

AV series

Security pushbutton switches •
Ø 19 or 22 mm • momentary NO



DISTINCTIVE FEATURES

Momentary (NO)

Momentary (NC) and alternate action also available

Long life

UL-CSA approved (long case only)

Marking available



ENVIRONMENTAL SPECIFICATIONS

- Optional front panel sealing : IP65 according to IEC 60529
- Operating temperature : -30 °C to +70 °C (-22 °F to +158 °F)



ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - A contacts : 4 A 12 VDC, 500,000 cycles
 - C contacts : 2 A 48 VDC, 10,000 cycles
- Approved ratings of models with long case and A contacts (AV..000) :
UL-CSA : 4 A 250 VAC - 8 A 125 VAC - 6,000 cycles
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- Dielectric strength :
2,000 Vrms 50 Hz min. between terminals and frame
2,000 Vrms 50 Hz min. between terminals



GENERAL SPECIFICATIONS

- Torque : 5 Nm min.- 14 Nm max. applied to nut
- Panel thickness : 1 (.039) to 11 mm (.433) max.
- Low level or mechanical life : 1,000,000 cycles
- Hand soldering : 300 °C (572 °F), 3 sec. max.



MATERIALS

- Case : PBT
- Contacts : silver (A) or brass, silver plated (C)
- Bushing and actuator : see following pages

The company reserves the right to change specifications without notice.



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AGENCY APPROVAL

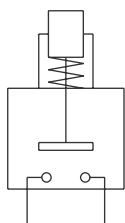


4 A 250 VAC / 8 A 125 VAC
(long case only)

To order switches marked UL-CSA,
add "UU" at the end of model number.



ELECTRICAL FUNCTIONS



Function 3 (NO)



PANEL MOUNTING

- Panel cut-out : Ø 19,2 mm (.755) or Ø 22.2 mm (.874)
- Min. pitch for matrix mounting :
30 mm x 30 mm (1.181x1.181)

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BUILD YOUR PART NUMBER

BASIC PART NUMBER					
SERIES	BUSHING/ACTUATOR CONFIGURATIONS	CASE	FUNCTION	CONTACTS	TERMINALS
AV					
	Models Ø 19 (.748)	000 Long 100 Short	3 NO	A Silver C Brass, silver plated	9 Screw 2 Solder lug/ quick-connect
	Models Ø 22 (.866)				
	09 Flat actuator 19 Curved actuator				
	03 Flat actuator 02 Curved actuator				

OPTIONS		
BUSHING/ACTUATOR MATERIALS	SEALING	AGENCY APPROVAL
Flat or curved metal actuator 00 (std) Nickel plated brass / Nickel plated brass 10 Nickel plated brass / Stainless steel 20 Chrome plated brass / Chrome plated brass 30 Chrome plated brass / Stainless steel 40 Stainless steel / Stainless steel 50 Stainless steel / Nickel plated brass 70 Black chrome plated brass / Black chrome plated brass	Flat thermoplastic actuator bushing 0• (std) Nickel plated brass 2• Chrome plated brass 8• Varnished polished brass Replace • with actuator color (see following pages).	Blank No sealing K Sealed to IP65 UU UL Availability : models with long case only.



ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

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

⚙ **Mounting accessories:** standard hardware supplied : 1 hex nut. Standard and special hardware is presented in the "Hardware" section of website.

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BUSHING Ø 19 (.748) - FLAT ACTUATOR SHORT CASE - 48 VDC



Screw terminals

AV091003•9



Solder lug /
 quick-connect term.

AV091003•2



• Contacts. Replace with A or C.

BUSHING Ø 19 (.748) - CURVED ACTUATOR SHORT CASE - 48 VDC



Screw terminals

AV191003•9



Solder lug /
 quick-connect term.

AV191003•2



• Contacts. Replace with A or C.

BUSHING Ø 19 (.748) - FLAT ACTUATOR LONG CASE- 4 A 250 VAC/8 A 125 VAC - UL/CSA



Screw terminals

AV090003A9



To order switches marked UL-CSA, add "UU" at the end of model number.

BUSHING Ø 19 (.748) - CURVED ACTUATOR LONG CASE - 4 A 250 VAC/8 A 125 VAC - UL/CSA



Screw terminals

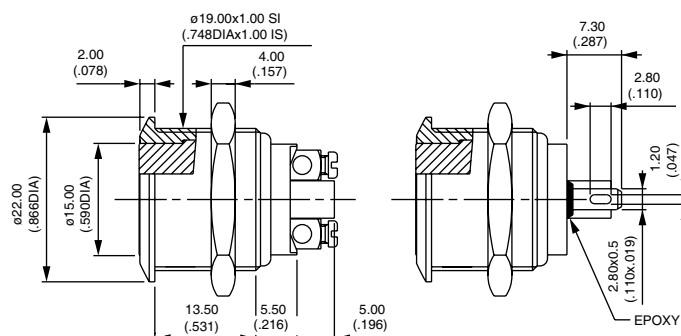
AV190003A9



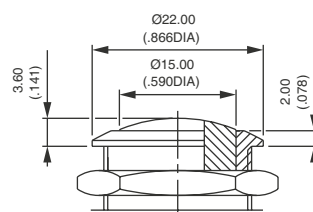
To order switches marked UL-CSA, add "UU" at the end of model number.

Screw terminals for wires 1.5 mm² max.

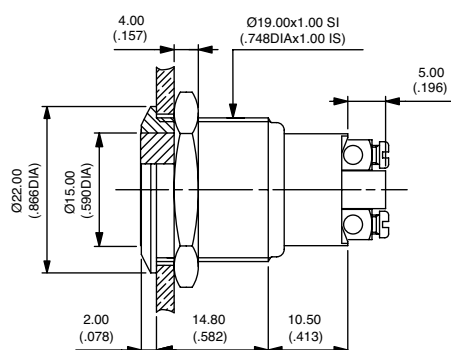
Hex nut 22 (.866) across flats



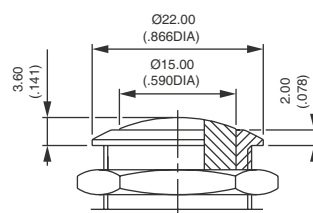
Hex nut 22 (.866) across flats



Hex nut 22 (.866) across flats



Hex nut 22 (.866) across flats



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BUSHING Ø 22 (.866) - FLAT ACTUATOR SHORT CASE - 48 VDC



Screw terminals

AV031003•9



Solder lug /
quick-connect term.

AV031003•2



• Contacts. Replace with A or C.

BUSHING Ø 22 (.866) - CURVED ACTUATOR SHORT CASE - 48 VDC



Screw terminals

AV021003•9



Solder lug /
quick-connect term.

AV021003•2



• Contacts. Replace with A or C.

BUSHING Ø 22 (.866) - FLAT ACTUATOR LONG CASE - 4 A 250 VAC/8 A 125 VAC - UL/CSA



Screw terminals

AV030003A9



To order switches marked UL-CSA, add "UU" at the end of model number.

BUSHING Ø 22 (.866) - CURVED ACTUATOR LONG CASE - 4 A 250 VAC/8 A 125 VAC - UL/CSA



Screw terminals

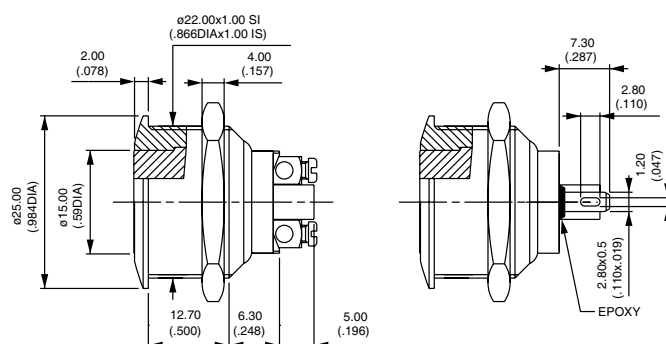
AV020003A9



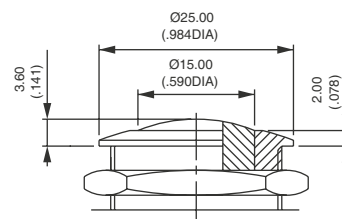
To order switches marked UL-CSA, add "UU" at the end of model number.

Screw terminals for wires 1.5 mm² max.

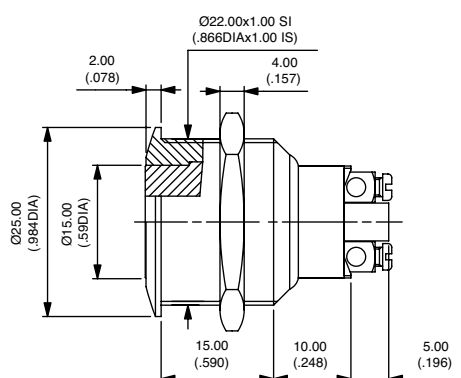
Hex nut 25 (.984) across flats



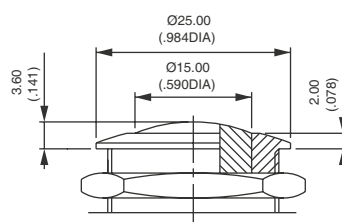
Hex nut 25 (.984) across flats



Hex nut 25 (.984) across flats



Hex nut 25 (.984) across flats



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BUSHING Ø 22 (.866) - MOMENTARY, NORMALLY CLOSED

- Single pole, screw terminals, without marking
- Silver plated copper contacts (C)
- Max. current/voltage rating with resistive load :
 2 A 250 VAC - 3 A 125 VAC - 2.5 A 24 VDC
- Dielectric strength :
 2,000 Vrms 50 Hz min. betw. terminal and frame
 2,000 Vrms. 50 Hz min. between terminals
- Electrical life : 100,000 cycles at 0.3 A 24 VAC or DC
 10,000 cycles at full load

Flat actuator

AV031202C9



Curved actuator

AV021202C9



BUSHING Ø 22 (.866) - ALTERNATE ACTION

- Double pole, solder lug/quick-connect terminal, curved actuator
- Silver contacts
- Max. current/voltage rating with resistive load :
 3 (1.5) A 250 VAC - 6 A 125 VAC - 3 A 24 VAC or DC
- Dielectric strength : 3,000 Vrms min. between terminals and frame
- Electrical life : 10,000 cycles at full load
 50,000 cycles at 1 A 24 VAC or DC
- Mechanical life : 100,000 cycles

AV044746A2

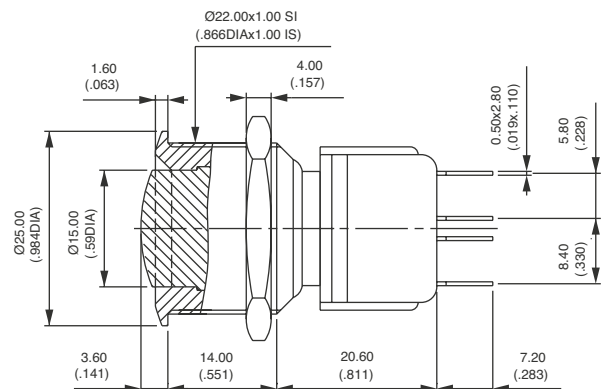
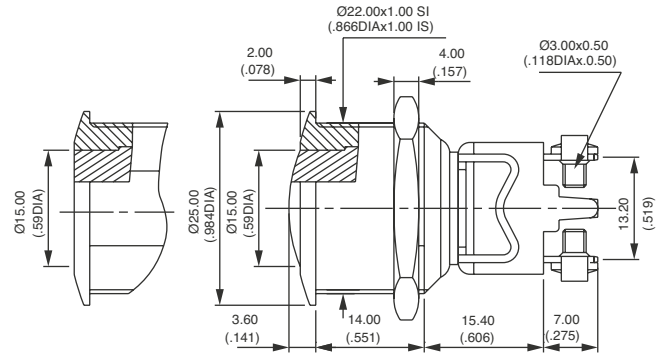


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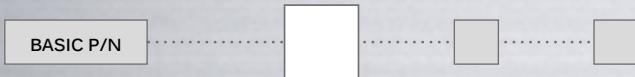


For further specifications, see previous pages

Hex nut 25 (.984) across flats

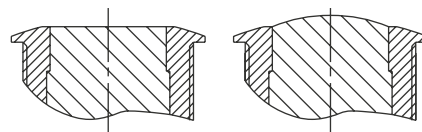


BUSHING/ACTUATOR MATERIALS



FLAT OR CURVED METAL ACTUATOR

CODE	BUSHING	ACTUATOR
00 (std)	Nickel plated brass	Nickel plated brass
10	Nickel plated brass	Stainless steel
20	Chrome plated brass	Chrome plated brass
30	Chrome plated brass	Stainless steel
40	Stainless steel	Stainless steel
50	Stainless steel	Nickel plated brass
70	Black chrome plated brass	Black chrome plated brass



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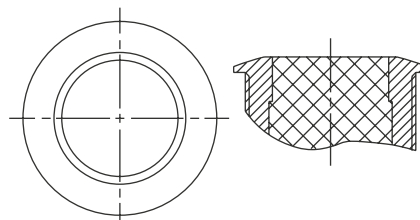
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BUSHING/ACTUATOR MATERIALS (CONTINUED)



FLAT THERMOPLASTIC ACTUATOR

CODE	BUSHING	ACTUATOR
0• (std)	Nickel plated brass	Replace • with one of the following codes : 1 : blue - 1/4 : dark blue - 2 : black - 3 : green - 4 : grey - 5 : yellow - 6 : red - 7/1 : white - 9 : orange
2•	Chrome plated brass	
8•	Varnished polished brass	

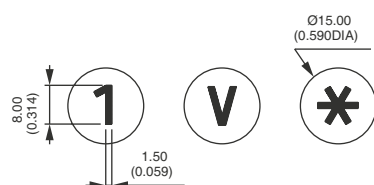


MARKING



For **flat or curved actuator**: by laser etching on non-illuminated brass or stainless steel actuator.

For **flat actuator**: by hot stamping on thermoplastic insert (illuminated actuators). Not available for AV031202C9 and AV044746A2.



Select an option from each of the two paragraphs opposite (Type /Color).

TYPE OF MARKING

0 to 9	Numbers 0 to 9
X	Symbol *
Y	Symbol #
A to N	Letters A to N
P to W	Letters P to W
O	Letter O

Letter O : same code and same design as number 0.
For special symbols, consult factory.
Minimum order : 500 pieces

COLOR OF MARKING

Brass actuator

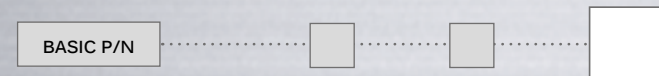
0 (std)	Same as finish
2	Black

Note : a finished product supplied in version "0" cannot be modified to version "2".

Thermoplastic actuator

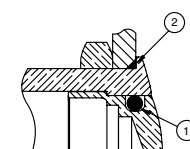
2	Black
7	White

SEALING



Blank	No sealing
K	Front panel sealing to IP65

OPTION K



- ① - internal gasket
- ② - external gasket