



C-316 SERIES

Stainless Steel NAMUR Mount Solenoids

Bulletin C316NE
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NAMUR

The Versa C-316 Series stainless steel NAMUR mount actuator control valve is a high flow, bubble-tight, 5-port, solenoid valve. It is 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 valve.

The C-316 Series utilizes stainless steel bodies, actuator caps and internal parts making this series compatible for use in the most aggressive environments. Seals are FKM (fluorocarbon). Solenoid materials are a function of area classification rating. See options for details.

The 5-port design allows the C-316 NAMUR to be ordered as either a 4-way, for double acting actuators or 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 the open or close direction. Speed or bleed controls are optional.

Single or double solenoid 2-position models are available. Single solenoid spring return valves are typically applied on "on/off" or "fail-safe" applications. Double solenoid valves may be used in applications where a momentary signal is required or in a "fail in last shifted position" actuator application.

All solenoid actuators are solenoid/pilot type, which allows the use of the smaller solenoids resulting in lower power consumption. This design assures a positive shift when the valve is energized and reduces the chance of coil burnout. Single solenoid spring return models utilize an air assisted spring return feature assuring a positive return. Double solenoid models are equipped with a detent that maintains the valve in the last shifted position, even in high vibration applications. A complete selection of electrical connections, power requirements, area classifications, makes this the valve of choice for demanding applications.



Flow Rate:
Cv = 1.6 (Kv = 23.5)

Port Size:
Inlet and exhaust: 1/4" NPT
Cylinder ports: 'O' ring mount per NAMUR standard

Media: Pneumatic only, Lubricator not required

Pressure:
25 to 150 psi (1.8 to 10.3 bar), Single solenoid, spring return
15 to 150 psi (1.0 to 10.3 bar), Double solenoid, detent
For applications above 125 psi (8.6 bar), exhaust flow controls or mufflers are recommended.

Temperature:
-5 to 200° F (-20 to 93° C), Media and ambient (standard)
-55 to 200° F (-48 to 93° C), Media and ambient (option -44)

Materials:

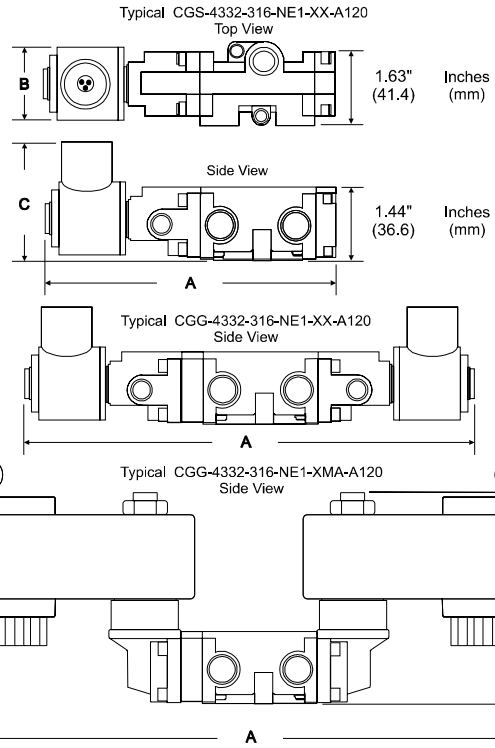
Valve body and internal parts:	316L stainless steel
Actuator caps:	316L stainless steel
Valve seals:	FKM (fluorocarbon)
Screws:	Stainless steel
Solenoid internal parts:	304, 430F and 302 stainless steel
Coil/solenoid housing	Per solenoid option selected. See option section.

C-316 NAMUR Ordering Information

Basic Valve Number*

FUNCTION	SINGLE SOLENOID/SPRING RETURN, 2 POSITION	DOUBLE SOLENOID/DETTENT, 2 POSITION
4-Way 5/2	CGS-4332-316 NE1-†-(coil code) 	CGG-4332-316 NE1-†-(coil code)
3-Way 3/2	CGS-3331-316 NE1-†-(coil code) 	CGG-3331-316-NE1-†-(coil code)

*All valves include O-ring interface seals and #10-24 mounting screws. For #10-32 screws change NE1 to NE2. For M5 screws change NE1 to NE3. † Add suffix option here, if required. See coil code below.



Dimensions

VALVE TYPE		SOLENOID OPTIONS								
		GENERAL SERVICE			HAZARDOUS SERVICE (-XX, -XN)			HAZARDOUS SERVICE (-XMA-, -XIF-)		
		A	B	C	A	B	C	A	B	C
Single Solenoid, Spring Return, 3-Way or 4-Way*	Inches (mm)	5.56 (141.3)	1.04 (26.4)	2.15 (54.7)	5.66 (143.9)	1.44 (36.6)	2.32 (59.0)	6.56 (166.6)	2.56 (65)	4.15 (104.8)
Double Solenoid 3-Way or 4-Way*	Inches (mm)	8.57 (217.7)	1.04 (26.4)	2.15 (54.7)	8.78 (223.1)	1.44 (36.6)	2.33 (59.0)	10.58 (268.7)	2.56 (65)	4.15 (104.8)

*For dimensions -XDA_ consult factory

Weights (approximate)

VALVE TYPE	GENERAL SERVICE	HAZARDOUS SERVICE (-XX, -XN, -XIS-)	HAZARDOUS SERVICE (-XMA-, -XIF-)
Single Solenoid/Spring Return (2-position)	1.30 lbs (590 grams)	1.6 lbs (725 grams)	2.5 lbs (1130 grams)
Double Solenoid/ Detented (2-position)	1.9 lbs (860 grams)	2.6 lbs (1180 grams)	4.3 lbs (1950 grams)

Electrical Options

	Electrical Options	Suffix Detail	Solenoid Housing Material	Voltages (Coil Codes) All options available in all voltages, except where noted. Consult factory for other voltages.	NOMINAL COIL POWER AC/DC (watts)
GENERAL	General Purpose				
	½" NPT conduit, NEMA 1, 2 & 3*	None	Carbon Steel, Painted		6.0/7.0
	½" NPT conduit, watertight, NEMA 4 & 4X*	-PC	Carbon Steel, Chromate coated		6.0/7.0
	Cord grip PG9 mini-DIN type connector, NEMA 4	-HC	Engineered polymer		6.5/10.5
	½" NPT conduit mini-DIN type connector, NEMA 4	-HCC	Engineered polymer		6.5/10.5
HAZARDOUS	Explosion Proof				
	½" NPT conduit, NEMA 7 & 9, UL listed, CSA approved*	-XX	Carbon Steel, Chromate coated		5.6/7.2
	For Low power, add -LB with -XX	-LB-XX	Carbon Steel, Chromate coated		1.8/1.8
	For Watertight add -PC with -XX	-PC-XX	Carbon Steel, Chromate coated		5.6/7.2
	For Stainless housing add -ST with -XX	-ST-XX	Stainless Steel		5.6/7.2
	Flameproof (d)				
	M20x1.5 conduit, II 2 G EEx d IIB + H ₂ T6 or T4*	-XN	Carbon Steel, Chromate coated	12VDC (D012)	5.6/7.2
	For Low power, add -LB with -XN	-LB-XN	Carbon Steel, Chromate coated	24VDC (D024)	5.6/7.2
	For Watertight add -PC with -XN	-PC-XN	Carbon Steel, Chromate coated	48VDC (D048)	1.8/1.8
	For Stainless housing add -ST with -XN	-ST-XN	Carbon Steel, Chromate coated	120V60 (A120)	5.6/7.2
	M20x1.5 conduit, II 2 G EEx d IIC T4 or T5 or T6*	-XDAS	Stainless Steel	110V50 (E110)	5.6/7.2
	½" NPT conduit, II 2 G EEx d IIC T4 or T5 or T6*	-XDAT	Stainless Steel w/ Junction Box	220V50 (E220)	5.6/7.2
	Encapsulated (m), Increased Safety (e)†			240V60 (A240)	5.6/7.2
	M20x1.5 conduit, II 2 G EEx me II T5...T6	-XMAA	Engineered polymer		na/4.0
	½" NPT conduit, II 2 G EEx me II T5...T6	-XMAF	Engineered polymer		na/4.0
	Intrinsically safe (ia)**				
	Cord grip PG 9, Class I, II & III, Div 1, Group A thru G, FM/CSA	-XISC	Engineered polymer		na/1.6
	Cord grip PG 9, II 2 G EEx ia IIC T6	-XISX6	Engineered polymer		na/1.6
	M20x1.5 conduit, II 2 G EEx ia IIC T4...T6	-XIFA†	Engineered polymer		na/0.8
	½" NPT conduit, II 2 G EEx ia IIC T4...T6	-XIFF†	Engineered polymer		na/0.8
MISC	Manual Override, un-guarded push and hold (not available with all Solenoid options)	-ME	N/A		
	Solenoid exhaust adapter, 1/8 NPT	-H2	N/A		

NOTES
 * For high temperature coil add, -HT (included in XMA_, XIF_)
 ** 24 Volt DC only
 † Contact factory for other options in this series

While due care was exercised in preparing this document, Versa Products Company, Inc. shall not be liable for any inaccuracies or omissions. Specifications Subject to change without notice.

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