

GENERAL APPLICATION

The Southern States type AVS-1 auxiliary switch is utilized to provide positive indication of the position (open or closed) of a switching device by monitoring the rotation of the operating pipe of a switching device. Most commonly used for remote monitoring of line and ground switches or as part of a safety interlock scheme, the AVS-1 features simple, linear circuitry, and easy adjustment. A removable, aluminum cover provides excellent access to the auxiliary contacts during setup and adjustment. The AVS-1 can be applied to any manufacturer's switch with 180 degree or less vertical rotation.

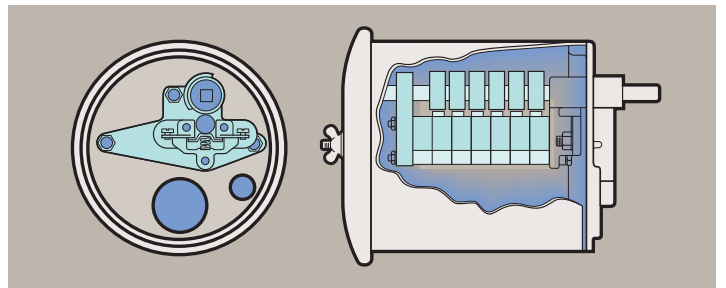
Also available is the Type AV-1 Auxiliary switch. The AV-1 shares all the features of the type AVS-1, but operates off the vertical pipe directly through gear segments for special applications.

The AV-1 and AVS-1 are available with up to 18 adjustable contacts. For additional contacts, a second unit is required.

MAIN FEATURES & BENEFITS

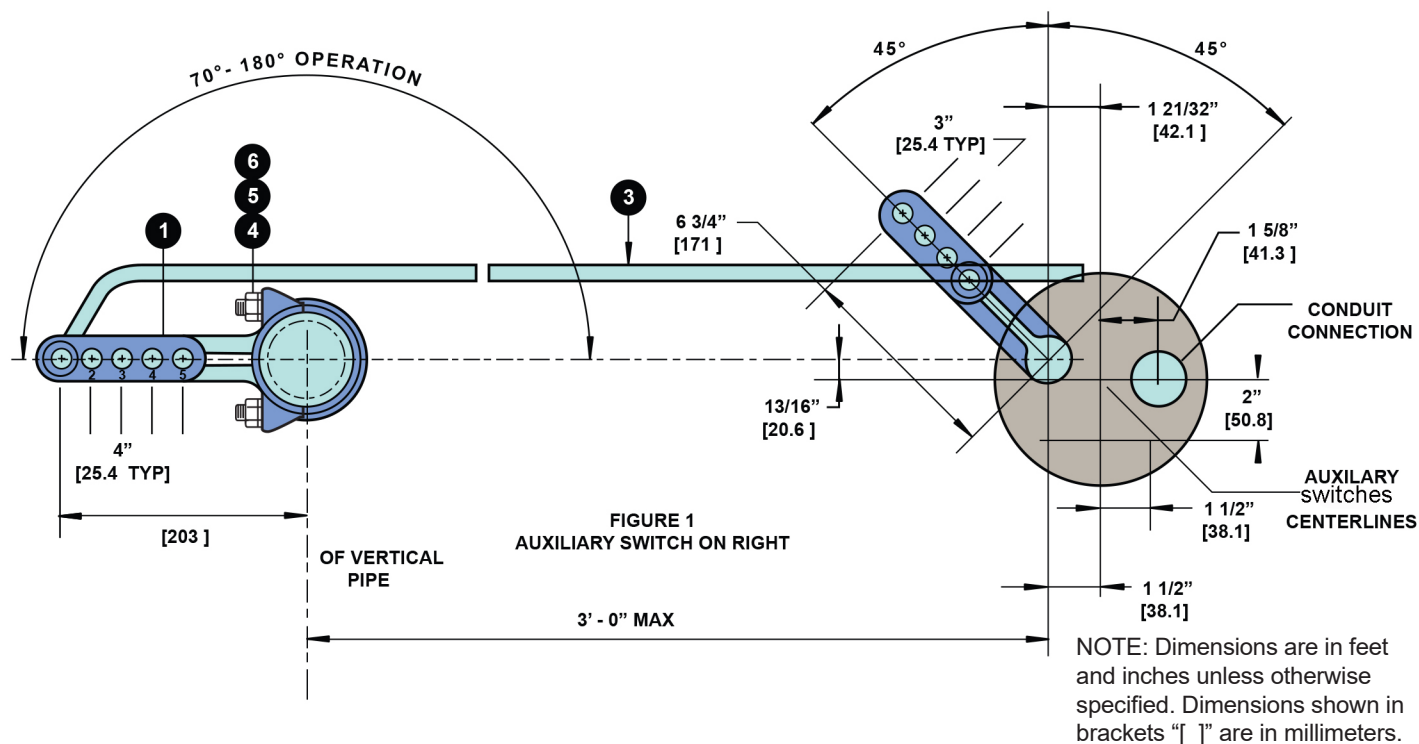
- Easily accessible and infinitely adjustable cams (field adjustments are quickly made with an Allen Key).
- Visible make and break points that eliminate the need for a test lamp. Current flow is straight through the switch, and circuits are easily traced.
- High dielectric strengths that exceed U.L. requirements for 600 volt equipment.
- Long leakage paths that greatly reduce the possibility of false indications or malfunctions of auxiliary devices.
- Double break action that allows higher interrupting capacities for greater flexibility of application.
- Easy mounting. The AVS-1 mounts to a structure bracket with only two bolts, and the crank arm of the unit is attached to the vertical operating pipe by a simple, easily-installed linkage.
- Customer may specify 2, 4, 6, 8, 10, 12, 14, 16, or 18 poles to fit individual needs.
- The type AVS-1 is constructed primarily of cast aluminum for maintenance-free durability.

Type AV-1 & AVS-1 Auxiliary Switches



AV-1 & AVS-1

AVS-1 OPERATING ASSEMBLY



ARM LENGTH SELECTION

The table to the right is to be used for selecting the correct arm lengths for any angle of rotation of the vertical pipe between 70° to 160° when the mounting arrangement is as shown:

ANGLE OF ROTATION	HOLE LOCATION
70° – 73°	Holes 1 and D
74° – 77°	Holes 2 and D
78° – 83°	Holes 1 and C
84° – 90°	Holes 1 and B
91° – 98°	Holes 2 and B
99° – 100°	Holes 1 and A
101° – 108°	Holes 3 and B
109° – 122°	Holes 3 and A
123° – 139°	Holes 5 and C
140° – 145°	Holes 4 and A
146° – 160°	Holes 5 and B

OPERATING SEQUENCE

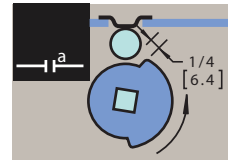
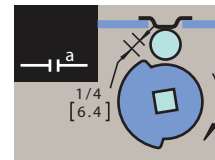
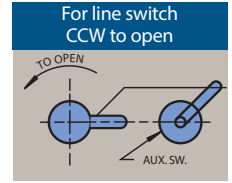
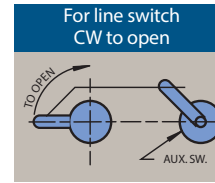
1. Place line switch in fully-closed position.
2. Refer to your drawing to install the operating arm assembly.

OPEN

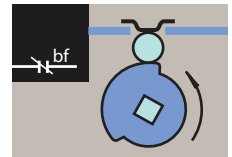
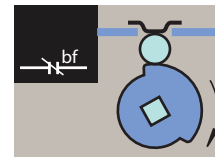
CLOSED



3. With the line switch still in the closed position, remove auxiliary cover. Select the contacts which are to serve as "a" contacts (closed only when line switch is fully-closed position. Contact symbol $\neg \text{a}$). Loosen the recessed set screw which positions the actuating cam on the shaft. Position the selected cams as illustrated.

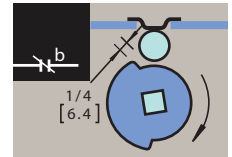
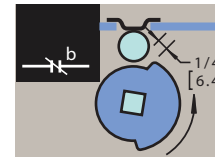


4. Select the contacts (if any) which are to serve as "bf" contacts (open only when line switch is in fully-closed position contact symbol $\neg \text{bf}$). Position the selected cams as illustrated.

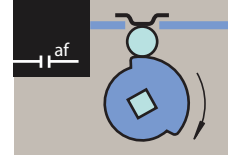
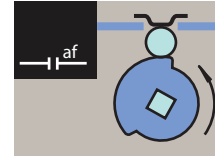


5. Place line switch in fully-open position.

6. Select the contacts which are to serve as "b" contacts (closed only when line switch is in fully-open position. Contact symbol $\neg \text{b}$). Position the selected cams as illustrated.



7. Select the contacts (if any) which are to serve as "af" contacts (open only when line switch is in fully-open position contact symbol $\neg \text{af}$). Position the selected cams as illustrated.



8. Proceed with field wiring.

OPERATING SEQUENCE

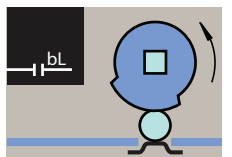
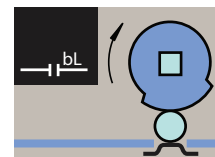
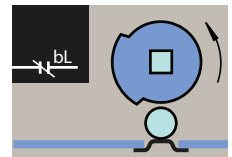
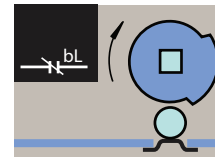
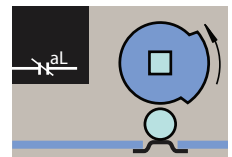
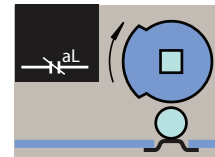
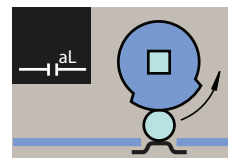
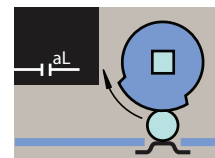
1. Place line switch in fully-closed position.
2. Refer to your drawing to install the operating arm assembly.



1. aL Closes only when mechanism is fully closed.



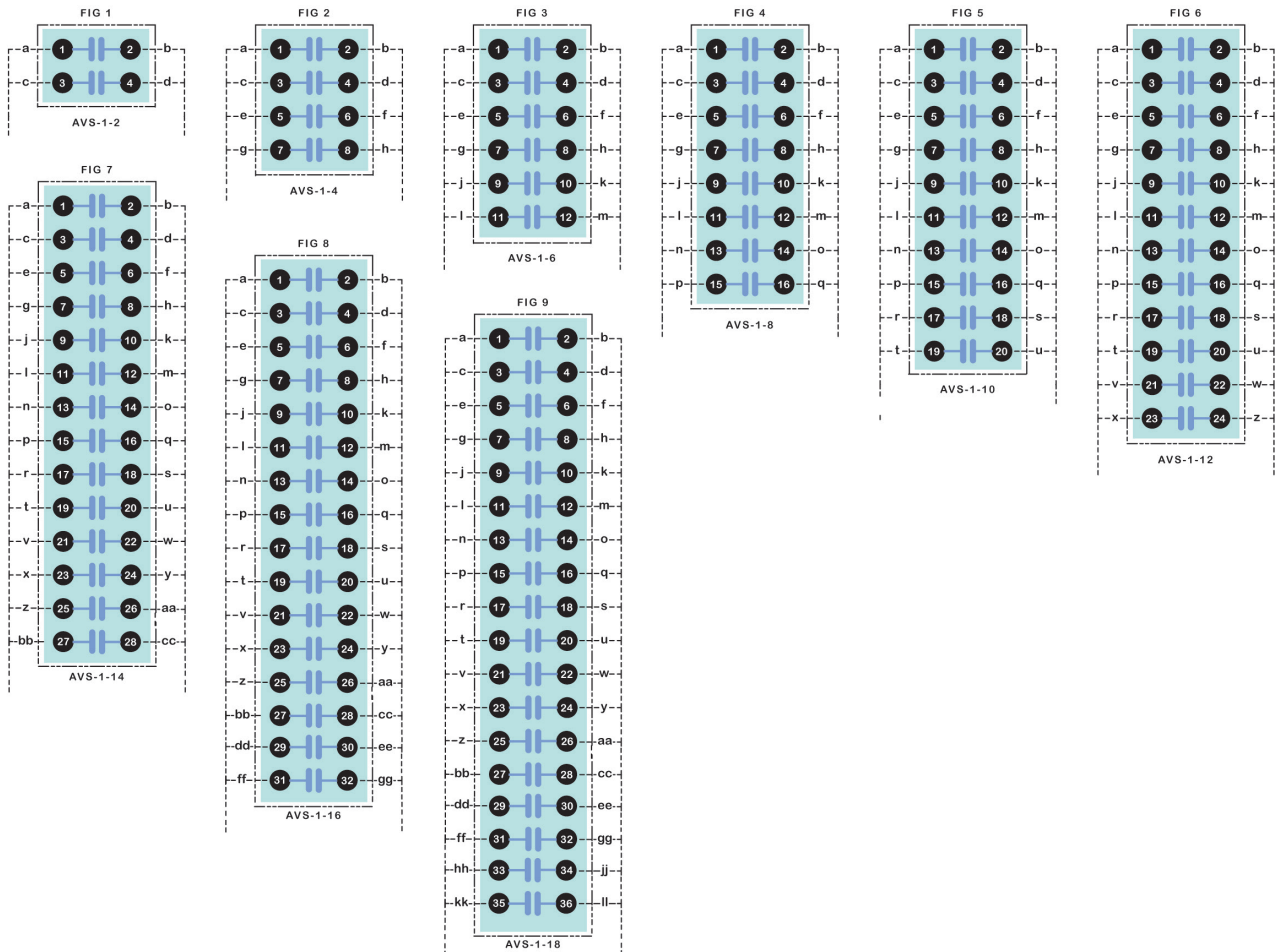
2. bL Opens only when mechanism is fully closed.



NOMENCLATURE

- Aux switch contact OPEN
- Aux switch contact CLOSED
- a Normally open contact
- b Normally closed contact

STANDARD CONFIGURATIONS



CONTACT RATINGS

VOLTAGE	INTERRUPTING	LOAD
120 VAC	20 A*	Inductive
208 - 240 VAC	50 A	Resistive
24 VDC/48 VDC	50 A	Resistive
48 VDC	20 A*	Inductive
125 VDC	2 A*	Inductive

* Based on R.R 764-3

- ▶ Contacts RATED 30 A continuous.
- ▶ Dielectric rating exceeds U.L requirements for 60 volt equipment.

OPTIONAL ACCESSORIES

- ▶ Heater
- ▶ Thermostat