

AV SERIES PUSHBUTTON SWITCHES

Designed to meet stringent security requirements, all AV Series models are rugged, durable and cosmetically attractive.

All models feature:

- Long life.
- Anti-jamming construction.
- Minimum clearance between actuator and bushing, to prevent willful damage by means of insertion of foreign parts or matter.
- Protection against crushing of contacts and switch mechanism.



In addition, all standard models are sealed to Specification IP54. IP54 specifies that the switch enclosure must be dust-protected (no harmful penetration) as well as resistant to splashing water. Optional sealing to IP65 is also available on all models, and is provided with a front panel sealing gasket as well. IP65 specifies that the switch enclosure must be dust-tight (no penetration) as well as resistant to jets of water from any direction.

The AV Series consists of 3 categories of pushbutton switches designated **Anti-Vandal**, **Security** and **Snap-Action Security**. The distinctive features are:

Anti-Vandal - Highest impact resistance provided by a mechanical stop and added ruggedness provided by a stainless steel actuator and bushing. The 19mm models meet IP..7 which specifies the switch must withstand a hammer blow to the actuator with a striking energy of 6 joules, while the 22mm models meet IP..9 which specifies the switch must similarly withstand 20 joules of energy. In both of these cases, no resulting damage is permissible per the specification. (Continued).

AV SERIES PUSHBUTTON SWITCHES

Security - High impact resistance and ruggedness with a large variety of options, including actuator shapes, electrical functions, connections, finish and marking options.

Snap-Action Security - High impact resistance and ruggedness. All of these models feature tactile response and optional illumination and marking.

AV Series switches are shown on the following pages in order of the above categories. For ease in selecting the correct model for your application, the following table lists key parameters by switch category in order of ascending ratings.

CATEGORY	RATING(S) (RESISTIVE)	ELECTRICAL . CONFIGURATION	SIZE (mm)	ADD'L. SPECS. SEE ALSO	PAGE
ANTI-VANDAL	2 A 48 VDC	SPST NO Momentary	19	-	C87
	2 A 48 VDC	SPST NO Momentary	22	-	C88
SECURITY	1 A 30 V	SPST NO & NC Mom	19	9000 Series	C89
	2 A 48 VDC	SPST NO Momentary	19	-	C90
	2 A 48 VDC	SPST NO Momentary	22	-	C91
	New! 3 A 120 VAC or 28 VDC, 1.5 A 250 VAC & Dry Circuit	SPST NO Momentary	19	300 Series	C92
	3 A 125 VAC, 2 A 250 VAC, 2.5 A 24 VDC	SPST NC Momentary	22	1200 Series	C93
	6 A 125 VAC, 3 A 250 VAC, 3 A 24 VDC	DPDT ON-ON Alternate	22	4700 Series	C94
New! 6 A 125 VAC, 3 A 250 VAC, 7 A 30 VDC & Dry Circuit	SPDT NO & NC Mom.	19	PB Series	C95	
SNAP-ACTION SECURITY	50 mA 24 VDC	SPST NO Momentary	19	-	C96
	50 mA 24 VDC	SPST NO Mom. (lighted)	19	-	C97
	New! 3A 120 VAC or 28 VDC. 1.5 A 250 VAC & Dry Circuit	SPST ON-OFF Alternate	19	400 Series	C98
	New! 6 A 125 VAC, 3 A 250 VAC, 7 A 30 VDC & Dry Circuit	SPDT & DPDT, NO & NC Mom.	19	800 Series	C99

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

AV SERIES ANTI-VANDAL PUSHBUTTON SWITCHES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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SPECIFICATIONS	FEATURES
<p>Contact ratings: 2 A at 48 VDC max. (resistive load)</p> <p>Initial contact resistance: 10 milliohms max. at 1 A, 2 V</p> <p>Insulation resistance: 1000 megohms min. at 500 VDC</p> <p>Dielectric strength: 3000 V rms min. between terminals and frame and between terminals</p> <p>Electrical life: 10,000 cycles min. at full load</p> <p>Mechanical life: 1,000,000 cycles min.</p> <p>Operating temperature range: -20°C to +55°C</p> <p>Solder heat resistance: 300°C max. for 5 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> .755" (19 mm) dia. and .866" (22 mm) dia. models. Single pole NO momentary action. Standard - sealing protection per IP547 or IP549. Optional - sealing protection per IP657 or IP659. Extremely rugged and durable.
MATERIALS	
<p>Contacts & terminals: Silver plated brass</p> <p>Bushing & Actuator: Stainless steel</p> <p>Case: PBT Hex. Mounting Nut: Nickel plated brass</p>	

<p>ORDER FORMAT: For complete model no., fill in 2 empty boxes with selected options shown below. Example of complete model no. - AV191003C940N</p>	<table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 5px;">Series</td> <td style="border: 1px solid black; padding: 5px;">Bush./Act. Config.</td> <td style="border: 1px solid black; padding: 5px;">Body Style</td> <td style="border: 1px solid black; padding: 5px;">Function</td> <td style="border: 1px solid black; padding: 5px;">Cont. Matl.</td> <td style="border: 1px solid black; padding: 5px;">Term. Type</td> <td style="border: 1px solid black; padding: 5px;">Bush./Act. Matl.</td> <td style="border: 1px solid black; padding: 5px;">Sealing</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">AV</td> <td style="border: 1px solid black; padding: 5px; width: 40px;"> </td> <td style="border: 1px solid black; padding: 5px;">100</td> <td style="border: 1px solid black; padding: 5px;">3</td> <td style="border: 1px solid black; padding: 5px;">C</td> <td style="border: 1px solid black; padding: 5px;">9</td> <td style="border: 1px solid black; padding: 5px;">40</td> <td style="border: 1px solid black; padding: 5px; width: 40px;"> </td> </tr> <tr> <td></td> <td style="padding: 5px;">09 19 9D</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="padding: 5px;">N R T</td> </tr> </table>	Series	Bush./Act. Config.	Body Style	Function	Cont. Matl.	Term. Type	Bush./Act. Matl.	Sealing	AV		100	3	C	9	40			09 19 9D						N R T
Series	Bush./Act. Config.	Body Style	Function	Cont. Matl.	Term. Type	Bush./Act. Matl.	Sealing																		
AV		100	3	C	9	40																			
	09 19 9D						N R T																		

19mm

Bushing/Actuator configurations

Screw terminals

9D flat Act. w/flush mount Bush. 19 curved Act. & Bush.

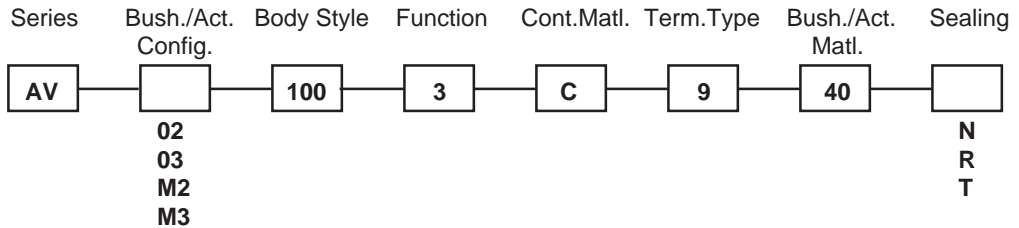
09 flat Act. & curved Bush.

Rear view all models

<p>AV091003C940N (Model shown)</p>	<p>N - no sealing (std'd)</p> <p>R ① Internal seal meets IP65</p>	<p>For 09 & 19 Bush/Act</p> <p>For 9D Bush/Act</p>	<p>R and T sealing options also feature increased impact resistance provided by knurled nut as shown below.</p>
<p style="color: red;">Schematic</p>	<p style="color: red;">Sealing</p> <p>T ① Internal seal & ② front panel seals meet IP65</p>	<p>Min. dimensions for matrix mounting: .984" (25mm) x .984" (25mm).</p> <p style="color: red;">Mounting Holes</p>	

AV SERIES ANTI-VANDAL PUSHBUTTON SWITCHES

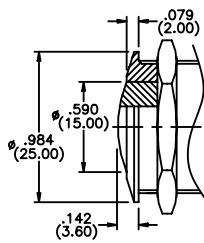
ORDER FORMAT: For complete model no., fill in 2 empty boxes with selected options shown below. Example of complete model no. - **AV021003C940N**



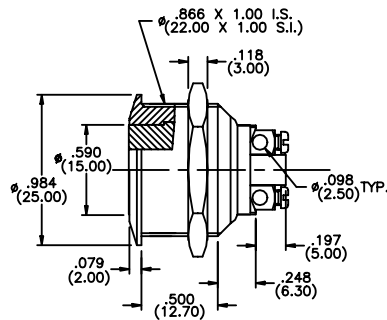
22mm

Bushing/Actuator configurations

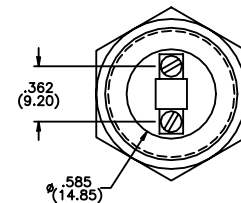
Screw terminals



02 curved Act. & Bush.



03 flat Act. & curved Bush.

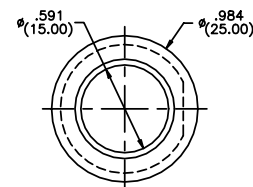


Rear view all models

M2 curved Actuator & curved Bushing with 'D' flat on Bushing

or

M3 flat Actuator & curved Bushing with 'D' flat on Bushing

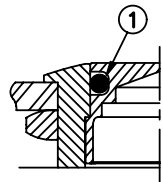


AV021003C940N
(Model shown)

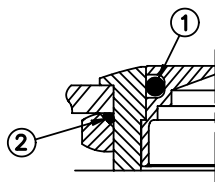


Schematic

N - no sealing (std'd)



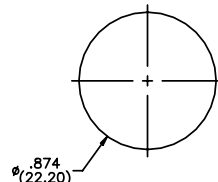
R ① Internal seal meets IP65



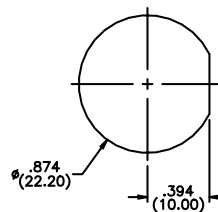
T ① Internal seal & ② front panel seals meet IP65

Sealing

For **02** & **03** Bush/Act



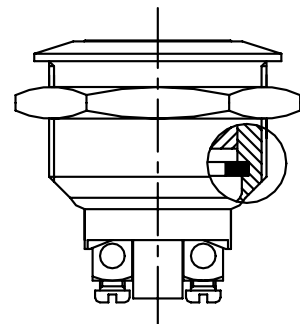
For **M2** & **M3** Bush/Act



Min. dimensions for matrix mounting: 1.181" (30mm) x 1.181" (30mm).

Mounting Holes

R and **T** sealing options also feature increased impact resistance provided by an internal ring as shown below.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

AV SERIES SECURITY PUSHBUTTON SWITCHES

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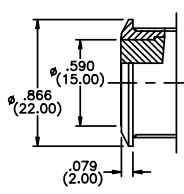
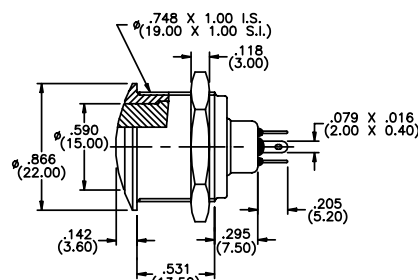
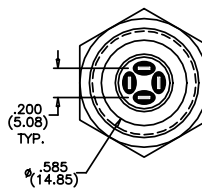
C


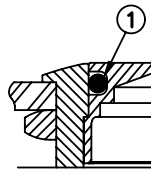
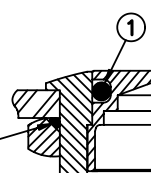
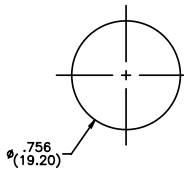
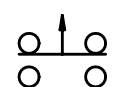
SPECIFICATIONS	FEATURES
<p>Contact ratings: 1 A at 30 V max. (resistive load) 10 μA at 5 V min.</p> <p>Note: current above 100 mA damages the gold plating.</p> <p>Initial contact resistance: 10 milliohms max. at 1 A, 2 V</p> <p>Insulation resistance: 1000 megohms min. at 500 VDC</p> <p>Dielectric strength: 2000 V rms min. between terms. & frame. 1000 V rms min. between terminals</p> <p>Electrical life: 250,000 cycles min. at full load</p> <p>Mechanical life: 1,000,000 cycles min.</p> <p>Operating temperature range: -20°C to +55°C</p> <p>Solder heat resistance: 300°C max. for 5 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● .755" (19 mm) dia. models. ● Combined single pole NO & NC momentary action. ● Standard - sealing protection per IP547 or IP549. ● Optional - sealing protection per IP657 or IP659. ● Extremely rugged and durable.
MATERIALS	
<p>Contacts: Gold plated silver</p> <p>Bushing & Actuator: Nickel plated brass (std'd)</p> <p>Case: PBT Hex. Mounting Nut: Nickel plated brass</p>	

ORDER FORMAT: For complete model no., fill in 2 empty boxes with selected options shown below. Example of complete model no. - **AV199035D200**

Series	Bush./Act. Config.	Body Style	Function	Cont.Matl.	Term.Type	Bush./Act. Matl.	Sealing
AV	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;"> </div> <div style="border: 1px solid black; padding: 2px;"> </div> </div>	903	5	D	2	00	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;"> </div> <div style="border: 1px solid black; padding: 2px;"> </div> </div>
	<div style="display: flex; justify-content: space-around;"> 09 19 </div>						<div style="display: flex; justify-content: space-around;"> Blank E K </div>

Other Bushing/Actuator materials available - flat thermoplastic Actuators available - Actuator marking available - consult factory.

19mm	Bushing/Actuator configurations	Solder lug terminals	
	 <p>09 flat Act. & curved Bush.</p>	 <p>19 curved Act. & Bush.</p>	 <p>Rear view all models</p>

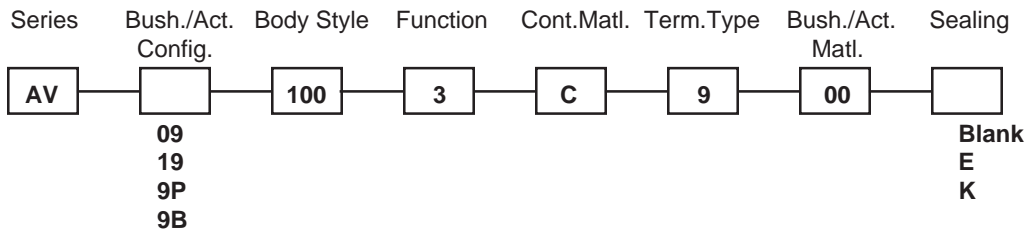
 <p style="text-align: center;">AV199035D200 (Model shown)</p>	<p>Blank - no sealing (std'd)</p>  <p>E ① Internal seal meets IP65</p>  <p>K ① Internal seal & ② front panel seals meet IP65</p>	<p>Min. dimensions for matrix mounting: .984" (25mm) x .984" (25mm).</p>  <p style="text-align: center;">Mounting Hole</p>	
 <p>Schematic</p>	<p>Sealing</p>		

AV SERIES SECURITY PUSHBUTTON SWITCHES

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SPECIFICATIONS	FEATURES
<p>Contact ratings: 2 A at 48 VDC max. (resistive load)</p> <p>Initial contact resistance: 10 milliohms max. at 1 A, 2 V</p> <p>Insulation resistance: 1000 megohms min. at 500 VDC</p> <p>Dielectric strength: 3000 V rms min. between terms. & frame and between terminals</p> <p>Electrical life: 10,000 cycles min. at full load</p> <p>Mechanical life: 1,000,000 cycles min.</p> <p>Operating temperature range: -20°C to +55°C</p> <p>Solder heat resistance: 300°C max. for 5 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● .755" (19 mm) dia. and .866" (22 mm) dia. models. ● Single pole NO momentary action. ● Standard - sealing protection per IP547 or IP549. ● Optional - sealing protection per IP657 or IP659. ● Extremely rugged and durable.
	MATERIALS
	<p>Contacts & terminals: Silver plated brass</p> <p>Bushing & Actuator: Nickel plated brass (std'd)</p> <p>Case: PBT Hex. Mounting Nut: Nickel plated brass</p>

ORDER FORMAT: For complete model no., fill in 2 empty boxes with selected options shown below. Example of complete model no. - **AV191003C900**

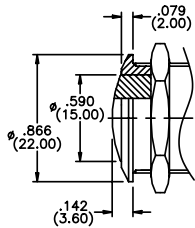


Other Bushing/Actuator materials available - flat thermoplastic Actuators available - Actuator marking available - consult factory.

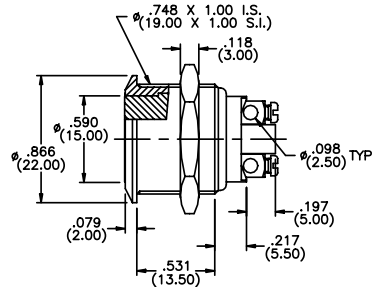
19mm

Bushing/Actuator configurations

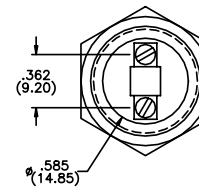
Screw terminals



19 curved Act. & Bush.



09 flat Act. & curved Bush.



Rear view all models

9B curved Act. & Bush. with knurled nut for closer matrix mtg.

9P flat Act. & curved Bush. with knurled nut for closer matrix mtg.

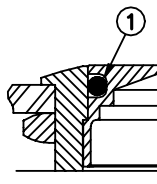
Min. dimensions for matrix mtg. for options **9B** & **9P**: .984" (25mm) x .984" (25mm). Order wrench p/n U1929 for knurled nut.



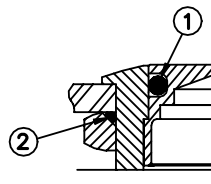
AV191003C900
(Model shown)

Blank - no sealing (std'd)

E ① Internal seal meets IP65



K ① Internal seal & ② front panel seals meet IP65

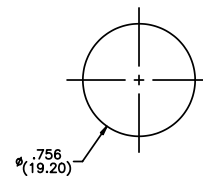


Sealing



Schematic

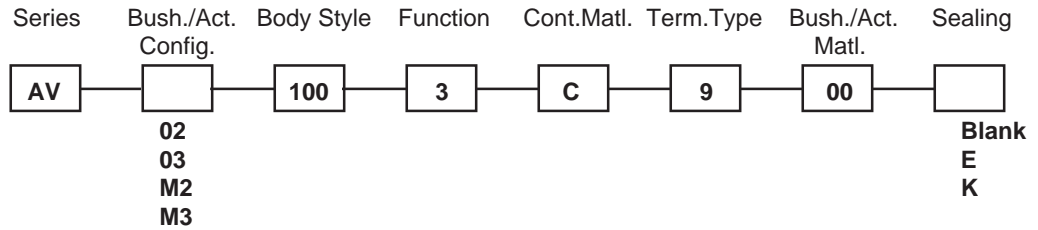
Min. dimensions for matrix mounting: .984" (25mm) x .984" (25mm).



Mounting Hole

AV SERIES SECURITY PUSHBUTTON SWITCHES

ORDER FORMAT: For complete model no., fill in 2 empty boxes with selected options shown below. Example of complete model no. - **AV021003C900**



Other Bushing/Actuator materials available - flat thermoplastic Actuators available - Actuator marking available - consult factory.

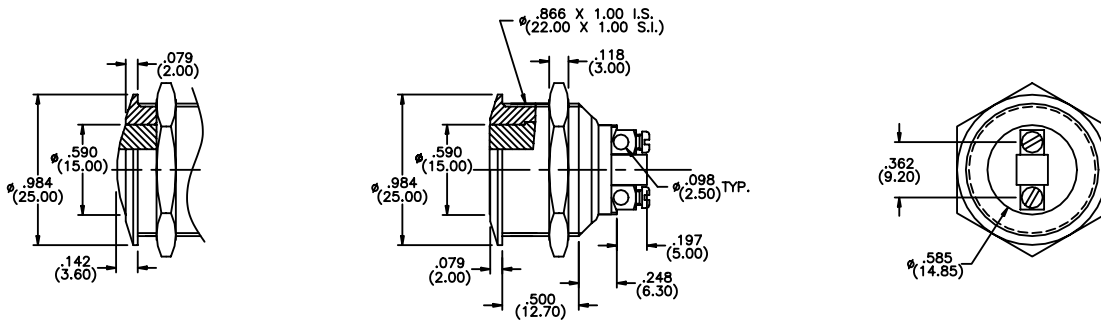
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



22mm

Bushing/Actuator configurations

Screw terminals

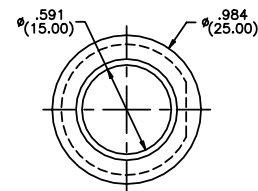


02 curved Act. & Bush.

03 flat Act. & curved Bush.

Rear view all models

M2 curved Actuator & curved Bushing with 'D' flat on Bushing
or
M3 flat Actuator & curved Bushing with 'D' flat on Bushing

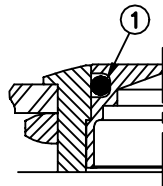


AV021003C900
(Model shown)

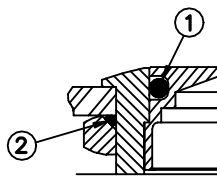


Schematic

Blank - no sealing (std'd)



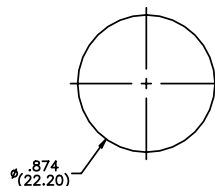
E ① Internal seal meets IP65



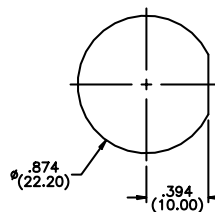
K ① Internal seal & ② front panel seals meet IP65

Sealing

For **02** & **03** Bush/Act



For **M2** & **M3** Bush/Act



Min. dimensions for matrix mounting: 1.181" (30mm) x 1.181" (30mm).

Mounting Holes

New!

AV SERIES SECURITY PUSHBUTTON SWITCHES

SPECIFICATIONS

Contact ratings: Max. resistive loads: **Q** - 3 A 120 VAC (and life) or 28 VDC, 1.5 A 250 VAC - 10,000 cycles min. Also 1 A 120 VAC or 28 VDC, 0.5 A 250 VAC - 250,000 cycles min. **B** - 0.4 Volt-Amps max at 20 V max. - 250,000 cycles min.

Initial contact resistance: 10 mΩ max. at 3 V, 0.1 A

Insulation resistance: 10,000 megohms min.

Dielectric strength: 1000 V rms min.

Operating temperature range: -30°C to +85°C

For additional specifications: See 300 Series switches

FEATURES

- **.755" (19 mm) dia. models.**
- **Single pole NO momentary action.**
- **Standard - sealing protection per IP547 or IP549.**
- **Optional - sealing protection per IP657 or IP659.**
- **Extremely rugged and durable.**

MATERIALS

Contacts: **Q** - Coin silver for power & UL models. **B** - Gold over nickel over brass for dry circuit models.

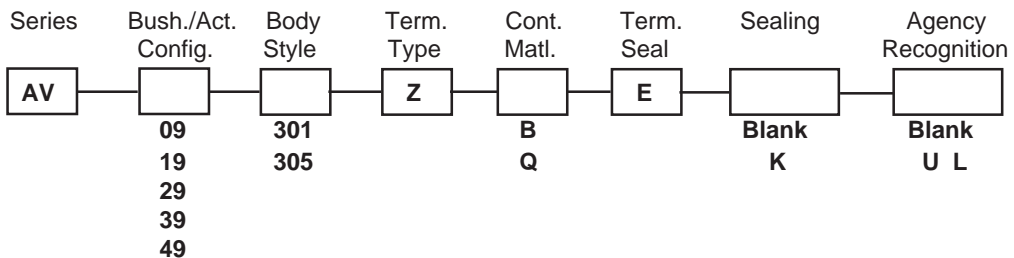
Bushing & Actuator: Nickel plated brass (std'd)

Case: Diallyl Phthalate **Hex. Mounting Nut:** Nickel plated brass

ORDER FORMAT: For complete model no., fill in boxes with selected options shown below.

Example of complete model no. -

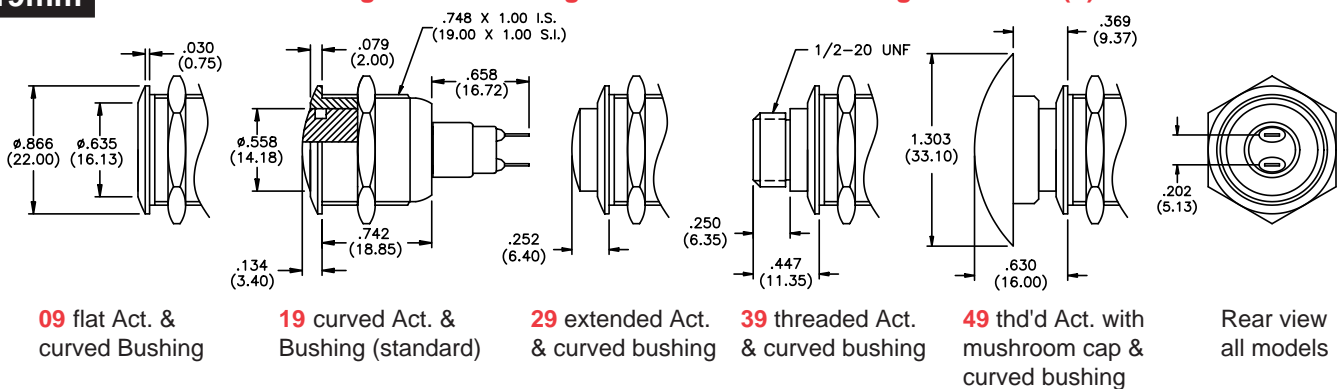
AV19301ZQEK/UL



19mm

Bushing/Actuator configuration

Solder lug terminals - (Z)

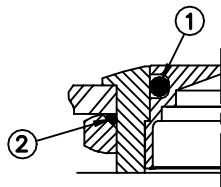


AV19301ZQE/UL
(Model shown)



Schematic

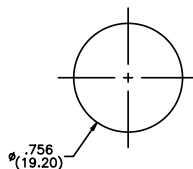
Blank - no sealing (std'd)



K ① Internal seal & ② front panel seals meet IP65

Sealing

Min. dimensions for matrix mounting: .984" (25mm) x .984" (25mm).



Mounting Hole

Notes to Order Format:

301 models have .020" (0.5mm) overtravel and .110" (2.79mm) total travel.

305 models have .080" (2.03mm) overtravel and .110" (2.79mm) total travel.

UL option available only with Q option. UL rating: 1 A 125 VAC or 0.5 A 250 VAC (75% power factor). UL file E66367.

E option is epoxy terminal seal - standard.

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AV SERIES SECURITY PUSHBUTTON SWITCHES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

C

SPECIFICATIONS	FEATURES
<p>Contact ratings: Max. resistive loads: , 3 A 125 VAC, 2 A 250 VAC & 2.5 A 24 VDC</p> <p>Initial contact resistance: 10 milliohms max. at 1 A, 2 V</p> <p>Insulation resistance: 1000 megohms min. at 500 VDC</p> <p>Dielectric strength: 2000 V rms min. between terms. & frame. 2000 V rms min. between terminals</p> <p>Electrical life: 10,000 cycles at 0.3 A 24 V</p> <p>Mechanical life: 1,000,000 cycles min.</p> <p>Operating temperature range: -20°C to +55°C</p> <p>Solder heat resistance: 300°C max. for 5 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● .866" (22 mm) dia. models. ● Single pole NC momentary action. ● Standard - sealing protection per IP547 or IP549. ● Optional - sealing protection per IP657 or IP659. ● Extremely rugged and durable.
MATERIALS	
<p>Contacts & terminals: Silver plated brass</p> <p>Bushing & Actuator: Nickel plated brass (std'd)</p> <p>Case: PBT Hex. Mounting Nut: Nickel plated brass</p>	

ORDER FORMAT: For complete model no., fill in 2 empty boxes with selected options shown below. Example of complete model no. - **AV021202C000**

Series	Bush./Act. Config.	Body Style	Function	Cont.Matl.	Term.Type	Bush./Act. Matl.	Sealing
AV	<div style="display: flex; justify-content: space-around;"> 02 03 </div>	120	2	C	0	00	<div style="display: flex; justify-content: space-around;"> Blank E K </div>

Other Bushing/Actuator materials available - flat thermoplastic Actuators available - Actuator marking available - consult factory.

<p>22mm</p> <p>Bushing/Actuator configurations</p> <p>03 flat Act. & curved Bush.</p>	<p>Straight screw terminals w/clamp</p> <p>02 curved Act. & Bush.</p>	<p>Rear view all models</p>
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<p>AV021202C000 (Model shown)</p>	<p>Blank - no sealing (std'd)</p> <p>E ① Internal seal meets IP65</p> <p>K ① Internal seal & ② front panel seals meet IP65</p>	<p>Min. dimensions for matrix mounting: 1.181" (30mm) x 1.181" (30mm).</p> <p>Mounting Hole</p>	<p>Note: Models on this page are VDE recognized and marked.</p>
<p>Schematic</p>	<p>Sealing</p>	<p>Mounting Hole</p>	

AV SERIES SECURITY PUSHBUTTON SWITCHES

SPECIFICATIONS

Contact ratings: Max.resistive loads: 6 A 125 VAC, 3 A 250 VAC, & 3 A 24 VAC or VDC
Initial contact resistance: 10 milliohms max. at 1 A, 2 V
Insulation resistance: 1000 megohms min. at 500 VDC
Dielectric strength: 3000 V rms min. between terms. & frame
Electrical life: 10,000 cycles at full load, 50,000 cycles min. at 1 A 24 VAC of VDC
Mechanical life: 50,000 cycles min.
Operating temperature range: -20°C to +55°C
Solder heat resistance: 300°C max. for 5 seconds

FEATURES

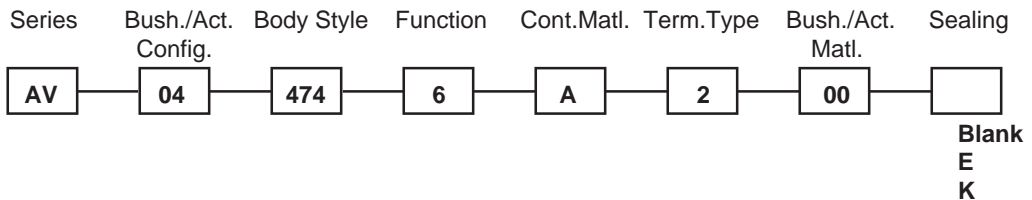
- .866" (22 mm) dia. models.
- Double pole alternate action (ON - ON).
- Standard - sealing protection per IP547 or IP549.
- Optional - sealing protection per IP657 or IP659.
- Extremely rugged and durable.

MATERIALS

Contacts: Silver
Bushing & Actuator: Nickel plated brass (std'd)
Case: PBT **Hex. Mounting Nut:** Nickel plated brass

C

ORDER FORMAT: For complete model no., fill in empty box with selected options shown below. Example of complete model no. - **AV044746A200**

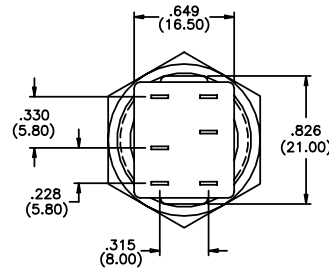
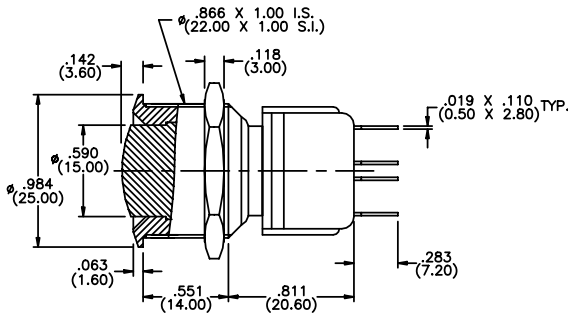


Other Bushing/Actuator materials available - flat thermoplastic Actuators available - Actuator marking available - consult factory.

22mm

Bushing/Actuator configurations

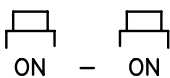
Solder lug/quick connect terminals



04 curved Act.& Bush.

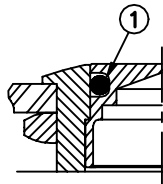


**AV044746A200
(Model shown)**

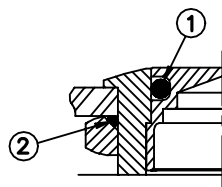


Schematic

Blank - no sealing (std'd)



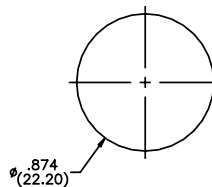
E ① Internal seal meets IP65



K ① Internal seal & ② front panel seals meet IP65

Sealing

Min. dimensions for matrix mounting: 1.181" (30mm) x 1.181" (30mm).



Mounting Hole

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

New!

AV SERIES SECURITY PUSHBUTTON SWITCHES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

C

SPECIFICATIONS	FEATURES
<p>Contact ratings: Max. resistive loads: Q - 6 A 125 VAC, 3 A 250 VAC or 7 A 30 VDC. B - 0.4 Volt-Amps max at 20 V max.</p> <p>Initial contact resistance: 5 mΩ max. at 3 VDC, 0.1 A</p> <p>Insulation resistance: 200,000 megohms minimum between terminals & case ground.</p> <p>Dielectric strength: 2000 VAC min. between terminals and case ground.</p> <p>Electrical life: 100,000 cycles min.</p> <p>Operating temperature range: -30°C to +85°C</p> <p>For additional specifications: See PB Series switches</p>	<ul style="list-style-type: none"> ● .755" (19 mm) dia. models. ● Single pole double throw NO & NC momentary action. ● Standard - sealing protection per IP547 or IP549. ● Optional - sealing protection per IP657 or IP659. ● Extremely rugged and durable.
	MATERIALS
	<p>Contacts: Q - Coin silver for power & UL models. B - Gold over nickel over brass for dry circuit models.</p> <p>Bushing & Actuator: Nickel plated brass (std'd)</p> <p>Case: Diallyl Phthalate Hex. Mounting Nut: Nickel plated brass</p>

<p>ORDER FORMAT: For complete model no., fill in boxes with selected options shown below. Example of complete model no. - AV19PB1-3P2Y1ZQEK/UL</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">Series</td> <td style="border: 1px solid black; padding: 2px;">Bush./Act. Config.</td> <td style="border: 1px solid black; padding: 2px;">Body Style</td> <td style="border: 1px solid black; padding: 2px;">Term. Type</td> <td style="border: 1px solid black; padding: 2px;">Cont. Matl.</td> <td style="border: 1px solid black; padding: 2px;">Term. Seal</td> <td style="border: 1px solid black; padding: 2px;">Sealing</td> <td style="border: 1px solid black; padding: 2px;">Agency Recognition</td> </tr> <tr> <td style="border: 1px solid black; text-align: center;">AV</td> <td style="border: 1px solid black; text-align: center;">19 09 19 29 39 49</td> <td style="border: 1px solid black; text-align: center;">PB1-3P2Y1</td> <td style="border: 1px solid black; text-align: center;">Z</td> <td style="border: 1px solid black; text-align: center;">B Q</td> <td style="border: 1px solid black; text-align: center;">E</td> <td style="border: 1px solid black; text-align: center;">Blank K</td> <td style="border: 1px solid black; text-align: center;">Blank UL</td> </tr> </table>	Series	Bush./Act. Config.	Body Style	Term. Type	Cont. Matl.	Term. Seal	Sealing	Agency Recognition	AV	19 09 19 29 39 49	PB1-3P2Y1	Z	B Q	E	Blank K	Blank UL
Series	Bush./Act. Config.	Body Style	Term. Type	Cont. Matl.	Term. Seal	Sealing	Agency Recognition										
AV	19 09 19 29 39 49	PB1-3P2Y1	Z	B Q	E	Blank K	Blank UL										

19mm	Bushing/Actuator configuration	Solder lug terminals - (Z)	
<p>09 flat Act. & curved Bushing</p>	<p>19 curved Act. & Bushing (standard)</p>	<p>39 threaded Act. & curved bushing</p>	<p>49 thd'd Act. with mushroom cap & curved bushing</p>
			<p>Rear view all models</p>

<p>AV19PB1-3P2Y1ZQE (Model shown)</p>	<p>Blank - no sealing (std'd)</p>	<p>Min. dimensions for matrix mounting: .984" (25mm) x .984" (25mm).</p>	<p>Notes to Order Format:</p> <p>UL option available only with Q option. UL rating: 6 A 125 VAC or 3 A 250 VAC (75% power factor). UL file E66367.</p> <p>E option is epoxy terminal seal - standard.</p>
<p>Schematic</p>	<p>K ① Internal seal & ② front panel seals meet IP65</p> <p>Sealing</p>	<p>Mounting Hole</p>	

AV SERIES SNAP-ACTION SECURITY PB SWITCHES (LIGHTED)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

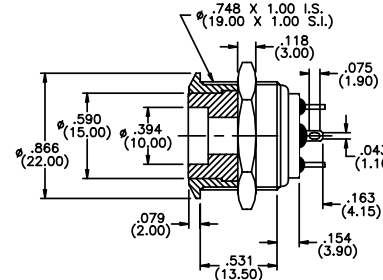
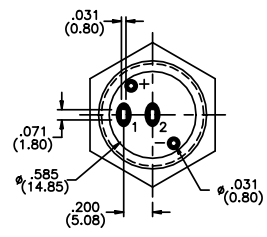
C


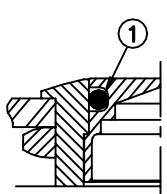
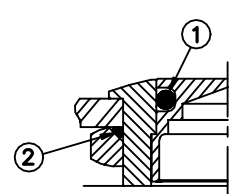
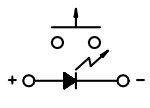
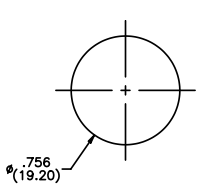
SPECIFICATIONS	FEATURES
<p>Contact ratings: Max.resistive load: 50mA at 24 VDC Initial contact resistance: 100 milliohms max. Insulation resistance: 1000 megohms min. at 500 VDC Dielectric strength: 500 V rms min. between terms. 2000 V rms between terms & bushing Electrical life: 1,000,000 cycles at full load Operating force: 25 oz. ± 7 oz. Travel: .027" (0.7mm) ± .003" (0.1mm) Panel thickness: .039" (1mm) to .433" (11mm) Operating temperature range: -30°C to +70°C Solder heat resistance: 270 °C max. for 3 seconds LED: Consult factory for options & specifications</p>	<ul style="list-style-type: none"> ● .755" (19 mm) dia. models. ● Single pole NO momentary action. ● Illuminated models. ● Standard - sealing protection per IP547 or IP549. ● Optional - sealing protection per IP657 or IP659. ● Extremely rugged and durable.
MATERIALS	
<p>Contacts: Gold plated dome Terminals: Gold plated brass Bushing & Actuator: Nickel plated brass (std'd) Case: PBT Hex. Mounting Nut: Nickel plated brass</p>	

ORDER FORMAT: For complete model no., fill in empty boxes with selected options shown below. Example of complete model no. - **AV09C7L3D2006**

Series	Bush./Act. Config.	Body Style	Function	Cont.Matl.	Term.Type	Bush./Act. Matl.	LED color	Sealing
AV	09	C7L	3	D	2	00		
							6 (red) 3 (green) 5 (yellow) 2 (red/green)	Blank E K

Other Bushing/Actuator materials available - consult factory.

19mm	Bushing/Actuator configurations	Solder lug terminals
	 <p style="text-align: center;">09 flat Act. & curved Bush.</p>	 <p style="text-align: center;">Rear view</p>

 <p>AV09C7L3D2006 (Model shown)</p>	<p>Blank - no sealing (std'd)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: left;"> <p>E ① Internal seal meets IP65</p>  </div> <div style="text-align: left;"> <p>K ① Internal seal & ② front panel seals meet IP65</p>  </div> </div> <p style="text-align: center; font-weight: bold; color: red;">Sealing</p>	 <p style="text-align: center; font-weight: bold; color: red;">Schematic</p> <p>Min. dimensions for matrix mounting: .984" (25mm) x .984" (25mm).</p>  <p style="text-align: center; font-weight: bold; color: red;">Mounting Hole</p>
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New!

AV SERIES SNAP-ACTION SECURITY PUSHBUTTON SWITCHES

SPECIFICATIONS

Contact ratings: Max. resistive loads: **Q** - 3 A 120 VAC (and life) or 28 VDC, 1.5 A 250 VAC - 10,000 cycles min. Also 1 A 120 VAC or 28 VDC, 0.5 A 250 VAC - 250,000 cycles min. **B** - 0.4 Volt-Amps max at 20 V max. - 250,000 cycles min.

Initial contact resistance: 10 mΩ max. at 3 V, 0.1 A

Insulation resistance: 10,000 megohms min.

Dielectric strength: 1000 V rms min.

Operating temperature range: -30°C to +85°C

For additional specifications: See 400 Series switches

FEATURES

- **.755" (19 mm) dia. models.**
- **Single pole ON-OFF alternate & momentary actions.**
- **Standard - sealing protection per IP547 or IP549.**
- **Optional - sealing protection per IP657 or IP659.**
- **Extremely rugged and durable.**

MATERIALS

Contacts: **Q** - Coin silver for power & UL models. **B** - Gold over nickel over brass for dry circuit models.

Bushing & Actuator: Nickel plated brass (std'd)

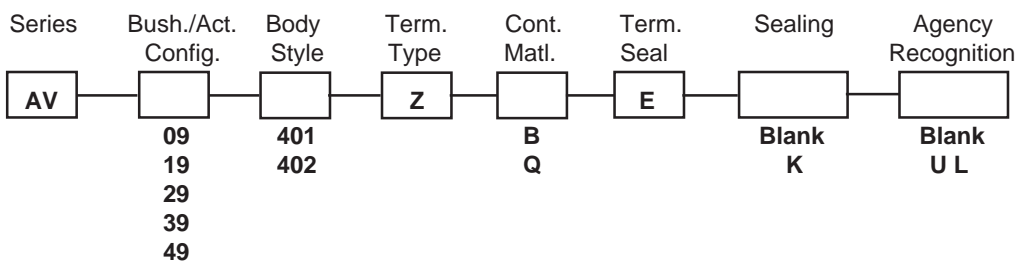
Case: Diallyl Phthalate **Hex. Mounting Nut:** Nickel plated brass

C

ORDER FORMAT: For complete model no., fill in boxes with selected options shown below.

Example of complete model no. -

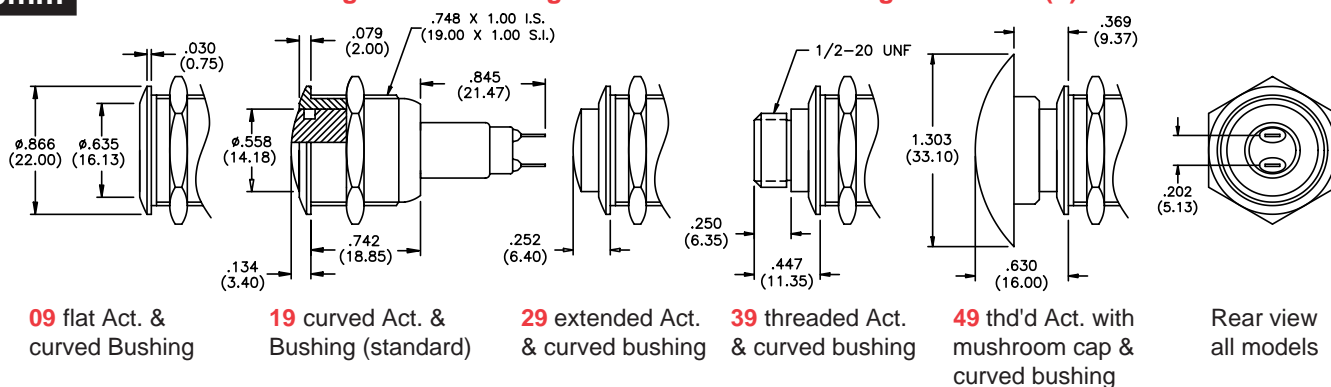
AV19401ZQEK/UL



19mm

Bushing/Actuator configuration

Solder lug terminals - (Z)



09 flat Act. & curved Bushing

19 curved Act. & Bushing (standard)

29 extended Act. & curved bushing

39 threaded Act. & curved bushing

49 th'd Act. with mushroom cap & curved bushing

Rear view all models

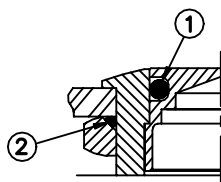


AV19401ZQE/UL
(Model shown)



Schematic

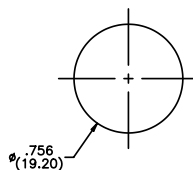
Blank - no sealing (std'd)



K ① Internal seal & ② front panel seals meet IP65

Sealing

Min. dimensions for matrix mounting: $.984"$ (25mm) x $.984"$ (25mm).



Mounting Hole

Notes to Order Format:

401 is alternate action.
402 is momentary action.

401 models have $.026"$ (0.7mm) to contact closure, $.106"$ (2.7mm) travel to activate switch and $.137"$ (3.5mm) total travel.

UL option available only with Q option. UL rating: 1 A 125 VAC or 0.5 A 250 VAC (75% power factor). UL file E66367.

E option is epoxy terminal seal - standard.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

New!

AV SERIES SNAP-ACTION SECURITY PUSHBUTTON SWITCHES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

C

SPECIFICATIONS	FEATURES
<p>Contact ratings: Max. resistive loads: Q - 6 A 125 VAC, 3 A 250 VAC or 7 A 30 VDC. B - 0.4 Volt-Amps max at 20 V max.</p> <p>Initial contact resistance: 20 mΩ max. at 3 VDC, 0.1 A</p> <p>Insulation resistance: 200,000 megohms minimum between terminals & case ground.</p> <p>Dielectric strength: 1500 VAC min. between terminals and case ground.</p> <p>Electrical life: 60,000 cycles min.</p> <p>Operating temperature range: -30°C to +85°C</p> <p>For additional specifications: See 800 Series switches</p>	<ul style="list-style-type: none"> ● .755" (19 mm) dia. models. ● SPDT and DPDT with NO & NC momentary action. ● Standard - sealing protection per IP547 or IP549. ● Optional - sealing protection per IP657 or IP659. ● Extremely rugged and durable.
MATERIALS	
<p>Contacts: Q - Coin silver for power & UL models. B - Gold over nickel over brass for dry circuit models.</p> <p>Bushing & Actuator: Nickel plated brass (std'd)</p> <p>Case: Diallyl Phthalate Hex. Mounting Nut: Nickel plated brass</p>	

<p>ORDER FORMAT: For complete model no., fill in boxes with selected options shown below.</p> <p>Example of complete model no. - AV19810KMZQK/UL</p>	<table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <th style="border: 1px solid black; padding: 5px;">Series</th> <th style="border: 1px solid black; padding: 5px;">Bush./Act. Config.</th> <th style="border: 1px solid black; padding: 5px;">Body Style</th> <th style="border: 1px solid black; padding: 5px;">Term. Type</th> <th style="border: 1px solid black; padding: 5px;">Cont. Matl.</th> <th style="border: 1px solid black; padding: 5px;">Sealing</th> <th style="border: 1px solid black; padding: 5px;">Agency Recognition</th> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">AV</td> <td style="border: 1px solid black; padding: 5px;">09 19 29 39 49</td> <td style="border: 1px solid black; padding: 5px;">810KM 820KM</td> <td style="border: 1px solid black; padding: 5px;">Z</td> <td style="border: 1px solid black; padding: 5px;">B Q</td> <td style="border: 1px solid black; padding: 5px;">Blank K</td> <td style="border: 1px solid black; padding: 5px;">Blank U L</td> </tr> </table>	Series	Bush./Act. Config.	Body Style	Term. Type	Cont. Matl.	Sealing	Agency Recognition	AV	09 19 29 39 49	810KM 820KM	Z	B Q	Blank K	Blank U L
Series	Bush./Act. Config.	Body Style	Term. Type	Cont. Matl.	Sealing	Agency Recognition									
AV	09 19 29 39 49	810KM 820KM	Z	B Q	Blank K	Blank U L									

19mm

Bushing/Actuator configuration

Solder lug terminals - (Z)

09 flat Act. & curved Bushing

19 curved Act. & Bushing (standard)

29 extended Act. & curved bushing

39 threaded Act. & curved bushing

49 thd'd Act. with mushroom cap & curved bushing

Rear view (820 shown)

<p>AV19820KMZQ/UL (Model shown)</p>	<p>Blank - no sealing (std'd)</p>	<p>Min. dimensions for matrix mounting: .984" (25mm) x .984" (25mm).</p>	<p>Notes to Order Format:</p> <p>810KM is SPDT</p> <p>820KM is DPDT</p> <p>UL option available only with Q option. UL rating: 6 A 125 VAC or 3 A 250 VAC (75% power factor). UL file E66367.</p> <p>Epoxy terminal seal is standard on all models.</p>
<p style="text-align: center;">Schematic</p>	<p>K ① Internal seal & ② front panel seals meet IP65</p> <p style="text-align: center;">Sealing</p>	<p style="text-align: center;">Mounting Hole</p>	