

AV SERIES PUSHBUTTON SWITCHES

Distinctive features

- ☐ **Attractive, robust and durable**
 - Irremovable
 - Anti-jamming construction : reduced travel to prevent insertion of foreign parts
 - Contact and mechanism protected against crushing
 - Fire resistant
 - Long life
- ☐ **Sealed versions**
- ☐ **Degrees of protection (switches mounted on vertical panels) :**
 - standard version : IP54
 - sealed version : IP65

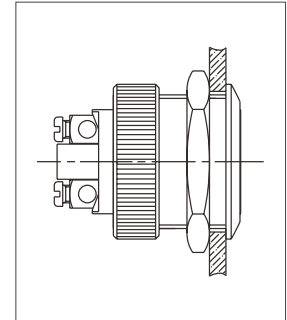


Table explaining degrees of protection (IP and IK codes)

The degree of protection is indicated by 2 letters and 2 numbers.

Example : I P 6 5



IP•• degree of protection provided by the enclosures of electric appliances according to IEC 529 and DIN 40050.

IK.•• degree of protection provided by the enclosures of electric appliances against external mechanical impacts according to EN 50102 (NFC 20-015).

1st number : protection against ingress of solid objects		
IP	tests	
0		Non-protected
1		Protected against solid objects of 50 mm (1.968) and greater
2		Protected against solid objects of 12,5 mm (.492) and greater
3		Protected against solid objects of 2,5 mm (.098) and greater
4		Protected against solid objects of 1 mm (.039) and greater
5		Dust-protected (no harmful ingress)
6		Dust-tight (no ingress)

2nd number : protection against liquids		
IP	tests	
0		Non-protected
1		Protected against vertically falling water drops
2		Protected against vertically falling water drops when enclosure tilted up to 15°
3		Protected against water sprayed vertically at an angle up to 60°
4		Protected against splashing water
5		Protected against water jets from any direction

IK code : mechanical protection
The degree of mechanical protection is now defined by the letters IK according to EN 50102 of June 1995 (NFC 20-015) It is only applicable to the "Anti-vandal" switch family. See following pages.



Packaging unit : 20 or 40 pieces depending on models, except AV..4700 (10 pieces), AV06 (60 pieces), AV22P, AV22L and AV24L with anodised plunger (16 pieces).



Mounting accessories : Standard and special hardware are presented in section N.

AV SERIES

ANTI-VANDAL PUSHBUTTON SWITCHES

Distinctive features and specifications

☐ Increased impact resistance provided by a nut or mechanical stop

☐ Stainless steel actuator and bushing

SPECIFICATIONS

- Max. current/voltage rating with resistive load : 2A 48 VDC
- Initial contact resistance : 10 mΩ max. at 1A 2V
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength :
2.000 Vrms 50 Hz min. between terminals and frame
2.000 Vrms 50 Hz min. between terminals
- Electrical life : 10.000 cycles at full load
- Torque : 5 Nm min.- 14 Nm max. applied to nut
- Panel thickness : 1 (.039) to 11 mm (.433) max.
- Operating temperature : -20°C to +55°C
- Mechanical life : 1.000.000 cycles

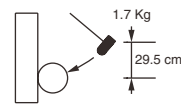
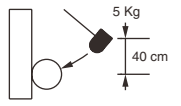
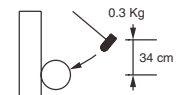
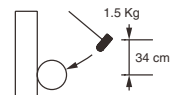
MATERIALS

- Case : PBT
- Contacts : brass, silver plated (C)
- Bushing : stainless steel
- Actuator : stainless steel

CUT-OUTS

- Panel cut-out :
Ø 19,2 mm (.755)
or Ø 22,2 mm (.874)
- Min. pitch for matrix mounting :
30 mm (1.181) x 30 mm (1.181)

ROBUSTNESS

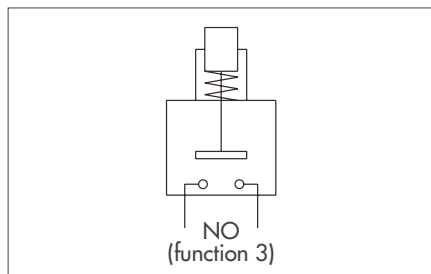
	Model Ø 19 mm (.748)		Model Ø 22 mm (.866)	
Degree of protection according to EN 50102, June 95 (NFC 20-015)		IK08 Striking energy: 5 joules (5Nm)		IK10 Striking energy: 20 joules (20Nm)
	Hammer radius 25 mm		Hammer radius 50 mm	
Impacts on actuator according to CECC 96000 Hammer radius 10 mm		10 strokes Striking energy: 1 joule (1Nm)		10 strokes Striking energy: 5 joules (5Nm)

AV SERIES

ANTI-VANDAL PUSHBUTTON SWITCHES

Bushing Ø 19 (.748)

MODEL
STRUCTURE



ORDER FORMAT

Series	Bush./act. config.	Case style	Function	Contact material	Terminal type	Bush./act. material	Sealing
AV	09 19 9D	100	3	C	9 2	40	N T

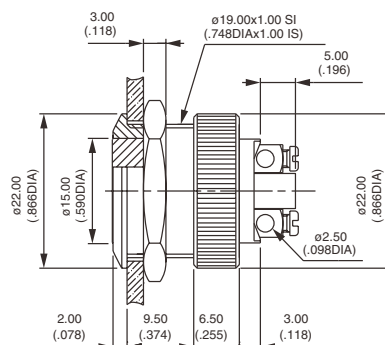
BASIC MODEL

Flat actuator - AV09..40N

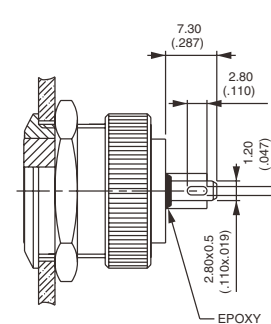


Screw terminals
AV091003C940N

Solder lug / quick-connect term.
AV091003C240N

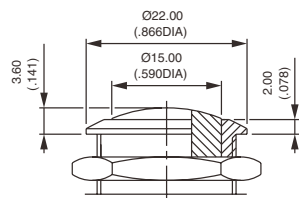


Hex nut 22 (.866) across flats



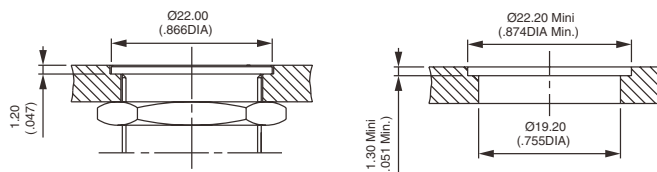
OTHER CONFIGURATIONS

Curved actuator



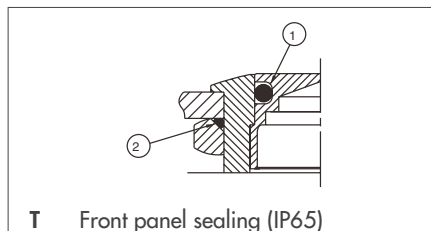
Screw terminals
AV191003C940N
Solder lug / quick-connect terminals
AV191003C240N

Flush model



Screw terminals
AV9D1003C940N
Solder lug / quick-connect terminals
AV9D1003C240N

SEALING



To order a sealed product, replace N with T at the end of above part numbers.

- ① internal gasket
- ② external gasket

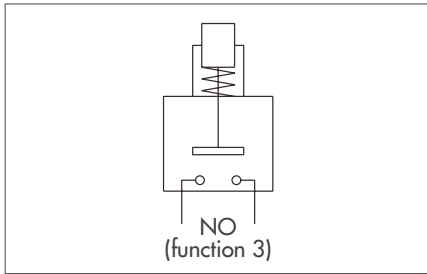
Robustness : see "Specifications" page.

K

AV SERIES

SECURITY PUSHBUTTON SWITCHES

Bushing Ø 19 (.748)



ORDER FORMAT

Series	Bush./act. config.	Case style	Function	Contact matl.	Term. type	Bush./act. material	Marking	Sealing
AV	09 19 9P 9B	100	3	C	9 2	00		K

See "options" page.

SPECIFICATIONS

- Max. current/voltage rating with resistive load : 2A 48 VDC
- Initial contact resistance : 10 mΩ max. at 1A 2V
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength :
2.000 Vrms 50 Hz min. between terminals and frame
2.000 Vrms 50 Hz min. between terminals
- Electrical life : 10.000 cycles at full load
- Torque : 5 Nm min.- 14 Nm max. applied to nut
- Panel thickness : 1 (.039) to 11 mm (.433) max.
- Operating temperature : -20°C to +55°C
- Mechanical life : 1.000.000 cycles

MATERIALS

- Case : PBT
- Contacts : brass, silver plated (C)
- Bushing : brass, nickel plated (std)
- Actuator : brass, nickel plated (std)

CUT-OUT

- Panel cut-out :
Ø 19,2 mm (.755)
- Min. pitch for matrix mounting :
30 mm (1.181) x 30 mm (1.181)

All model numbers below are for switches with standard bushing/actuator material, without marking.

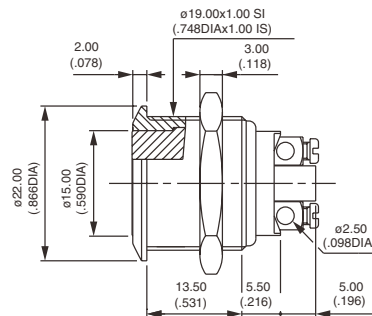
BASIC MODEL

Flat actuator - AV09..00

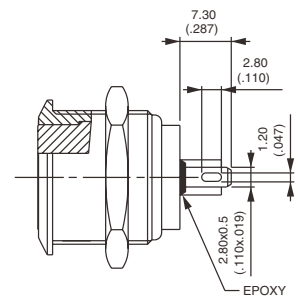


Screw terminals
AV091003C900

Solder lug /
quick-connect term.
AV091003C200



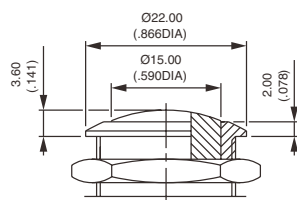
Hex nut 22 (.866) across flats



K

OTHER CONFIGURATIONS

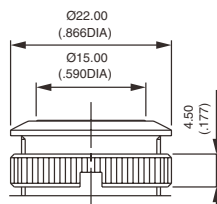
Curved actuator



Screw terminals
AV191003C900

Solder lug / quick-connect terminals
AV191003C200

With knurled nut for matrix mounting 25 (.984) x 25 (.984)

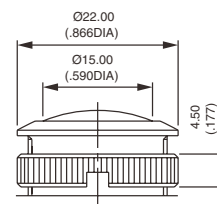


Flat actuator, screw term.

AV9P1003C900

Flat actuator, solder lug term.

AV9P1003C200

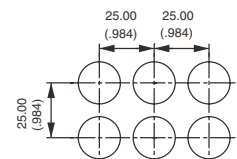


Curved actuator, screw term.

AV9B1003C900

Curved act., solder lug term.

AV9B1003C200



Wrench available
under P/N U1929.