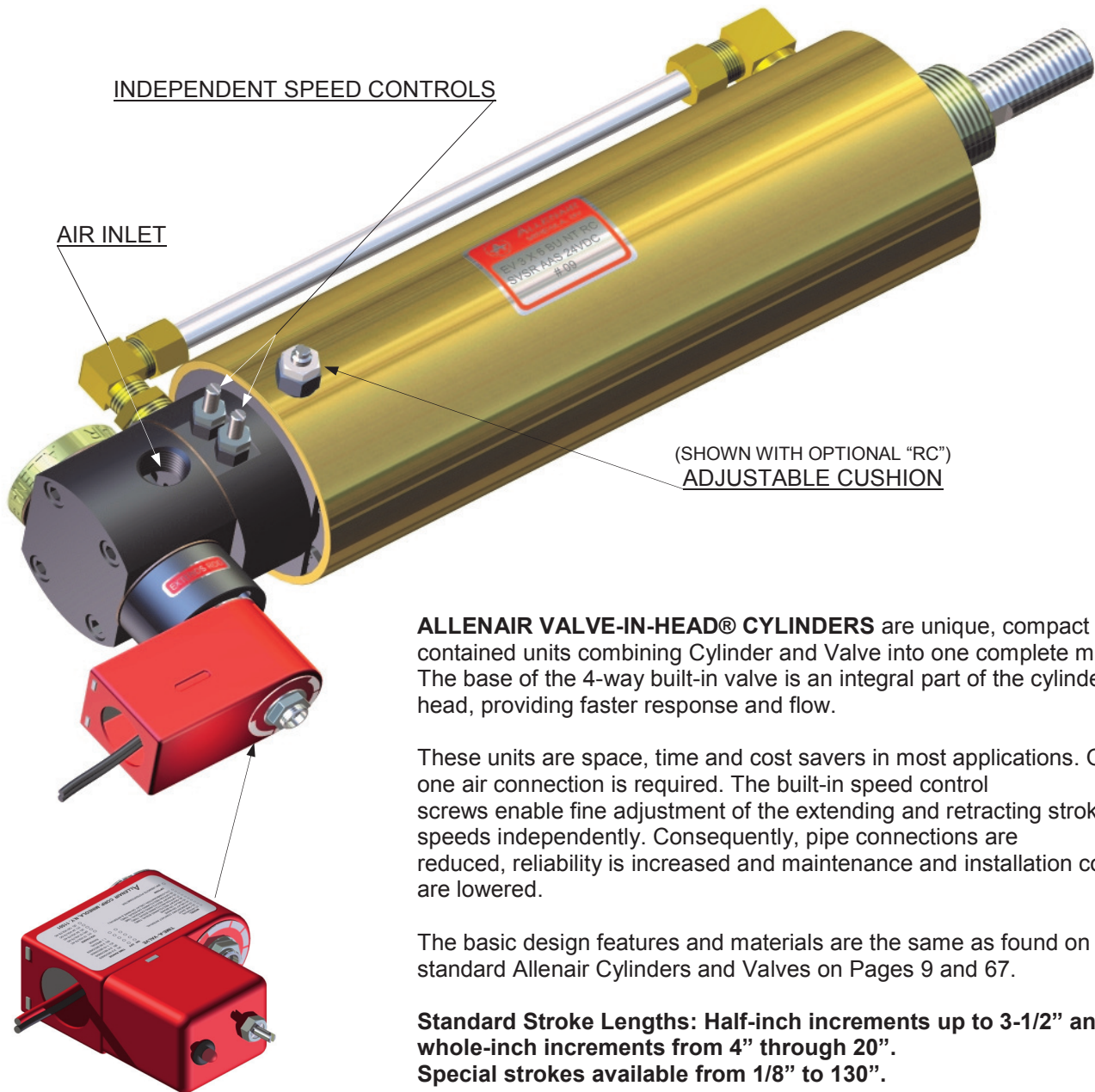


THE COMPLETE POWER MODULE



ALLENAIR VALVE-IN-HEAD® CYLINDERS are unique, compact self-contained units combining Cylinder and Valve into one complete module. The base of the 4-way built-in valve is an integral part of the cylinder rear head, providing faster response and flow.

These units are space, time and cost savers in most applications. Only one air connection is required. The built-in speed control screws enable fine adjustment of the extending and retracting stroke speeds independently. Consequently, pipe connections are reduced, reliability is increased and maintenance and installation costs are lowered.

The basic design features and materials are the same as found on the standard Allenair Cylinders and Valves on Pages 9 and 67.

**Standard Stroke Lengths: Half-inch increments up to 3-1/2" and whole-inch increments from 4" through 20".
Special strokes available from 1/8" to 130".**

ALLENAIR "TIME-A-VALVE"
See page 80. A solid state Electronic Timer,
integral with Allenair Solenoid Operators.

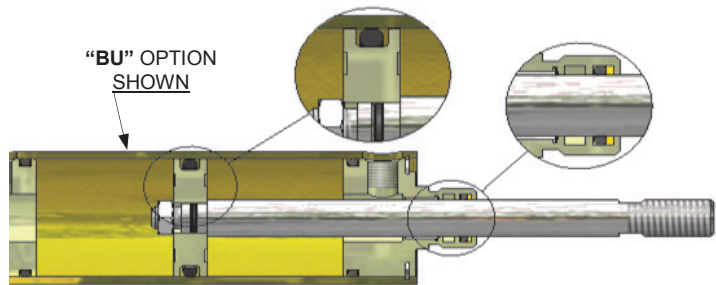
VALVE-IN-HEAD® CYLINDERS

DOUBLE ACTING: 1-1/8" - 5" BORES

TYPE AV

All Type "AV" Cylinders, with the exception of the 4" bore are constructed using "O"-Ring Seals. The 4" bore uses "O"- Ring Rod Seals and "U"-Cup Piston Seals. Coupled with one of a wide variety of 4-way valves, these all purpose units are used for most pneumatic applications. Optional Double Rod Packing is recommended for heavy-duty applications.

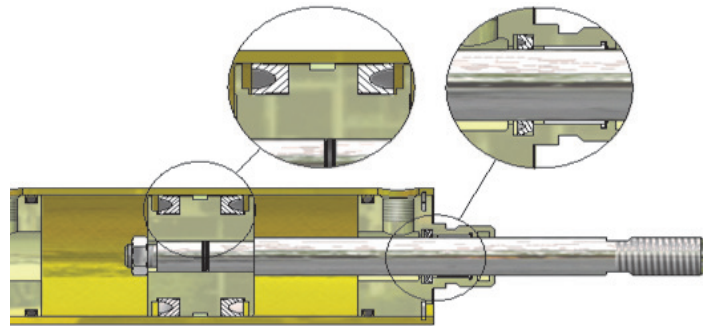
Pressure Rating: 20 P.S.I. Minimum
150 P.S.I. Maximum



TYPE CV

Type "CV" Cylinders are constructed using low friction "U"- Cup Seals. A heavy-duty wear strip (bearing) on the piston minimizes friction and piston cup wear, and on side load conditions prevents metal-to-metal contact. Coupled with one of a wide variety of 4-way valves, these units are primarily used on low friction applications and where low minimum breakaway is required.

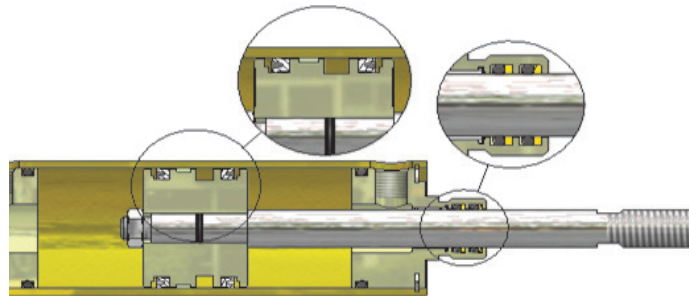
Pressure Rating: 10 P.S.I. Minimum
150 P.S.I. Maximum



TYPE EV

Type "EV" Cylinders are constructed using Block-Vee Seals and include a heavy-duty wear strip on the piston and double rod seals in the front head. Coupled with one of a wide variety of 4-way Valves, these Cylinders are recommended for heavy-duty applications and where side load conditions are present.

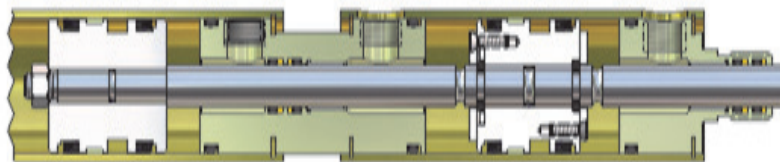
Pressure Rating: 20 P.S.I. Minimum
150 P.S.I. Maximum



TYPE EVT

Type "EVT" Cylinders feature two Cylinders in tandem having two pistons mounted on one common rod (as Type "ET" on Page 11). Block-Vee Seals are used and include a wear strip on both pistons and double rod seals in the front head. The rear Cylinder has the advantages of an air operated Valve-in-Head® Cylinder, yet hydraulic control can be obtained by filling the front Cylinder with oil and piping its ports in series using a flow control valve.

Pressure Rating: 20 P.S.I. Minimum
150 P.S.I. Maximum



BASIC CONSTRUCTION (VALVES)

The valve portion of the Valve-in-Head® Cylinder is a corrosion resistant slider type 4-way 2-position valves. The valve base is hard coated aluminum, lapped within one light band, and electro filmed. This provides minimum slider wear, positive seal and millions of trouble-free cycles.

A durable delrin spool rapidly pilots the high-tensile manganese bronze slider across the enlarged internal ports changing direction of flow. The built-in side tubing provides air passage to the front end of the Cylinder.

Valves are available as Solenoid, Pressure Pilot, Bleed Pilot, or Manual Models.

FOR DIMENSIONS AND MOUNTS SEE PAGES 40 - 44

SINGLE SOLENOID

MODEL SVS

These models incorporate a 4-way Single Solenoid Pilot Valve, air return. A maintained electrical contact is required to move the rods its full stroke. Breaking the electrical contact returns the rod to its original position.

Models can be supplied with the rod normally retracted (electrical contact will extend rod) or normally extended (electrical contact will retract rod).

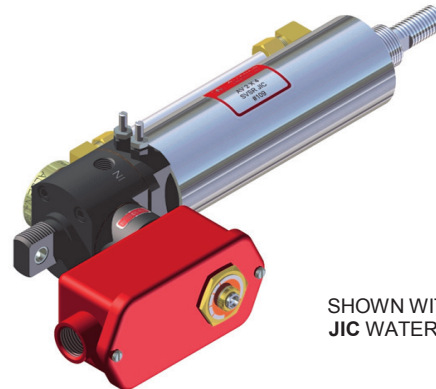
The standard solenoid operator, is the **AAS** Splice box housing.

Bore Sizes Available: 1-1/8", 1-1/2", 2", 2-1/2", 3", 4" & *5".
Voltages: 12, 24, 120 & 240/60 AC and 6, 12 & 24VDC are standard.

* 5" BORE AVAILABLE-Consult Factory for Details.

ROD NORMALLY RETRACTED MODEL SVSR

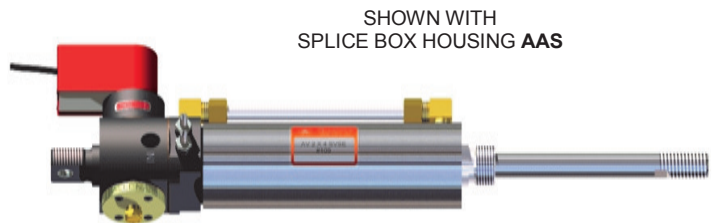
Energize solenoid to extend rod, de-energize solenoid to retract rod.



SHOWN WITH NEMA 4 / IP56
JIC WATERTIGHT HOUSING

ROD NORMALLY EXTENDED MODEL SVSE

Energize solenoid to retract rod, de-energize solenoid to extend rod.



SHOWN WITH
SPLICE BOX HOUSING AAS

SINGLE SOLENOID

MODEL SVEVA

These models incorporate a 4-way Single Solenoid Double Bleed Pilot Valve. A momentary (NOT continuous) electrical contact is required to move the rod its full stroke. A Bleeder Valve, such as the Allnair BV100 or BV-1/8 (to be ordered separately), must be connected to the spool cap opposite the solenoid. Depressing this Bleeder Valve momentarily will return the rod to its original position.

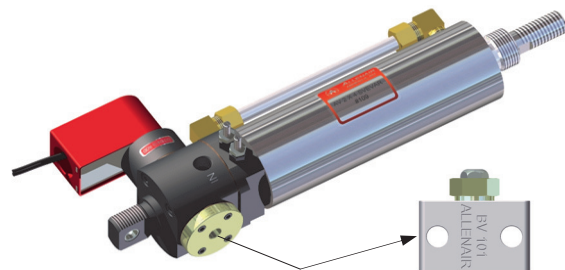
Models can be supplied with the rod normally retracted (electrical contact will extend rod) or normally extended (electrical contact will retract rod). The standard solenoid operator, as shown is the **AAS** splice box housing.

Bore Sizes Available: 1-1/8", 1-1/2", 2", 2-1/2", 3", 4" & *5".
Voltages: 12, 24, 120 & 240/60 AC and 6, 12 & 24VDC
Are standard.

* 5" BORE AVAILABLE-Consult Factory for Details.

ROD NORMALLY RETRACTED MODEL SVEVAR

Energize solenoid to extend rod, manual bleed signal to retract rod.

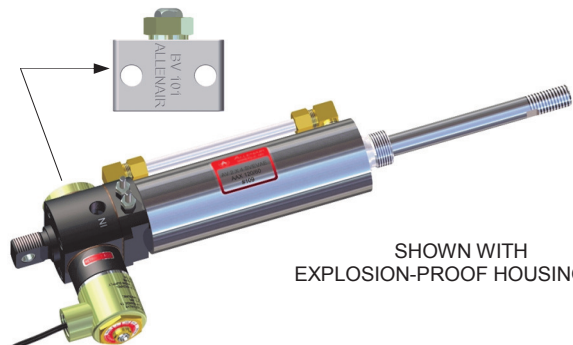


OPTIONAL BLEEDER VALVE RETRACTS ROD

ROD NORMALLY EXTENDED MODEL SVEVAE

Energize solenoid to retract rod, manual bleed signal to extend rod.

OPTIONAL BLEEDER VALVE EXTENDS ROD



SHOWN WITH
EXPLOSION-PROOF HOUSING AAX

FOR DIMENSIONS AND MOUNTS SEE
PAGES 40 - 44

AVAILABLE IN TYPES
"AV", "CV", "EV" & "EVT"

VALVE-IN-HEAD[®] CYLINDERS

DOUBLE ACTING: 1-1/8" - 5" BORES

SINGLE SOLENOID

MODEL VER AUTOMATIC RETURN

Models incorporate a 4-way Single Solenoid Double Bleed Pilot Valve. A momentary (NOT continuous) electrical contact is required to move the rod its full stroke. Upon reaching its FULL stroke, the rod will automatically return to its original position.

Models can be supplied with the rod normally retracted (electrical contact will extend rod) or normally extended (electrical contact will retract rod). The standard solenoid operator is the **AAS** splice box housing.

Due to internal construction and application requirements, there can be a loss of approximately 1/8" to 1/4" of stroke.

Bore Sizes Available: 1-1/2", 2", 2-1/2", 3", 4" & *5".

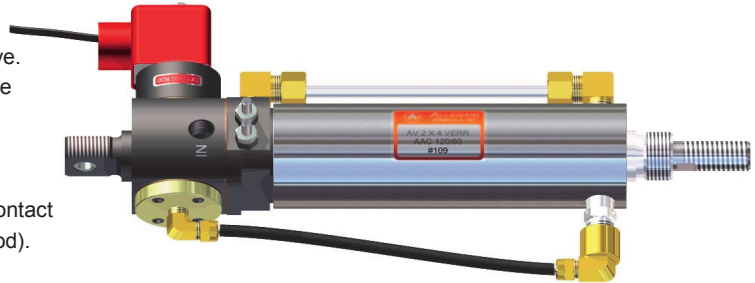
Voltages: 12, 24, 120 & 240/60 and 6, 12 & 24VDC are standard.

* 5" BORE AVAILABLE-Consult Factory for Details.

ROD NORMALLY RETRACTED MODEL VERR

Energize solenoid to extend rod and retract automatically.

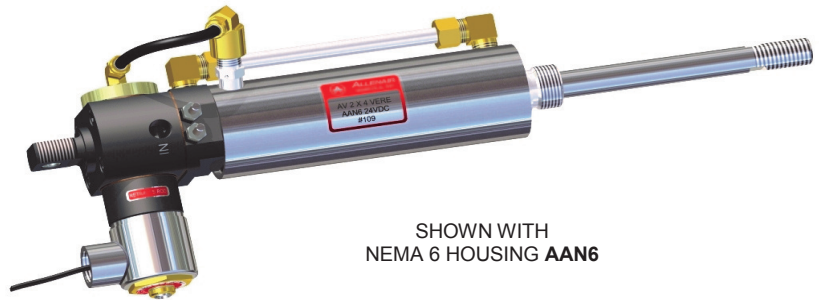
SHOWN WITH
CONDUIT HOUSING AAC



ROD NORMALLY EXTENDED MODEL VERR

Energize solenoid to retract rod and extend automatically.

SHOWN WITH
NEMA 6 HOUSING AAN6



DOUBLE SOLENOID

MODEL SDS

Models incorporate a 4-way Double Solenoid Pressure Pilot Valve. A momentary or maintained electrical contact applied to one solenoid will move the rod its full stroke. The rod will remain there under pressure until the other solenoid is energized, which will cause the rod to return to its original position. If a maintained contact is employed, the first solenoid must be de-energized before the other is energized. The standard solenoid operator is the **AAS** splice box housing.

Bore Sizes Available: 1-1/8", 1-1/2", 2", 2-1/2", 3", 4" & *5".

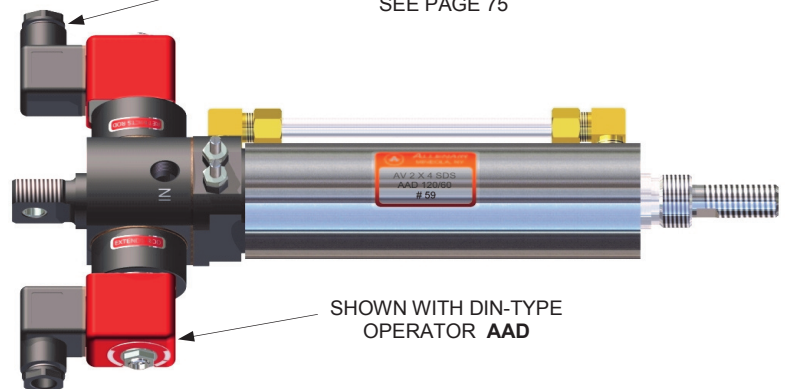
Voltages: 12, 24, 120 & 240/60 AC and 6, 12 & 24VDC are standard.

* 5" BORE AVAILABLE-Consult Factory for Details.

MODEL SDS

Energize one solenoid to extend rod, other solenoid to retract rod.

DIN FEMALE CONNECTOR
ORDERED SEPARATELY
SEE PAGE 75



SHOWN WITH DIN-TYPE
OPERATOR AAD

FOR DIMENSIONS AND MOUNTS
SEE PAGES 40 - 44

SINGLE PILOT

MODEL APSR

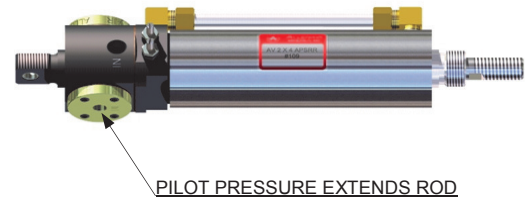
Models incorporate a 4-way Single Pressure Pilot Valve. A continuous pilot pressure applied to "IN" side of valve will move rod its full stroke. When the pilot pressure is released, the rod will return to its original position. Pilot pressure is normally supplied through an optional 3-way N.C. Valve.

Models can be supplied with the rod normally retracted (pilot pressure to extend rod) or normally extended (pilot pressure to retract rod). The pilot pressure must be at least 75% of the operating pressure.

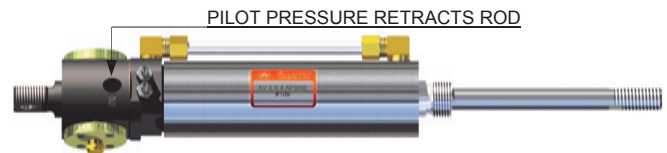
Bore Sizes Available: 1-1/8", 1-1/2", 2", 2-1/2", 3", 4" & *5".

* 5" BORE AVAILABLE-Consult Factory for Details.

MODEL APSRR
ROD NORMALLY RETRACTED



MODEL APSRE
ROD NORMALLY EXTENDED



SINGLE PILOT

MODEL VAR AUTOMATIC RETURN

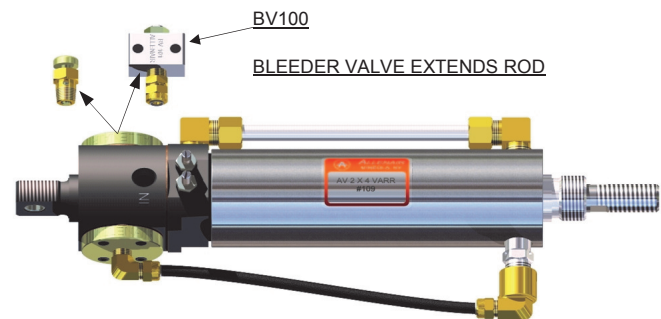
Models incorporate a 4-way Double Bleed Pilot Valve. A momentary (NOT continuous) actuation of Bleeder Valve is required to move the rod its full stroke. Upon reaching its FULL stroke, the rod will automatically return to its original position.

Models can be supplied with the rod normally retracted (manual bleed to extend rod) or normally extended (manual bleed to retract rod). Due to internal construction and application requirements, there can be a loss of approximately 1/8" to 1/4" of stroke.

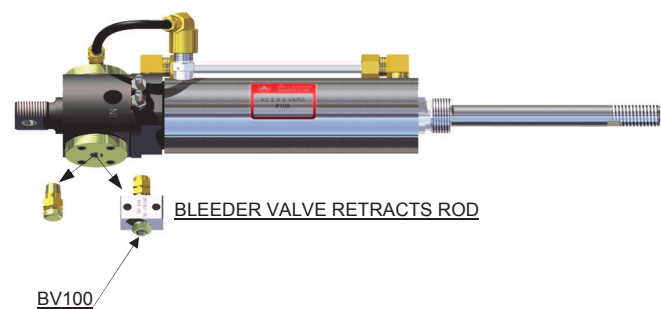
Bleeder Valve Model BV100 is supplied on these models.

Bore Sizes Available: 1-1/2", 2", 2-1/2", 3" & 4".

MODEL VARR
ROD NORMALLY RETRACTED



MODEL VARE
ROD NORMALLY EXTENDED



FOR DIMENSIONS AND MOUNTS
SEE PAGES 40 - 44

