

# 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 : 1.5 Nm min.- 4 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

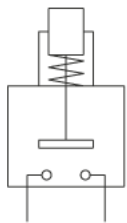


4 A 250 VAC / 8 A 125 VAC  
(long case only)

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



## ELECTRICAL FUNCTIONS



Function 3 (NO)



## PANEL MOUNTING

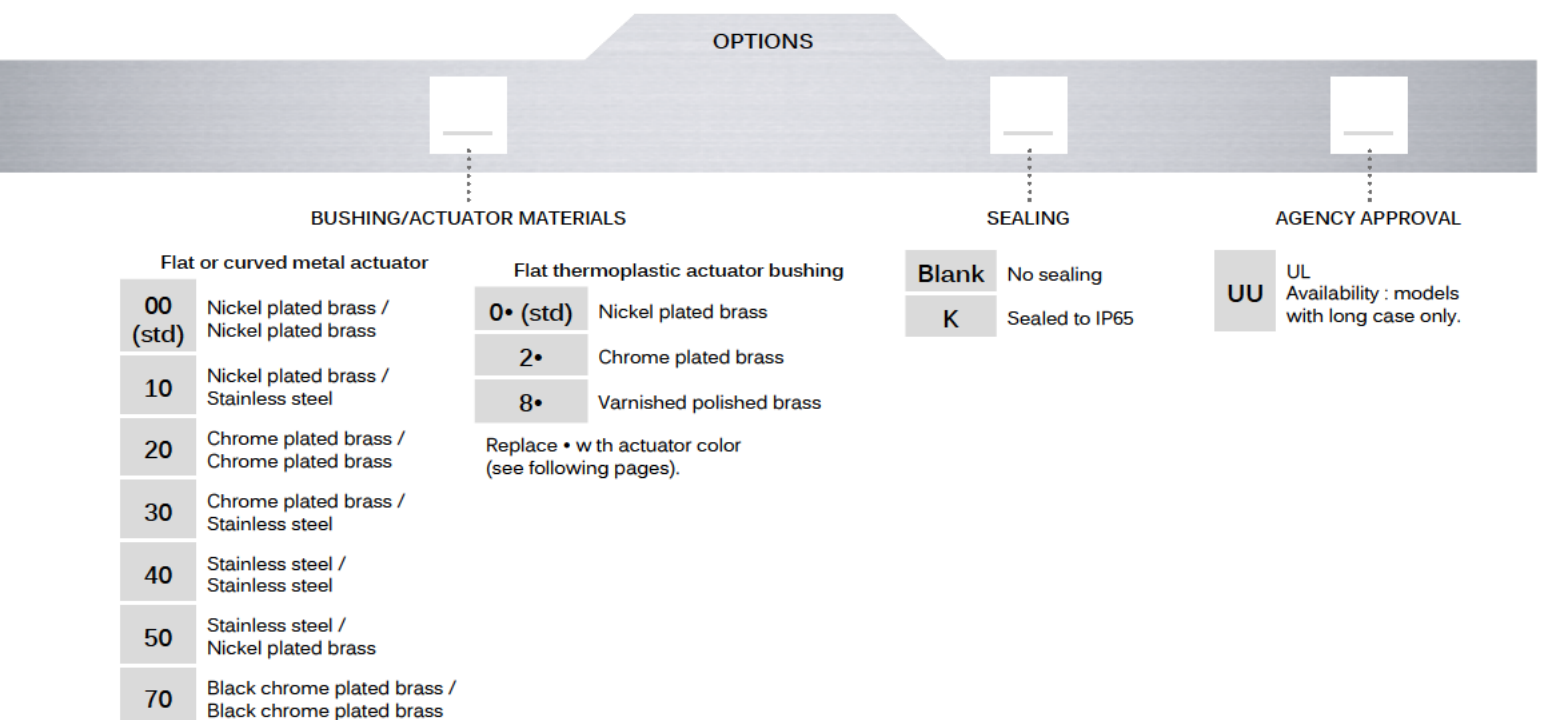
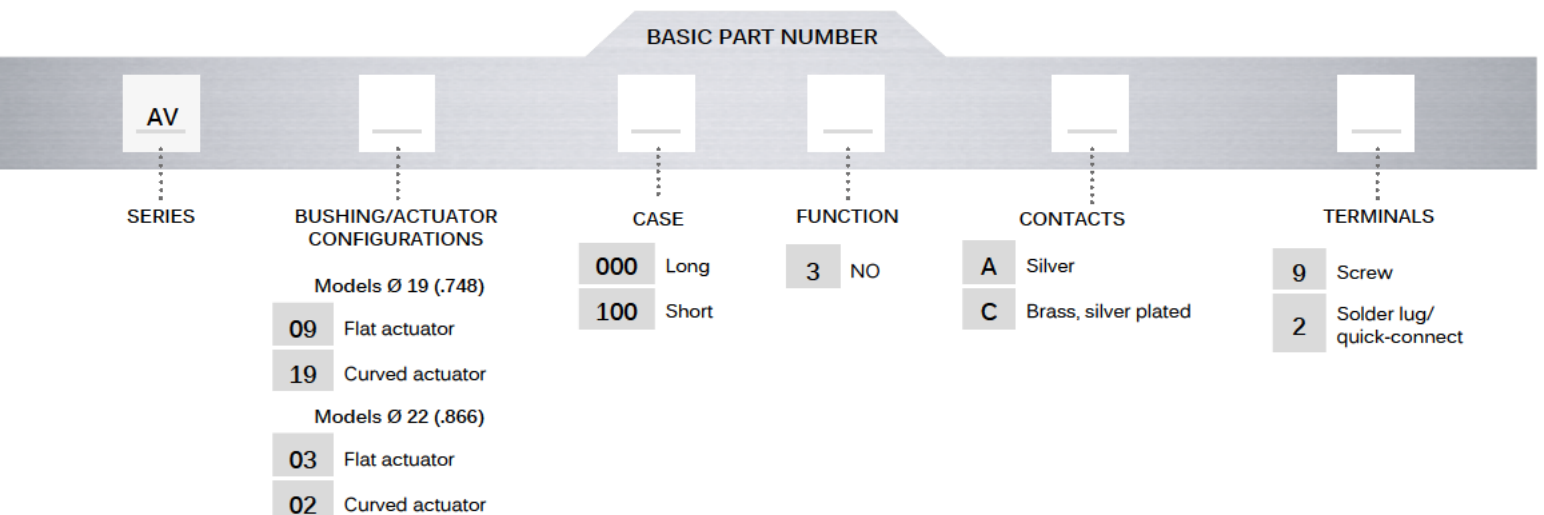
- Panel cut-out : Ø 19,2 mm (.755) or Ø 22.2 mm (.874)
- Min. pitch for matrix mounting :  
30 mm x 30 mm (1.181x1.181)

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## BUILD YOUR PART NUMBER



## ABOUT THIS SERIES

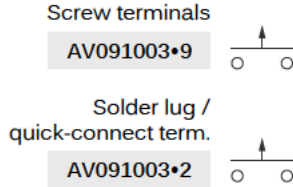
On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

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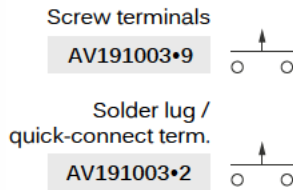
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## BUSHING Ø 19 (.748) - FLAT ACTUATOR SHORT CASE - 48 VDC



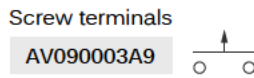
• Contacts. Replace with A or C.

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



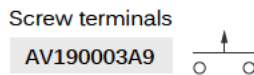
• Contacts. Replace with A or C.

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



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

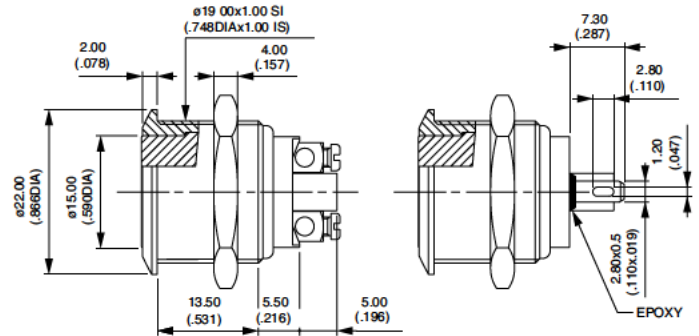
## BUSHING Ø 19 (.748) - CURVED ACTUATOR LONG CASE - 4 A 250 VAC/8 A 125 VAC - UL/CSA



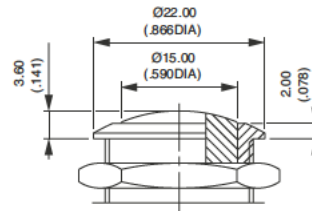
To order switches marked UL-CSA, add "UU" at the end of model number.

Screw terminals for wires 1.5 mm<sup>2</sup> max.

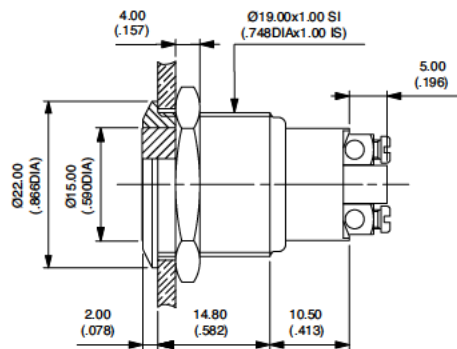
Hex nut 22 (.866) across flats



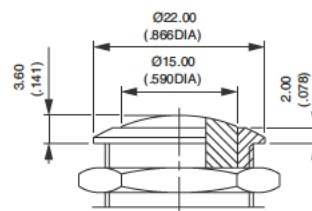
Hex nut 22 (.866) across flats



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

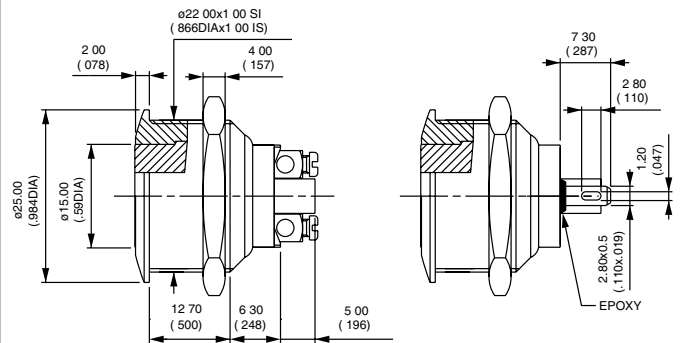
AV020003A9



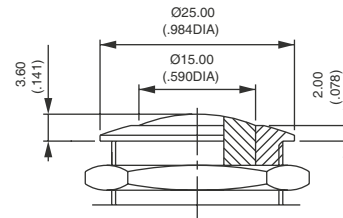
To order switches marked UL-CSA, add "UU" at the end of model number.

Screw terminals for wires 1.5 mm<sup>2</sup> max.

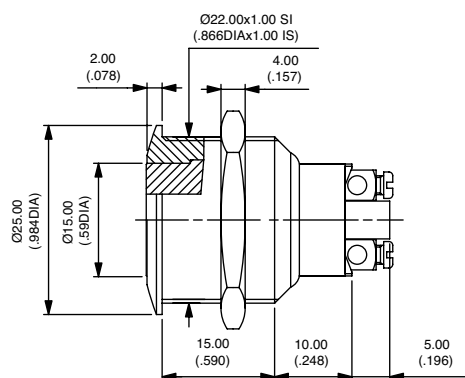
Hex nut 25 (.984) across flats



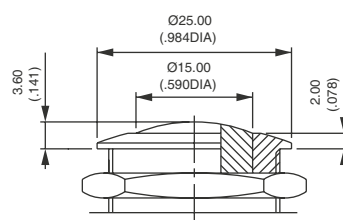
Hex nut 25 (.984) across flats



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                      Curved actuator  
 AV031202C9                          AV021202C9    

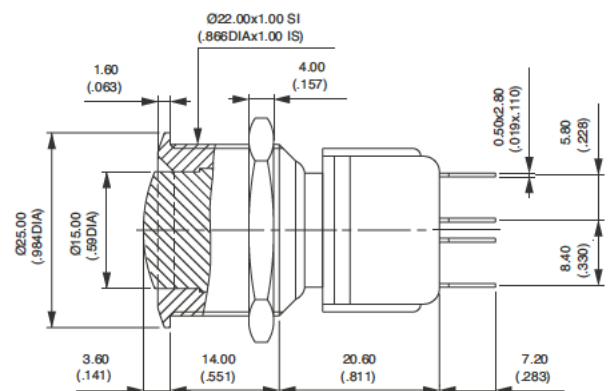
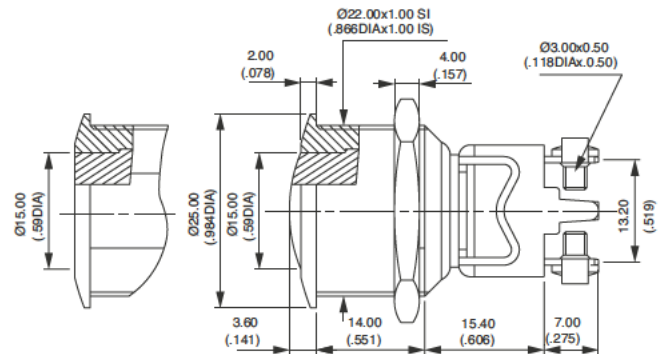
## BUSHING Ø 22 (.866) - ALTERNATE ACTION

- 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        ON    -        ON

For further specifications, see previous pages

Hex nut 25 (.984) across flats

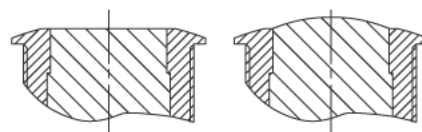


### BUSHING/ACTUATOR MATERIALS

BASIC P/N

FLAT OR CURVED METAL ACTUATOR

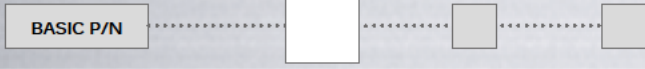
| CODE     | BUSHING                   | ACTUATOR                  |
|----------|---------------------------|---------------------------|
| 00 (std) | Nickel plated brass       | Nickel plated brass       |
| 10       | Nickel plated brass       | Stainless steel           |
| 20       | Chrome plated 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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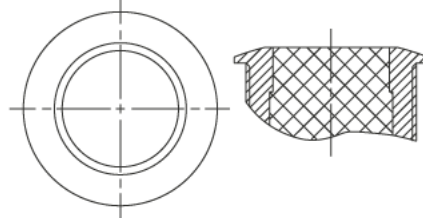
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## BUSHING/ACTUATOR MATERIALS (CONTINUED)

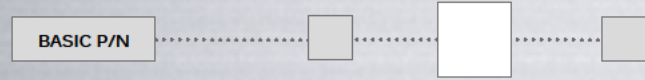


### FLAT THERMOPLASTIC ACTUATOR

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

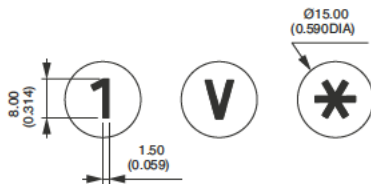


## MARKING



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
- 0 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

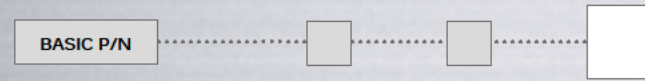
- 0 (std) Same as finish
- 2 Black

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

#### Thermoplastic actuator

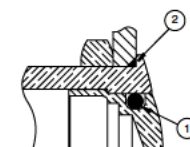
- 2 Black
- 7 White

## SEALING



- Blank No sealing
- K Front panel sealing to IP65

### OPTION K



- ① - internal gasket
- ② - external gasket