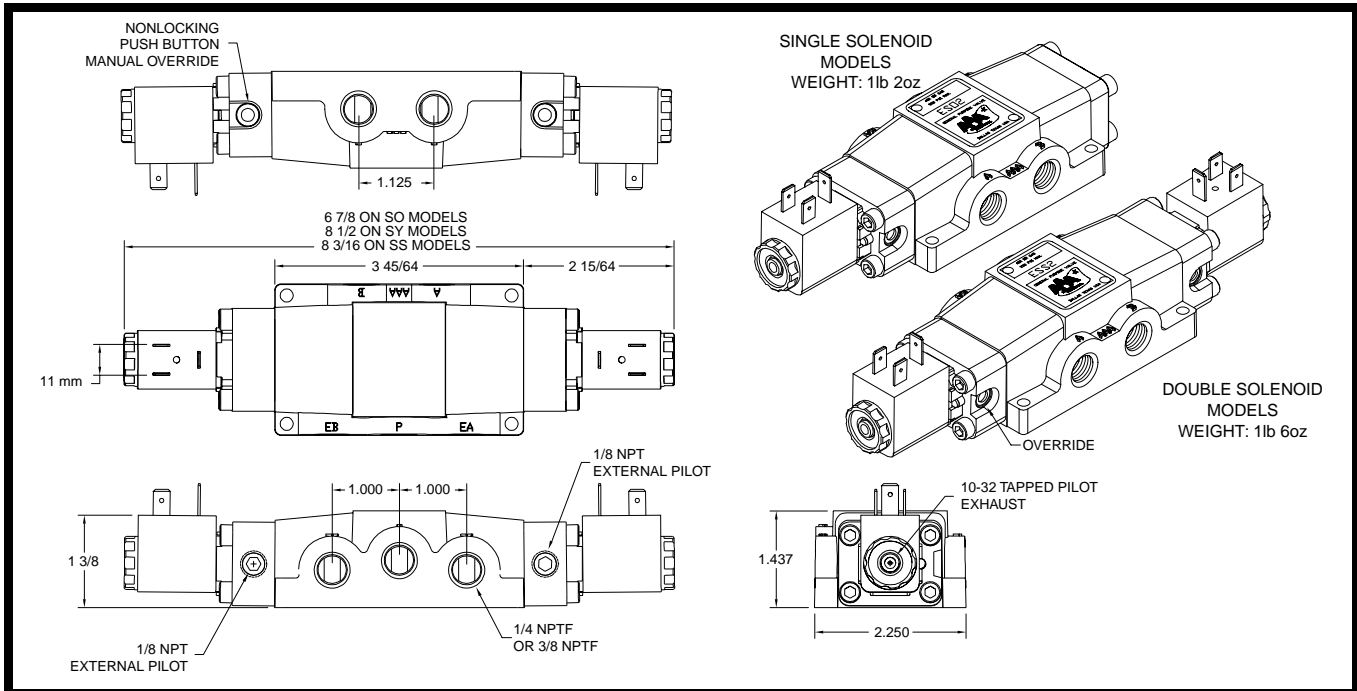


1/4" & 3/8" SIZE AIR VALVES

SOLENOID VALVES

SOLENOID CONTROLLED, PILOT - OPERATED TYPE
4-WAY — VACUUM TO 250 psi AIR



This solenoid valve is a low profile, and low wattage 1/4" & 3/8" solenoid valve. (See page 54 for other solenoid versions). All standard solenoid valves are equipped with a non-locking manual override.

Standard models are assembled for "internal pilot operation"; that is, they derive shifting pressure for the spool from the valve inlet port. They will operate reliably on line pressures from 150 psi down to 50 psi minimum for spring return and spring centered models ESO and ESX and down to 25 psi on springless models ESR and ESS. External pilot operation (option "Z") must be used in vacuum, low pressure (below minimum psi), high pressure (above 150 psi but less than 250 psi), or 5-Way service applications, see page 46.

FLOW PATTERN. When solenoid on the left (looking at the 3-hole side) is energized, air flow comes out port B on the left. See page 45.

SUBPLATE MOUNTED MODELS. In addition to the body-threaded models shown, other models are offered for subplate mounting. All connections, including external pilot, if used, are made through unthreaded port holes in the base of the valve, with O-ring seals, into a subplate. O-ring seals and mounting screws are furnished with each subplate valve.

On factory ordered valves for external pilot operation (option "Z"), the pilot pressure must be supplied through a connection made to the valve subplate. See page 15 if you need to design your own subplate or use a subplate with 1/8" NPTF pilot ports listed on page 41

Subplate-type valves in this body size have porting area equal to a 5/16" diameter hole. However, they can be mounted on a choice of subplates with 1/4" or 3/8" NPTF port holes. See page 41 for subplates.

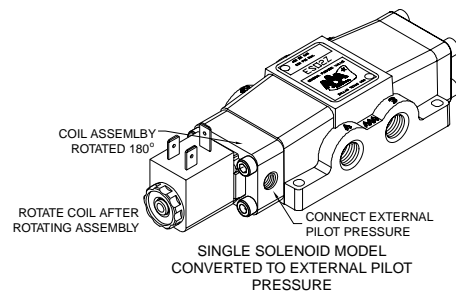
REPLACEMENT SEAL KIT

ERKV-3. One kit required for each valve. Includes 6 V-39 Viton body O-rings, 2 EMG3 Buna-N solenoid gaskets, 2 NEG3 composition end cap gaskets, 2 V-565 Buna-N mounting O-rings, 5 V-92 Buna-N subplate O-rings, and 2 V-93 Buna-N subplate pilot O-rings (seals used determined by valve model and style).

EXTERNAL PILOT OPERATION

A valve may be ordered factory assembled for external pilot operation by adding the suffix "Z" after the regular model number; or can be changed to external pilot operation in the field as follows (This operation must be performed on each solenoid operator):

Remove 4 screws holding the solenoid structure to the main body and remove the entire solenoid assembly. Rotate the entire solenoid assembly 180° and re-mount on the body. Connect a source of external pilot pressure, 50 to 150 psi, to the ext. pilot port of each solenoid structure. Stamp the name tag with a "Z" to indicate external pilot operation. External pilot can not be brought through the subplate on field conversions.



MODEL SELECTION — SOLENOID VALVES

Select basic model. See page 50 for optional spools.

MODEL NUMBER			DESCRIPTION	SYMBOL
Threaded body		Subplate*		
1/4" NPTF	3/8" NPTF	3/8" Capacity		
ESO2	ESO3	ESO3P	Single solenoid, 2-position, spring return. Spool returns to original position when solenoid is de-energized.	
ESR2	ESR3	ESR3P	Single solenoid, 2-position, pilot pressure returned spool. Pilot pressure from an external 3-way valve returns spool to its original position.	
ESS2	ESS3	ESS3P	Double solenoid, 2-position, no springs. Spool shifts and remains shifted when one solenoid or the other is momentarily or continuously energized.	
ESY2	ESY3	ESY3P	Double solenoid, 3-position, spring centered, closed center spool. All ports are blocked when both solenoids are de-energized. See page 50 for other spools.	

*Flow capacity of 5/16" diameter hole. Mount on choice of subplates (page 41) with 1/4" or 3/8" NPTF connections.

These valve bodies and optional solenoid operators are available with UL and CSA approval.
SPECIFY VOLTAGE AND HERTZ WHEN ORDERING SOLENOID VALVES.

DATA FOR STANDARD SOLENOID ASSEMBLY

Voltages: This chart shows most common voltages. Consult the AAA factory for other voltages which may be available. See page 54 for other solenoid options which may provide the requested voltage or environmental rating.

Coil Voltage and Frequency	Pick-Up	Holding
24 volts, 60 Hz	7.1 VA	5.8 VA
48volts, 60 Hz	7.7 VA	6.2 VA
120 volts, 60 Hz	7.8 VA	6.3 VA
240 volts, 60 Hz	7.8 VA	6.3 VA
12 volts D-C		4.6 Watts
24 volts D-C*		4.8 Watts
60 volts D-C		4.3 Watts

*Intrinsically safe 24 VDC Operator Available - Contact Factory.

The coils are a "DIN 43650" style with 11mm/Industrial Form B connector pin pattern. "DIN" caps are ordered as a separate line item:

Optional "DIN" Caps (11 mm style): Various styles of din caps are available, see page 48 for more information.

Optional Coils: See page 49 for additional coils.

Environmental Ratings: (with mounted plug-in connector per IEC 529) IP 65 (NEMA 4 without structural rating). See page 54 for other solenoid options which may provide the requested environmental rating.

Voltage Tolerance: ±10%.

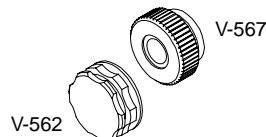
Operating Temperatures: -4°F to 120°F

Moulding Material: Duroplast/thermoset resin (Duro)

Optional Coil Nuts:

V-567 Sintered Bronze

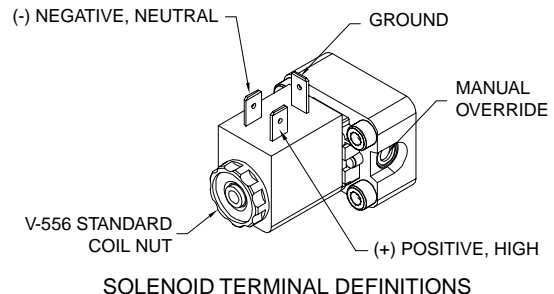
V-562 Side Exhaust



Operating Pressures: 29" Hg VAC - 250 PSIG. Standard models are assembled for "internal pilot operation". They will operate reliably on line pressures from 150 down to 25 PSIG minimum for no spring models, and down to 50 PSIG on spring return and spring centered models. Above 150 PSIG, below minimum pressure and for vacuum service, the valve must be configured for external pilot (between 50 PSIG and 150 PSIG).

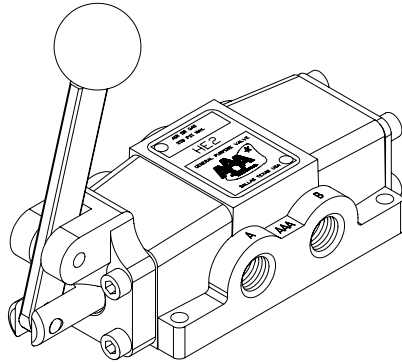
Manual Override: solenoid structures are equipped with a non-locking manual override on the side of the solenoid structure. To activate manual override, the inset plunger must be depressed. Spool will shift while the plunger is depressed but will return to original position on spring models ESO, and ESY when plunger is returned to normal (sufficient shifting pressure and pilot source is assumed). Spool will remain shifted on springless models ESS and ESR models.

Locking Override: solenoid structures with locking overrides are available. The entire solenoid assembly must be changed from the standard non-locking to locking style. These assemblies can be ordered separately or requested at time of initial purchase, Contact factory for details.



MANUAL LEVER VALVES - 1/4" & 3/8"

4-WAY — VACUUM TO 250 PSI AIR



Manual Lever - Weight 1-1/4 lbs.

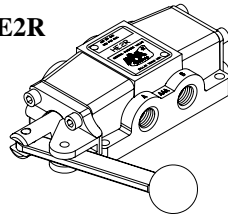
MANUAL LEVER VALVES. Handle returns by spring force to center neutral, position "B", on 3-position HY models. On 2-position spring return HO model, handle returns to position "C".

Valves will operate from vacuum to 250 psi on compressed air or inert gas. May be used as 3-way by plugging unused "A" or "B" port.

The handle can be pointed up or down by removing 4 mounting screws, rotating the handle 180° and re-mounting.

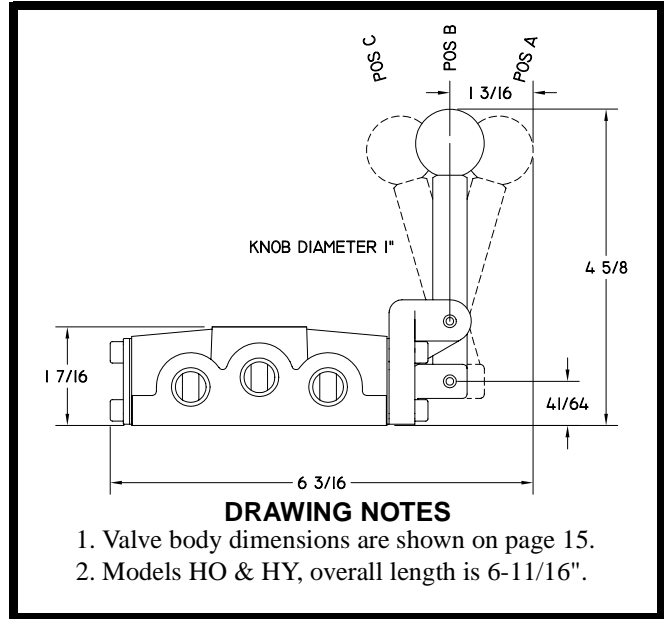
OPTIONAL HANDLE ORIENTATION. To order valves with handle turned 90°, add suffix "R" to regular valve model number for this option. (Example: HE2R) Standard rotation is towards the 2 port side.

HE2R



OTHER HANDLE OPTIONS - See page 14

FLOW PATTERN. When lever is pulled outward, air flows out of port "A" which is nearest the handle.



DRAWING NOTES

1. Valve body dimensions are shown on page 15.
2. Models HO & HY, overall length is 6-11/16".

SUBPLATE MOUNTED MODELS. All AAA subplate models in this body size have porting area equal to 5/16" diameter hole. They may be mounted on user's choice of subplates having either 1/4" or 3/8" NPTF connections. Order subplates separately from listings on page 41.

All subplate models are furnished with a set of mounting screws plus a set of O-ring seals.

REPLACEMENT SEAL KITS

ERKV-3. One kit required for each valve. Includes 6 V-39 Viton body O-rings, 2 EMG3 Buna-N solenoid gaskets, 2 NEG3 composition end cap gaskets, 2 V-565 Buna-N mounting O-rings, 5 V-92 Buna-N subplate O-rings, and 2 V-93 Buna-N subplate pilot O-rings (seals used determined by valve model and style).

MODEL SELECTION — MANUAL LEVER VALVES

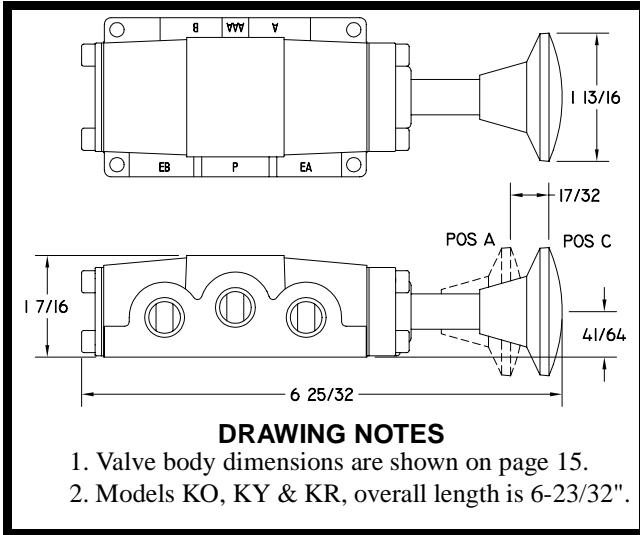
Select basic model. See page 52 for optional features and page 50 for optional spools.

MODEL NUMBER			DESCRIPTION	SYMBOL
Threaded body 1/4" NPTF	3/8" NPTF	Subplate 3/8" Capacity		
HE2	HE3	HE3P	2-position, friction positioned. Spool stays in any position when handle is released.	
HO2	HO3	HO3P	2-position, spring return. Handle returns to position "C" (see above drawing) when handle is released.	
HY2	HY3	HY3P	3-position, spring centered, closed center spool. All ports blocked when handle is released. See other spools on page 50.	
HD2†	HD3†	HD3P†	3-position, click detent, closed center spool. Handle stays in any one of three positions. See other spools on page 50.	
HD2Q	HD3Q	HD3QP	2-position, click detent. Handle detents in both end positions.	

†Also available, 3-position manual valve detented in position "C", spring return to center from "A" position.

PALM BUTTON VALVES - 1/4" & 3/8"

4-WAY — VACUUM TO 250 PSI AIR



DRAWING NOTES

1. Valve body dimensions are shown on page 15.
2. Models KO, KY & KR, overall length is 6-23/32".

PALM BUTTON VALVES. Valves are operated with a push-pull motion by a knob attached to the end of the spool. To fully shift the spool, the knob is moved 17/32" on a 2-position model or approximately 1/4" each side of center on a 3-position model. The actuating force is about 12 lbs. on spring loaded models KO and KY, and 5 lbs. on no-spring models KE, KR, and KD.

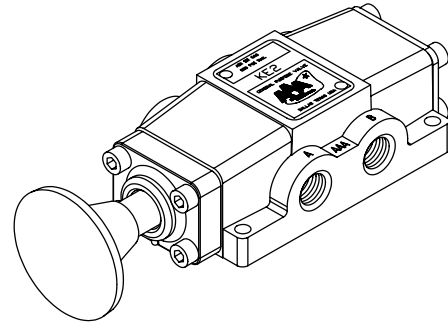
FLOW PATTERN. When the knob is pushed in, air flows out port "A" which is nearest the knob.

SUBPLATE MOUNTED MODELS. Refer to chart for model numbers. Valves have a porting area equal to a 5/16" diameter hole. See page 41 for 1/4" or 3/8" NPTF subplates with side or bottom ports. Model numbers in the chart include O-ring seals and mounting screws.

MODEL SELECTION — PALM BUTTON VALVES

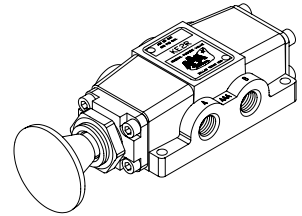
Select basic model. See page 52 for optional features and page 50 for optional spools.

MODEL NUMBER			DESCRIPTION	SYMBOL
Threaded body		Subplate		
1/4" NPTF	3/8" NPTF	3/8" Capacity		
KE2	KE3	KE3P	2-position, friction positioned. Spool stays in any position when knob is released.	
KO2	KO3	KO3P	2-position, spring return. Knob returns to position "C" (see above drawing) when knob is released.	
KY2	KY3	KY3P	3-position, spring centered, closed center spool. All ports blocked when knob is released. See other spools on page 50.	
KR2	KR3	KR3P	2-position. Spool returned by external pilot pressure from auxiliary control valve furnished by the user.	
KD2	KD3	KD3P	3-position, click detent, closed center spool. Knob stays in any one of three positions. See other spools on page 50.	
KD2Q	KD3Q	KD3QP	2-position, click detent. Knob detents in both end positions.	



**Palm Button- Weight 1-1/4 lbs.
Total Stem Travel is 17/32".**

MOUNTING. In addition to standard methods of mounting, palm button models are available for panel mounting up to 1/4" thick, see page 14. Use a 7/8" diameter hole in panel for mounting valve. To order add suffix "R" to regular valve model number for this option. (Example: KO2R).



KO2R

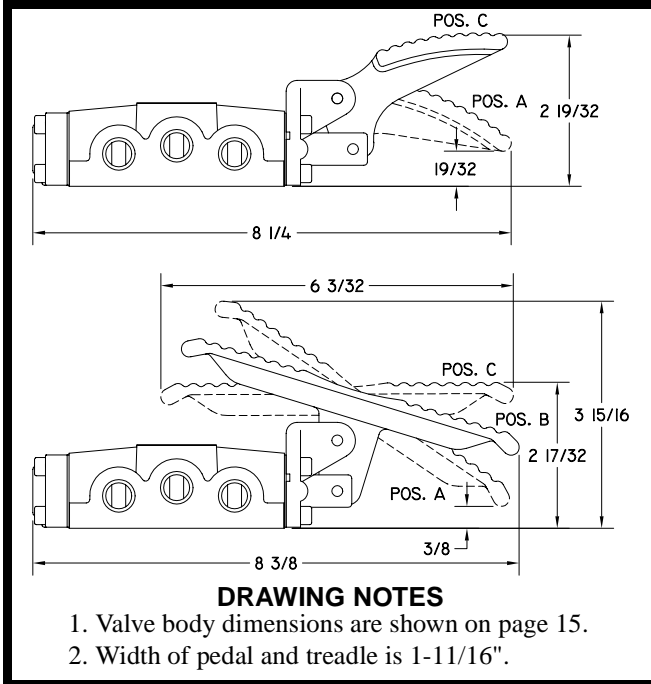
SPECIAL MOUNTING. For special applications, the palm button valve may be obtained with special end cap for vertical mounting with knob end up (see page 14).

REPLACEMENT SEAL KIT

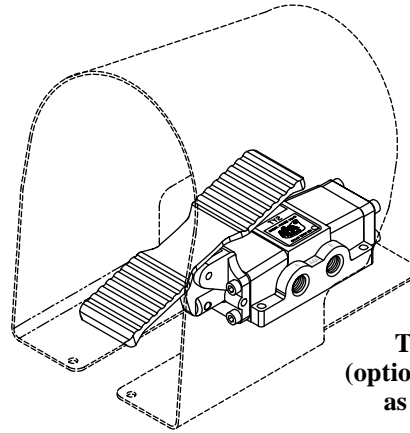
ERKV-3. One kit required for each valve. Includes 6 V-39 Viton body O-rings, 2 EMG3 Buna-N solenoid gaskets, 2 NEG3 composition end cap gaskets, 2 V-565 Buna-N mounting O-rings, 5 V-92 Buna-N subplate O-rings, and 2 V-93 Buna-N subplate pilot O-rings (seals used determined by valve model and style).

FOOT OPERATED VALVES - 1/4" & 3/8"

4-WAY — VACUUM TO 250 PSI AIR



User must assume full safety responsibility for the use of foot valves. Guards are recommended and may be ordered as optional extras.



Treadle Valve
(optional guard shown as dashed lines)

SUBPLATE MOUNTED MODELS. Refer to chart for model numbers. Valves have a porting area equal to a 5/16" diameter hole. See page 41 for 1/4" or 3/8" NPTF subplates with side or bottom ports. Model numbers in the chart include O-ring seals and mounting screws.

GUARD, Part No. FTG-3. Constructed of 16-gauge steel, finished with a blue-gray primer. Inside dimensions are: 5-1/2" wide x 8" high (at front) x 6-1/2" deep. (Threaded bodies only - not for subplate style valves).

REPLACEMENT SEAL KIT

ERKV-3. One kit required for each valve. Includes 6 V-39 Viton body O-rings, 2 EMG3 Buna-N solenoid gaskets, 2 NEG3 composition end cap gaskets, 2 V-565 Buna-N mounting O-rings, 5 V-92 Buna-N subplate O-rings, and 2 V-93 Buna-N subplate pilot O-rings (seals used determined by valve model and style).

PEDAL VALVE. Toe action only, with spring or air pilot pressure to return pedal (and spool) to starting position. Aluminum-Zinc alloy pedal mounted on steel end cap.

See page 11 for special information on pilot return model FR, and on subplate mounted foot valves.

TREADLE VALVE. Shifted by toe and heel action. Ductile iron treadle mounted on steel end cap will withstand severe usage. Approximate weight (including guard) 5 lbs.

FLOW PATTERN. When pedal (or front of treadle) is pressed, air comes out of port "A" nearest pedal.

MODEL SELECTION — FOOT OPERATED VALVES

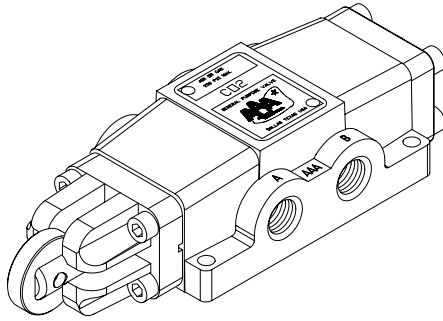
Select basic model. See page 50 for optional spools.

MODEL NUMBER			DESCRIPTION	SYMBOL
Threaded body 1/4" NPTF	3/8" NPTF	Subplate 3/8" Capacity		
FO2	FO3	FO3P	Pedal actuated, 2-position, spring return. Pedal returns to position "C" (see drawing) when pedal is released.	
FR2	FR3	FR3P	Pedal actuated, 2-position. Spool returned by external pilot pressure from auxiliary control valve furnished by the user.	
TE2	TE3	TE3P	Treadle actuated, 2-position, friction positioned. Spool stays in any position when treadle is released.	
TO2	TO3	TO3P	Treadle actuated, 2-position, spring return. Treadle returns to position "C" (see drawing) when released.	
TY2	TY3	TY3P	Treadle actuated, 3-position, spring centered, closed center spool. All ports blocked when treadle is released. See other spools on page 50.	
TD2	TD3	TD3P	Treadle actuated, 3-position, click detent, closed center spool. Treadle stays in any one of three positions. See other spools on page 50.	

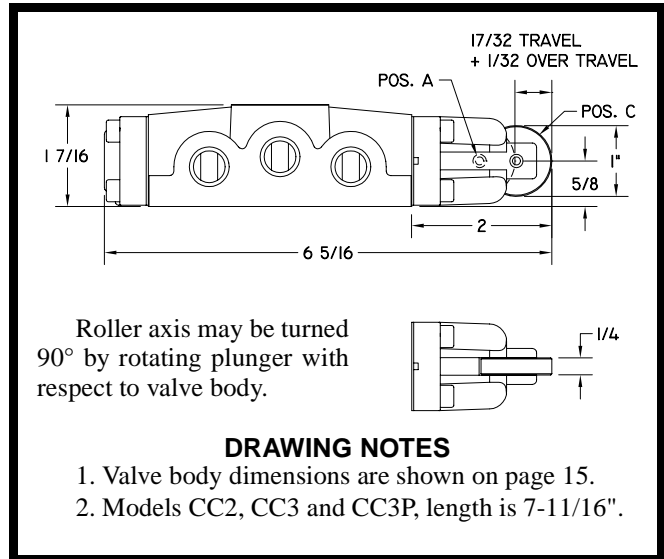


CAM OPERATED VALVES - 1/4" & 3/8"

4-WAY — VACUUM TO 250 PSI AIR



Cam Operated - Weight 1-1/4 lbs.



CAM ACTUATED MODELS. Hardened steel roller can be actuated by cams moving parallel to or at right angles to the valve body, either up or down. Functional spool travel is 17/32" with an over-travel of 1/32" to prevent accidental damage to the valve or the cam in case of incorrect positioning of the valve. A force of 20 lbs. is required to fully shift the spool on spring return models.

Normal assembly is with the cam roller in a vertical plane as shown in the above drawing. Valve may be ordered with roller horizontal, or it can be re-positioned in the field.

FLOW PATTERN. When roller is pushed in, air comes out port "A" nearest the roller.

PILOT RETURN MODELS. Model CR below and FR on page 10 have their spool returned by pilot pressure from an auxiliary valve furnished by the user. This could be a 3-way valve or a 4-way valve. For 3-way service of a 4-way

valve, plug the unused cylinder port.

Subplate models CR and FR have the remote pilot pressure carried in through the subplate.

SUBPLATE OPERATED MODELS. Porting area is equal to a 5/16" round hole. They can be mounted on subplates having either 1/4" or 3/8" NPTF connections. Subplates are listed on page 41. O-ring seals and mounting screws are furnished with subplate valves.

REPLACEMENT SEAL KIT

ERKV-3. One kit required for each valve. Includes 6 V-39 Viton body O-rings, 2 EMG3 Buna-N solenoid gaskets, 2 NEG3 composition end cap gaskets, 2 V-565 Buna-N mounting O-rings, 5 V-92 Buna-N subplate O-rings, and 2 V-93 Buna-N subplate pilot O-rings (seals used determined by valve model and style).

MODEL SELECTION — CAM OPERATED VALVES

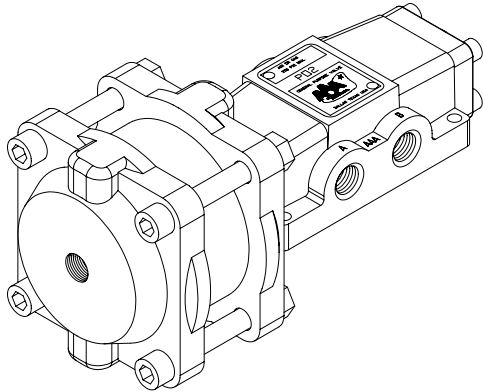
Select basic model.

MODEL NUMBER			DESCRIPTION	SYMBOL
Threaded body		Subplate		
1/4" NPTF	3/8" NPTF	3/8" Capacity		
CO2	CO3	CO3P	2-position, spring return. Normal spool travel 17/32" with 1/32" over-travel. Spool returns to position "C" when cam is released.	
CR2	CR3	CR3P	2-position, pilot return. Minimum pilot signal 25 psi. Force of 5 lbs. required to shift spool when pilot port is vented.	
CC2	CC3	CC3P	2-position, friction positioned. Cam roller mounted on both ends of valve.	

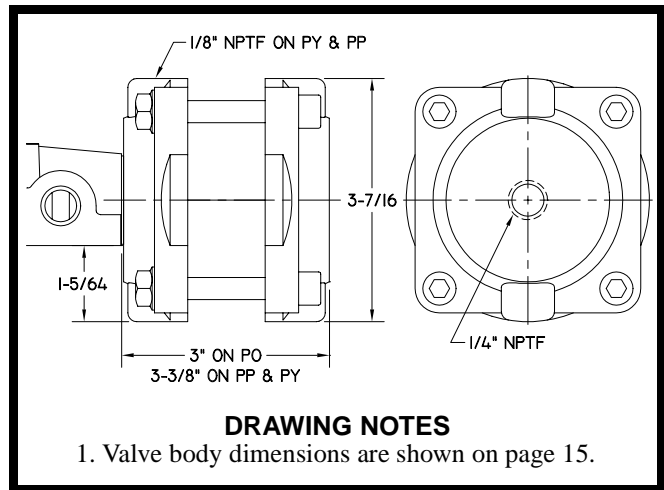
PISTON OPERATED - VALVES

1/4" & 3/8"

4-WAY — LOW PRESSURE PILOTS — VACUUM TO 250 PSI AIR



Piston Operated - Weight 2-1/2 lbs.



DRAWING NOTES

1. Valve body dimensions are shown on page 15.

PISTON OPERATED MODELS. Designed for shifting by low pilot pressure applied to port(s) on piston actuator located on end of valve body. A minimum of 7 psi is required on model PP, 12 psi on models PO and PY.

Because of the large piston area on the actuator, pilot pressure must be limited to 150 psi on all models.

REMOTE CONTROL. Piston operated models on this page and pilot operated models on page 13 are controlled from a remote location by auxiliary pilot valves furnished by the user. A 4-way remote pilot valve is normally used for models PP and PY, and a 3-way remote valve (or 4-way valve with one cylinder port plugged) is normally used for model PO which has a spring returned spool.

MOUNTING. Since the piston actuator is larger in diameter than the valve body, a 1-1/4" spacer should be used when mounting a threaded body model to a flat surface. (Optional MP2 spacer plate is available.)

SUBPLATE TYPE valves have porting area equal to a 5/16" diameter hole. They will not fit on standard subplates. Consult factory for options. O-ring seals and mounting screws are furnished with each subplate valve.

Piston operated models do not have pilot connections into the subplate; pilot lines must be connected to port(s) on the piston assembly.

REPLACEMENT SEAL KITS

ERKV-3. One kit required for each valve. Includes 6 V-39 Viton body O-rings, 2 EMG3 Buna-N solenoid gaskets, 2 NEG3 composition end cap gaskets, 2 V-565 Buna-N mounting O-rings, 5 V-92 Buna-N subplate O-rings, and 2 V-93 Buna-N subplate pilot O-rings (seals used determined by valve model and style).

RKPV-3. One kit required for each single acting piston. Includes O-ring, 2 barrel gaskets, and U-cup. (Order 2 kits for double acting pistons)

MODEL SELECTION — PISTON OPERATED VALVES

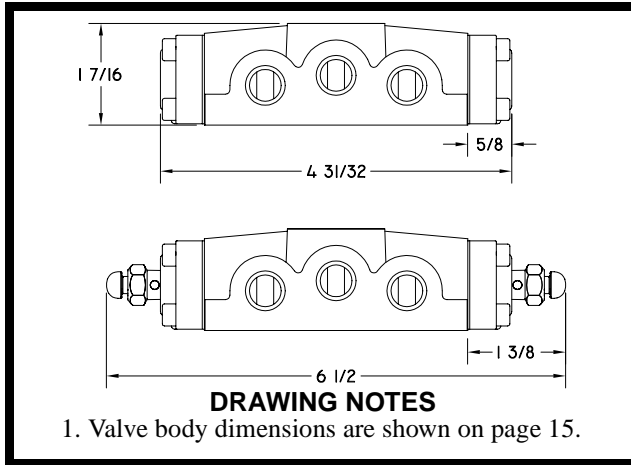
Select basic model. See page 50 for optional spools.

MODEL NUMBER			DESCRIPTION	SYMBOL
Threaded body		Subplate		
1/4" NPTF	3/8" NPTF	3/8" Capacity		
PP2	PP3	PP3P [†]	2-position, no springs. Double acting piston actuator on one end. Spool stays in shifted position when pilot pressure is removed.	
PO2	PO3	PO3P [†]	2-position, spring return. Single acting piston actuator on one end. Spool returns to original position when pilot pressure is removed.	
PY2	PY3	PY3P [†]	3-position, spring centered, closed center spool. Double acting piston actuator on one end. Spool centers when pilot pressure is removed from both ports. See other spools on page 50.	

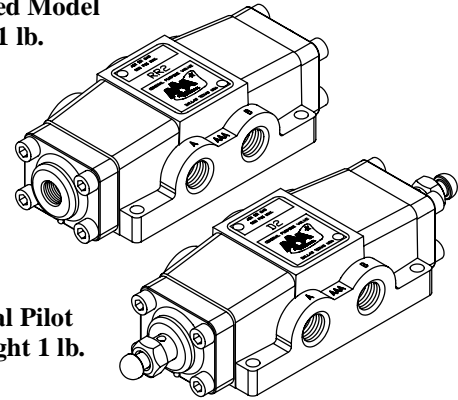
[†]Piston operated subplate style valves will not fit on standard AAA subplates, please consult factory for options.

PILOT OPERATED & DIFFERENTIAL PILOT - 1/4" & 3/8"

4-WAY — VACUUM TO 250 PSI AIR



Pilot Operated Model
Weight 1 lb.



Differential Pilot Model
Weight 1 lb.

PILOT OPERATED & DIFFERENTIAL PILOT MODELS require a minimum of 25 psi for reliable shifting of no-spring models RR & D, and 50 psi for spring loaded models RO, RY, DO & DY. Pilot pressures to 250 psi are permissible. All pilot operated valves have a 1/8" NPTF pilot port on one or both end caps.

DIFFERENTIAL PILOT MODELS will not operate on vacuum, or on line pressure less than 25 psi unless special factory ordered. Consult factory for options. Bleed buttons are furnished, mounted on valve end caps. They may be removed and installed remotely, connected by 1/4" tubing or hose to the valve end caps. Any other type of 2-way, N.C. valve may be substituted for one or both bleed buttons. Optional bleed buttons are listed on page 47.

FLOW PATTERN. On pilot operated models, flow comes out cylinder port nearest end being piloted. On differential pilot models, air comes out cylinder port farthest from button being actuated. See page 45 for more information.

REMOTE CONTROL. Pilot operated valves are controlled with an auxiliary 3-way or 4-way valve furnished by the user. Please read information on page 12.

SUBPLATE OPERATED MODELS. Porting area is equal to a 5/16" round hole. They can be mounted on subplates having either 1/4" or 3/8" NPTF connections. Pilot or bleed lines can be carried from ports in the subplate or end caps. Subplates are listed on page 41. O-ring seals and mounting screws are furnished with subplate valves.

REPLACEMENT SEAL KITS

ERKV-3. One kit required for each valve. Includes 6 V-39 Viton body O-rings, 2 EMG3 Buna-N solenoid gaskets, 2 NEG3 composition end cap gaskets, 2 V-565 Buna-N mounting O-rings, 5 V-92 Buna-N subplate O-rings, and 2 V-93 Buna-N subplate pilot O-rings (seals used determined by valve model and style).

MODEL SELECTION — PILOT OPERATED & DIFFERENTIAL PILOT VALVES

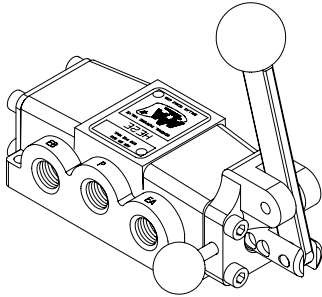
Select basic model. See page 47 optional features and page 50 for optional spools.

MODEL NUMBER			DESCRIPTION	SYMBOL
Threaded body 1/4" NPTF	3/8" NPTF	Subplate 3/8" Capacity		
RR2	RR3	RR3P	2-position, double pilot, no springs. Spool stays in either shifted position when pilot pressure is removed.	
RO2	RO3	RO3P	2-position, single pilot, spring return. Spool returns to original position when pilot pressure is removed.	
RY2	RY3	RY3P	3-position, double pilot, spring centered, closed center spool. Spool centers when pilot pressure is removed from both ports. See other spools on page 50.	
D2	D3	D3P	2-position, double differential pilot, no springs, furnished with button on both ends. Spool stays in shifted position. (Minimum of 25 psi)	
DY2	DY3	DY3P	3-position, double differential pilot, spring centered, closed center spool. Spool centers when buttons are both closed or opened. See other spools on page 50.	
DO2	DO3	DO3P	2-position, single differential pilot, spring return. Spool returns to original position when button is pressed.	

STANDARD VARIATIONS OF 1/4" & 3/8"

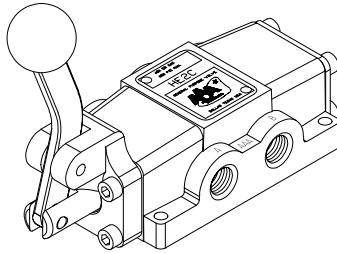
SPECIAL VARIATIONS AND MODIFICATIONS

AAA valves are versatile; they lend themselves to many possible modifications to suit special valving requirements. For example, the modifications shown below can be obtained by adding the suffix number to the standard valve model number. These modifications are standard, but some modifications may require special tooling or assembly, so they are only available in production quantities. If you have a special requirement, consult the factory to see if one of the standard modifications, not involving special tooling, would be satisfactory. Contact us, you will be amazed at what we can do!



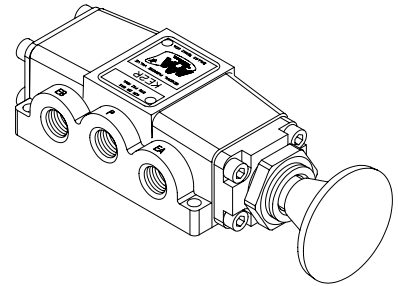
OPTION "E"

Manual lever valve equipped with pin lock for two-hand operation.



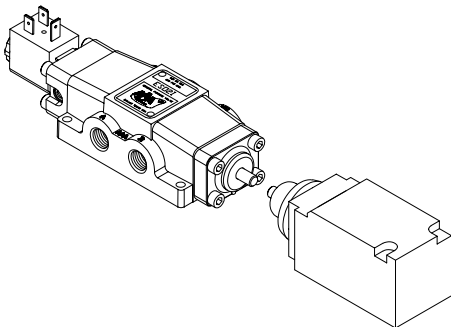
OPTION "C"

Manual lever valve equipped with curved handle.



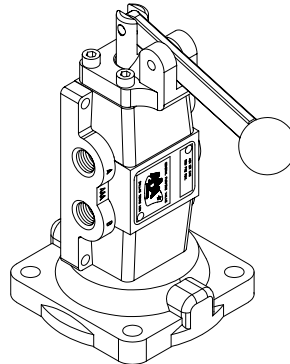
OPTION "R"

Palm button valve equipped with panel mounting option. Mounts on panels up to 1/4" thick through a 7/8" diameter hole.



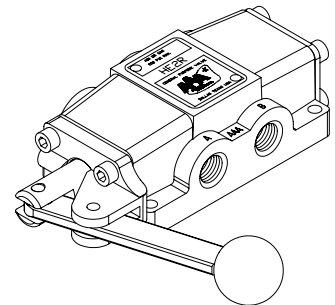
OPTION "I"

Available on most 1/4" or 3/8" size. ESO2I shown with pin extending through end cap to indicate spool position or to actuate a limit switch. 70 psi minimum operating pressure.



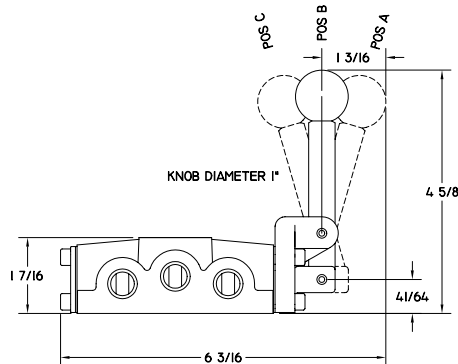
OPTION "N"

Manual lever valve equipped with special endcap for vertical mounting. Not recommended for friction position valves.



OPTION "R"

Manual lever valve equipped with handle turned 90°. Standard rotation is towards the 2 port side.

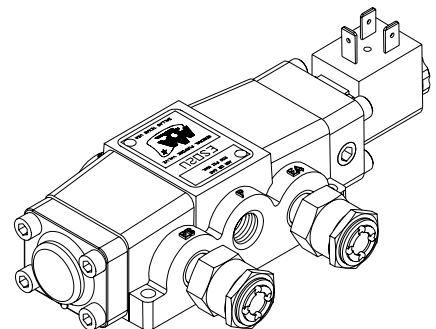


REVERSE OPERATION

On most manually operated 2 position, spring return valves, standard free position is position "C". Valves can be ordered so free position is "A". Must be specified at time of order.

OPTION "Q"

Any friction, 2 position manual lever or palm valve with detents in position "C" and "A".



OPTION "U"

Any valve equipped with AAA Products muffer/flow controls. See page 47 for more information.

BODY DIMENSIONS - 1/4" & 3/8" VALVES

1/4" & 3/8" SIZES — PAGES 6 THROUGH 13

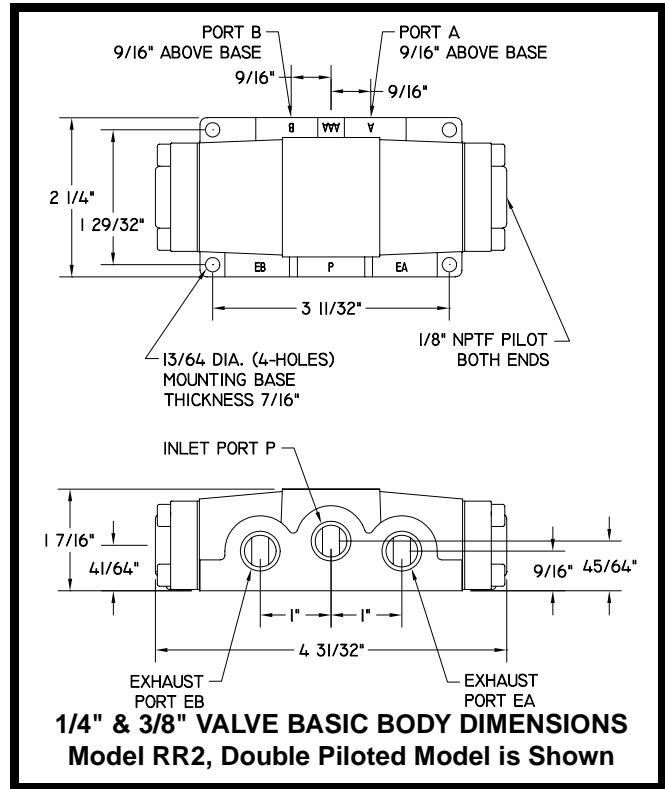
THREADED BODY MODELS. The drawing shows a model RR2, double piloted valve. Body dimensions are identical on valves with either 1/4" or 3/8" ports, the differences being in the port thread size and in the size of internal flow passages.

Overall dimensions of valves with other actuators - cam, solenoid, manual lever, pedal, treadle, and differential pilot - are shown with the listings of each model.

Subplates, listed on page 41, may be used under threaded body valves, if desired, to elevate them for convenience in plumbing.

SUBPLATE MODELS — 1/4" & 3/8" SIZES. Body size is identical with threaded body models, but the port holes come out through the base of the valve. Normally, subplate models are mounted on one of the subplates shown on page 41, or on an SM stacking manifold, page 16. If the user prefers to construct his own mounting manifold, perhaps for mounting several valves side by side, machining dimensions to match the valve port holes are shown below. O-ring seals are furnished with each subplate type valve for sealing between mounting surface and valve body

NOTICE! All dimensional drawings in this catalog, or those furnished by AAA are for reference only, unless certified. The factory reserves the right, without prior notice, to change dimensions or materials, to improve the product or to facilitate manufacture.



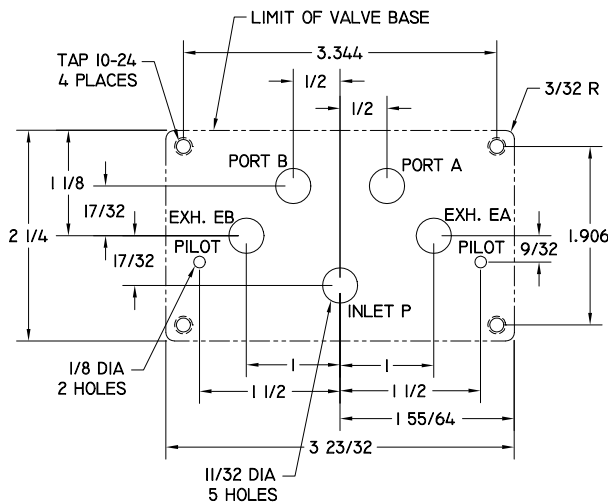
SPECIAL INFORMATION ON

1/4" & 3/8" SUBPLATE MOUNTED VALVES

USER'S SPECIAL MANIFOLDS

Drawing shows machining dimensions for users who wish to manufacture their own special manifolds for AAA subplate mounted valves.

When laying out valves on a manifold or on a machine, be sure to allow sufficient clearance between valves for pilot connections, if any, and space for removing of solenoid covers for wiring.



MOUNTING PATTERN — 1/4" & 3/8" VALVES

STANDARD SUBPLATES

Factory-built subplates are listed on page 41.

SUBPLATE-TO-VALVE PORT SEALS

O-ring seals are furnished with each subplate valve for sealing between valve body and subplate. Replacement O-rings, if needed, can be purchased locally. Any material, such as Buna-N which is compatible with air line lubrication can be used. Seal kits obtained from the AAA factory include these seals.

Subplate No.	O-Ring for Replacement
SP2 & SP3	1/2" I.D. x 5/8" O.D.

PILOT PORT SEALS

Pilot O-ring seals are furnished with each subplate valve for sealing between valve body and subplate.

Subplate No.	O-Ring for Replacement
SP2 & SP3	3/16" I.D. x 5/16" O.D.

MOUNTING SCREWS FOR SUBPLATES

Mounting screws for attaching valves to subplate are normally furnished with each valve. If replacements are necessary, these can be obtained from the local industrial distributor in the following sizes.

Subplate No.	Thread	Length
SP2 & SP3	10-24	7/8"