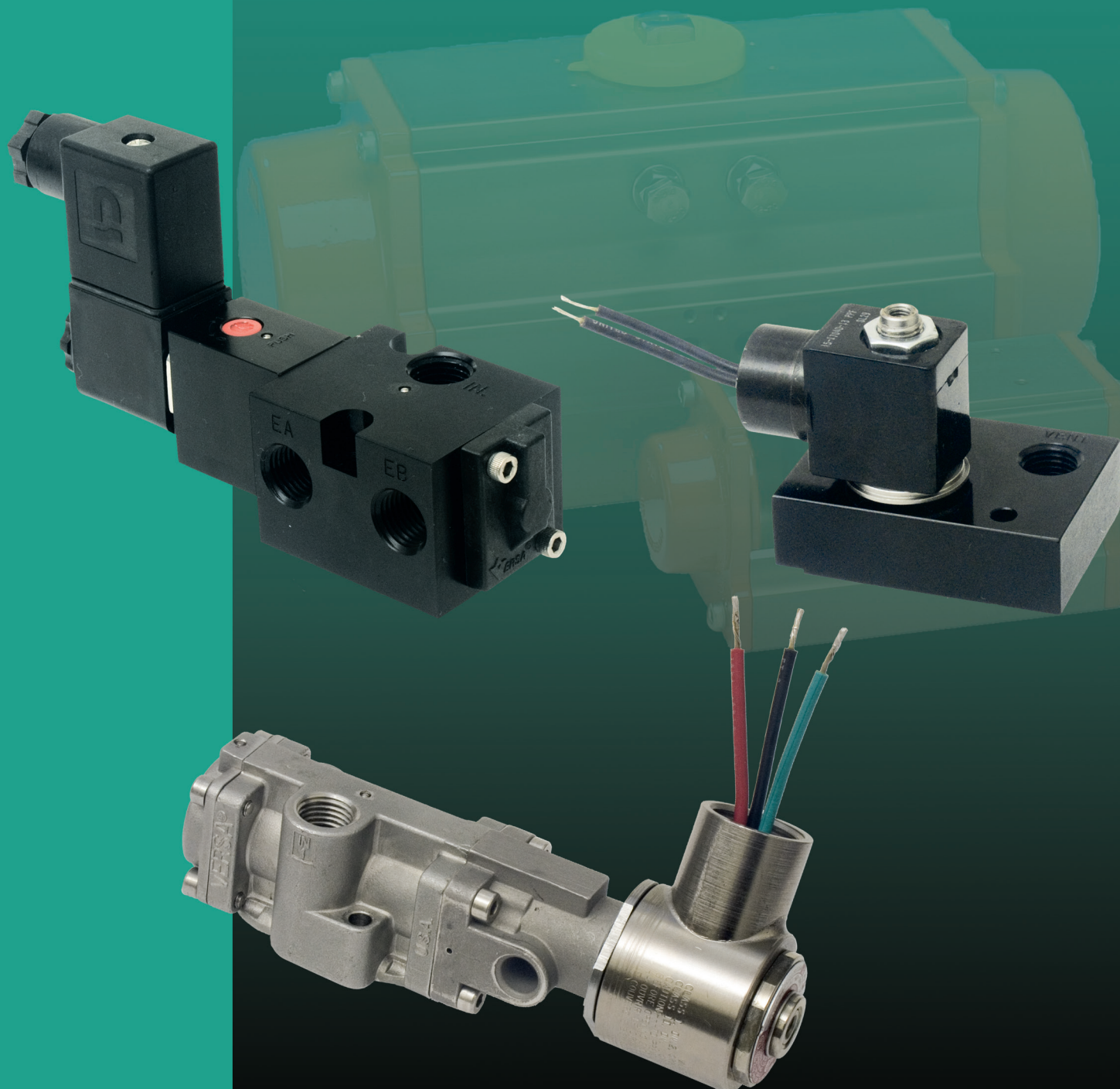




BULLETIN
NMce-2016



NAMUR DIRECT MOUNT PNEUMATIC ACTUATOR VALVES



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DIRECT MOUNT ACTUATOR VALVES



GENERAL DESCRIPTION

The Versa NAMUR mount control valves are high flow, bubbletight, and designed to mount directly to any NAMUR actuator, thus reducing actuator response time and space. Installed costs are also lower as the need for tubing, fittings, brackets and assembly labor are greatly reduced. All mounting screws and seals are included with the valve. There are two types of valves, direct acting and pilot operated; materials are aluminum or stainless steel.

C5 and the C316 are bubbletight, high flow, 5-port, solenoid/pilot type valves. This design assures a positive shift when the valve is energized and reduces the chance of coil burnout. Manual override for single or double solenoid valves are available as an option.

The Versa E5 NAMUR is a 3-way direct-acting solenoid valve. A complete selection of electrical connections, area classifications, and power requirements makes the most exacting and demanding specifications or applications easy to satisfy. See page 4.

SERIES C5 NAMUR 3-Way/4-Way Field Convertible Solenoid Valves

The C5 aluminum NAMUR 5-port designed valves can be ordered as either 4-way (for double acting actuators) or 3-way (for spring return or fail-safe actuators).

This valve is field convertible from 3-way to a 4-way, or a 4-way to a 3-way. Relocation of a port plug facilitates the conversion; no special tools, gaskets, or sealants are required. When the 4-way valve is converted to 3-way function, the unused exhaust port becomes an actuator vent into which a filter/muffler can be installed to prevent contaminants from entering either the valve or the actuator.

Single solenoid models (for 2-position control), or double solenoid models (for 2 or 3-position control) are available. Actuator positioning is possible with the use of 3-position valves. Manual overrides (guarded-push to operate) are standard on all C5 NAMUR valves. Consult factory for other manual overrides available as an option.



SERIES C316 NAMUR Stainless Steel 3 or 4-Way Solenoid Valves



The Versa C316 Series stainless steel NAMUR valve 5-port design can be ordered as either a 4-way for double acting actuators, or as a 3-way for spring return actuators. When the 3-way function is utilized, the unused exhaust port becomes an actuator vent where a filter/muffler can be installed to

prevent contaminants from entering either the valve or the actuator. The 5-port design allows the user to independently control actuator speed in either open or close direction by utilizing speed or bleed controls. Single or double solenoid 2-position models are available. Single solenoid spring return models utilize an air assisted spring return feature, assuring a positive return. Double solenoid valves may be used in applications where a momentary signal is required or in a "fail in last shifted position" actuator application.

Double solenoid models are equipped with a detent that maintains the valve in the last shifted position, even in high vibration applications.

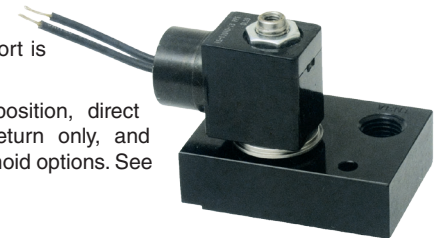
SERIES E5 NAMUR 3-Way Solenoid Valves

The Versa E5 aluminum NAMUR mount, control valve is an inexpensive, simple and effective 3-way direct-acting solenoid valve. It is designed to mount directly to any NAMUR actuator thus reducing cost of tubing, fittings, brackets and labor.

The E5 is most effective on spring return or fail-safe actuators where high speed open or close is not important, but where cost is a factor.

A threaded actuator vent port is standard.

Available as a 3-way, 2-position, direct acting, solenoid, spring return only, and with most of the Versa solenoid options. See page 4.



NAMUR ReBreather

Introduction

The Versa ReBreather block, an add on accessory, is designed to protect the spring chamber of a spring return rack and pinion actuator from external airborne contaminants, by introducing clean exhaust air into the spring chamber during the return stroke.

How it works.

With the ReBreather block attached to the exhaust ports of the NAMUR valve, the actuator piston side air volume is redirected to the spring chamber of the actuator. As the springs begin to push the pistons, a low pressure area develops in the spring chamber, which draws in the air being exhausted from the piston chamber creating a positive pressure. No additional air is required to complete the cycle and prevent contamination.

The ReBreather lives up to it's name by reusing clean exhausted air to maintain a dirt and dust free actuator spring chamber, extending life and reliability of the actuator and valve.

Low profile design

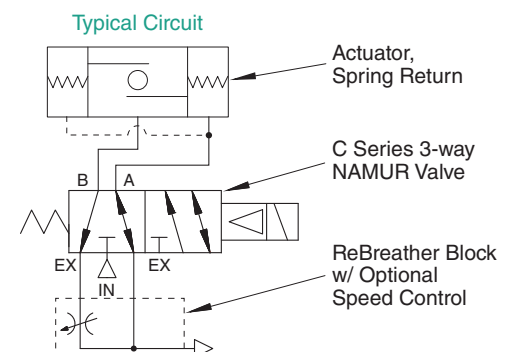
Available on either Versa's C or C-316 Series NAMUR valves. In applications where closing speed needs to be adjusted, an optional

Low profile design (cont.)

speed control is offered. The material of the main plate is engineered polymer. All fasteners and speed controls are 316 stainless steel for enhanced corrosion protection and product life.

Options

Basic plate is supplied with a 1/4" npt vent port. Versa offers a dust screen (MFS) in dusty environments or in areas where moisture may be present, the ReBreather is available with a positive check (DE).



SPECIFICATIONS

MATERIALS

Series	Valve Body	Plunger	Actuating Caps		Valve Seals			Solenoid Parts Sleeve, Plunger & Spring
			Solenoid	Spring	Plunger	Body	Valve to Actuator	
E5	Anodized Aluminum	—	—	—	NBR (Nitrile)	—	NBR (Nitrile)	304, 430F & 302 Stainless Steel
C5		Anodized Aluminum	Anodized Aluminum	Synthetic Resin	FKM (Fluorocarbon)			
C316	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel	FKM (Fluorocarbon)			

Temperature:

C5 & E5: Ambient and media range
5°F to 125°F (-15°C to 50°C).
C316: Ambient and media range
-5°F to 200°F (-20°C to 93°C)
-55°F to 200°F (-48°C to 93°C)
(Low temp option -44)

Flow Rate:

E5: Cv = 0.08
C5: Cv = 0.75
C316: Cv = 1.6

PRESSURES & WEIGHTS

Valve Series	Function	Operating Pressure Range Pneumatic	Approximate Weights				
			Ordinary Service	Hazardous Service			
				XISC, XISX6	-XX, -XN, -XIS	-XMA, -XIF	XDB
E5	Single Solenoid/spring return (2-position)	0-150 psi (0-10.3 bar)	0.6 lbs (272 g)	0.5 lbs (227 g)	0.9 lbs (408 g)	—	—
C5		15-115 ps (1-8 bar)	0.8 lbs. (363 g)	0.7 lbs (318 g)	1.1 lbs. (500 g)	—	—
C316		25-150 psi (1.8-10.3 bar)*	1.5 lbs (680 g)	1.5 lbs (680 g)	1.7 lbs (771 g)	2.3 lbs (1043 g)	2.5 lbs (1134 g)
C5	Double Solenoid/detented (2-position)	10-115 ps (0.7-8 bar)	1.5 lbs (545 g)	1.7 lbs (771 g)	1.8 lbs. (816 g)	—	—
C316		15-150 psi (1-10.3 bar)*	2.2 lbs (998 g)	2.2 lbs (998 g)	2.6 lbs (1179 g)	3.8 lbs (1724 g)	4.3 lbs (1950 g)
C5	Double Solenoid/spring centered (3-position)	15-115 ps (1-8 bar)	1.2 lbs. (545 g)	1.4 lbs (635 g)	1.8 lbs. (816 g)	—	—

*for applications above 125 psi (8.6 bar) exhaust flow controls or mufflers are recommended

VALVE PRODUCT NUMBER SELECTOR

C5, C316 & E5 NAMUR				Basic Valve Number*			
SERIES	FUNCTION**	PORT SIZE	Cv	SINGLE SOLENOID/SPRING RETURN, 2 POSITION	DOUBLE SOLENOID/ DETENT, 2 POSITION	DOUBLE SOLENOID/SPRING CENTERED, 3 POSITION	
						Blocked Center	Exhaust Ports Open
C5	4-way 5/2 & 5/3	1/4 NPT G1/4	.75	CGS-4232-NB1-†-(coil code)	CGG-4232-NB1-†-(coil code)	CXX-4233-NB1-†-(coil code)	CXX-4234-NB1-†-(coil code)
			.75	CGS-4292-NB1-†-(coil code)	CGG-4292-NB1-†-(coil code)	CXX-4293-NB1-†-(coil code)	CXX-4294-NB1-†-(coil code)
	3-way** 3/2 & 3/3	1/4 NPT G1/4	.75	CGS-3232-NB1-†-(coil code)	CGG-3232-NB1-†-(coil code)	CXX-3233-NB1-†-(coil code)	CXX-3234-NB1-†-(coil code)
			.75	CGS-3292-NB1-†-(coil code)	CGG-3292-NB1-†-(coil code)	CXX-3293-NB1-†-(coil code)	CXX-3294-NB1-†-(coil code)
C316	4-way 5/2 & 3-way**	1/4 NPT	1.6	CGS-4332-316-NE1-†-(coil code)	CGG-4332-316-NE1-†-(coil code)		
			1.6	CGS-3331-316-NE1-†-(coil code)	CGG-3331-316-NE1-†-(coil code)		
E5	3-Way 3/2	1/4 NPT	.08	E5SM-3011-34-NB1-†-(coil code)			

*All valves include O ring interface seals and #10-24 mounting screws.
† Add suffix option here if required. For coil code see page 4.
E5 & C5: For #10-32 screws change NB1 to NB2. For M5 screws change NB1 to NB3.
C316 NUMAR: For #10-32 screws change NE1 to NE2. For M5 screws change NE1 to NE3.
3-way is the same valve as 4-way, but is provided with a relocated cylinder port plug. See note on page 7.

ReBreather SELECTOR

On a valve		As a kit		
Suffix*	Description	C Series	C-316 Series	Description
-RB	Plate, 1/4" npt vent port open	C-33RB-NB	C-33RB-NE	Plate, 1/4" npt vent port open
-RB1	Plate and speed control, with 1/4" npt vent port open	C-33RB-NB-BC	C-33RB-NE-BC	Plate and speed control with 1/4" npt vent port open
-RB2	Plate with DE-3 in vent port**	C-33RB-NB-DE3	C-33RB-NE-DE3	Plate with DE-3 in vent port**
-RB3	Plate and speed control with DE-3 in vent port	C-33RB-NB-BC-DE3	C-33RB-NE-BC-DE3	Plate and speed control with DE-3 in vent port
-RB4	Plate and with MFS-3 in vent port	C-33RB-NB-MFS3	C-33RB-NE-MFS3	Plate and with MFS-3 in vent port
-RB5	Plate and speed control with MFS-3 in vent port	C-33RB-NB-BC-MFS3	C-33RB-NE-BC-MFS3	Plate and speed control with MFS-3 in vent port

*Add suffix to complete C/C316 series valve part number. **Aluminum DE on C Series and Stainless on C-316 Series

Actuator Speed	Valve Type	ACTUATOR VOLUME in ³ (cm ³)									
		5 (82)	10 (162)	25 (410)	50 (820)	100 (1641)	150 (2460)	200 (3280)	400 (6560)	600 (9840)	1000 (16400)
Actuator Cycle time in seconds	C5/C316	.32	.36	.47	.63	.98	1.3	1.7	3.1	4.5	7.2
	E5	.46	.64	1.1	2.0	3.9	5.7	7.5	—	—	—

The above chart represents approximate actuator operation times under average load conditions at 80 psi (5.5 bar). Due to differing designs of quarter-turn actuators, breakaway friction, loading, internal airflow, inlet piping, fittings and exhaust port options, the values shown are intended as an estimate. Faster or slower times may actually be achieved.

For double-acting actuators (open & close), use volumes from selected actuator specifications and the chart for estimated speed. The times indicated are per shift. For spring return actuators, use open volume to obtain time from chart. Actuator spring loading may affect shift time.

Slower speeds (adjustable) can always be accomplished by using Versa's Bleed Control Valves in the control valve exhaust port.

NON HAZARDOUS LOCATIONS OPERATORS

	Suffix Identification	Protection Classification	Area Classification and (Gas Grouping)	Certification-(Conformance)	Ingress Protection
	None or -HT, PC	General Purpose	Indoor & Outdoor	CSA	NEMA 1,2, 3 & 4
	-HC -HCC (Shown)	General Purpose	Indoor & Outdoor	CSA	NEMA 4; IP65
	228L	General Purpose	Indoor & Outdoor		NEMA 4;

HAZARDOUS LOCATION OPERATORS

	Suffix Identification	Protection Classification	Area Classification and (Gas Grouping)	Certification-(Conformance)	Ingress Protection
 See page 6 for recommended options	-XX	Hazardous Locations	CLASS I, DIV. 2 (A & B) CLASS I, DIV. 1 (C & D) CLASS II, DIV. 1 (E, F & G)	UL - CSA	NEMA 7 & 9
	-LB-XX				
 See page 6 for recommended options	-XN	(d) Flameproof	Ex d IIB+H2 T3 to T6 Gb II 2 G Ex d IIB+H2 T3 to T6	IECEX IECEX ATEX	IP65 & IP66
	-LB-XN				
 For coil housing clearance -U suffix suggested. See page 6 for recommended options	-XDBS* -XDBT*	(d) Flameproof (e) Increased Safety	EX II 2 G D Ex d e IIC T* Gb EX tb IIIC T* °C Db Class I Div I Grp B, C & D Class I Div II Grp E, F & G EX d IIC DIP A21 T6 T4	ATEX IECEX -INMETRO CSA	IP66, IP67, & IP68
	-XISX6	Intrinsic Safe	II 2 G EEx ia IIC T6	ATEX Factory Mutual CSA	IP65
	-XISC		Class I, Groups (A, B, C & D) Class II, Groups (E, F, & G) Class III		

OPTIONS

Solenoid Vent Options

The standard solenoid vent is supplied with 10-32 internal thread, vent to atmosphere. See other options below

- L14: Is a stainless steel screw and filter adapter that provides "Dust Proof" protection for the solenoid sleeve vent.
- D14: Is a stainless steel adapter with a sealing O-ring that provides "Water Tight" protection for the solenoid sleeve vent.
- HE and H2E: Are 1/4"-18 npt and 1/8"-27 npt stainless steel adapter, providing a pipe connection to solenoid vent.



ELECTRICAL

PRODUCT NUMBER COIL CODES: Complete product numbers require, when applicable, a coil code that represents the desired coil current type, frequency and voltage. The coil code takes the form shown below, with ratings and voltage substituted as required.

Rating Code	Voltage
A = 60Hz frequency	Indicated by three digits: e.g. 24 volts = 024 120 volts = 120.
D = Direct Current (DC)	
E = 50Hz frequency	
A120 = AC, 120Volts/60hz	

Voltage (Power)	Electrical Characteristics	Miscellaneous
All usual 50 Hz & 60 Hz AC (6W) All usual DC (7W)	Class F epoxy molded coil (155°C). Continuous duty, 2 leads 24" (60 cm).	Steel cover with 1/2 NPT conduit entry.
24V60, 120V60, 240V60 (8.5W) 24V50, 110V50, 220V50 (8.5W) 12VDC, 24VDC, 48VDC (10.5W)		Mini DIN socket with PG9 cable gland (-HC) or 1/2" conduit connection (-HCC).
24V60, 120V60, 240V60 (8.5W) 24V50, 110V50, 220V50 (8.5W) 12VDC, 24VDC, 48VDC (10.5W)		Epoxy encapsulated coil with, steel, 1/2 NPT conduit entry.

Voltage (Power)	Electrical Characteristics	Miscellaneous			
All usual 50 Hz & 60 Hz AC (5.6W) All usual DC (7.2W)	Class F epoxy molded coil (155°C). Continuous duty. 3 leads 24" (60 cm).	Steel, Electroless Nickel plated coil housing with 1/2 NPT conduit entry. For options see page 6			
12V60, 24V60, 48V60, 120V60, 240V60 (1.8W) 6VDC, 12VDC, 24VDC, 48VDC (1.8W)		Steel, Electroless Nickel plated coil housing with 1/2 NPT conduit entry. For options see page 6 Maximum pilot pressure 120 psi (8 bar). 1.8W nominal power.			
All usual 50 Hz & 60 Hz AC (5.6W) All usual DC (7.2W)		Steel, Electroless Nickel plated coil housing with M20 x 1.5 conduit entry. Ground terminal on cover. For options see page 6			
12V60, 24V60, 48V60, 120V60, 240V60 (1.8W) 6VDC, 12VDC, 24VDC, 48VDC (1.8W)		Steel, Electroless Nickel plated coil housing with M20 x 1.5 conduit entry. Ground terminal on cover. For options see page 6 Maximum pilot pressure 120 psi (8 bar). 1.8W nominal power.			
24VDC (D024) 120V60 (A120) 110V50 (E110) 230V50 (E230)	Epoxy molded coils rated for continuous duty, Class H, 180°C.	Stainless steel coil housing with internal Junction Box. Internal and external ground screw.			
1.8 Watt standard, for lower watt contact factory.		Suffix Detail Ordering Code			
		M 20 Connection		1/2" Connection	
		No Diode	Diode	No Diode	Diode
		Standard (vent to atmosphere)	XDBS1	XDBS5	XDBT1
1/8" Adapter (-H2E)	XDBS2	XDBS6	XDBT2	XDBT6	
1/4" Adapter (-HE)	XDBS3	XDBS7	XDBT3	XDBT7	
Dust Nut (-L14)	XDBS4	XDBS8	XDBT4	XDBT8	
24VDC system voltage prior to barrier (1.6 watt max.)	Class F epoxy molded coil (155°C). 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)			

Options

Overrides

C5 Valves*



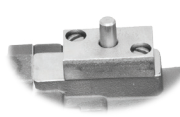
Standard;
momentary
contact



-M;
Unguarded,
momentary
contact



-CML;
Knurled knob
twist to lock



-ME; Unguarded,
momentary contact

Solenoid Orientation

C316 Valves



In line solenoid
standard



Upright solenoid (-U)

Note: -U for C316 valves only

*E5 not available with override

Hazardous Location Combination Suffix Details Cross Reference Chart

Suffix Reference	
Suffix	Description
-XX	North American solenoid
-XN	ATEX solenoid
-XDB	World Solenoid
-HT	Class H coil
-ST	Stainless solenoid housing
-PC	Potted coil
-LB	1.8 watt solenoid
-LA	0.85 watt solenoid
-VJBT	Add on Junction Box
-D14	Solenoid vent, water proof nut
-PS	Potted coil, male conduit
-CD	72" wire leads
-LX	1.8 watt solenoid
-H2E	1/8" npt solenoid vent
-HE	1/4" npt solenoid vent
-L14	solenoid vent dust nut
-303D	Integral diode

North American (-XX)	
Combination Suffix	Included Suffix
-XXA	-XX, -HT
-XXA4	-XX, -D14, -HT
-XXB	-XX, -PS
-XXB4	-XX, -D14, -PS
-XXC	-XX, -HT, -PS
-XXC4	-XX, -D14, -HT, -PS
-XXD	-XX, -ST
-XXD4	-XX, -D14, -ST
-XXE	-XX, -PC, -ST
-XXE4	-XX, -D14, -PC, -ST
-XXF	-XX, -HT, -ST
-XXF4	-XX, -D14, -HT, -ST
-XXG	-XX, -LB, -ST
-XXG4	-XX, -D14, -LB, -ST
-XXH	-XX, -HT, -PC, -ST
-XXJ	-XX, -LB, -PC, -ST
-XXJ4	-XX, -D14, -LB, -PC, -ST
-XXK	-XX, -HT, -LB, -PC, -ST

North American (-XX) (Cont.)	
Combination Suffix	Included Suffix
-XXK4	-XX, -D14, -HT, -LB, -PC, -ST
-XXL	-XX, -PC
-XXL4	-XX, -D14, -PC
-XXM	-XX, -HT, -PC
-XXM4	-XX, -D14, -HT, -PC
-XXN	-XX, -LB, -PC
-XXN4	-XX, -D14, -LB, -PC
-XXP	-XX, -HT, -LB, -PC
-XXP4	-XX, -D14, -HT, -LB, -PC
-XXQ	-XX, -HT, -LB
-XXQ4	-XX, -D14, -HT, -LB
-XXR	-XX, -LB
-XXR4	-XX, -D14, -LB
-XXS	-XX, -LA, -ST
-XXS4	-XX, -D14, -LA, -ST
-XXU	-XX, -HT, -LB, -ST
-XXU4	-XX, -D14, -HT, -LB, -ST
-XXV	-XX, -LA
-XXV4	-XX, -D14, -LA
-XXW	-XX, -CD, -HT, -H2, -PC, -ST
-XXW4	-XX, -D14, -CD, -HT, -PC, -ST

ATEX (XN)	
Combination Suffix	Included Suffix
-XNA	-XN, -HT
-XND	-XN, -ST
-XNE	-XN, -PC, -ST
-XNE4	-XN, -D14, -PC, -ST
-XNF	-XN, -HT, -ST
-XNG	-XN, -LB, -ST
-XNH	-XN, -HT, -PC, -ST
-XNJ	-XN, -LB, -PC, -ST
-XNJ4	-XN, -D14, -LB, -PC, -ST
-XNK	-XN, -HT, -LB, -PC, -ST
-XXK4	-XN, -D14, -HT, -LB, -PC, -ST
-XNL	-XN, -PC
-XNL4	-XN, -D14, -PC

ATEX (XN) (Cont.)	
Combination Suffix	Included Suffix
-XNM	-XN, -HT, -PC
-XNN	-XN, -LB, -PC
-XNN4	-XN, -D14, -LB, -PC
-XNP	-XN, -HT, -LB, -PC
-XNQ	-XN, -HT, -LB
-XNR	-XN, -LB
-XNS	-XN, -LA, -ST
-XNS4	-XN, -D14, -LA, -ST
-XNU	-XN, -HT, -LB, -ST
-XNV	-XN, -LA
-XNV4	-XN, -D14, -LA
-XNX	-XN, -LB, -PS
-XNWS	-XN, -VJBT, -LB, -PS

World Solenoid (XDB)	
Combination Suffix	Included Suffix
-XDBS1	-XDBS, -HT, -LX
-XDBS2	-XDBS, -HT, -LX, -H2E
-XDBS3	-XDBS, -HT, -LX, -HE
-XDBS4	-XDBS, -HT, -LX, -L14
-XDBS5	-XDBS, -HT, -LX, -303D
-XDBS6	-XDBS, -HT, -LX, -H2E, -303D
-XDBS7	-XDBS, -HT, -LX, -HE, -303D
-XDBS8	-XDBS, -HT, -LX, -L14, -303D
-XDBS9	-XDBS, -HT, -LX, -D14
-XDBS10	-XDBS, -HT, -LX, -D14, -303D
-XDBT1	-XDBT, -HT, -LX
-XDBT2	-XDBT, -HT, -LX, -H2E
-XDBT3	-XDBT, -HT, -LX, -HE
-XDBT4	-XDBT, -HT, -LX, -L14
-XDBT5	-XDBT, -HT, -LX, -303D
-XDBT6	-XDBT, -HT, -LX, -H2E, -303D
-XDBT7	-XDBT, -HT, -LX, -HE, -303D
-XDBT8	-XDBT, -HT, -LX, -L14, -303D
-XDBT9	-XDBT, -HT, -LX, -D14
-XDBT10	-XDBT, -HT, -LX, -D14, -303D

Recommended Hazardous Location Solenoid Option Packages

(For complete specifications please see above and page 4)

Enclosure/Wire	Certification/Power			
	North American - CSA		ATEX - IECEx - INMETRO	
	Standard Power	Low Watt*	Standard Power	Low Watt*
Steel, Electroless Nickel Plated, 24 Inch Leads	-XXL4	-XXN4	-XNL4	-XNN4
Stainless Steel, High Performance 430 type, 24 Inch leads	-XXE4	-XXJ4	-XNE4	-XNJ4
Stainless Steel, 316L type, Junction Box with Terminal Strip	n/a	-XDBT9**	n/a	-XDBS9

* 1.8 watt solenoid. Also available is 0.85 watt, see cross reference chart above. For 0.50 watt, consult factory.

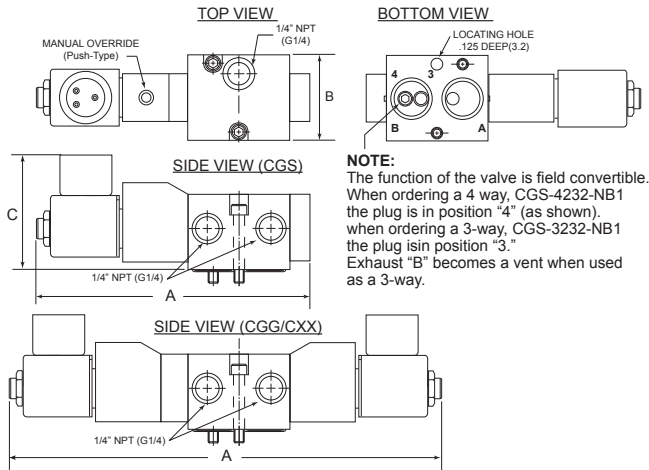
** All the -XDBT type solenoids are "World Solenoids." Certified for North America, ATEX, IECEx and INMETRO

DIRECT MOUNT ACTUATOR VALVES

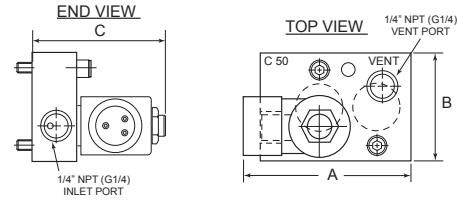


DIMENSIONS

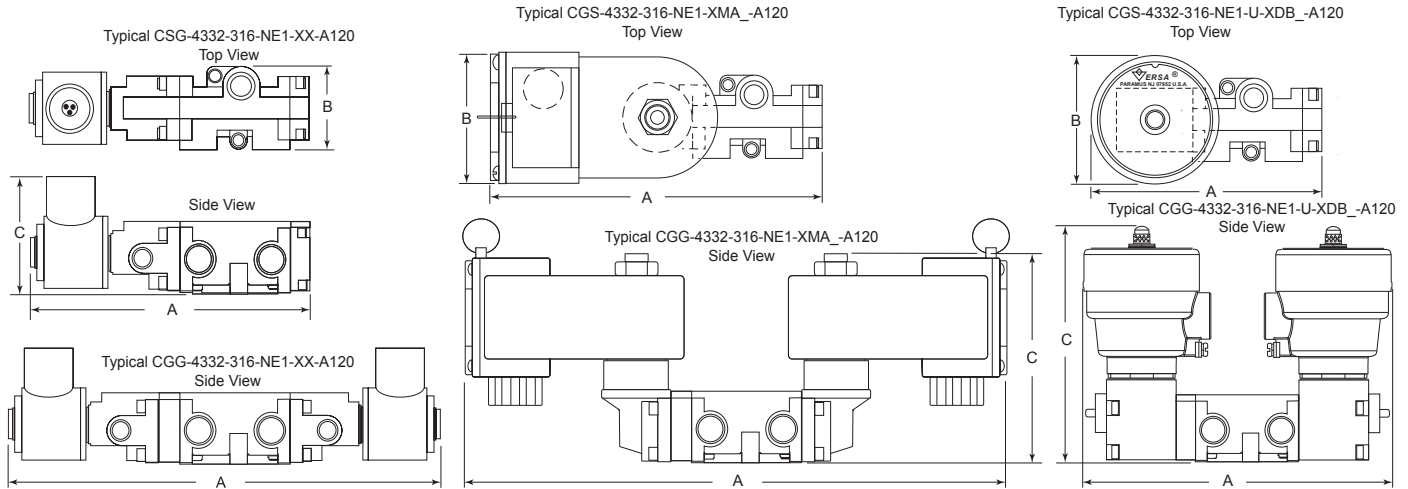
Series C5



Series E5



Series C316



DIMENSIONS

INCHES
(mm)

VALVE SERIES	Function	Solenoid Options																				
		General Service									Hazardous Location											
		Standard, -228L			-027, 043			C50, -PC			-XX, -XN			-XISC, -XISX6			-XMA_, -XIF_			-XDB_		
		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
E5	Single solenoid, spring return	2.11 (53.6)	1.75 (44)	2.31 (58.7)	—	—	—	2.84 (204.9)	1.75 (44)	2.31 (58.7)	3.01 (76.5)	2.47 (62.7)	2.39 (60.7)	2.8 (71)	1.89 (48.2)	1.75 (44)	—	—	—	—	—	—
C5	Single solenoid, spring return	5.02 (127.5)	1.56 (39.6)	1.29 (32.8)	3.45 (87.6)	1.56 (39.6)	2.34 (59.4)	5.02 (127.5)	1.04 (26.4)	2.09 (53.1)	3.79 (96.3)	1.31 (33.3)	1.45 (36.8)	3.53 (89.7)	1.31 (33.3)	1.15 (29.2)	—	—	—	—	—	—
C316	3-Way or 4-Way	5.56 (141.3)	1.63 (41.3)	2.15 (54.7)	—	—	—	5.56 (141.3)	1.63 (41.3)	2.15 (54.7)	5.56 (141.3)	1.63 (41.3)	2.32 (59)	5.43 (138)	1.63 (41.3)	2.94 (74.6)	6.59 (167.3)	2.56 (65)	4.13 (104.8)	4.63 (117.6)	2.50 (63.5)	4.74 (120.3)
C5	Double solenoid	7.92 (201.1)	1.56 (39.6)	2.04 (51.8)	7.42 (188.4)	1.56 (39.6)	2.34 (59.4)	7.93 (201.4)	1.56 (39.6)	2.09 (53)	8.07 (205)	1.56 (39.6)	2.26 (57.4)	7.55 (191.7)	1.56 (39.6)	6.93 (176)	—	—	—	—	—	—
C316	3-Way or 4-Way	5.56 (141.3)	1.63 (41.3)	2.15 (54.7)	—	—	—	8.57 (217.7)	1.63 (41.3)	2.15 (54.6)	8.78 (223.1)	1.63 (41.3)	2.32 (59)	8.31 (211.1)	1.63 (41.3)	2.94 (74.6)	10.8 (275)	2.56 (65)	4.13 (104.8)	6.32 (160.5)	2.50 (63.5)	4.74 (120.3)

For warranty information and/or any additional information with regards to installation, operation and service warnings, please consult factory.



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**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**

Versa's Series products are warranted to be free from defective material and workmanship for a period of ten years from the date of manufacture, provided said products 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.

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