness (max): 1.5 - 3mm
Panel cut out: ø13.6mm (with 'D' flat)

SWITCH

Dielectric strength: 1000V a.c.
Insulation resistance: 1GΩ
Contact resistance: 50mΩ
Current rating (typical):
 10mA at 5V d.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.

Ingress protection: IP67 (Panel Sealed)

Shock:

100g non - illuminated
 40g illuminated

Vibration: DEF STD 07-55

Non-Illuminated

Operating temperature range:
 -55°C to +125°C
 with zinc alloy body
 -40°C to +105°C with PBT body

Illuminated

Operating temperature range:
 -35°C to +85°C

Body material:

Zinc alloy (standard) or PBT

Button material:

PBT

Contacts:

Gold plated nickel

Salt mist:

BS2011 Part 2:1

Soldering information:

320°C max for 3s

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