IB & IS SERIES
SEALED MINIATURE PUSHBUTTON SWITCHES

• 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.

Switch sealing boots are also available for added protection (see last page).

IB / IS						
SERIES	Bezel shape	Electrical function	Terminals	Contacts	Plunger col.	Finish
IB Snap-in	**R** Round	**3** Normally open (NO)	**S** Solder lug	**AD** Silver, gold plated	**1** Blue	**00** Black (std)
IS Threaded bushing					**2** Black	**08** Chrome plated (IS only)
					3 Green	**10** White
					5 Yellow	
					6 Red	
					7/1 White	
					8 Chrome pl.	
					9 Orange	

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

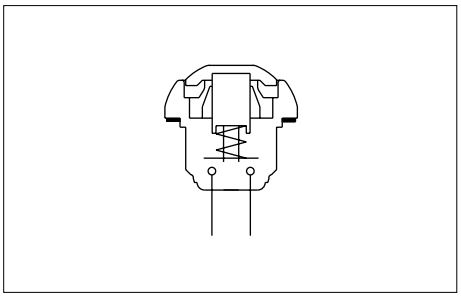
Packaging unit : 50 pieces

Standard hardware supplied :
1 flat seal (IB series)
1 hex nut 14 mm (.551) across flats and 1 flat seal (IS series)

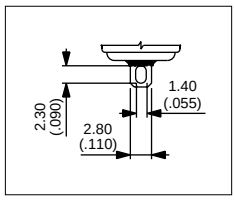
Dimensions : First dimensions are in mm while inches are shown as bracketed numbers.
Tolerance : The general tolerance for dimensions in this brochure is +/- 0,3 (.012).

Dimensions, specifications and data shown in this brochure are subject to change without notice.

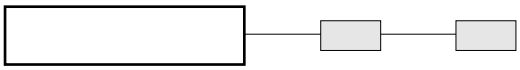
IB & IS SERIES
SEALED MINIATURE PUSHBUTTON SWITCHES



- Eight plunger colours
- Flat plunger top allowing marking
- Antirotation bushing
- New solder lug terminal



MODEL STRUCTURE

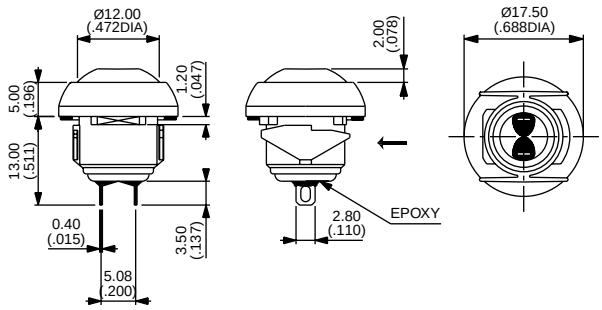


Snap-in mounting



IBR3SAD Normally open

→ Flat



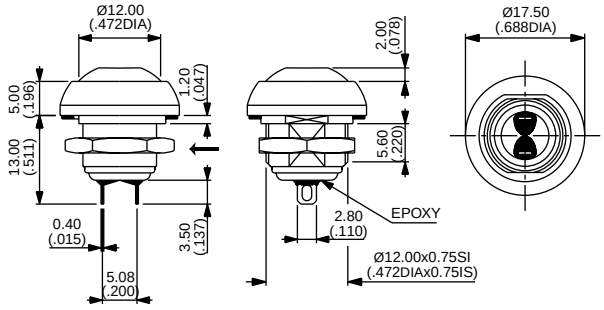
Panel thickness : 0,8 mm to 1,8 mm

Mounting by threaded bushing



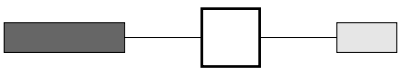
ISR3SAD Normally open

→ Flat



Panel thickness : 1,5 mm to 4 mm

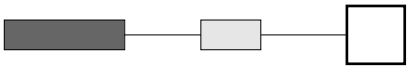
PLUNGER COLOUR



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

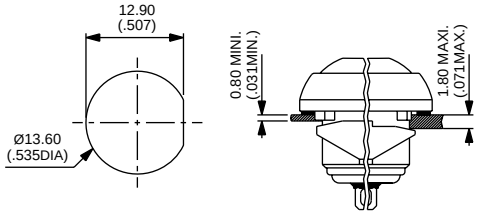


00 : Black (standard)
08 : Chrome plated (IS series only) **10** : White

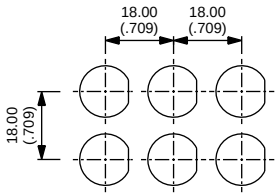
IB & IS SERIES
SEALED MINIATURE PUSHBUTTON SWITCHES

IB SERIES MOUNTING

Panel cut-out

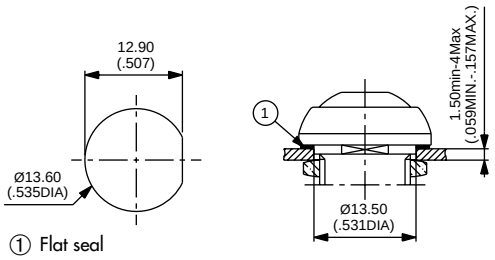


Matrix mounting



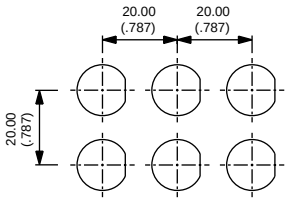
IS SERIES MOUNTING

Panel cut-out



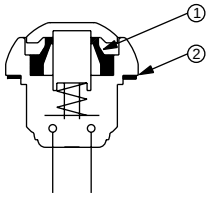
① Flat seal

Matrix mounting



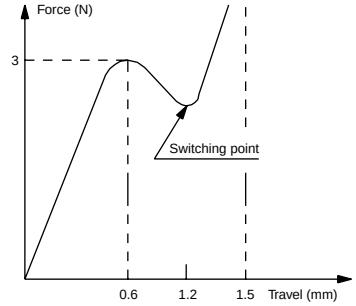
TACTILE FEEDBACK

Cross section



① Elastomer membrane ② Flat seal

Operating force/travel

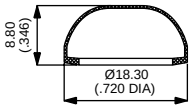


ADDITIONAL SEALING

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

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.*



U5125 or **U5125-2**

