

VALVE-IN-HEAD® CYLINDERS

SINGLE ACTING



ALLEN AIR "TIME-A-VALVE"®
See page 87. A solid state Electronic Timer, integral with Allenair Solenoid Operators

These Cylinders are available with 1-1/8" bore only. They are Single Acting Cylinders controlled by a 3-way Single Solenoid Valve mounted to the rear head of the units. The standard solenoid operator, as shown is the AAS splice box housing. A general purpose conduit lousing (AAC) is also available. Most common AC & DC voltages are available. 12, 24, 120 & 240/60 and 6, 12 & 24VDC are standard. The basic construction is that of our 1-1/8" bore Type "A" Cylinders.

TYPE AVSA

A continuous electrical contact is required to fully extend the rod, which will remain extended until the electrical contact is broken. An external force is required to return the rod to its original position. A 1/8" N.P.T. port is provided in the front head to permit the return of the rod by means of a separate air supply if required. This port can also be used to install a Flow Control Valve to control forward speed.

Standard stroke lengths are available 1/2", 1", 1-1/2", 2", 2-1/2", 3", 3-1/2", 4" through 20" in whole inch increments. Special strokes available from 1/8" to 80" maximum.

TYPE AVSR

ROD NORMALLY RETRACTED: A continuous electrical contact is required to fully extend the rod, which will remain extended until the electrical contact is broken. An internal spring will return the rod to its fully retracted position.
SPRING FORCE: 17 LBS. AT REST, 40 LBS. FULL STROKE.

Standard stroke lengths are available 1/2", 1", 1-1/2", 2", 2-1/2", 3", 3-1/2", 4" through 10" in whole inch increments. Special strokes available from 1/4" to 10" maximum.

TYPE AVSRR

ROD NORMALLY EXTENDED: A continuous electrical contact is required to fully retract the rod, which will remain retracted until the electrical contact is broken. An internal spring will return the rod to its fully extended position.
SPRING FORCE: 17 LBS. AT REST, 40 LBS. FULL STROKE.

Standard stroke lengths are available 1/2", 1", 1-1/2", 2", 2-1/2", 3", 3-1/2", 4" through 10" in whole inch increments. Special strokes available from 1/4" to 10" maximum.

NOTE: On all the above types the normal actuation can be reversed by using the optional PE adaptor as the air inlet.

ORDERING PROCEDURE

TYPE	BORE	STROKE	CYLINDER OPTIONS	VALVE OPTIONS	VOLTAGE	CUSTOMER SPECIAL
SEE ABOVE	1-1/8" ONLY	SPECIFY	SEE PAGES 30 & 31	SEE PAGE 31	SPECIFY	WHEN REQ'D

EXAMPLE: AVSR - 1 1/8 X 4 - OS - RG - AAS - OR - 120/60 - CS or H

CODE LETTERS

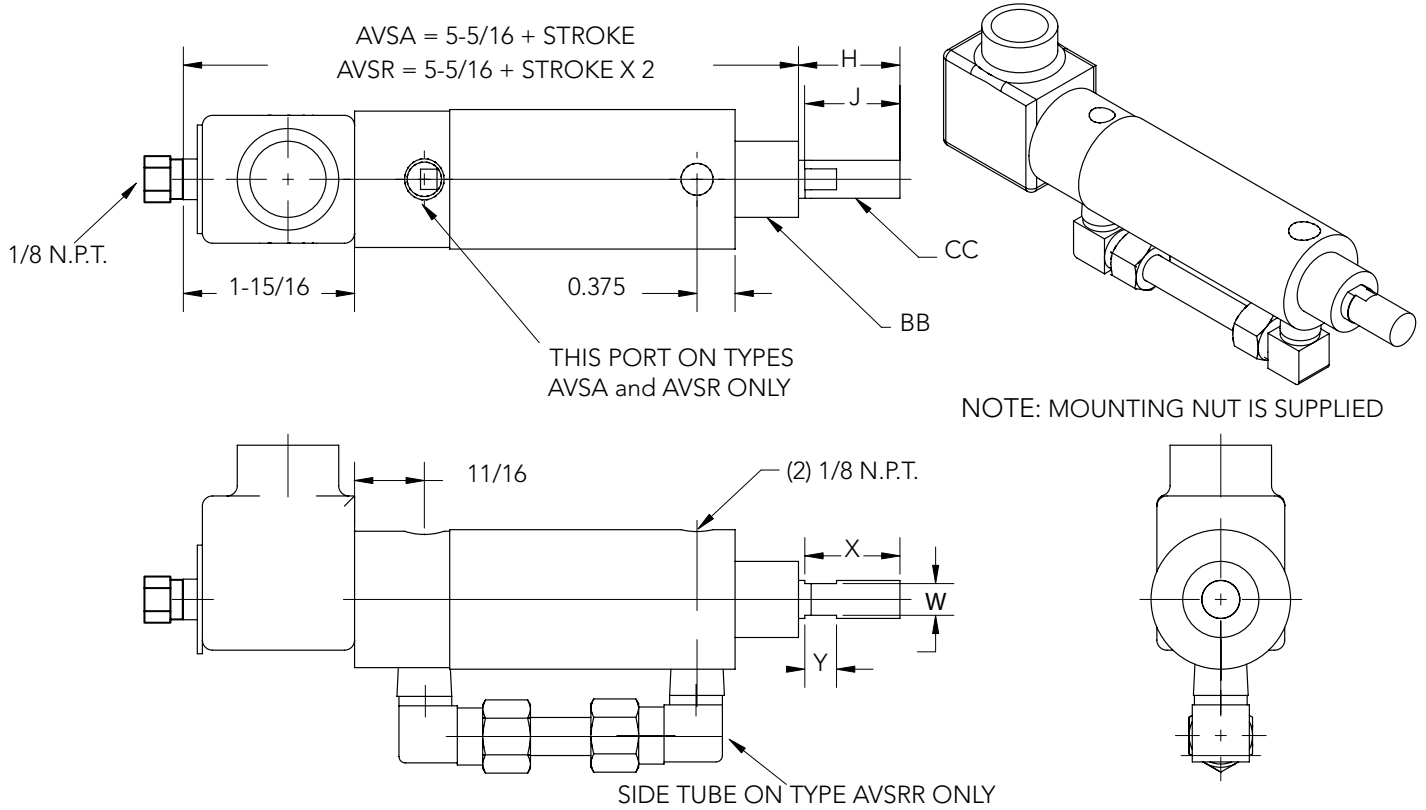
OS
RG
AAS
OR

DESIGNATION

Oversized Rod
Outboard Rod Guide Installed
Standard Splice Box Housing
Manual Over-Ride Lever

NOTE: List all Cylinder and Valve Options alphabetically

VALVE-IN-HEAD® CYLINDERS



	H	J	W	X	Y	BB	CC
STANDARD	1"	7/8"	5/16"	15/16"	5/16"	3/4-16"	3/8-16"
OVERSIZE	1-3/8"	1-1/4"	7/16"	1-3/8"	5/16"	7/8-14"	1/2-13"

MOUNTING BRACKET PART NUMBERS

	FOOT MOUNT	FLANGE MOUNT	ROD CLEVIS NUT & PIN	ROD NUT	TRUNNION MOUNT	BLOCK MOUNT	MOUNTING NUT
STANDARD	A- 132	A- 129	A- 145	A-126	T-1	BM-1	A-114
OVERSIZE	A-132-OS	A-129-OS	A- 1545	A-1526	T-1	BM-1	A-114-OS

FOR MOUNTING BRACKET DIMENSIONS SEE PAGES 20 & 21.

VALVE-IN-HEAD® CYLINDERS

Stainless Steel Tube - Completely Repairable Unit

SINGLE ACTING

EXTRA LONG LOW FRICTION LONG LIFE NYLON SNAP-IN BEARING

HEAVY WALL STAINLESS STEEL TUBING ELIMINATES DANGER OF DAMAGE DUE TO EXTERNAL BLOWS

LARGE COIL COVER ELIMINATES NEED FOR SEPARATE SPLICE BOX & CAN BE ROTATED 360 DEGREES.

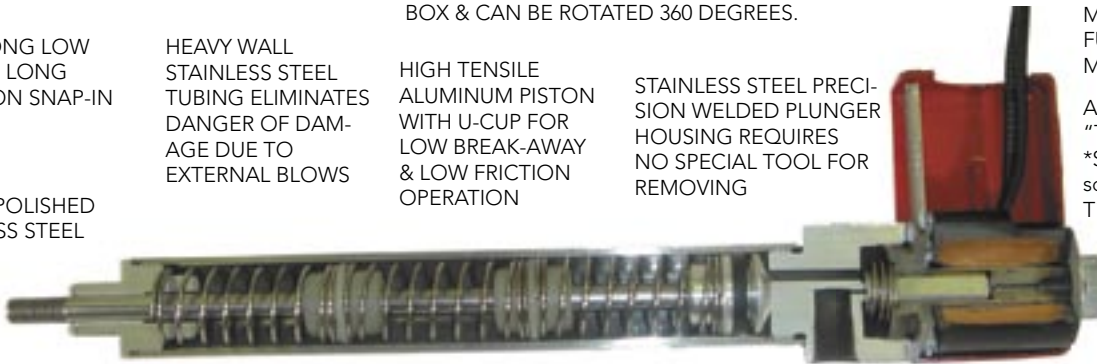
HIGH TENSILE ALUMINUM PISTON WITH U-CUP FOR LOW BREAK-AWAY & LOW FRICTION OPERATION

STAINLESS STEEL PRECISION WELDED PLUNGER HOUSING REQUIRES NO SPECIAL TOOL FOR REMOVING

CLASS B (130°C) MOLDED COIL FUNGUS & MOISTURE-PROOF

ALLENAIR "TIME-A-VALVE"®
*See page 87. A solid state Electronic Timer, integral with Allenair Solenoid Operators

GROUND & POLISHED 416 STAINLESS STEEL ROD



SCREW MACHINED HIGH TENSILE ALUMINUM HEAD

SPRINGS DESIGNED FOR LONGER LIFE & PREVENTION OF ROD OR TUBE SCORING

NYLON SPRING SPACERS REDUCE INTERNAL SHOCK & NOISE

HIGH TENSILE ALUMINUM HEAD HARDCOATED FOR CORROSION RESISTANT VALVE SEAT

STAINLESS STEEL PLUNGER SPRING PROVIDES POSITIVE RETURN & PERMITS CYLINDER TO BE MOUNTED IN ANY POSITION

STAINLESS STEEL PLUNGER WITH VITON SEATS. COMPENSATING UPPER SEAT FOR EXTRA LONG LIFE

SPRING RETURN-ROD NORMALLY RETRACTED

Most common AC & DC Voltages are available. 12, 24, 120 & 240/60 and 6, 12 & 24VDC are standard. Maximum operating pressure - 150 P.S.I.

A continuous electrical contact is required to fully extend the rod, which will remain extended until the electrical contact is broken, at which time the spring will return the rod to its fully retracted position.

This action can be reversed by using the optional PE adapter as the air inlet.

TYPE: AVSM - 1/2"

Standard stroke lengths in 1/2" increments to 4".

Spring Force:

20 oz. retracted.
40 oz. extended.

TYPE: AVSM - 3/4"

Standard stroke lengths in 1" increments to 4".

Spring Force:

2 lbs. retracted.
7 lbs. extended.

TYPES: AVSM- 1-1/8" AVSMS- 1-1/8"

Standard stroke lengths in 1" increments to 4".

Spring Forces:

AVSM	AVSMS	
3	6.5	LBS. RETRACTED.
3	13	LBS. EXTENDED.



OPTIONS

SPECIFY: HTP FOR HIGH TEMPERATURE CYLINDER SEALS

These seals are a fluorocarbon compound (viton) and have an operating temperature range of 10° F to 350° F. They will function at temperatures up to 400° F with reduced life.

SPECIFY: OR FOR MANUAL OVER-RIDE LEVER
Non-locking manual over-ride lever is available. It is particularly useful for set-up or when an electrical failure occurs.

SPECIFY: IL AFTER VOLTAGE FOR INDICATOR LIGHT
Light indicates when solenoid is energized.

ACCESSORIES

SPECIFY: AE FOR ADJUSTABLE EXHAUST

The exhaust screw threads into the solenoid plunger housing, enabling speed adjustment of retracting stroke. (Cannot be used with piped exhaust or silencer.)

SPECIFY: PE FOR PIPED EXHAUST

Adapters are available which screw into the solenoid plunger housing, enabling the exhaust to be piped from the unit. (Cannot be used with adjustable exhaust or silencer.)

SPECIFY: EA-27 FOR SINTERED SILENCER

Silencers are available which screw into the solenoid plunger housing reducing exhaust noise to an acceptable level. (Cannot be used with adjustable exhaust or piped exhaust.)

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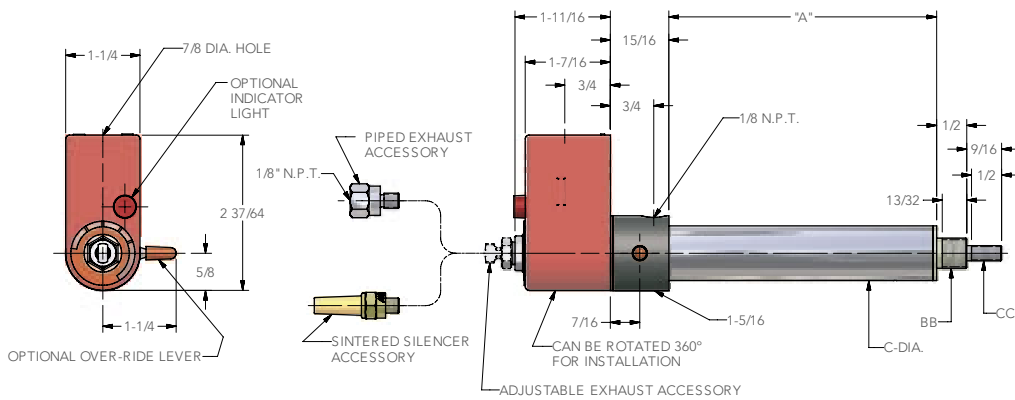
ORDERING PROCEDURE

TYPE	BORE	STROKE	OPTIONS (list alphabetically)	VOLTAGE
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EXAMPLE: AVSM - 3/4 X 4 - AE - OR - 24VDC

ORDER MOUNTS SEPARATELY - SHOWN BELOW

DIMENSIONS



Note: Front nose mounting nut is provided with each cylinder.

OPTIONAL OVER-RIDE LEVER • ADJUSTABLE EXHAUST ACCESSORY

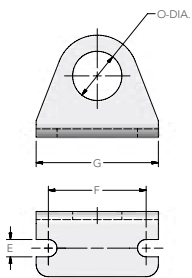
CYL. BORE SIZES	A								C	BB	CC
	STROKE										
1/2"	2-3/16"	3-1/4"	4-5/16"	5-3/8"	6-7/16"	7-1/2"	8-9/16"	9-5/8"	21/32"	1/2-20"	1/4-28"
3/4"	—	2-3/4"	—	4-7/16"	—	6-1/8"	—	7-13/16"	29/32"	1/2-20"	1/4-28"
1-1/8"	—	2-15/16"	—	4-3/4"	—	6-9/16"	—	8-3/8"	1-9/32"	3/4-16"	5/16-24"

MOUNTING BRACKETS

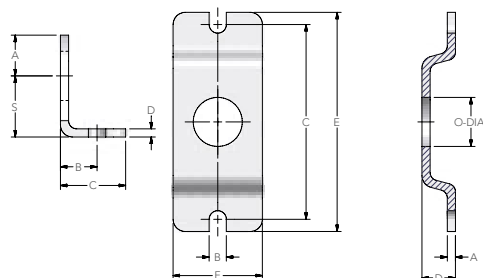
CYL. BORE SIZES	PART NUMBERS			
	* FOOT MOUNTS		FLANGE MOUNT	ROD CLEVIS, NUT & PIN
	FRONT	REAR		
1/2"	AVSM-532	AVSM-532-R	AVSM-529	AVSM-545
3/4"	AVSM-532	AVSM-732-R	AVSM-529	AVSM-545
1-1/8"	AVSM-132	AVSM-132-R	AVSM-129	AVSM-145

NOTE: *Foot Mounts will be sold only in pairs, (Front & Rear). Rear Foot Mount slips over tube, ("C" Dia.)

FOOT MOUNT

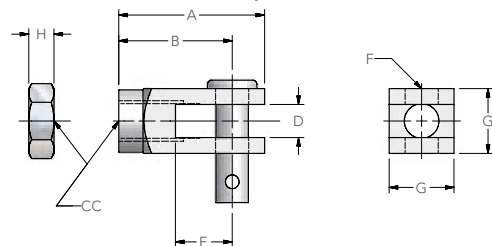


FLANGE MOUNT



PART NOS.	A	B	C	D	E	F	O
AVSM-529	1/8"	13/64"	2-1/4"	33/64"	2-5/8"	1"	1/2"
AVSM-129	1/8"	17/64"	3"	33/64"	3-3/8"	1-3/8"	3/4"

ROD CLEVIS, NUT & PIN



PART NOS.	A	B	C	D	E	F	O	S
AVSM-132	5/8"	9/16"	1"	1/8"	17/64"	1-1/2"	3/4"	15/16"
AVSM-132-R	25/32"	9/16"	1"	3/32"	17/64"	1-1/2"	1-19/64"	15/16"
AVSM-532	7/16"	7/16"	3/4"	1/8"	13/64"	1-1/4"	1/2"	3/4"
AVSM-532-R	19/32"	7/16"	3/4"	3/32"	13/64"	1-1/4"	43/64"	3/4"
AVSM-732-R	19/32"	7/16"	3/4"	3/32"	13/64"	1-1/4"	59/64"	3/4"

PART NOS.	A	B	CC	D	E	F	G	H
AVSM-545	1-1/8"	7/8"	1/4-28"	1/4"	5/8"	1/4"	1/2"	5/32"
AVSM-145	1-1/8"	7/8"	5/16"- 24"	1/4"	5/8"	1/4"	1/2"	3/16"