Series 59 – Miniature Sealed Pushbutton Switch
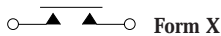
Typical Applications

– Communications
– Instrumentation
– Data processing
– Process control
– Transportation/material handling

actual size

Form X

Features

- Nonspark material
- Wide temperature range: Up to 125°C (257°F)
- Panel sealed: To IP67
- High environmental specification
- Impact resistant
- Gold contacts

Mounting Information

The Series 59 mounts easily into panels of minimum $3/64$" and maximum $1/8$" thickness. Front panel sealing to IP67 is achieved by a sealing 'O' ring fitted into a machined groove on 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 lock nut, tightened down by a $9/16$" wrench, to a torque of between 1,5 Nm to 3,0 Nm (1.106 f.p. to 2.213 f.p.) to achieve the correct sealing pressure.

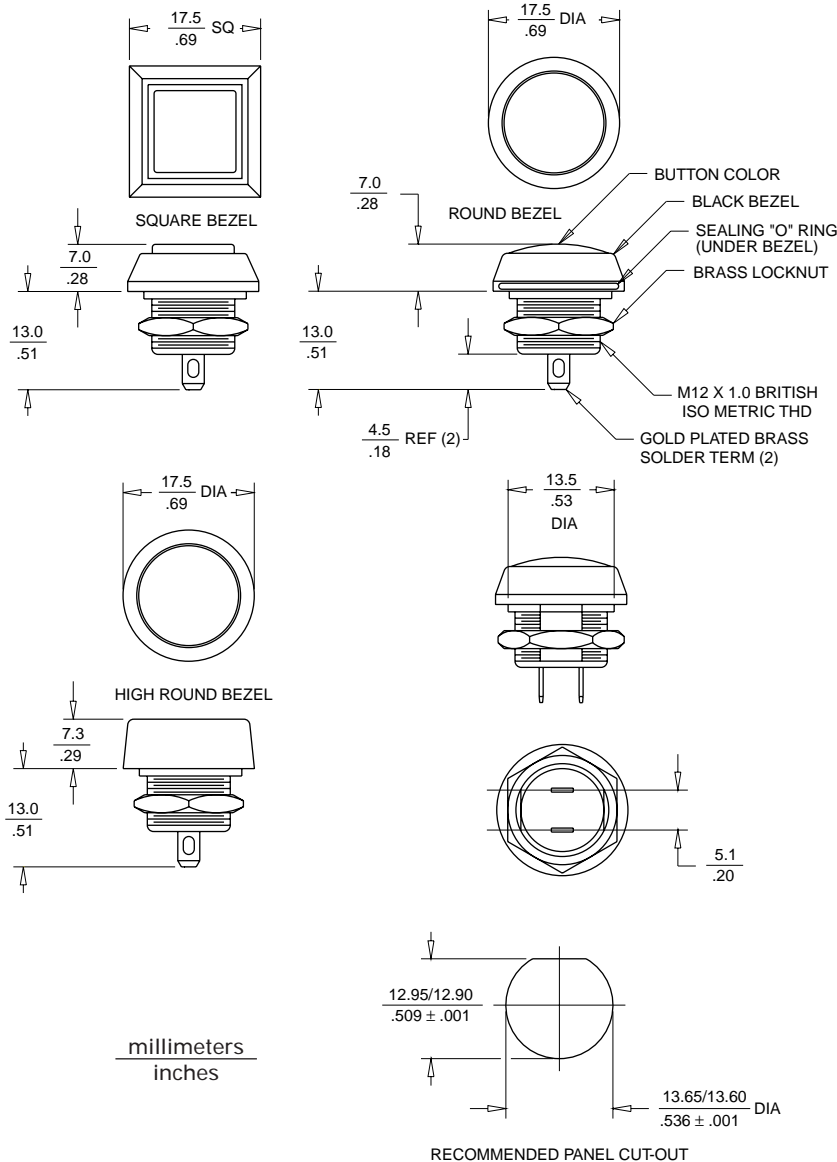A 'D' flat is provided to prevent rotation.

It is recommended the switch cut-out be punched from front of panel.

Description

The Series 59 has been designed as a miniature, rugged, front panel sealed pushbutton switch, ideal for harsh environmental applications in limited space envelopes.

The body of the Series 59 is made of a special high creep strength nonspark zinc alloy, suitable for use in the mining industry and other potentially explosive atmospheres.

This series comes in a standard round bezel version with solder terminals, momentary action switching, and a choice of three button colors. A locknut is supplied with each switch.

ITW **Switches**

Diagrams

17.5 / .69 SQ

SQUARE BEZEL

7.0 / .28

13.0 / .51

17.5 / .69 DIA

7.0 / .28

ROUND BEZEL

BUTTON COLOR
BLACK BEZEL
SEALING "O" RING (UNDER BEZEL)
BRASS LOCKNUT

13.0 / .51

4.5 / .18 REF (2)

M12 X 1.0 BRITISH ISO METRIC THD

GOLD PLATED BRASS SOLDER TERM (2)

17.5 / .69 DIA

HIGH ROUND BEZEL

7.3 / .29

13.0 / .51

13.5 / .53 DIA

5.1 / .20

millimeters
inches

12.95/12.90 / .509 ± .001

13.65/13.60 / .536 ± .001 DIA

RECOMMENDED PANEL CUT-OUT

Dielectric strength: 1,000 VAC

Insulation resistance: 1 G Ω

Contact resistance (max): 50 m Ω

Life(max): 500,000 cycles @ max power

Switching power (max): 16 VAC

Mechanical Characteristics

Travel (nominal): 0.090 in

Life (max): 600,000 cycles

Operating Force (nominal): 3 N (10.8 oz)

Contact Bounce (nominal): 1 mS

Panel Thickness (max): 0.118 in

Environmental and Physical Data

Ingress protection: IP67 OF IEC 144

Shock: 100 G

Operating Temp Range:
–55°C to + 125°C (–67°F to +257°F)

Body Material: Zinc alloy, black anodized

Button Material: "PBT"

Contacts: Gold-plated palladium nickel

Terminals: Gold-plated brass

Electrical Characteristics

Circuitry	Current	Voltage
SPST-NO-DB	400mA	32 VAC Res
SPST-NO-DB	100mA	50 VDC Res
SPST-NO-DB	125mA	125 VAC Res

Ordering Information

Std. Round Bezel	Square Bezel	High Round Bezel	Button Color
59-111	59-211	59-311	Black
59-112	59-212	59-312	Red
59-113	59-213	59-313	Green

Consult factory for nonstandard options.

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