

IB & IS SERIES

SEALED MOMENTARY PUSHBUTTON SWITCHES

Distinctive features and overview

• MORE COMPACT

These new pushbutton switches have a behind-panel depth of only 13 mm and fit into a Ø 13,6 mm (.535) panel cut-out.

The bushing-bezel assembly is of single piece construction.

• SIMPLIFIED MOUNTING

The snap-in mounting version meets the user's requirement for easy panel assembly.

The thermoplastic bushing and bezel assembly allows APEM to achieve a 50 % reduction in weight compared to metallic models.

• SEALED TO IP 67

The IB and IS pushbutton switches are sealed to IP 67 against immersion. The silicone membrane located beneath the plunger ensures sealing and provides tactile feedback.

MODEL STRUCTURE

IP				
SERIES	Bezel shape	Electrical function	Terminals	Contacts
IB Snap-in IS Threaded bushing	R Round	3 Normally open (NO)	S Solder lug Z1 Quick-connect 2,8 x 0,5 mm P Straight PC	AD Silver, gold plated

OPTIONS

Plunger colour	Finish	Option
1 Blue 2 Black 3 Green 5 Yellow 6 Red 7/1 White 8 Chrome plat. 9 Orange	00 Black (std) 08 Chrome plated (IS only) 10 White	104 High Plunger

ABOUT THIS SERIES

On the following pages, you will find successively :

- specifications
- model structure of switches and options in the same order as in above chart

Dimensions : first dimensions are in mm while inches are shown as bracketted numbers.



NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.



A sealing boot is available to protect the switches against frost and sand. It is presented at the end of the series and in section N.



Mounting accessories : Standard hardware supplied : 1 flat seal (IB series)
1 hex nut 14 mm (.551) across flats and 1 flat seal (IS series). The hex nut is presented in section N (part number U166).



Packaging unit : 50 pieces

IB & IS SERIES

SEALED MOMENTARY PUSHBUTTON SWITCHES

Specifications

ENVIRONMENTAL SPECIFICATIONS

- Degree of protection : IP 67
- Shock resistance : 100 g according to IEC 512-4, test 6c
- Vibration resistance : 10-500 Hz - 10 g according to IEC 512-4, test 6d
- Salt spray : IEC 512-6, test 11f
- Operating temperature : -40°C to +85°C

MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts : silver, gold plated
- Terminal seal : epoxy

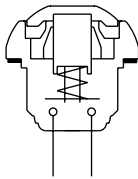
ELECTRICAL AND GENERAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
400mA 32VAC - 100mA 50VDC - 125mA 125VAC
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.000 VAC rms
- Electrical life at full load : 500.000 cycles
- Panel thickness :
 - IB series : 0,8 mm (.031) min. - 1,8 mm (.071) max.
 - IS series : 1,5 mm (.059) min. - 4 mm (.157) max.
- Total travel : 1,5 mm (.059)
- Operating force : 3N +/- 1N
- Contact bounce : 10 ms
- Mechanical life : 1.000.000 cycles
- Torque : 1,5 Nm max. applied to nut
- Soldering : 300°C max. for 3 seconds

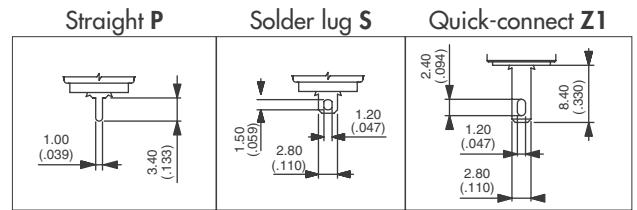
IB & IS SERIES

SEALED MOMENTARY PUSHBUTTON SWITCHES

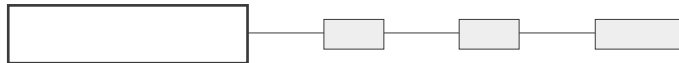
Snap-in or with threaded bushing



- Eight plunger colours
- Flat plunger top allowing marking
- Antirotation bushing



MODEL
STRUCTURE



Snap-in mounting - solder lugs

→ Flat

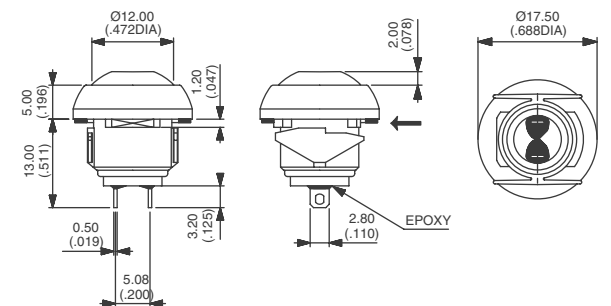
Panel thickness : 0,8 mm to 1,8 mm



IBR3SAD



Normally open



Also available with straight PC : **IBR3PAD** or quick-connect terminals : **IBR3Z1AD**

Mounting by threaded bushing - solder lugs

→ Flat

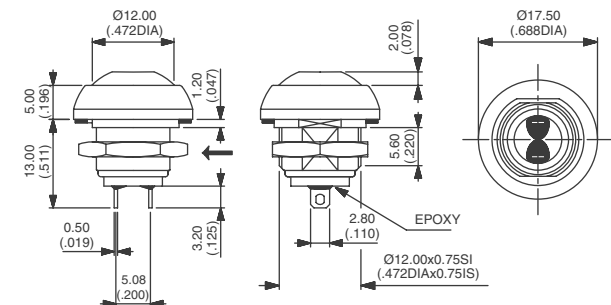
Panel thickness : 1,5 mm to 4 mm



ISR3SAD



Normally open



Also available with straight PC : **ISR3PAD** or quick-connect terminals : **ISR3Z1AD**

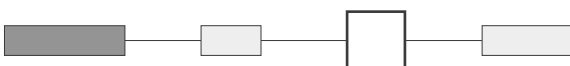
PLUNGER COLOUR



Plunger marking : consult factory.

1 : blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7/1 : white - 8 : chrome plated - 9 : orange

BUSHING AND BEZEL FINISH



00 : Black (standard)

08 : Chrome plated (IS series only)

10 : White

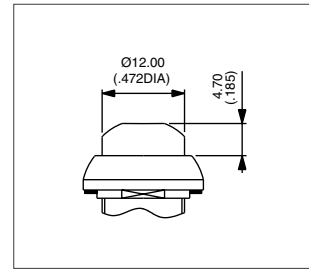
IB & IS SERIES

SEALED MOMENTARY PUSHBUTTON SWITCHES

PLUNGER OPTION

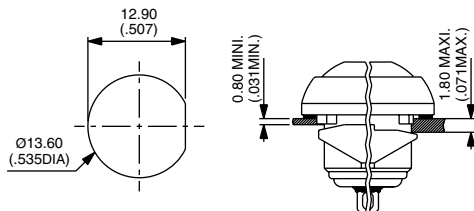


104 : High plunger

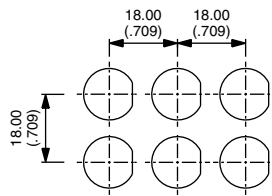


IB SERIES MOUNTING

Panel cut-out

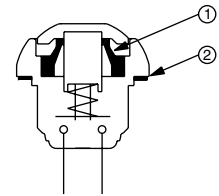


Matrix mounting



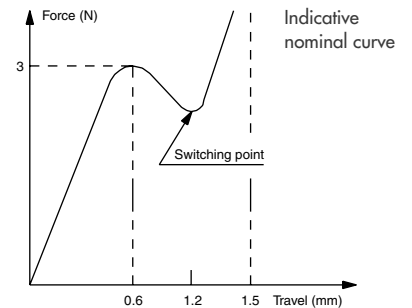
TACTILE FEEDBACK

Cross section



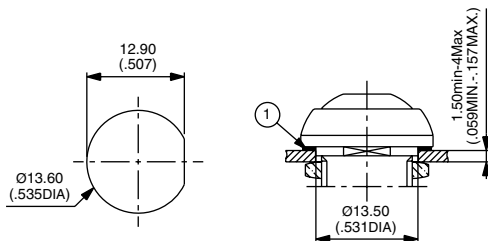
① Elastomer membrane ② Flat seal

Operating force/travel

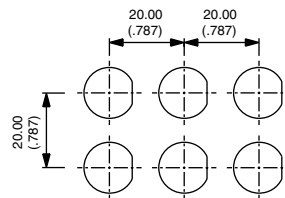


IS SERIES MOUNTING

Panel cut-out



Matrix mounting

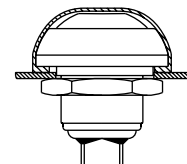
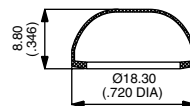


ADDITIONAL SEALING

By silicone boot, transparent (**U5125**) or black (**U5125-2**), for protection against frost and abrasion by sand. Order separately, see section N.

Operating temperature : -40°C to +125°C
Life expectancy : 500 000 cycles

Note : The switches remain sealed to IP 67 even after eventual perforation of the boot.



Mouser Electronics

Authorized Distributor

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[ISR3SAD308](#) [ISR3SAD310](#) [ISR3SAD508](#) [ISR3SAD510](#) [ISR3SAD608](#) [ISR3SAD610](#) [ISR3SAD7/100](#) [ISR3SAD808](#)
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