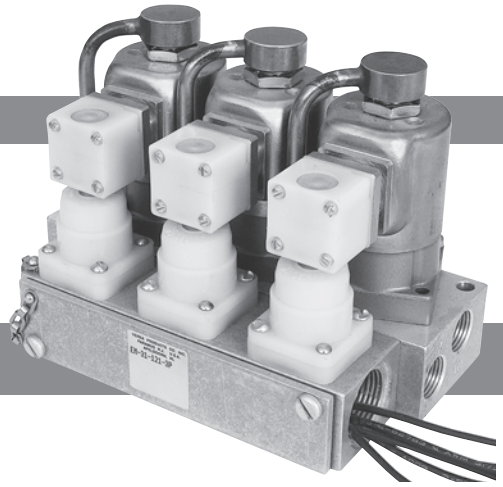
SERIES E TYPE VALVES

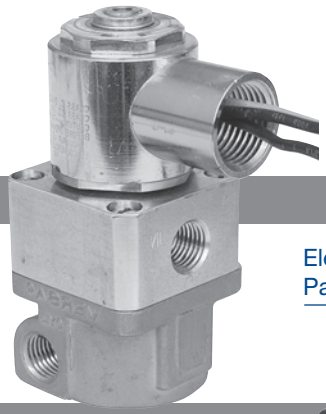
VERSA®

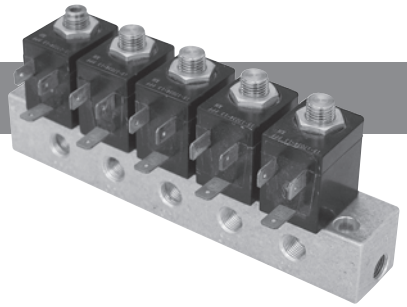
BULLETIN
E-2010

AIR VALVES FOR INDUSTRY SINCE 1949

ISO 9001 CERTIFIED







www.versa-valves.com
email: sales@versa-valves.com

Versa Products Company, Inc., 22 Spring Valley Road, Paramus, New Jersey, USA 07652 • 201/843-2400 FAX: 201/843-2931
Versa BV., Prins Willem Alexanderlaan 1429, 7312 GB Apeldoorn, The Netherlands • 01131-55-3681900 FAX: 01131-55-361909

Side-Ported Types

Series E *Full-Size* Side-Ported valves are direct solenoid actuated and are individually mounted. 1/8 NPT or 1/4 NPT ports are provided in the valve body.

TECHNICAL DATA

Application: Air, oil or water, and many other media that are compatible with the specific sealing materials used. Consult factory for clarification.

Seals: Ordinary Location Valves—NBR (Nitrile) is standard; other sealing materials are available for compatibility with various oils, acidic fluids & gases, etc. See Options on page 14 or consult factory.
Hazardous Location Valves—FKM (fluorocarbon) per ASTM D1418/ISO-1629.

Construction: Stainless steel (302, 304 & 430F) wetted parts. Coil cover is zinc chromate coated steel.

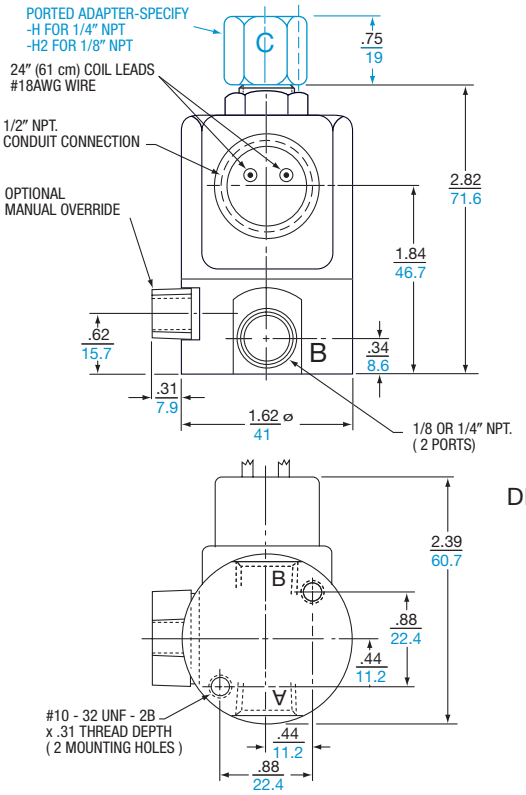
Electrical: Class F epoxy molded coils rated for continuous duty; 9.5-12 watt DC, 7.3-10 watt AC nominal power. See page 17 for coil voltages.
Ordinary Location Solenoids are CSA certified; NEMA 1, 2 & 3; NEMA 4/IP65.
Hazardous Location Solenoids are UL listed and CSA certified; NEMA 7 & 9. Solenoids approved by ATEX are also available. See pages 16 & 18.

Temperature Range: 0°F (-18°C) to 180°F (82°C). Consult factory for other temperature ranges.

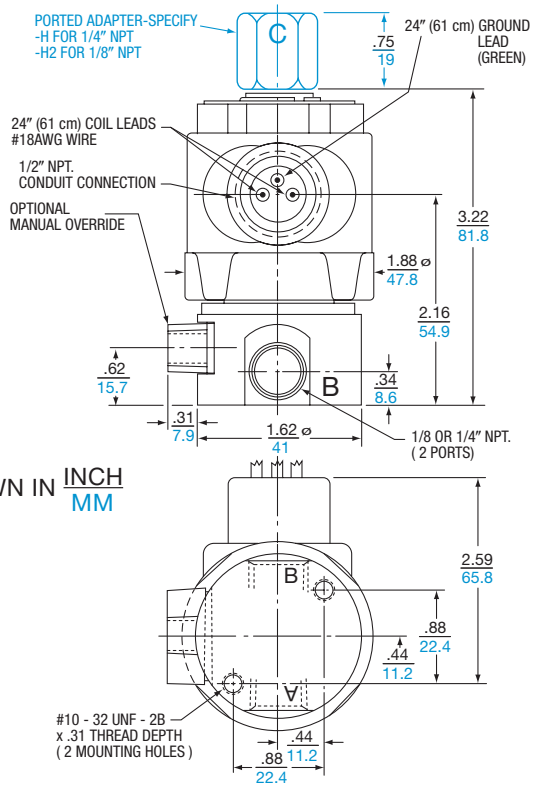
Flow: See page 19.

Options: See pages 14 thru 16.

ORDINARY LOCATIONS (NEMA 1, 2, 3)



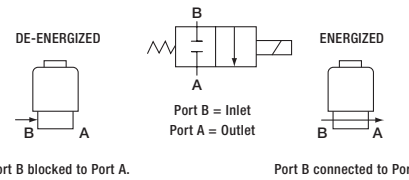
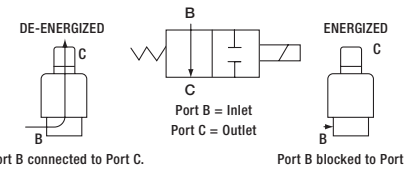
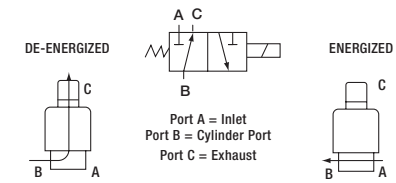
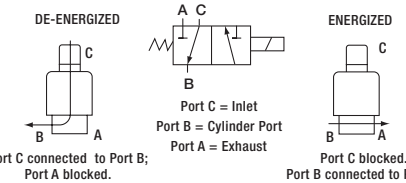
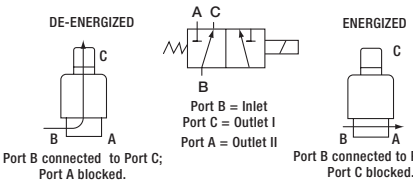
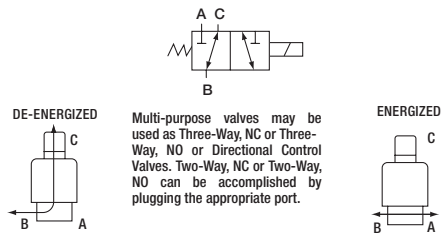
HAZARDOUS LOCATIONS (NEMA 7 & 9)



DIMENSIONS SHOWN IN INCH / MM

Color shows piped port C or normally open valve; metric dimensions.

Coil cover shown is supplied as standard and provides housing with threaded boss for conduit connection. Other housing types are available. See Suffix Detail Options on page 14.

Type	Maximum Operating Pressure Differential[1] psi (bar)[2]	ORDINARY LOCATIONS (For Coil Voltages See Page 17) Product Number with conduit type coil housing. For other housing options see page 14. 1/8″ NPT	1/4″ NPT	Min. Orifice between Ports "A"-"B"	"B"-"C"	Piping Arrangement and Flow Pattern
TWO-WAY 2/2 NORMALLY CLOSED Air, Oil or Water	250 (17) 200 (14) 125 (8.6) 100 (6.9) 75-50 (5.2-3.4) 50-25 (3.4-1.7) 20-5 (1.4-0.3)	**ESM-2201-30-(*)** **ESM-2201-40-(*)** **ESM-2201-60-(*)** **ESM-2201-80-(*)** **ESM-2201-100-(*)** **ESM-2201-120-(*)** **ESM-2201-160-(*)**	**ESM-2301-30-(*)** **ESM-2301-40-(*)** **ESM-2301-60-(*)** **ESM-2301-80-(*)** **ESM-2301-100-(*)** **ESM-2301-120-(*)** **ESM-2301-160-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm) 5/32 (4.0 mm) 3/16″ (4.8 mm) 1/4″ (6.4 mm)		 Port B blocked to Port A. Port B connected to Port A.
TWO-WAY 2/2 NORMALLY OPEN Air, Oil or Water	200 (14) 150 (10) 125 (8.6)	**ESM-2202-03-H2-(*)** **ESM-2202-04-H2-(*)** **ESM-2202-06-H2-(*)**	**ESM-2302-03-H-(*)** **ESM-2302-04-H-(*)** **ESM-2302-06-H-(*)**		3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	 Port B connected to Port C. Port B blocked to Port C.
THREE-WAY 3/2 NORMALLY CLOSED (EXHAUST TO ATMOSPHERE) Air Only	150 (10) 100 (6.9) 75 (5.2) 50 (3.4) 20 (1.4) Vac-AC only	**ESM-3201-34-(*)** **ESM-3201-44-(*)** **ESM-3201-66-(*)** **ESM-3201-86-(*)** **ESM-3201-126-(*)** **ESM-3201-166-(*)**	**ESM-3301-34-(*)** **ESM-3301-44-(*)** **ESM-3301-66-(*)** **ESM-3301-86-(*)** **ESM-3301-126-(*)** **ESM-3301-166-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm) 3/16″ (4.8 mm) 1/4″ (6.4 mm)	1/16″ (1.6 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	 Port A blocked to Port B; Port B connected to Port C. Port A connected to Port B; Port C blocked.
THREE-WAY 3/2 NORMALLY CLOSED (PIPED EXHAUST) Air, Oil or Water	150 (10) 100 (6.9) 75 (5.2) 50 (3.4) 20 (1.4) Vacuum-AC only	**ESM-3201-34-H2-(*)** **ESM-3201-44-H2-(*)** **ESM-3201-66-H2-(*)** **ESM-3201-86-H2-(*)** **ESM-3201-126-H2-(*)** **ESM-3201-166-H2-(*)**	**ESM-3301-34-H-(*)** **ESM-3301-44-H-(*)** **ESM-3301-66-H-(*)** **ESM-3301-86-H-(*)** **ESM-3301-126-H-(*)** **ESM-3301-166-H-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm) 3/16″ (4.8 mm) 1/4″ (6.4 mm)	1/16″ (1.6 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	
THREE-WAY 3/2 NORMALLY OPEN Air, Oil or Water	150 (10) 100 (6.9) 100 (6.9) 75 (5.2) 75 (5.2)	**ESM-3202-43-H2-(*)** **ESM-3202-44-H2-(*)** **ESM-3202-84-H2-(*)** **ESM-3202-66-H2-(*)** **ESM-3202-86-H2-(*)**	**ESM-3302-43-H-(*)** **ESM-3302-44-H-(*)** **ESM-3302-84-H-(*)** **ESM-3302-66-H-(*)** **ESM-3302-86-H-(*)**	1/16″ (1.6 mm) 1/16″ (1.6 mm) 1/8″ (3.2 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	3/64″ (1.2 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	 Port C connected to Port B; Port A blocked. Port C blocked. Port B connected to Port A.
THREE-WAY 3/2 DIRECTIONAL CONTROL Air, Oil or Water	200 (14) 150 (10) 125 (8.6) 100 (6.9)	**ESM-7202-43-H2-(*)** **ESM-7202-44-H2-(*)** **ESM-7202-66-H2-(*)** **ESM-7202-86-H2-(*)**	**ESM-7302-43-H-(*)** **ESM-7302-44-H-(*)** **ESM-7302-66-H-(*)** **ESM-7302-86-H-(*)**	1/16″ (1.6 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	 Port B connected to Port C; Port A blocked. Port B connected to Port A; Port C blocked.
THREE-WAY 3/2 MULTI-PURPOSE Air, Oil or Water	150 (10) 100 (6.9) 75 (5.2)	**ESM-8202-33-H2-(*)** **ESM-8202-44-H2-(*)** **ESM-8202-66-H2-(*)**	**ESM-8302-33-H-(*)** **ESM-8302-44-H-(*)** **ESM-8302-66-H-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	

HAZARDOUS LOCATIONS
Add Suffix -XX To Above
Product Numbers
(See page 16 for other Hazardous Location Solenoids)

NOTES:

*Specify coil code # from page 17.

1. Pressures are for both AC or DC coil unless two pressures are shown. In that case, the pressure in color is for DC. Vacuum is AC only.

2. MPa = $\frac{\text{bar}}{10}$

Manifold-Mounting Types

Each Series E *Full-Size* Manifold Mounting valve is direct solenoid actuated and is mounted on a manifold which can have 1 to 10 valve stations. The manifolds are provided with the threaded ports for pipe connections, which allows the valves to be easily and swiftly installed or removed without breaking any pipe connections. The manifolds also provide common ports, such as the inlet and exhaust, making only one such connection necessary per manifold. Installation is neater and maintenance easier since valves are grouped in one location. Several different piping arrangements are available to provide flexibility of application.

Valves are supplied assembled to manifolds, but must be ordered separately. Station Blanks (E-189) are available for blocking off any unused or "future" valve stations on the manifold. To order complete unit, specify manifold desired and quantity and valve model number required. Valves must all be the same model.

TECHNICAL DATA

Application: Air, oil or water, and many other media that are compatible with the specific sealing materials used. Consult factory for clarification.

Seals: NBR (nitrile) is standard; other sealing materials are available for compatibility with various oils, acidic fluids & gases, etc. See Options on page 14 or consult factory.

Construction: Valve bodies and manifolds are aluminum. (Stainless steel valve bodies and manifolds are available. Consult factory.) Wetted solenoid parts are stainless steel (302, 304 & 430F). Coil cover is zinc chromate coated steel.

Electrical: Class F epoxy molded coils rated for continuous duty; 9.5-12 watt DC, 7.3-10 watt AC nominal power. See page 17 for coil voltages.

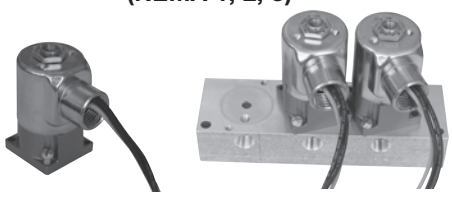
Ordinary Location Solenoids are CSA certified: NEMA 1, 2 & 3; NEMA 4/IP65.
Hazardous Location Solenoids are UL listed and CSA certified; NEMA 7 & 9.

Temperature Range: 0°F (-18°C) to 180°F (82°C). Consult factory for other temperature ranges.

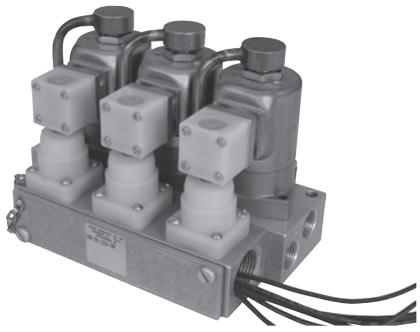
Flow: See page 19.

Options: See pages 14 thru 16.

WITHOUT ELECTRICAL PLUG-IN (NEMA 1, 2, 3)



WITH ELECTRICAL PLUG-IN (NEMA 1, 2, 3)



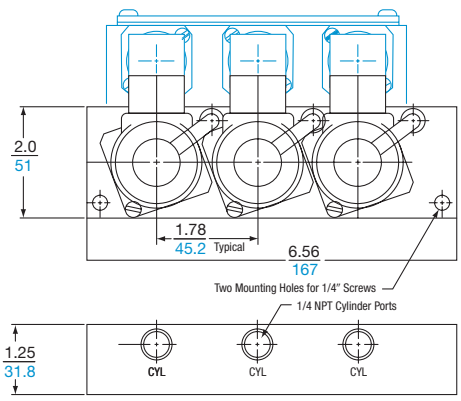
Typical THREE-WAY Normally Closed Type

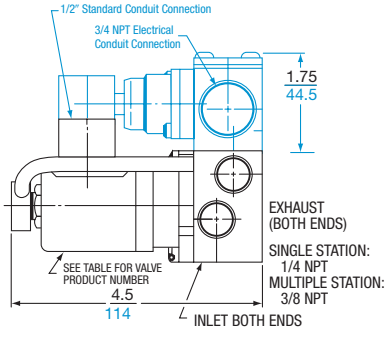
(Types Available Include 2-Way NC, 2-way NO, 3-way NC, 3-Way NO, Directional. Consult factory for information concerning specific product required.)

DIMENSIONS SHOWN IN INCH / MM

(Piped Exhaust)

FEATURES OF MANIFOLD:
COMMON INLET FOR ALL VALVES
INDIVIDUAL OUTLETS (CYLINDER PORTS) FOR EACH VALVE
COMMON EXHAUST PORT FOR ALL VALVES
Plug-in type also has common electrical junction box & conduit connection

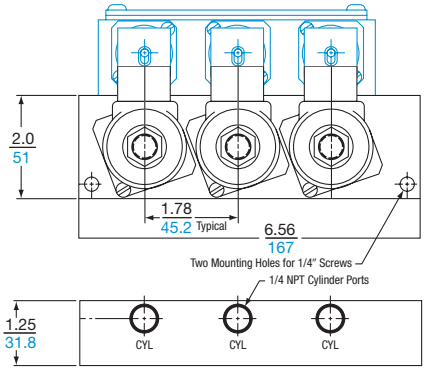




Add 1.78" (45.2 mm) for each additional valve station required. Detail and descriptions in color apply to plug-in type valve and manifold.

(Exhaust to Atmosphere)

FEATURES OF MANIFOLD:
COMMON INLET FOR ALL VALVES
INDIVIDUAL OUTLETS (CYLINDER PORTS) FOR EACH VALVE
Plug-in type also has common electrical junction box & conduit connection



ORDINARY LOCATIONS
(For Coil Voltages See Page 17)

Type	Maximum Operating Pressure Differential (Note 1) psi (bar) (Note 2)	Product Number: Valve — Listed with conduit type coil housing. (Note 3)	Valve — Min. Orifice between Valve Ports	Manifold — One Inlet (3/8 NPT) serves all Valves: Individual Outlets (1/4 NPT) (Notes 3 & 4)	Manifold — Individual Inlet (1/4 NPT) and Outlet (1/4 NPT) for Each Valve (Notes 3 & 4)	Manifold — Individual Inlet (1/4 NPT) for Each Valve: One Outlet (3/8 NPT) Serves all (Notes 3 & 4)
TWO-WAY 2/2 NORMALLY CLOSED Air, Oil or Water	250 (17) 200 (14) 125 (8.6) 100 (6.9) 75-50 (5.2-3.4) 50-25 (3.4-1.7) 20-5 (1.4-0.3)	**ESM-2011-30-(*)** **ESM-2011-40-(*)** **ESM-2011-60-(*)** **ESM-2011-80-(*)** **ESM-2011-100-(*)** **ESM-2011-120-(*)** **ESM-2011-160-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm) 5/32″ (4.0 mm) 3/16″ (4.8 mm) 1/4″ (6.4 mm)	**EM-21-210-†**	**EM-21-220-†**	**EM-21-120-†**
TWO-WAY 2/2 NORMALLY OPEN Air, Oil or Water	200 (14) 150 (10) 125 (8.6)	**ESM-2012-03-Z-(*)** **ESM-2012-04-Z-(*)** **ESM-2012-06-Z-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	**EM-22-012-†**	**EM-22-022-†**	—
THREE-WAY 3/2 NORMALLY CLOSED (EXHAUST TO ATMOSPHERE) Air Only	150 (10) 100 (6.9) 75 (5.2) 50 (3.4) 20 (1.4) Vacuum-AC Only	**ESM-3011-34-(*)** **ESM-3011-44-(*)** **ESM-3011-66-(*)** **ESM-3011-86-(*)** **ESM-3011-126-(*)** **ESM-3011-166-(*)**	**"In"-"Cyl"** / **"Cyl"-"Exh"** 3/64″ (1.2 mm) / 1/16″ (1.6 mm) 1/16″ (1.6 mm) / 1/16″ (1.6 mm) 3/32″ (2.4 mm) / 3/32″ (2.4 mm) 1/8″ (3.2 mm) / 3/32″ (2.4 mm) 3/16″ (4.8 mm) / 3/32″ (2.4 mm) 1/4″ (6.4 mm) / 3/32″ (2.4 mm)	**EM-31-120-†**	**EM-31-220-†**	**EM-31-210-†**
THREE-WAY 3/2 NORMALLY CLOSED (COMMON PIPED EXHAUST) Air, Oil or Water	150 (10) 100 (6.9) 75 (5.2) 50 (3.4) 20 (1.4) Vacuum-AC Only	**ESM-3011-34-Z-(*)** **ESM-3011-44-Z-(*)** **ESM-3011-66-Z-(*)** **ESM-3011-86-Z-(*)** **ESM-3011-126-Z-(*)** **ESM-3011-166-Z-(*)**	3/64″ (1.2 mm) / 1/16″ (1.6 mm) 1/16″ (1.6 mm) / 1/16″ (1.6 mm) 3/32″ (2.4 mm) / 3/32″ (2.4 mm) 1/8″ (3.2 mm) / 3/32″ (2.4 mm) 3/16″ (4.8 mm) / 3/32″ (2.4 mm) 1/4″ (6.4 mm) / 3/32″ (2.4 mm)	**EM-31-121-†**	**EM-31-221-†**	
THREE-WAY 3/2 NORMALLY OPEN (COMMON PIPED EXHAUST) Air, Oil or Water	150 (10) 100 (6.9) 100 (6.9) 75 (5.2) 75 (5.2)	**ESM-3012-43-Z-(*)** **ESM-3012-44-Z-(*)** **ESM-3012-84-Z-(*)** **ESM-3012-66-Z-(*)** **ESM-3012-86-Z-(*)**	3/64″ (1.2 mm) / 1/16″ (1.6 mm) 1/16″ (1.6 mm) / 1/16″ (1.6 mm) 1/16″ (1.6 mm) / 1/8″ (3.2 mm) 3/32″ (2.4 mm) / 3/32″ (2.4 mm) 3/32″ (2.4 mm) / 1/8″ (3.2 mm)	**EM-32-121-†**	**†Insert Number of Valve Stations Required. Manifolds Are Supplied In 1 to 10 Stations.**	
THREE-WAY 3/2 DIRECTIONAL CONTROL Air, Oil or Water	200 (14) 150 (10) 125 (8.6) 100 (6.9)	**ESM-7012-43-Z-(*)** **ESM-7012-44-Z-(*)** **ESM-7012-66-Z-(*)** **ESM-7012-86-Z-(*)**	**"In"-"Out 1"** / **"In"-"Out 2"** 3/64″ (1.2 mm) / 1/16″ (1.6 mm) 1/16″ (1.6 mm) / 1/16″ (1.6 mm) 3/32″ (2.4 mm) / 3/32″ (2.4 mm) 3/32″ (2.4 mm) / 1/8″ (3.2 mm)	**EM-72-212-†**		
		Add Suffix -XX to Valve Product Numbers Shown Above. See Pages 16 & 18 for Other Options	**HAZARDOUS LOCATIONS**	**Change Prefix "EM" to "E7M." Example: E7M-72-212-†.**		

NOTES:

*Specify coil code # from page 17.

1. Pressures are for both AC or DC coil unless two pressures are shown. In that case, the pressure in color is for DC. Vacuum is AC only.
2. MPa = $\frac{\text{bar}}{10}$
3. To specify electrical plug-in option add -P to product number shown. Indicator lights mounted in junction box can also be provided when using plug-in valves. Use Suffix -36B for this option. Limitation: 90-250VDC, 70-250VAC/50 or 60 Hz. Plug in option not available with solenoids for hazardous location.
4. All ports of single station manifolds are 1/4 NPT.

Side-Ported Types

Series E5 *compact* valves are direct solenoid actuated valves. They are physically smaller than the Series E *full-size* valves described on pages 2 through 5, but offer most of the same orifice sizes and operating pressure ranges as the larger valves. Ports are 1/8 NPT in the valve body and the valves are individually mounted.

TECHNICAL DATA

Application: Air, oil or water, and many other media that are compatible with the specific sealing materials used. Consult factory for clarification.

Seals: Ordinary Location Valves—NBR (Nitrile) is standard; other sealing materials are available for compatibility with various oils, acidic fluids & gases, etc. See Options on page 14 or consult factory.

Hazardous Location Valves—FKM (fluorocarbon) per ASTM D1418/ISO-1629.

Construction: Stainles steel (302, 304 & 430F) wetted parts. Coil cover is zinc chromate coated steel (available in 182FM stainless steel on Hazardous Location valves). See Options on page 14.

Electrical: Class F epoxy molded coils rated for continuous duty; 1.8-10.5 watt DC, 4-8.5 watt AC nominal power. See page 17 for coil voltages.

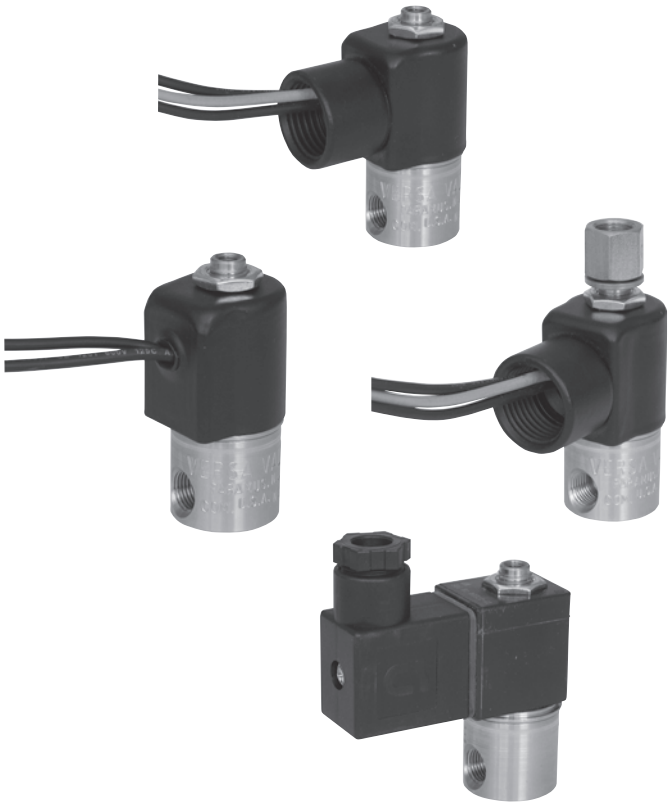
Ordinary Location Solenoids are CSA certified; NEMA 1, 2 & 3; NEMA 4/IP65.

Hazardous Location Solenoids are UL listed and CSA certified; NEMA 7 & 9. Solenoids approved by FM & ATEX are also available. See pages 16 & 18.

Temperature Range: 0ºF (-18ºC) to 180ºF (82ºC). Consult factory for other temperature ranges.

Flow: See page 19.

Options: See pages 14 thru 18.



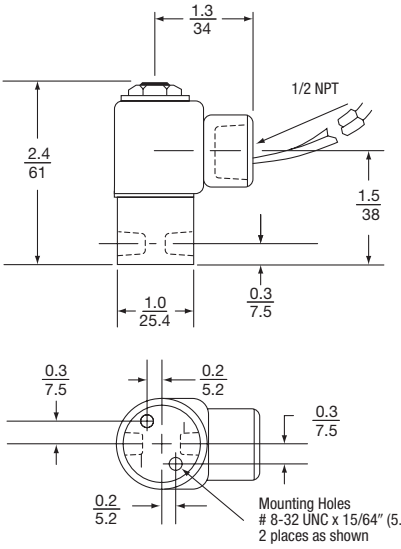
ORDINARY LOCATION VALVE (NEMA 1, 2, 3)

HAZARDOUS LOCATION VALVE (NEMA 7 & 9)

ORDINARY LOCATION VALVE

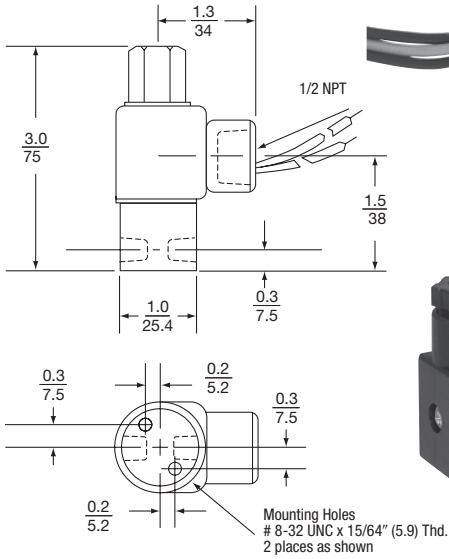
CONDUIT HOUSING (NEMA 1, 2, 3)

GROMMETED LEADS (NEMA 1, 2, 3)



Two-Way NC
Three-Way NC (Exhaust to Atmosphere)

PIPED EXHAUST



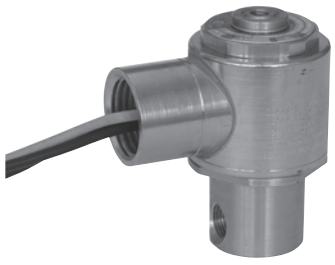
Three-Way NC (Piped Exhaust)
Three-Way NO
Two-Way NO
Directional
Multi-purpose

DIN COIL & CONNECTOR (NEMA 4/IP65)

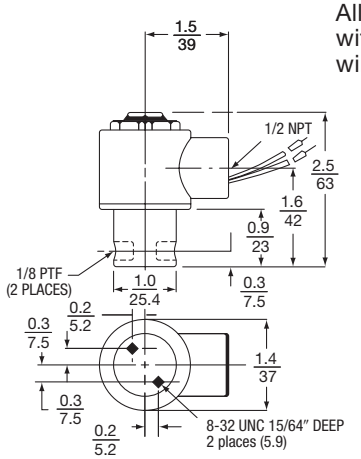
DIMENSIONS SHOWN IN INCH / MM

HAZARDOUS LOCATION VALVE (NEMA 7 & 9)

UL Listed or CSA Certified.
(See pages 16 & 18 for other Hazardous Location Solenoids)

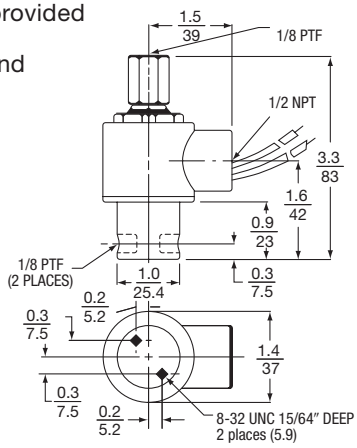


All coils provided with 3rd wire ground



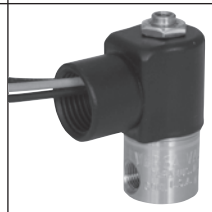
DIMENSIONS SHOWN IN INCH / MM

Two-Way NC
Three-Way NC (Exhaust to Atmosphere)



Three-Way NC (Piped Exhaust)
Three-Way NO
Two-Way NO
Directional
Multi-purpose

Type	Maximum Operating Pressure Differential — psi (bar)†† AC	Maximum Operating Pressure Differential — psi (bar)†† DC	ORDINARY LOCATIONS (For Coil Voltage See Page 17) Product Number with 1/2″ NPT Conduit Connection	with DIN Coil & Connector	with Grommeted Leads	Minimum Orifice between Ports NC-Comm	Comm-NO
TWO-WAY 2/2 NORMALLY CLOSED Air, Oil or Water	500 (34) 400 (27) 200 (14) 100 (6.9) 75 (5.2)	250 (17) 150 (10) 100 (6.9) 45 (3.1) 25 (1.7)	**E5SM-2201-20-(*)** **E5SM-2201-30-(*)** **E5SM-2201-40-(*)** **E5SM-2201-60-(*)** **E5SM-2201-80-(*)**	**E5SM-2201-20-HC-(*)** **E5SM-2201-30-HC-(*)** **E5SM-2201-40-HC-(*)** **E5SM-2201-60-HC-(*)** **E5SM-2201-80-HC-(*)**	**E5SM-2201-20-243-(*)** **E5SM-2201-30-243-(*)** **E5SM-2201-40-243-(*)** **E5SM-2201-60-243-(*)** **E5SM-2201-80-243-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	
TWO-WAY 2/2 NORMALLY OPEN Air, Oil or Water	400 (27) 200 (14) 125 (8.6)	200 (14) 100 (6.9) 60 (4.1)	**E5SM-2202-02-H2-(*)** **E5SM-2202-03-H2-(*)** **E5SM-2202-04-H2-(*)**	**E5SM-2202-02-HC-H2-(*)** **E5SM-2202-03-HC-H2-(*)** **E5SM-2202-04-HC-H2-(*)**	**E5SM-2202-02-H2-243-(*)** **E5SM-2202-03-H2-243-(*)** **E5SM-2202-04-H2-243-(*)**		1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm)
THREE-WAY 3/2 NORMALLY CLOSED (EXHAUST TO ATMOSPHERE) Air Only	200 (14) 150 (10) 150 (10) 100 (6.9) 60 (4.1) 30 (2.1)	200 (14) 150 (10) 150 (10) 100 (6.9) 60 (4.1) 30 (2.1)	**E5SM-3201-22-(*)** **E5SM-3201-33-(*)** **E5SM-3201-34-(*)** **E5SM-3201-44-(*)** **E5SM-3201-64-(*)** **E5SM-3201-84-(*)**	**E5SM-3201-22-HC-(*)** **E5SM-3201-33-HC-(*)** **E5SM-3201-34-HC-(*)** **E5SM-3201-44-HC-(*)** **E5SM-3201-64-HC-(*)** **E5SM-3201-84-HC-(*)**	**E5SM-3201-22-243-(*)** **E5SM-3201-33-243-(*)** **E5SM-3201-34-243-(*)** **E5SM-3201-44-243-(*)** **E5SM-3201-64-243-(*)** **E5SM-3201-84-243-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm)
THREE-WAY 3/2 NORMALLY CLOSED (PIPED EXHAUST) Air, Oil or Water	200 (14) 150 (10) 150 (10) 100 (6.9) 60 (4.1) 30 (2.1)	200 (14) 150 (10) 150 (10) 100 (6.9) 60 (4.1) 30 (2.1)	**E5SM-3201-22-H2-(*)** **E5SM-3201-33-H2-(*)** **E5SM-3201-34-H2-(*)** **E5SM-3201-44-H2-(*)** **E5SM-3201-64-H2-(*)** **E5SM-3201-84-H2-(*)**	**E5SM-3201-22-HC-H2-(*)** **E5SM-3201-33-HC-H2-(*)** **E5SM-3201-34-HC-H2-(*)** **E5SM-3201-44-HC-H2-(*)** **E5SM-3201-64-HC-H2-(*)** **E5SM-3201-84-HC-H2-(*)**	**E5SM-3201-22-H2-243-(*)** **E5SM-3201-33-H2-243-(*)** **E5SM-3201-34-H2-243-(*)** **E5SM-3201-44-H2-243-(*)** **E5SM-3201-64-H2-243-(*)** **E5SM-3201-84-H2-243-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm)
THREE-WAY 3/2 NORMALLY OPEN Air, Oil or Water	150 (10) 125 (8.6) 100 (6.9) 75 (5.2)	150 (10) 125 (8.6) 75 (5.2) 45 (3.1)	**E5SM-3202-22-H2-(*)** **E5SM-3202-33-H2-(*)** **E5SM-3202-44-H2-(*)** **E5SM-3202-64-H2-(*)**	**E5SM-3202-22-HC-H2-(*)** **E5SM-3202-33-HC-H2-(*)** **E5SM-3202-44-HC-H2-(*)** **E5SM-3202-64-HC-H2-(*)**	**E5SM-3202-22-H2-243-(*)** **E5SM-3202-33-H2-243-(*)** **E5SM-3202-44-H2-243-(*)** **E5SM-3202-64-H2-243-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm)
THREE-WAY 3/2 DIRECTIONAL CONTROL Air, Oil or Water	300 (21) 200 (14) 100 (6.9) 75 (5.2)	200 (14) 100 (6.9) 50 (3.4) 25 (1.7)	**E5SM-7202-22-H2-(*)** **E5SM-7202-33-H2-(*)** **E5SM-7202-44-H2-(*)** **E5SM-7202-64-H2-(*)**	**E5SM-7202-22-HC-H2-(*)** **E5SM-7202-33-HC-H2-(*)** **E5SM-7202-44-HC-H2-(*)** **E5SM-7202-64-HC-H2-(*)**	**E5SM-7202-22-H2-243-(*)** **E5SM-7202-33-H2-243-(*)** **E5SM-7202-44-H2-243-(*)** **E5SM-7202-64-H2-243-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 1/16″ (1.6 mm)
THREE-WAY 3/2 MULTI-PURPOSE Air, Oil or Water	125 (8.6) 100 (6.9) 65 (4.5)	125 (8.6) 100 (6.9) 50 (3.4)	**E5SM-8202-22-H2-(*)** **E5SM-8202-33-H2-(*)** **E5SM-8202-44-H2-(*)**	**E5SM-8202-22-HC-H2-(*)** **E5SM-8202-33-HC-H2-(*)** **E5SM-8202-44-HC-H2-(*)**	**E5SM-8202-22-H2-243-(*)** **E5SM-8202-33-H2-243-(*)** **E5SM-8202-44-H2-243-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm)



1/2 NPT Conduit Connection

Mini-DIN Connector

Grommeted Leads (Flying Leads)

NOTES:

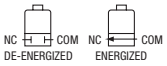
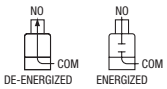
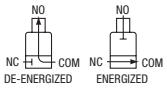
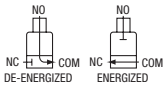
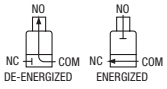
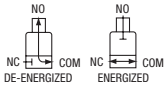
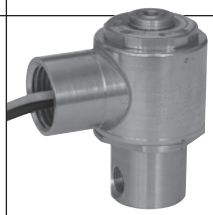
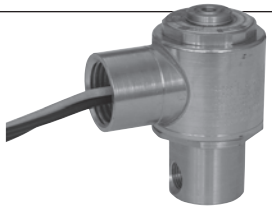
*Specify coil code # from page 17.

†For air only.

††MPa = $\frac{\text{bar}}{10}$

HAZARDOUS LOCATION VALVES

UL Listed or CSA Certified.
(See pages 16 & 18 for other Hazardous Location Solenoids)

Piping Arrangement and Flow Pattern	Standard Wattage Product Number (For Coils Available See Page 17)	Low Wattage †For Air Only Maximum Operating Pressure Differential† psi (bar)†† AC or DC	Low Wattage †For Air Only Product Number† (For Coils Available; See Below) 1.8 Watt Max See Available Voltage Below
 COM - INLET NC - OUTLET	**E5SM-2201-20-XX-(*)** **E5SM-2201-30-XX-(*)** **E5SM-2201-40-XX-(*)** **E5SM-2201-60-XX-(*)** **E5SM-2201-80-XX-(*)**	120 (8.3) 80 (5.5) 50 (3.4)	**E5SM-2201-20-LB-XX-(*)** **E5SM-2201-30-LB-XX-(*)** **E5SM-2201-40-LB-XX-(*)**
 COM - INLET NC - OUTLET	**E5SM-2202-02-H2-XX-(*)** **E5SM-2202-03-H2-XX-(*)** **E5SM-2202-04-H2-XX-(*)**	120 (8.3) 50 (3.4)	**E5SM-2202-03-H2-LB-XX-(*)** **E5SM-2202-04-H2-LB-XX-(*)**
 NC - INLET COM - OUTLET NO - EXHAUST	**E5SM-3201-22-XX-(*)** **E5SM-3201-33-XX-(*)** **E5SM-3201-34-XX-(*)** **E5SM-3201-44-XX-(*)** **E5SM-3201-64-XX-(*)** **E5SM-3201-84-XX-(*)**	120 (8.3) 60 (4.1) 30 (2.1)	**E5SM-3201-23-LB-XX-(*)** **E5SM-3201-33-LB-XX-(*)** **E5SM-3201-44-LB-XX-(*)**
	E5SM-3201-22-H2-XX-(*) **E5SM-3201-33-H2-XX-(*)** **E5SM-3201-34-H2-XX-(*)** **E5SM-3201-44-H2-XX-(*)** **E5SM-3201-64-H2-XX-(*)** **E5SM-3201-84-H2-XX-(*)**	120 (8.3) 60 (4.1) 30 (2.1)	**E5SM-3201-23-H2-LB-XX-(*)** **E5SM-3201-33-H2-LB-XX-(*)** **E5SM-3201-44-H2-LB-XX-(*)**
 NO - INLET COM - OUTLET NC - EXHAUST	**E5SM-3202-22-H2-XX-(*)** **E5SM-3202-33-H2-XX-(*)** **E5SM-3202-44-H2-XX-(*)** **E5SM-3202-64-H2-XX-(*)**		**AC** **Voltage / Coil Code #** **12/60 A012** **24/60 A024** **48/60 A048** **120/60 A120** **240/60 A240** **DC** **Voltage / Coil Code #** **6 D006** **12 D012** **24 D024** **48 D048** **120 D120**
 COM - INLET NO - OUTLET NC - OUTLET	**E5SM-7202-22-H2-XX-(*)** **E5SM-7202-33-H2-XX-(*)** **E5SM-7202-44-H2-XX-(*)** **E5SM-7202-64-H2-XX-(*)**		
 FOR INLET/OUTLET INFORMATION SEE CHART BELOW	**E5SM-8202-22-H2-XX-(*)** **E5SM-8202-33-H2-XX-(*)** **E5SM-8202-44-H2-XX-(*)**		
	 **1/2 NPT Conduit Connector**		 **1/2 NPT Conduit Connector**

PORT	2-WAY N.O.	2-WAY N.C.	3-WAY N.O.	3-WAY N.C.	SELECTOR	DIVERTER
N.C.	PLUG	OUTLET	EXHAUST	INLET	INLET	OUTLET
N.O.	OUTLET	PLUG	INLET	EXHAUST	INLET	OUTLET
COM.	INLET	INLET	OUTLET	OUTLET	OUTLET	INLET

Side Ported Types

Series *EZ Bantam* valves are direct solenoid actuated valves and, physically are the smallest of the Series E type valves. Ports are 1/8 NPT in the valve body and are individually mounted. See below for technical data.

Multiple Manifold Types

Series *EZ Bantam* Multiple Manifold valves are direct solenoid actuated and have 2 to 10 valve cavities within a single body. Each valve within the manifold must be the same and perform the same function. See page 12 for a typical product example.

Functional Types Available	Ports Provided
2-way, NC or NO	Common inlet, individual outlets
3-way, NC	Common inlet, individual outlets, exhaust to atmosphere. Common exhaust is available.
3-way, NO	Common inlet & exhaust, individual outlets
Multipurpose	Individual “NC,” “COM,” & “NO” ports

TECHNICAL DATA FOR SIDE-PORTED AND MULTIPLE MANIFOLD TYPES

Application: Air, oil or water, and many other media that are compatible with the specific sealing materials used. Consult factory for clarification.

Seals: FKM (fluorocarbon) per ASTM D1418/ISO-1629.

Construction: Aluminum body or manifold; stainless steel (302, 304 & 430F) solenoid wetted parts.

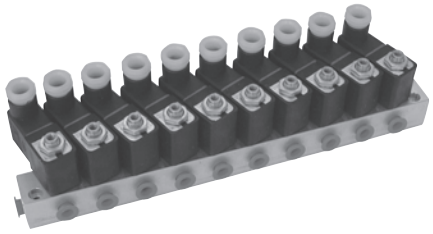
Electrical: Class F epoxy molded coil rated for continuous duty; 10.5 watt DC, 7-8.5 watt AC nominal power. Mini DIN style connector; NEMA 4/IP65 protection. See Options on page 14.

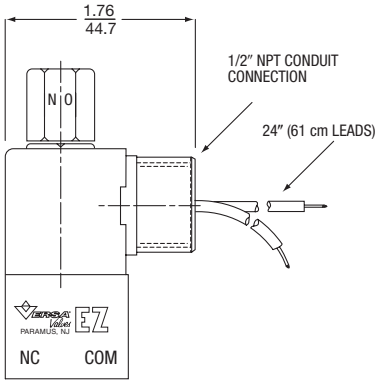
Temperature Range: 0°F (-18°C) to 180°F (82°C). Consult factory for other temperature ranges.

Flow: See page 19.

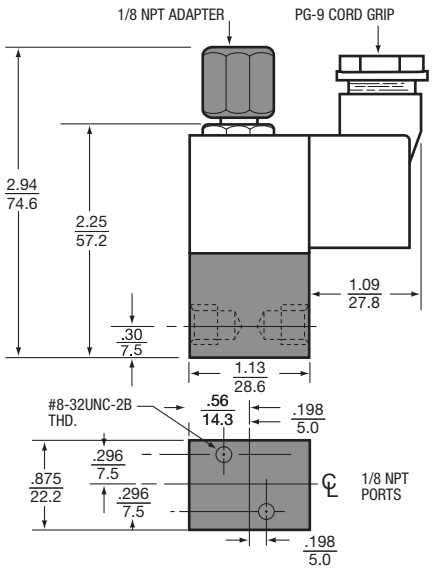
Options: See pages 14 & 15.

DIMENSIONS SHOWN IN INCH / MM

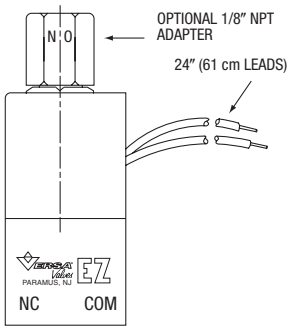




OPTION-228L

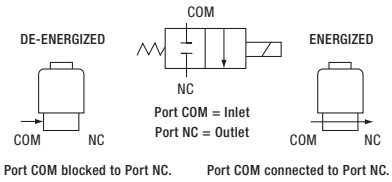
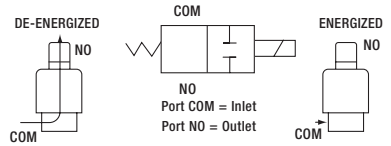
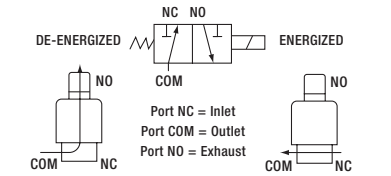
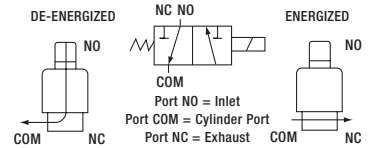
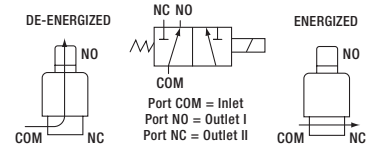
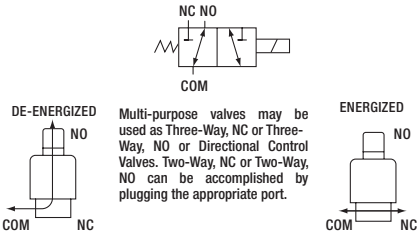


(STANDARD DIN STYLE COIL & CONNECTOR)



OPTION -243

SIDE PORTED VALVES

Type	Maxumum Operating Pressure Differential[1] psi (bar)	Product Number with Micromini DIN Style Connector (8mm gap). For Other Options See Page 14	Minimum Orifice Between Ports "NC"-"COM"	"COM"-"NO"	Piping Arrangement and Flow Pattern
TWO-WAY, 2/2 NORMALLY CLOSED Air, Oil or Water	500 (34) 400 (27) 200 (14) 150-100 (10-6.8) 65-45 (4.4-3.1)	**EZ-2120-0-HC-(*)** **EZ-2130-0-HC-(*)** **EZ-2140-0-HC-(*)** **EZ-2160-0-HC-(*)** **EZ-2180-0-HC-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)		 Port COM blocked to Port NC. Port COM connected to Port NC.
TWO-WAY, 2/2 NORMALLY OPEN Air, Oil or Water	400 (27) 200 (14) 125 (8.6) 40 (2.7)	**EZ-2202-H2-HC-(*)** **EZ-2203-H2-HC-(*)** **EZ-2204-H2-HC-(*)** **EZ-2206-H2-HC-(*)**		1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	 Port COM connected to Port NO Port COM blocked to Port NO
THREE-WAY, 3/2 NORMALLY CLOSED (EXHAUST TO ATMOSPHERE) Air Only	200 (14) 150 (10) 100 (6.8) 50 (3.4) 30 (2.1)	**EZ-3122-1-HC-(*)** **EZ-3133-1-HC-(*)** **EZ-3144-1-HC-(*)** **EZ-3166-1-HC-(*)** **EZ-3186-1-HC-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	 Port NC blocked to Port COM; Port COM connected to Port NO. Port NC connected to port COM; Port NO blocked.
THREE-WAY 3/2 NORMALLY CLOSED (PIPED EXHAUST) Air, Oil or Water	200 (14) 150 (10) 100 (6.8) 50 (3.4) 30 (2.1)	**EZ-3122-H2-HC-(*)** **EZ-3133-H2-HC-(*)** **EZ-3144-H2-HC-(*)** **EZ-3166-H2-HC-(*)** **EZ-3186-H2-HC-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	
THREE-WAY, 3/2 NORMALLY OPEN Air, Oil or Water	150 (10) 125 (8.6) 100 (6.8) 50 (3.4)	**EZ-3222-H2-HC-(*)** **EZ-3233-H2-HC-(*)** **EZ-3244-H2-HC-(*)** **EZ-3266-H2-HC-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	 Port NO connected to Port COM; Port NC blocked. Port NO blocked. Port COM connected to Port NC.
DIRECTIONAL CONTROL, 3/2 Air, Oil or Water	300-200 (20-14) 200-150 (14-10) 100-75 (6.8-5.2) 75-40 (5.2-2.7)	**EZ-7222-H2-HC-(*)** **EZ-7233-H2-HC-(*)** **EZ-7244-H2-HC-(*)** **EZ-7266-H2-HC-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	 Port COM connected to Port NO; Port NC blocked. Port COM connected to Port NC; Port NO blocked.
MULTIPURPOSE, 3/2 Air, Oil or Water	125 (8.6) 100 (6.8) 65-50 (4.4-3.4) 25 (1.7)	**EZ-8222-H2-HC-(*)** **EZ-1-HC-(*)** **EZ-8244-H2-HC-(*)** **EZ-8266-H2-HC-(*)**	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	1/32″ (0.8 mm) 3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	
					

NOTES:

1. Pressures are for both AC or DC coil unless two pressures are shown. In that case, the pressure shown in color is for DC. Vacuum is AC only.

*Specify coil code # from page 17.

MULTIPLE MANIFOLD TYPE VALVES (2-10 VALVES)

Type	Maximum Operating Pressure Differential[1] psi (bar)	Product Number with Micromini DIN Style Connector (8 mm gap). For Other Options See page 14	Minimum Orifice Between Ports "NC"-"COM"	Minimum Orifice Between Ports "COM"- "NO"	Piping Arrangement
TWO-WAY, 2/2 NORMALLY CLOSED with Common Inlet Air, Oil or Water	150 (10) 100 (6.8) 60 (4.1) 30 (2.1)	**EZM-2130-**-0-HC-(*)** **EZM-2140-**-0-HC-(*)** **EZM-2160-**-0-HC-(*)** **EZM-2180-**-0-HC-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)		"NC" port = Common Inlet for all valves "COM" port = Individual Outlet for each valve
TWO-WAY, 2/2 NORMALLY OPEN with Common Inlet Air, Oil or Water	200 (14) 125 (8.6) 40 (2.7)	**EZM-2203-**-Z-HC-(*)** **EZM-2204-**-Z-HC-(*)** **EZM-2206-**-Z-HC-(*)**		3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	"NO" port = Common Inlet for all valves "COM" port = Individual Outlet for each valve
THREE-WAY, 3/2 NORMALLY CLOSED (Exhaust to atmosphere) with Common Inlet Air Only	150 (10) 100 (6.8) 50 (3.4) 30 (2.1)	**EZM-3133-**-1-HC-(*)** **EZM-3144-**-1-HC-(*)** **EZM-3166-**-1-HC-(*)** **EZM-3186-**-1-HC-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	"NC" port = Common Inlet for all valves "COM" port = Individual Outlet for each valve "NO" port - Individual Exhaust for each valve
THREE-WAY, 3/2 NORMALLY CLOSED (PIPED EXHAUST) with Common Inlet & Common Exhaust Air, Oil or Water	150 (10) 100 (6.8) 50 (3.4) 30 (2.1)	**EZM-3133-**-Z-HC-(*)** **EZM-3144-**-Z-HC-(*)** **EZM-3166-**-Z-HC-(*)** **EZM-3186-**-Z-HC-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 1/8″ (3.2 mm)	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm) 3/32″ (2.4 mm)	"NC" port = Common Inlet for all valves "COM" port = Individual Outlet for each valve "NO" port - Common Exhaust for all valves
THREE-WAY, 3/2 NORMALLY OPEN with Common Inlet & Common Exhaust Air, Oil or Water	125 (8.6) 100 (6.8) 50 (3.4)	**EZM-3233-**-Z-HC-(*)** **EZM-3244-**-Z-HC-(*)** **EZM-3266-**-Z-HC-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	"NO" port = Common Inlet for all valves "COM" port = Individual Outlet for each valve "NC" port - Common Exhaust for all valves
MULTIPURPOSE, 3/2 with Common "NC" Port (See Also Note @) Air, Oil or Water	100 (6.8) 65-50 (4.4-3.4) 25 (1.7)	**EZM-8233-**-@-HC-(*)** **EZM-8244-**-@-HC-(*)** **EZM-8266-**-@-HC-(*)**	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	3/64″ (1.2 mm) 1/16″ (1.6 mm) 3/32″ (2.4 mm)	The table below lists all the possible valve functions which can be obtained by just changing the connections.

Port	2-Way N.O.	2-Way N.C.	3-Way N.O.	3-Way N.C.	Selector	Diverter
N.C.	Plug	Inlet	Exhaust	Inlet	Inlet	Outlet
N.O.	Inlet	Plug	Inlet	Exhaust	Inlet	Outlet
COM	Outlet	Outlet	Outlet	Outlet	Outlet	Inlet

NOTES:

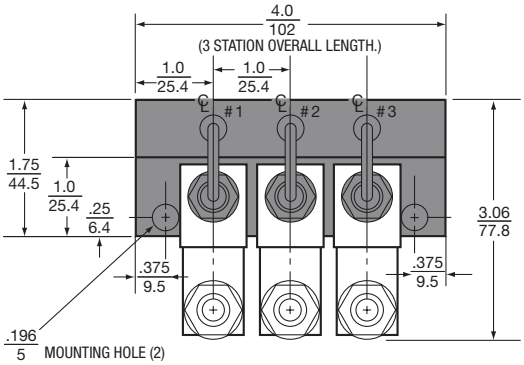
1. Pressures are for both AC or DC coil unless two pressures are shown. In that case, the pressure shown in color is for DC.
*Specify coil code # from page 17.
**Specify number of valve stations required, 2 thru 10.

@ "NO" Port variations available:

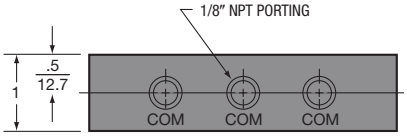
—1—	"NO" valve ports are unpiped and exchange to atmosphere.
—H2—	Each "NO" valve port is provided with a 1/8" NPT adapter for piping each "NO" port individually.
—Z—	"NO" ports of all valves are connected to a common "NO" port in the manifold.

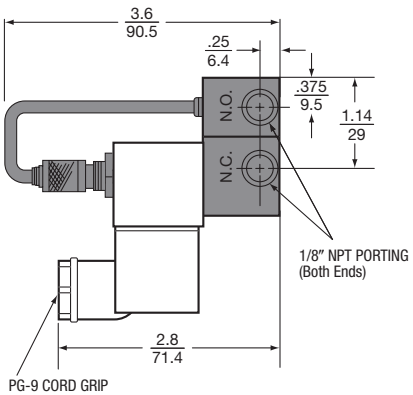
Typical Multiple Manifold

(Shows common "NO" port arrangement and micromini DIN style connector)



DIMENSIONS SHOWN IN INCH / MM





ELECTRIC QUICK EXHAUST VALVES

(For Pneumatic Application Only)

Functional Description

The Electric Quick Exhaust Valve is a three-way, NC, 3/2 valve with extra large exhaust orifice in order to provide extra fast movement of the cylinder rod, or to exhaust systems rapidly. When the solenoid is energized the outlet port is connected to the inlet port and the exhaust port is closed. When the solenoid is de-energized the inlet port is closed and the outlet port is connected to the exhaust port, providing rapid evacuation of the system.

Construction

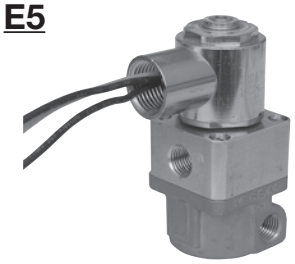
Body: 316 stainless steel. (Conforms to NACE standard MR-01-75)

Solenoid Operator: 304, 430F & 302 stainless steel (wetted parts)

Seals: FKM (fluorocarbon) O ring seals;
CR (neoprene) coated nylon flapper.
Screws: stainless steel

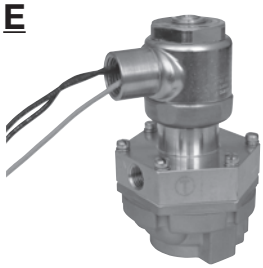
TYPES

SERIES E5



E5QE

SERIES E



EQE

Function	Basic Size	Operating Pressure PSI (bar)	BASIC VALVE PRODUCT NUMBER Non-Hazardous Location Solenoids (See SUFFIX OPTIONS below for Hazardous Locations) E5 Series 1/4" NPT Inlet 1/4" Outlet & 3/8" NPT Exhaust	BASIC VALVE PRODUCT NUMBER Non-Hazardous Location Solenoids (See SUFFIX OPTIONS below for Hazardous Locations) E5 Series 1/4" NPT Inlet 1/2" Outlet & 3/4" NPT Exhaust	BASIC VALVE PRODUCT NUMBER (See SUFFIX OPTIONS below for Hazardous Locations) E Series 1/4" NPT Inlet 1/2" Outlet & 3/4" NPT Exhaust	Flow Cv (Kv) Inlet	Flow Cv (Kv) Exhaust
3-Way, 3/2, Normally Closed	1/4" Quick Exhaust	5-150 (0.3 -10) 5-100 (0.3 -6.9)	**E5QE-30304-316-*-**** **E5QE-30404-316-*-****	---------- ----------	---------- ----------	.06 (.87) .106 (1.5)	3.3 (48) 3.3 (48)
	1/2" Quick Exhaust	5-150 (0.3 -10) 5-100 (0.3 -6.9)	---------- ----------	**E5QE-50304-316-*-**** **E5QE-50404-316-*-****	**EQE-50304-316-*-**** **EQE-50406-316-*-****	.06 (.87) .106 (1.5)	8.8 (128) 8.8 (128)

*Specify any Suffix Options listed below (description on pages 14, 15 & 16). ** Specify Coil Code from page 17.

E5QE SUFFIX OPTIONS

SOLENOID OPERATOR (Non-Hazardous Locations)

Standard, none req.	NEMA 1, 1/2 NPT Conduit Entry
-PC (page 14)	NEMA 4, 1/2 NPT Conduit Entry

SOLENOID OPERATOR (Hazardous Locations, page 16)

-XX	UL/CSA, 1/2 NPT Conduit Entry
-LB-XX	w/ (Low Watt)
-PC-XX	w/ (Potted Coil)
-ST-XX	w/ (Stainless Steel Coil Housing)
-XN	ATEX, M20 x 1.5 Conduit Entry
-LB-XN	w/ (Low Watt)
-PC-XN	w/ (Potted Coil)
-ST-XN	w/ (Stainless Steel Coil Housing)

	+++FACTORY MUTUAL/CSA Intrinsic Safe, DIN connector
-HC-XISC	w/ Pg9 Cord Grip
-HCC-XISC	w/ 1/2 NPT Conduit Entry
	+++ATEX, Intrinsic Safe (ia), DIN connector
-HC-XISX6	w/ Pg9 Cord Grip
-HCC-XISX6	w/ 1/2 NPT Conduit Entry

+++**IMPORTANT NOTE -** Consult Factory. All above Intrinsic Safe Operators require respective product number change to:
E5QE-30202-316-*-D024 (1/4" NPT Basic Size) or
E5QE-50202-316-*-D024 (1/2" NPT Basic Size)
Operating Pressure is 5-115 PSI (0.3-7.9 bar)
Inlet Flow for each is 0.2 Cv (.32 Kv).

EQE SUFFIX OPTIONS

ATEX, Flameproof (d), Integral Junction Box	
w/ M20 x 1.5 Conduit Entry	**-XDAS**
w/ 1/2 NPT Conduit Entry	**-XDAT**
ATEX, Flameproof (d), Encapsulation (m), Increased Safety (e) Integral Junction Box	
w/ M20 x 1.5 Conduit Entry	**-XMAA**
w/ 6-12 mm Cable Gland	-XMAE
w/ 1/2 NPT Conduit Entry Adapter	-XMAF
w/ 9-16 mm Cable Gland	-XMAG
ATEX, Intrinsic Safe (ib), Integral Junction Box	
w/ M20 x 1.5 Conduit Entry	**-XIFA**
w/ 6-12 mm Cable Gland	-XIFE
w/ 1/2 NPT Conduit Entry Adapter	-XIFF

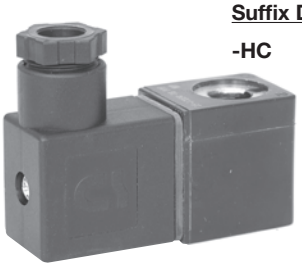
OPTIONS

(Add designation to product number in alpha-numeric order)

COILS – see page 17 (Series E *Fullsize*, Series E5 *Compact*, Series EZ *Bantam)*

COIL HOUSINGS FOR NONHAZARDOUS SERVICE VALVES:
(FOR HAZARDOUS SERVICE VALVES SEE PAGE 16)

Suffix Detail



-HC DIN type 3 prong coil with quick disconnect. Includes female socket with cord grip. NEMA 4/IP65 protection. Series E *fullsize*, Electrical Quick Exhaust.

-HCC DIN type 3 prong coil with quick disconnect. Includes female socket with 1/2″ NPT conduit connection. NEMA 4/IP65 protection. Series E *fullsize*, E5 *compact*, EZ *bantam*, Electrical Quick Exhaust.

-HCCL DIN type 3 prong coil with quick disconnect. Includes female socket with 1/2″ NPT conduit connection, and indicator light when power is on coil. NEMA 4/IP65 protection. Series E *fullsize*, E5 *compact*, EZ *bantam*, Electrical Quick Exhaust.

-HCL DIN type 3 prong coil with quick disconnect. Includes female socket with cord grip and indicator light when power is on coil. NEMA 4/IP65 protection. Series E *fullsize*, E5 *compact*, EZ *bantam*, Electrical Quick Exhaust.

-PC Potted coil for nonhazardous service; coil epoxy encased within housing. NEMA 4/IP65 protection. Series E *fullsize*, E5 *compact*, Electrical Quick Exhaust. For Hazardous service see page 15 “Options For Special Conditions”.

-228L Coil & 1/2″ NPT conduit connection integrally molded in epoxy. 24″ (61 cm) lead length. NEMA 4/IP65 protection. Series EZ *bantam.*

-243 Grommeted lead housing. 24″ (61 cm) lead length. NEMA 1, 2, 3 protection. Series E *fullsize*. Electrical Quick Exhaust.

Flying leads; 24″ (61 cm) length. NEMA 1, 2, 3 protection. Series EZ *bantam*.

SEALS (See also “Solenoid Operators for Special Conditions”, -3.)

Suffix Detail

-155 FKM (fluorocarbon) per ASTM D-1418/ISO-1629, Equips valve with all seals of fluorocarbon (includes suffix -3). Use suffix only for manifold mounting valve when all fluorocarbon seals are required. Series E *fullsize*.

-EP EPR (ethylene propylene) seals (gray/gray) for use with some synthetic oils. Consult factory. Series E *fullsize*, E5 *compact*, Electrical Quick Exhaust.

Suffix -M

For other seal materials consult factory.

MANUAL OVERRIDE
(Series E *fullsize* only)

Suffix Detail

-G5R Guarded type, holding. Requires screwdriver to operate.

-M Guarded type, non-holding. Requires probe to operate.

-M5R Unguarded type, holding. Has knurled knob.

-MAE Unguarded type. Push to operate.

Suffix -MAE

OPTIONS

(Add designation to product number in alpha-numeric order)

FLOW Series E *fullsize*
Suffix Detail

-A Adjustable Metering Exhaust Adapter, provides metering of exhaust flow on Three-Way NC valves. (See -N for Three-Way NO.) Supplied with 1/16″ NPT threaded port for pipe connection. Series E *fullsize.*

-N Adjustable Metering Inlet Flow (Three-Way NC)
Adjustable Metering Outlet Flow (Two-Way NC)
Adjustable Exhaust (Three-Way NO)
(On side-ported models the adjusting needle is located in the side of the valve body. On manifold mounting models a separate Adapter Plate, E-112-A, is required for mounting between the valve and the manifold. The Adapter Plate contains the adjustable needle. Therefore, the suffix "-N" is not required as part of the valve product number, and the Adapter Plate is specified separately.) Series E *fullsize*.

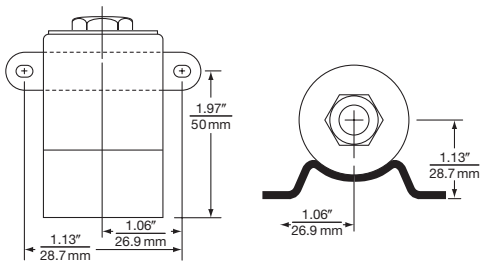
MOUNTING BRACKETS Series E *fullsize*
(Side-ported valves only)*

Suffix Detail

-WE Wall mounting bracket attached to coil housing. Mounting holes on 2-1/8″ (54 mm) centers. (Not for Hazardous Service Valves. See -WEX.)

-WEX Wall mounting bracket attached to valve body. Mounting holes on 2″ (51 mm) centers. (Required for Hazardous Service Valves when wall mounting bracket is desired. Cannot be used when valves have suffix detail -N.)

*All side-ported valves may be line mounted or mounted by using the 10-32 mounting holes in the bottom of the valve body. A Bottom Mounting Bracket, (part no. A-4222-B) with mounting holes on 2″ (51 mm) centers can also be supplied, but must be ordered separately.



Suffix -WE

OPTIONS FOR SPECIAL CONDITIONS

Suffix Detail

-HT SOLENOID OPERATOR WITH CLASS H COIL: For UL or CSA approval, consult factory. Recommended for all applications above 150°F (65°C) and for DC continuous duty above 120°F (50°C). Includes suffix -3. Not for use with suffix -P. Series E *fullsize*, E5 *compact*, Electrical Quick Exhaust.

-ST Stainless steel (182 FM) coil housing with 1/2″ NPT conduit connection. For hazardous service valves only. Series E5 *compact*, Series E5, Electrical Quick Exhaust.

-PS Potted coil for hazardous service valves. Coil and wires sealed at factory. Provides 1/2″ NPT conduit connection. Series E *fullsize* or Series E Electrical Quick Exhaust. For Series E5 *compact* or Series E5 Electrical Quick Exhaust use -PC.

Suffix Detail

-3 CONTINUOUS DUTY SOLENOID AND/OR HIGH AMBIENT OR MEDIA TEMPERATURE: FKM (Fluorocarbon) seals (TAN/TAN); recommended when coil may be energized for long periods and/or when ambient or media temperature will exceed 120°F (50°C). Ordinary Locations: Series E *fullsize* and Series E Electrical Quick Exhaust, Series E5 *compact* and Series E5 Electrical Quick Exhaust. Hazardous Locations: option is included.

	DUST EXCLUDER NUT FOR SOLENOID EXHAUST	
	Non-Hazardous Service	Hazardous Service
Series E *fullsize* & Series E Electrical Quick Exhaust	-14	-E14
Series E *compact* & Series E5 Electrical Quick Exhaust	-L14	-L14
Series EZ *bantam*	-L14	n/a

HAZARDOUS LOCATION SOLENOIDS

Suffix Identification	Protection Classification	Area Classification and (Gas Grouping)	Certification (Conformance)	Ingress Protection	Voltage (Power)	Electrical Characteristics	Miscellaneous
-XX (series E & E5)	Hazardous Locations	Class I Groups C & D, Class I, Division 2, Groups A, B, C & D; Class II, Divison 2, Groups E, F & G; T3C	UL CSA	NEMA 7 & 9	50 Hz & 60 AC (Series E: 7.3W Series E5: 5.6W) DC (Series E: =9.5W and Series E5:7.2W.)	Class F epoxy molded coil (155ºC) Continuous duty. 3 leads 24" (60 cm)	Steel Chromate plated coil housing with 1/2 NPT conduit entry. For (182FM) stainless steel cover add: -ST
-LB-XX (series E)					60 Hz AC (1.8W) DC (1.8W)	Class F epoxy molded coil (155ºC) Continuous duty. 3 leads 24" (60 cm).	Steel Chromate plated coil housing with 1/2 NPT conduit entry. For stainless steel (182 FM) coil housing add: -ST. Maximum pilot pressure 120 psi (8 bar). 1.8W nominal power.
-XN (Series E5)	(d) Flameproof	Ex d IIB+H_2 T3 to T6 Gb II 2 G Ex d IIB+H_2 T3 to T6	IECEx ATEX	IP66 & IP68	50 Hz and 60 Hz AC (5.6W) DC (7.2W)	Class F epoxy molded coil (155ºC) Continuous duty. 3 leads 24" (60 cm).	Steel Chromate plated coil housing with M20 x 1.5 conduit entry. Ground terminal on cover. For stainless steel (182 FM) cover add: -ST..
-LB-XN (Series E5)					60 Hz AC (1.8W) DC (1.8W)	Class F epoxy molded coil (155ºC) Continuous duty. 3 leads 24" (60 cm).	Steel Chromate plated coil housing with M20 x 1.5 conduit entry. Ground terminal on cover. For stainless steel (182 FM) cover add: -ST. Maximum pilot pressure 120 psi (8 bar). 1.8W nominal power.
-XDAS -XDAT (Series E)		Ex d IIC T4 to T6 Gb II 2 G Ex d IIC T4 to T6	IECEx ATEX	IP66 & IP67	50 Hz and 60 Hz AC (10W) DC (10W), except 24V50 and 230V50 (6W)	Class F epoxy molded coil (155ºC) Continuous duty.	Stainless Steel coil housing with internal Junction Box. Internal and external ground screw. M20 x 1.5 conduit entry: (-XDAS) 1/2 NPT conduit entry: (-XDAT).
-XMAA -XMAE -XMAF -XMAG (Series E)	(mb) Encapsulation (e) Increased Safety (tD) Tight Dust	Ex e mb II T5, T6 Gb Ex tD A21 T100ºC T85ºC Db II 2 G Ex e mb II T5, T6 II 2 D Ex tD A21 T100ºC, T85ºC	IECEx ATEX	IP66 & IP67	24VDC (4W) (Consult factory for other voltage options)	Continuous duty. Coil & Rectifier, including surge suppression, potted within housing.	Thick wall epoxy coil housing with integral junction box. Internal ground terminal. M20 x 1.5 conduit entry: (-XMAA) Cable gland for 6-12 mm ø cable: (-XMAE) 1/2 NPT conduit entry with adapter: (-XMAF) Cable gland for 9-16 mm ø cable: (-XMAG)
-XMFA -XMFE -XMFF -XMFG (Series E)					24VDC (10W inrush, 2.6W holding) (Consult factory for other voltages)	Continuous duty. Coil & power potted within housing.	Thick wall epoxy coil housing with integral junction box. Internal ground terminal. M20 x 1.5 conduit entry: (-XMFA) Cable gland for 6-12 mm ø cable: (-XMFE) 1/2 NPT conduit entry with adapter: (-XMFF) Cable gland for 9-16 mm ø cable: (-XMFG)
-XISC *See important note below chart* (Series E5)	Intrinsic Safe	Class I, Groups (A, B, C & D) Class II, Groups (E, F, &G) Class III, Division 1	Factory Mutual CSA	IP65	24VDC system voltage prior to barrier (1.6 watt max.)	Class F epoxy molded coil (155ºC) Continuous duty	Requires the use of an approved barrier or isolator. Maximum operating system voltage before barrier 28VDC. Maximum pilot pressure 115 psi (8 bar) 3 spade terminals & DIN connector with PG9 cable gland; (-HC) 1/2 NPT conduit entry: (-HCC)
-XISX6 *See important note below chart* (Series E5)	(ia) Intrinsic Safe	II 2 G EEx ia IIC T6	ATEX		24VDC system voltage prior to barrier (1.6 watt max.)	Class F epoxy molded coil (155ºC) Continuous duty.	Requires the use of an approved barrier or isolator. Maximum operating system voltage before barrier 28VDC. Maximum pilot pressure 115 psi (8 bar) 3 spade terminals & DIN connector with PG9 cable gland; (-HC) 1/2 NPT conduit entry: (-HCC)
-XIFA -XIFE -XIFF **(Series E)		II 2 G EEx ia IIC T4 to T6		IP66 & IP67	24VDC (0.8W) (Consult factory for other voltages)	Continuous duty. Coil and power controller potted, within housing.	Requires the use of an approved safety barrier or isolator. Thick wall epoxy coil housing and integral junction box. Internal ground terminal. M20 x 1.5 conduit entry; (-XIFA) Cable gland for 6-12 mm ø cable: (-XIFE) 1/2 NPT conduit entry with adapter: (-XIFF)

*See page 17 for available Voltages and Coil Code.
**Consult factory for pressure rating when using XIF_ coils
NOTE: Option -HC-XISC, -HCC-XISC, -HC-XISX6 and -HCC-XISX6 are only available with 3-way NC valves with 1/32" (0.08 mm) orifice, and maximum pressure 115 psi (7.8 bar).

SERIES E *TYPE COILS*

CONTINUOUS DUTY COIL VOLTAGES[1]

SERIES E *FULLSIZE* & SERIES E Electrical Quick Exhaust

Solenoid Operator information		Nominal Coil Power		Coil Voltages								
		AC	DC	AC					DC			
				Voltage	Coil Code #	Inrush Amp	Holding Amp	Ohm	Voltage	Coil Code #	Inrush & Holding Amp	Ohm
Ordinary Location	All coils are Class F epoxy Molded.[2] Rated voltge continuous duty 100%	2NC = 7.7W 2NO, 3-Way, Directional, Multi-Purpose = 8.7W	9.5W	24/60	**A024**	1.30	0.82	5.8				
				120/60	**A120**	0.26	0.16	146				
				240/60	**A240**	0.13	0.08	593				
				480/60	**A480**	0.07	0.04	2365				
									6	**D006**	1.54	3.9
				24/50	**E024**	1.05	0.67	8.5	12	**D012**	0.78	15.5
Hazardous Location (Suffix -XX) UL Listed or CSA certified.		7.3W	9.5W	110/50	**F120**	0.23	0.15	193	24	**D024**	0.38	63
				230/50	**E230**	0.11	0.07	700	48	**D048**	0.19	249
				240/50	**E240**	0.11	0.07	876	125	**D125**	0.08	1675
Ordinary Location DIN Style Coil & Connector (Suffix -HC, -HCC, -HCCL, -HCL		2NC = 7.7W 10W	12W	120/60	**A120**	0.20	0.16	205	12	**D012**	0.86	14
				240/60	**A240**	0.13	0.08	845	24	**D024**	0.44	55
				110/50	**E110**	0.20	0.16	205	48	**D048**	0.21	225
				220/50	**E220**	0.13	0.08	845				

SERIES E5 *COMPACT* & SERIES E5 Electrical Quick Exhaust

Solenoid Operator information		Nominal Coil Power		Coil Voltages								
		AC	DC	AC					DC			
				Voltage	Coil Code #	Inrush Amp	Holding Amp	Ohm	Voltage	Coil Code #	Inrush & Holding Amp	Ohm
Ordinary Location	All coils are Class F epoxy molded.[2] Rated voltage continuous duty 100%.	6W	7W	24/60	**A024**	0.63	0.38	19				
				120/60	**A120**	0.13	0.08	475				
				240/60	**A240**	0.06	0.04	2000	6	**D006**	1.30	4.6
Hazardous Location (Standard Wattage Suffix -XX & -XN) UL Listed or CSA certified.		2NC = 4W 2NO, 3-Way, Directional, Multi-Purpose = 5.6W	7.2W	480/60	**A480**	0.03	0.02	8460	12	**D012**	0.63	19
									24	**D024**	0.32	75
				24/50	**E024**	0.61	0.37	25	47	**D047**	0.16	295
				110/50	**E110**	0.13	0.08	475	125	**D125**	0.06	2030
				220/50	**E220**	0.07	0.04	2030				
				240/50	**E240**	0.06	0.04	2714				
Hazardous Location (Low Wattage Suffix -LB-XX & -LB-XN) UL Listed or CSA certified.		1.8W	1.8W	12/60	**A012**	0.58	0.30	11				
				24/60	**A024**	0.29	0.15	43	6	**D006**	10.32	19
				48/60	**A048**	0.14	0.07	175	12	**D012**	0.16	75
				120/60	**A120**	0.06	0.03	1085	24	**D024**	0.08	312
				240/60	**A240**	0.03	0.02	5050	48	**D048**	0.04	1337
									120	**D120**	0.02	7815
Ordinary Location DIN Style Coil & Connectors (Suffix -HC, -HCC, -HCCL, -HCL)		8.5W	10.5W	24/60	**A024**	0.63	0.05	26				
				120/60	**A120**	0.13	0.10	647				
				240/60	**A240**	0.06	0.05	2790	12	**D012**	0.86	14
									24	**D024**	0.44	55
				110/50	**E110**	0.13	0.10	647	48	**D048**	0.22	222
				220/50	**E220**	0.06	0.05	2790				
				240/50	**E240**	0.06	0.05	3058				

NOTES
1. Many voltages, other than those listed, are available. Consult factory for delivery and technical information.
2. Class H coils are available for both ordinary and hazardous locations. Consult factory.

SERIES EZ *BANTAM*

Solenoid Operator information		Nominal Coil Power		Coil Voltages								
		AC	DC	AC					DC			
				Voltage	Coil Code #	Inrush Amp	Holding Amp	Ohm	Voltage	Coil Code #	Inrush & Holding Amp	Ohm
Non-hazardous Standard (DIN style) NEMA 4 Also Suffix: -HCC -HCCL -HCL -243 -228L	All coils are Class F epoxy Molded. Rated voltge continuous duty 100%	2NC = 7W 8.5W	10.5W	24/60	**A024**	0.63	0.50	26				
				120/60	**A120**	0.13	0.10	647				
				240/60	**A240**	0.06	0.05	2790	12	**D012**	0.87	14
									24	**D024**	0.43	55
				110/50	**E110**	0.13	0.10	647	48	**D048**	0.22	222
				220/50	**E220**	0.06	0.05	2790				
				240/50	**E240**	0.06	0.05	3058				

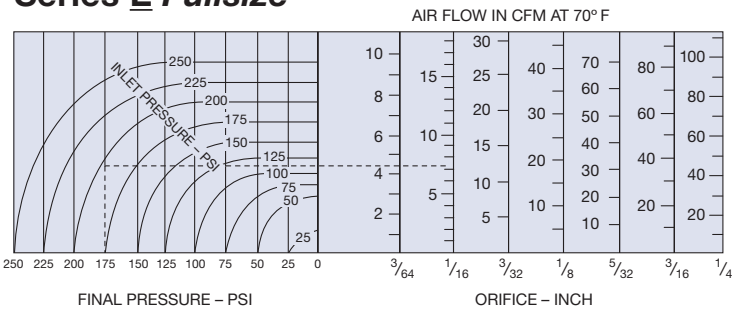
Selector Chart & Option Availability for Series E Type Valves

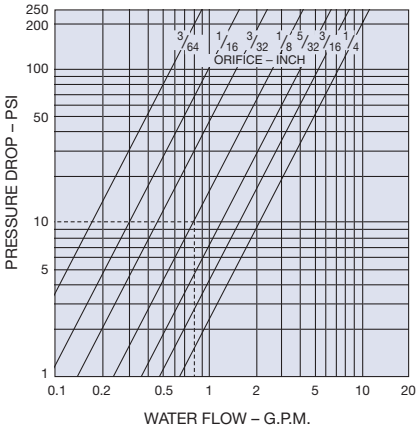
					SERIES E *fullsize* & SERIES E Electrical Quick Exhaust	SERIES E5 *compact* & SERIES E5 Electrical Quick Exhaust	SERIES E *bantam*
PORT SIZE	Sideported				1/8NPT, 1/4NPT	1/8NPT	1/8NPT
	Manifold				1/4NPT	na	1/8NPT
PRESSURE RANGE psi (bar)	2-Way	NC			vacuum to 250 psi (17 bar)	vacuum to 500 psi (34 bar)	vacuum to 500 psi (34 bar)
		NO			vacuum to 200 psi (14 bar)	vacuum to 400 psi (27 bar)	vacuum to 400 psi (27 bar)
	3-Way	NC			vacuum to 150 psi (10 bar)	vacuum to 200 psi (14 bar)	vacuum to 200 psi (14 bar)
		NO			vacuum to 150 psi (10 bar)	vacuum to 150 psi (10 bar)	vacuum to 150 psi (10 bar)
	Directional				vacuum to 200 psi (14 bar)	vacuum to 300 psi (21 bar)	vacuum to 300 psi (21 bar)
	Multipurpose				vacuum to 150 psi (10 bar)	vacuum to 125 psi (8.6 bar)	vacuum to 125 psi (8.6 bar)
FLOW RANGE $C_v(K_v)$					.06-.79 (0.9-11.5)	.022-.23 (0.3-3.3)	.022-.23 (0.3-3.3)
CONSTRUCTION	Body	Sideported			stainless steel	stainless steel	aluminum
		Manifold MTG			aluminum	na	aluminum
	Manifold				aluminum	na	na
NOMINAL POWER (watt)					7.3-8.7 AC, 9.5 DC	6-10.5 AC, 7 DC	7-8.5 AC, 10.5 DC
ELECTRICAL CONNECTION/ COIL COVER	1/2" NPT Conduit entry				std	std	-228L
	Grommeted (flying leads)				-243	-243	-243
	DIN coil & cable gland connector				-HC	-HC	std
	DIN coil & 1/2" NPT conduit entry				-HCC	-HCC	-HCC
	DIN coil & 1/2" NPT conduit entry with indicator light				-HCCL	-HCCL	-HCCL
	DIN coil & cable gland connector with indicator light				-HCL	-HCL	-HCL
	Potted coil	Ordinary service			-PC	-PC	na
		Hazardous service			-PS	-PC	na
SEALS	NBR-nitrite (Buna N)				std	std	na
	FKM (fluorocarbon)				-3 (sideported); -155 (manifolded) std (hazardous locations)	-3 (ordinary locations); std (hazardous locations)	std
	EPR-ethylene propylene				-EP	-EP	na
FLOW OPTIONS	Adjustable metering exhaust	3-Way NC			-A	na	na
		3-Way NO			-N (1/4 NPT only)	na	na
	Adjustable metering inlet	3-Way NC			-N (1/4 NPT only)	na	na
	Adjustable metering outlet	2-Way NC			-N (1/4 NPT only)	na	na
MANUAL OVERRIDE	Guarded	holding			-G5R	na	na
		nonholding			-M	na	na
	Unguarded	holding			-M5R	na	na
		push			-MAE	na	na
MOUNTING BRACKETS (sideported only)	Wall mounting				-WE (ordinary locations) -WEX (hazardous locations)	na	na
	Base mounting				Part #A-4222-B Bracket	na	na
OPTIONS FOR SPECIAL CONDITIONS	High ambient temperature and/or Continuously energized coil				-3	-3 (ordinary locations) std (hazardous locations)	std
	Class H coil				-HT	-HT	na
	Silencer/dust excluder for solenoid exhaust				-14	-L14	-L14
SOLENOID OPERATORS FOR HAZARDOUS SERVICE* Hazardous location (d) Flameproof	Std. Wattage	UL & CSA approved			-XX	-XX	na
	Low-Watt				na	-LB-XX; (1.8W)	na
	Std. Wattage	ATEX approved			na	-XN	na
	Low Watt				na	-LB-XN; (1.8W)	na
	Stainless steel coil covers for Hazardous service & (d) Flameproof operators above				na	-ST	na
(d) Flameproof	Standard Wattage	ATEX approved			-XDAS, -XDAT	na	na
(me) Encapsulation (e) Increased Safety	Standard Wattage	ATEX approved			-XMAA, -XMAF -XMAE, -XMAG	na	na
					-XMFA, -XMFF -XMFE, -XMFG	na	na
Hazardous location	Standard Wattage	FM & CSA approved			na	-HC-XISC -HCC-XISC	na
(ia) Intrinsic Safe		ATEX approved			na	-HC-XISX6 -HCC-XISX6	
(ib) Intrinsic Safe		ATEX approved			-XIFA, -XIFE, -XIFF	na	na

*See Page 16

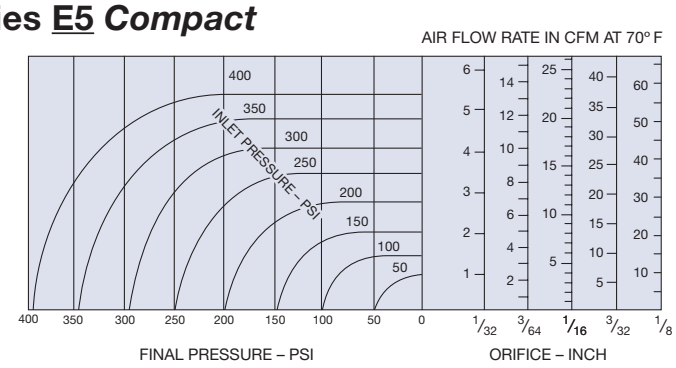
FLOW DATA

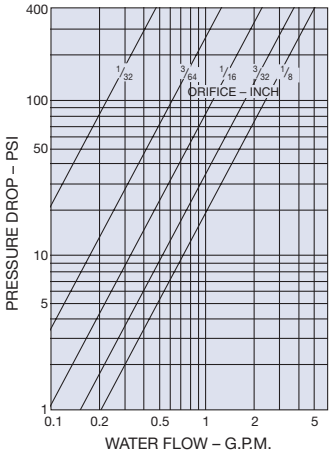
Series E *Fullsize*



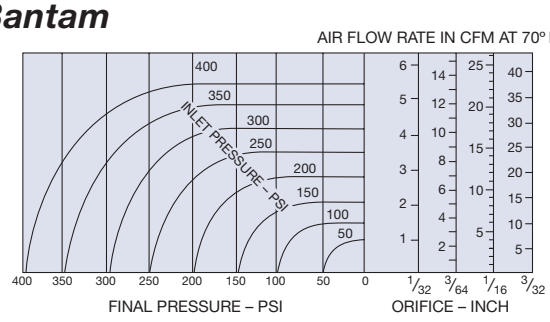


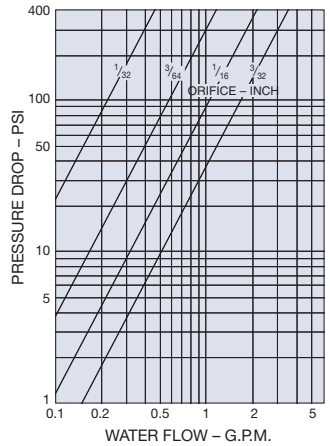
Series E5 *Compact*





Series EZ *Bantam*





Flow Factors for various orifice sizes

Orifice	Cv	Kv	Orifice	Cv	Kv
1/32" (0.8 mm)	.022	.32	1/8" (3.2 mm)	.26	3.8
3/64" (1.2 mm)	.06	.87	5/32" (4.0 mm)	.45	6.5
1/16" (1.6 mm)	.106	1.5	3/16" (4.8 mm)	.56	8.1
3/32" (2.4 mm)	.21	3.1	1/4" (6.4 mm)	.79	11.5

IF YOU HAVEN'T FOUND THE VALVE YOU NEED, YOU HAVEN'T ASKED US.

Versa Valves… designed, built, and tested to meet your air requirements.

SERIES "B" VALVES:
1/8" NPT, 3/16" (4.7mm) Orifice. Two- & Three-Way. Brass & SS Construction. Manual, Pilot & Cam Actuation. Pneumatic Service Vacuum to 200 psi (14 bar).
Bulletin B.

SERIES "B-316", "B-900" & "B-550" AUTOMATION AND CONTROL VALVES & COMPONENTS FOR PROCESS CONTROL:
Suitable for Offshore, Process Control, Material Specs Meet NACE MR-01-75. Fluorocarbon Seals, 1/4" NPT, 3/16" (5mm) Orifice. Three-Way. Solenoid/Pilot, Remote Pilot, Mechanical, Manual & Many Special Actuators. Main Supply Reset Valves; First Out Indicating Valves. Pneumatic Service Vacuum to 200 psi (14 bar).
Bulletin B316

SERIES "C" VALVES:
10-32 (M5), 1/8" NPT OR G1/8", 1/4" NPT OR G1/4, 0.6 to 7mm Orifice. Three- & Four-Way, Multi-purpose. Individual Mount, Stacking, or Manifold Mounted. Aluminum, SS & Nylon Construction. Solenoid/Pilot, Pilot, Manual & Mechanical Actuation. Pneumatic Service Vacuum to 115 psi (8 bar).
Bulletin C.

SERIES "E" VALVES:
1/8" NPT & 1/4" NPT. 1/32" (0.8mm) thru 1/4" (6.4mm) Orifice. Two- & Three-Way, Directional, Multi-Purpose. Sideported, and Manifold Mounted. SS or Aluminum Construction. Direct Solenoid Actuation, including **LOW WATT**. Pneumatic & Hydraulic Service Vacuum to 500psi (35 bar).
Bulletin E.

SERIES "K" VALVES:
Compact Air Management System. ¼" NPT or G1/4", 4.7mm & 6.5mm Orifice. Two-, Three-, Four- & Five-Way, Selector, Diverter. Manifold Mounted, Integrated Circuitry, Aluminum Construction. Fluorocarbon Seals. Solenoid/Pilot, Remote Pilot, Cam & Manual Actuation. Pneumatic Service Vacuum to 175 psi (12 bar).
Bulletin K.

SERIES "H" VALVES:
High pressure hydraulic valves: High pressure valves for the Oil & Gas Industry; to 10,000 psi operating pressure, 316 stainless steel construction, leakproof, balanced dynamic ceramic sealing, O ring static seals, modular design, manifold mounting.
Bulletin H

SERIES "V" & "T" VALVES:
1/8" thru 1-1/4" NPT or G, Full Ported, Two-, Three-, Four- & Five-Way, Selector, Diverter. All types of Actuation. Forged Brass Construction. Pneumatic Service Vacuum to 200 psi (14 bar), Hydraulic Service to 500 psi (35 bar).
Bulletin VT.

SERIES "V-316" STAINLESS STEEL VALVES:
Suitable for Offshore, Process Control, Material Spec Meet NACE MR-01-75. Fluorocarbon Seals. 1/4", 3/8", 1/2" NPT, Full Ported. Two-, Three-, Four- & Five-Way. Selector. Diverter. All Type of Actuation. Pneumatic Service Vacuum to 200 psi (14 bar).
Bulletin V316.

SOLENOID VALVES FOR THE PROCESS CONTROL INDUSTRY:
Complete Range of Stainless Steel, Brass or Aluminum Constructed Valves, 1/8" NPT through 1 NPT. Direct NAMUR Mount & Bodyported Styles. Latching Manual Reset, Lockout Valves, Redundant Valves.
Bulletin PCg.

ACCESSORIES:
Shuttle Valves, Bleed Control Valves, Dust Excluders, Foot Guards, Bleed Valves, Quick Exhaust Valves, Status Indicators.
Bulletin ACC.

WARNINGS REGARDING THE DESIGN APPLICATION, INSTALLATION AND SERVICE OF VERSA PRODUCTS

The warnings below must be read and reviewed before designing a system utilizing, installing, servicing, or removing a Versa product. Improper use, installation or servicing of a Versa product could create a hazard to personnel and property.

DESIGN APPLICATION WARNINGS

Versa products are intended for use where compressed air or industrial hydraulic fluids are present. For use with media other than specified or for non-industrial applications or other applications not within published specifications, consult Versa.

Versa products are not inherently dangerous. They are only a component of a larger system. The system in which a Versa product is used must include adequate safeguards to prevent injury or damage in the event of system or product failure, whether this failure be of switches, regulators, cylinders, valves or any other system component. System designers must provide adequate warnings for each system in which a Versa product is utilized. These warnings, including those set forth herein, should be provided by the designer to those who will come in contact with the system.

Where questions exist regarding the applicability of a Versa product to a given use, inquiries should be addressed directly to the manufacturer. Confirmation should be obtained directly from the manufacturer regarding any questioned application prior to proceeding.

INSTALLATION, OPERATION AND SERVICE WARNINGS

Do not install or service any Versa product on a system or machine without first depressurizing the system and turning off any air, fluid, or electricity to the system or machine. All applicable electrical, mechanical, and safety codes, as well as applicable governmental regulations and laws must be complied with when installing or servicing a Versa product.

Versa products should only be installed or serviced by qualified, knowledgeable personnel who understand how these specific products are to be installed and operated. The individual must be familiar with the particular specifications, including specifications for temperature, pressure, lubrication, environment and filtration for the Versa product which is being installed or serviced. Specifications may be obtained upon request directly from Versa. If damages should occur to a Versa product, do not operate the system containing the Versa product. Consult Versa for technical information.

LIMITED WARRANTY DISCLAIMER AND LIMITATION OF REMEDIES

Products sold by Versa are warranted to be free from defective material and workmanship for a period of ten years from the date of manufacture, provided said items are used in accordance with Versa specifications. Versa's liability pursuant to that warranty is limited to the replacement of the Versa product proved to be defective provided the allegedly defective product is returned to Versa or its authorized distributor.

Versa provides no other warranties, expressed or implied, except as stated above. There are no implied warranties of merchantability or fitness for a particular purpose. Versa's liability for breach of warranty as herein stated is the only and exclusive remedy and in no event shall Versa be responsible or liable for incidental or consequential damages.

Versa Products Company, Inc., 22 Spring Valley Road, Paramus, New Jersey, USA 07652 • 201/843-2400 FAX: 201/843-2931
Versa BV., Prins Willem Alexanderlaan 1429, 7312 GB Apeldoorn, The Netherlands • 01131-55-3681900 FAX: 01131-55-3681909

VERSA® Valves

www.versa-valves.com