

C-316 SERIES Stainless Steel 3-Way and 4-Way Solenoid Valves

The Versa C-316 Series stainless steel body-ported valve is a high flow, 3 or 5-port, solenoid valve. The sealing design is that of Versa's proven elastomer packed plunger producing bubble-tight performance along with long trouble-free product life. This seal design also yields the highest flow available in the smallest package.

The C-316 Series utilizes stainless steel bodies, actuating caps and internal parts making this series of valves ideal 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 C-316 Series is available as either a 4-way, for double acting devices or a 3-way, for spring return devices. The 3-way function can be specified as either normally closed or opened. All solenoid actuators are solenoid/pilot type, which allows the use of the smallest solenoids available resulting in low power consumption. This design also assures a positive shifting force which makes certain the valve shifts when 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 environments. A complete selection of



Side Ported

electrical connections, power requirements and area classifications, makes Versa's C-316 the valve of choice for demanding applications.

Versa's proven and well-accepted solenoid latch option for single solenoid, spring return, 3-way and 4-way valves is also available on the C-316 Series. With the loss of solenoid signal, the valve shifts closed and cannot be re-shifted until manually reset. Versa's latching solenoid is the benchmark in valve actuator controls.

Flow Rate: Cv = 2.0 (Kv = 29.3)	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	Materials: Valve body and internal parts: Actuator caps:	316L stainless steel 316L stainless steel
Port Size: Inlet, cylinder and exhaust: ¼" NPT Media: Pneumatic only Lubricator not required	For applications above 125 psi (8.6 bar), exhaust flow controls or mufflers are recommended.	Valve seals: Screws: Solenoid internal parts:	FKM (fluorocarbon) Stainless steel 304, 430F and 302 stainless steel
Expilot Solenoid: Consult Factory	Temperature: -5 to 200° F (-20 to 93° C), Media and ambient	Coil/solenoid housing	Per solenoid option selected. See option section.

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C-316 Stainless Steel Ordering Information

Basic Valve Number			
FUNCTION	SINGLE SOLENOID/SPRING RETURN, 2 POSITION	DOUBLE SOLENOID/ DETENT, 2 POSITION	LATCHING, SINGLE SOLENOID/ SPRING RETURN
4-Way	CSG-4322-316-†-(coil code)	CGG-4322-316-†-(coil code)	CAG-4322-316-356BN-†-(coil code)
5/2			
3-Way NC	CSG-3321-316-†-(coil code)	CGG-3321-316-†-(coil code)	CAG-3321-316-356BN-†-(coil code)
3/2			
3-Way NO	CGS-3322-316-†-(coil code)	CGG-3321-316-†-(coil code)	CGA-3322-316-356BN-†-(coil code)
3/2			

† Add suffix option here as required. See coil code below

	SOLENOID OPTIONS								
	GENERAL SERVICE			HAZARDOUS SERVICE (-XX, -XN)			HAZARDOUS SERVICE (-XMA_, -XIF_)		
	Α	В	С	Α	В	С	Α	В	С
Inches	5.31	1.04	2.13	5.41	1.44	2.30	6.31	2.56	4.13
(mm)	(135.0)	(26.4)	(54.2)	(137.5)	(36.6)	(58.5)	(160.3)	(65)	(104.8)
Inches	5.81	1.04	2.13	5.91	1.44	2.30	6.81	2.56	4.13
(mm)	(147.7)	(26.4)	(54.2)	(150.2)	(36.6)	(58.5)	(173.0)	(65)	(104.8)
Inches	8.33	1.04	2.13	8.53	1.44	2.30	10.33	2.56	4.13
(mm)	(211.6)	(26.4)	(54.2)	(216.8)	(36.6)	(58.5)	(262.4)	(65)	(104.8)
Inches	8.83	1.04	2.13	9.03	1.44	2.30	10.83	2.56	4.13
(mm)	(224.3)	(26.4)	(54.2)	(229.5)	(36.6)	(58.5)	(275.0)	(65)	(104.8)
Inches	6.41	1.04	2.34	6.51	1.44	2.34	7.41	2.56	4.13
(mm)	(162.9)	(26.4)	(59.4)	(165.5)	(36.6)	(59.4)	(188.2)	(65)	(104.8)
	(mm) Inches (mm) Inches (mm) Inches	A Inches 5.31 (mm) (135.0) Inches 5.81 (mm) (147.7) Inches 8.33 (mm) (211.6) Inches 8.43 (mm) (224.3) Inches 6.41	A B Inches 5.31 1.04 (mm) (135.0) (26.4) Inches 5.81 1.04 (mm) 5.81 1.04 (nches) 8.33 (26.4) Inches 8.33 1.04 (mm) (211.6) (26.4) Inches 8.83 1.04 (mm) (224.3) (26.4)	A B C Inches 5.31 1.04 2.13 (nm) (135.0) (26.4) (54.2) Inches 5.81 1.04 2.13 (nm) 5.81 1.04 2.13 (nm) 6.83 1.04 2.13 (nm) (211.6) (26.4) (54.2) Inches 8.83 1.04 2.13 (nm) (224.3) (26.4) (54.2) Inches 6.41 1.04 2.34	HAZARI (C A B C A Inches 5.31 1.04 2.13 5.41 (mm) (135.0) (26.4) (54.2) (137.5) Inches 5.81 1.04 2.13 5.91 (mm) (147.7) (26.4) (54.2) (150.2) Inches 8.33 1.04 2.13 8.53 (mm) (21.6) (26.4) (54.2) (216.8) Inches 8.83 1.04 2.13 9.03 (mm) (224.3) (26.4) (54.2) (229.5) Inches 6.41 1.04 2.34 6.51	HAZARDOUS SE (-XX, XN) A B C A B Inches 5.31 1.04 2.13 5.41 1.44 (mm) (135.0) (26.4) (54.2) (137.5) (36.6) Inches 5.81 1.04 2.13 5.91 1.44 (mm) (147.7) (26.4) (54.2) (150.2) (36.6) Inches 8.33 1.04 2.13 8.53 1.44 (mm) (211.6) (26.4) (54.2) (216.8) (36.6) Inches 8.83 1.04 2.13 8.53 1.44 (mm) (224.3) (26.4) (54.2) 9.03 1.44 (mm) (224.3) (26.4) (54.2) 9.03 1.44 (mm) (224.3) 1.04 2.34 6.51 1.44	HAZARDOUS SERVICE A B C A B C Inches 5.31 1.04 2.13 5.41 1.44 2.30 (mm) (135.0) (26.4) (54.2) (137.5) (36.6) (58.5) Inches 5.81 1.04 2.13 5.91 1.44 2.30 (mm) (147.7) (26.4) (54.2) (150.2) (36.6) (58.5) Inches 8.33 1.04 2.13 8.53 1.44 2.30 (mm) (21.16) (26.4) (54.2) (216.8) (36.6) (58.5) Inches 8.83 1.04 2.13 9.03 1.44 2.30 (mm) (224.3) (26.4) (54.2) (216.8) (36.6) (58.5) Inches 6.41 1.04 2.34 6.51 1.44 2.34	HAZARDOUS SERVICE HAZARCOUS SERVICE A Inches 5.31 1.04 2.13 5.41 1.44 2.30 10.03 (262.4) (264.9) (216.8) (36.6) (58.5) (226.2) 10.83 (275.0) 10.43 (224.3) 10.43 (275.0) 10.44 2.34 7.41	GENERAL SERVICE HAZARDOUS SERVICE (XX, XN) HAZARDOUS SERVICE (XX, XN) HAZARDOUS SERVICE (XX, XA) A B C A B C A B Inches 5.31 (135.0) 1.04 (26.4) 2.13 (54.2) 5.41 (137.5) 1.44 (36.6) 2.30 (58.5) 6.31 (160.3) 2.56 (55) Inches 5.81 (147.7) 1.04 (26.4) 2.13 (54.2) 5.91 (150.2) 1.44 (36.6) 2.30 (58.5) 6.81 (173.0) 2.56 (65) Inches 8.33 (211.6) 1.04 (54.2) 2.13 (216.8) 3.1.44 (216.8) 2.30 (36.6) 10.83 (58.5) 2.56 (65) Inches 8.83 (211.6) 1.04 (26.4) 2.13 (26.4) 9.03 (212.8) 1.44 (28.5) 2.30 (28.5) 10.83 (28.5) 2.56 (65) Inches 8.83 (224.3) 1.04 (26.4) 2.13 (26.4) 9.03 (229.5) 1.44 (36.6) 2.30 (58.5) 10.83 (275.0) 2.56 (55) Inches 6.41 1.04 2.34 6.51 1.44 2.34 7.41 2.56

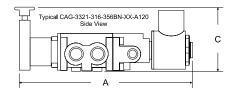
Add 0.5" (12.7 mm) to "A" dimension for 4-Way Latch Valve + For dimentions – XDA_ consult factory

Weights (approximate)	GENERAL SERVICE	HAZARDOUS SERVICE (-XX, -XN, -XIS_)	HAZARDOUS SERVICE (-XMA_, -XIF_)		
Single Solenoid/Spring Return 3-Way*	1.30 lbs (590 grams)	1.6 lbs (725 grams)	2.5 lbs (1130 grams)		
Double Solenoid/Detented 3-Way*	1.9 lbs (860 grams)	2.6 lbs (1180 grams)	4.3 lbs (1950 grams)		
Single Solenoid, Latching, 3-Way*	1.6 lbs (725 grams)	1.9 lbs (860 grams)	2.8 lbs (1270 grams)		

Ť Inches 1.62 (mm) (41.1) ۲ В 1 А Typical CSG-4322-316-XX-A120 Side View Ť Ъ Inches (mm) 1.42 (36.1) O O Ň П А Typical CGG-4322-316-XX-A120 Side View С C $(\bigcirc$ Õ Г Ĥ M А Typical CGG-4322-316-XMA-A120 Side View Ē ╓╋┓ С M P

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Typical CSG-4322-316-XX-A120 Top View



* For 4-way add 0.1 lbs (45 grams)

	Electrical Options	Suffix Detail	Solenoid Housing Material		All options available	Coil Codes) e in all voltages, . Consult factory for	NOMINAL COIL POWER AC/DC (watts)
G	General Purpose						
Е	1/2" NPT conduit, NEMA 1,2 & 3*	None	Carbon Steel, Painted				6.0/7.0
N E	1/2" NPT conduit, watertight, NEMA 4 & 4X*	-PC	Carbon Steel, Chromate c	coated			6.0/7.0
R	Cord grip PG9 mini-DIN type connector, NEMA 4	-HC	Engineered polymer				6.5/10.5
A L	1/2" NPT conduit mini-DIN type connector, NEMA 4	-HCC	Engineered polymer				6.5/10.5
-	Explosion Proof				-		
	1/2" NPT conduit, NEMA 7 & 9, UL listed, CSA approved*		Carbon Steel, Chromate c	oated			5.6/7.2
	For Low power, add –LB with –XX	-LB-XX					1.8/1.8
н	For Watertight, add –PC with –XX	-PC-XX					5.6/7.2
A	For Stainless housing, add –ST with –XX	-ST-XX	Stainless Steel				5.6/7.2
Z A	Flameproof (d)				12VDC (D012)		
R	M20x1.5 conduit, 🔂 II 2 G EEx d IIB + H ₂ T6 or T4*	-XN	Carbon Steel, Chromate c	oated	24VDC (D024)		5.6/7.2
D	For Low power, add –LB with –XN	-LB-XN	Carbon Steel, Chromate c	oated	48VDC (D048)		1.8/1.8
0	For Watertight add –PC with –XN	-PC-XN	Carbon Steel, Chromate coated Stainless Steel Stainless Steel w/ Junction Box Stainless Steel w/ Junction Box		120V60 (A120) 110V50 (E110)		5.6/7.2
U S	For Stainless housing add –ST with –XN	-ST-XN			220V50 (E220) 240V60 (A240)	5.6/7.2	
Ũ	M20x1.5 conduit, 🔂 II 2 G EEx d IIC T4 or T5 or T6*	XDAS				10.0/4.0 - 10.0	
L	1/2" NPT conduit, 🛱 II 2 G EEx d IIC T4 or T5 or T6*	XDAT				10.0/4.0 - 10.0	
0	Encapsulated (m), Increased Safety (e)†	Encapsulated (m), Increased Safety (e)†					
C A	M20x1.5 conduit, 🔂 II 2 G EEx me II T5T6-	-XMAA	Engineered polymer	naineered polymer			
Ť	1⁄2" NPT conduit, 🦾 II 2 G EEx me II T5T6	-XMAF	Engineered polymer	NOTI	ES r high temperature coil add, -HT		na/4.0
I.	Intrinsically safe (ia)**			* For			
O N	Cord grip PG 9, Class I, II & III, Div 1, Group A thru G, FM/CSA	-XISC	Engineered polymer (includ		ided in XMA_, XIF_))	na/1.6
N	Cord grip PG 9, 🔚 II 2 G EEx ia IIC T6	-XISX6	Engineered polymer	** 24	Volt DC only		na/1.6
	M20x1.5 conduit, 🔚 II 2 G EEx ia IIC T4T6	-XIFAt	Engineered polymer	† Col	ntact factory for othe	er options in this	na/0.8
	½" NPT conduit, 🚋 II 2 G EEx ia IIC T4T6	-XIFF†	Engineered polymer	serie			na/0.8
м	Manual override, un-guarded push and hold (not available with all	-ME	N/A	L			
ï	solenoid options)					While due care was ex	
S	Solenoid exhaust adapter, 1/8 NPT	-H2	N/A			this document, Versa F Inc. shall not be liable	
С	For expilot solenoid consult factory					ations Subject to	

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