



Bulletin C-316  
2016

# C-316 SERIES



## THE C-316 SERIES

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# THE C-316 SERIES

## GENERAL DESCRIPTION

### Series “C-316”

The C-316 Series consists of 3-Way 3/2 and 4-Way 5/2 investment cast, 316 stainless steel valves, in three categories: Side Ported, NAMUR style direct mount and CMAP, an integral stainless steel regulator and valve.

#### “C-316” Body Ported Valves

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 electrical connections, power requirements and area classifications are available. See page 18 & 19.

#### “C-316” Namur Valves

The Versa C-316 Series stainless steel NAMUR mount actuator control valve is a high flow, bubble-tight, 5-port, Pilot 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 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. See page 16.

#### CMAP Modular Air Package

A CMAP system consists of a filter/regulator, gauge and directional control valve all in one.

CMAP is based on Versa's field proven C-316 and AR Series. All inter-component connections utilize “O”-ring interface sealing reducing potential leakage points. The combination of C-316 & AR reliability, “O” ring sealing and a simple design principal all provide a reliable and easily maintained product. CMAP is the sensible choice.

The basic CMAP system is made of two configurable modules. Module one is the air preparation module consisting of filter/regulators, gauges and drains. Module two is the control valve module consisting of many different variations of 3-way control valves. See page 17.

## CONSTRUCTION:

### Balanced Spool

The forces required to actuate the plunger are unaffected by pressures being controlled assuring positive shifting throughout the entire range.

### Wafer Sealing

Wafer type elastomer sealing provides leakproof operation throughout entire pressure range. The wafer/wiper style seal also provides a low friction profile.

### Large Diameter Pilot

Large diameter pilot piston produces high shifting forces in Versa C-316 pilot and Solenoid actuated applications assuring a positive shifting force. The U cup offers friction free sealing for a positive shift.

### Epoxy Molded Coil

Epoxy molding offers moisture resistance and heat dissipation in the toughest applications.

### Air-Assisted Spring Return

Air boosts spring for positive valve return.

### Investment Cast Stainless Steel

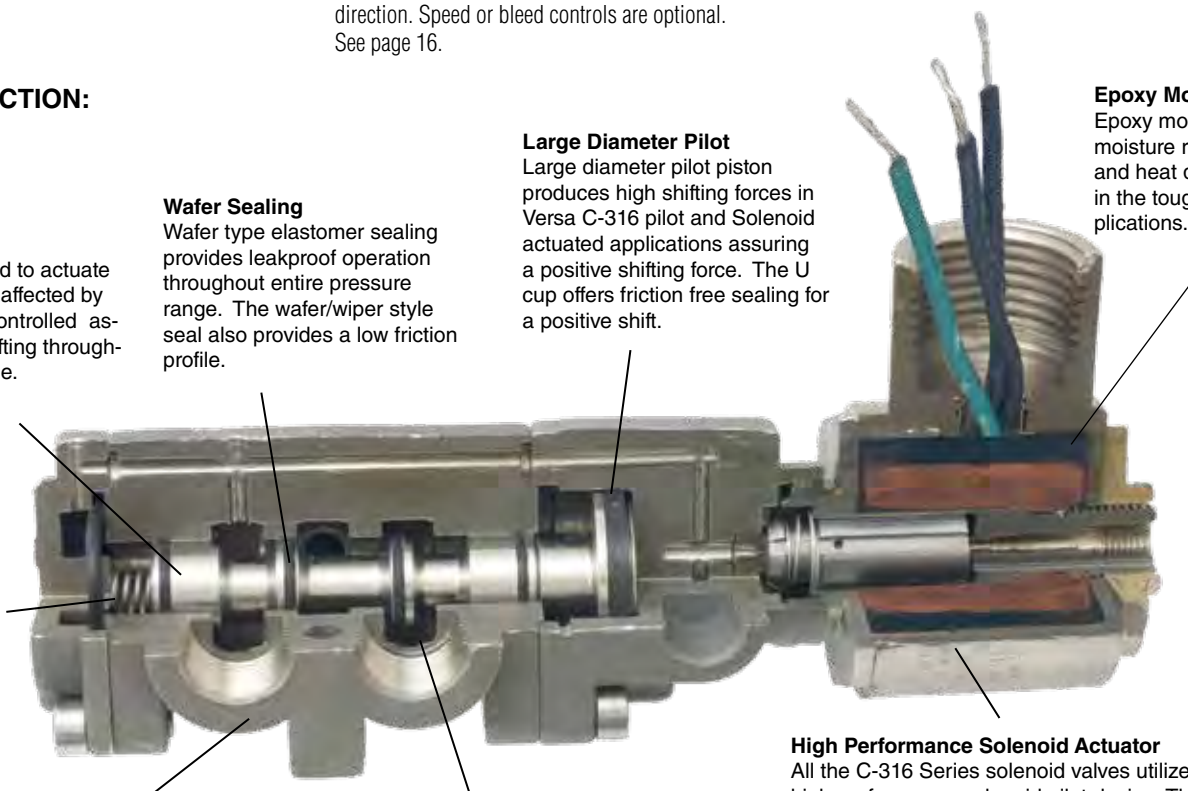
316 stainless steel components utilized for superior corrosion protection in the harshest environments. Investment cast components offer a first class finish while providing weight savings and superior flow.

### Fully Ported – High Flow

Internal flow area equal to or greater than the area of the corresponding pipe/tube size.

### High Performance Solenoid Actuator

All the C-316 Series solenoid valves utilize a high performance solenoid pilot design. This design utilizes available media pressure/force to shift valve assuring positive shifting. This design also produces the lowest wattage requirements in the industry.



# THE C-316 SERIES

## Specifications

<b>Flow Rate:</b>	Cv = 2.0
NAMUR	Cv = 1.6
CMAF	Cv = 1.5
<b>Port Size:</b>	Inlet, cylinder and exhaust: 1/4" NPT
<b>Media:</b> C-316	Pneumatic*
CMAF	Pneumatic
<b>Pilot:</b>	Inpilot & Exipilot solenoid valves
<b>Temperature:</b>	-5 to 200°F (-20 to 93° C), Media and ambient
Low Temp (-44 option) Manual:	-20 to 200°F (-29 to 93°C), Media and ambient
Pilot:	-55 to 200°F (-48 to 93°C), Media and ambient
Solenoid:	-40 (-40°C) to Max based on solenoid type

\*For hydraulic service consult factory

<b>Materials:</b>	316L stainless steel
<b>Valve body and internal parts:</b>	316L stainless steel
<b>Actuator caps:</b>	FKM (fluorocarbon)
<b>Valve seals:</b>	Low Temp Nitrile ("44")
Option	Stainless steel
<b>Screws:</b>	304, 430F and 302 stainless steel
<b>Solenoid internal parts:</b>	Depends on coil selected, see page 19
<b>Solenoid Coil housing:</b>	

Operating Pressure		
Valve Function	Minimum psi (bar)	Maximum psi (bar)
Single Solenoid Spring Return	25 (1.8)	150* (10.3)
Dual Solenoid Detent	15 (1.0)	150* (10.3)
Exipilot Spring Return (with and without strong spring -S)	See Controlled (inlet) Pressure chart below	

\*Exhaust restriction recommended for operating pressures over 125 psi (8.6 bar)

Pilot Operated Spring Return	Controlled (inlet) Pressure															
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
	25	1.7	30	1.2	50	3.4	70	4.8	90	6.2	110	7.6	130	9.0	150	10.3
Minimum Pilot Pressure Required	19	1.3	20	1.4	27	1.9	33	2.3	40	2.8	46	3.2	52	3.6	59	4.1

Repair kits		Repair Kit Number		
Prefix No.	Suffix No.	3-Way	4-Way	NAMUR
CAG, CGA	136PE	C-3301-316-356AN	C-4302-316-356AN	*
CAP, CPA				
CZA, CAZ	314E 357E	C-3301-316-AZ	C-4302-316-AZ	*
CSI, CIS	Standard			
CSA, CAS	357E	C-3301-316-S	C-4302-316-S	*
CSC, CCS	Standard			
CAI, CIA	150E			
CZI, CIZ	Standard	C-3301-316-ZI	C-4302-316-ZI	*
CAI, CIA	173E			
CAG, CGA	356B	C-3321-316-356AN	C-4322-316-356AN	*
CAG, CGA				
CAP, CPA	356BN	C-3321-316-356BN	C-4322-316-356BN	*
CGG, CPP		C-3321-316-GG	C-4322-316-GG	C-4322-316-GG-NE
CSP, CPS	Standard	C-3321-316-SG	C-4322-316-SP	*
CSG, CGS		C-3321-316-SG		C-4322-316-SG-NE
CAP, CPA	314E	C-3301-316-AP	C-4302-316-AP	*
CSA, CAS	314E	C-3301-316-SI	C-4302-316-SI	*
CIZ	LOV	C-3301-316-ZI-LOV	C-4302-316-ZI-LOV	*

\*For NAMUR valve repair kits contact factory.

## SELECTOR CHART & PRODUCT NUMBERING

Each letter and digit in the product number of a Versa Valve has a significant meaning, as explained below.

C		S	G			3	3	2	1			316	XX		A120				
Valve Series	ACTUATING DEVICES				Function (see Spool Details)	Port Size	Type of Body	Spool Details (flow pattern)			Material	Suffix Details							
	Left Side*	Right Side*										Mechanical	Electrical						
Series C-316 Valves	A	<b>Combination Actuators</b> 136PE, -150E, -173E, -314E, -356B, -356BN, -357E <b>see suffix column</b>			2* Two-Way 2/2	3 1/4" NPT	0 Exipilot Body with threaded side-ports (for Manual, Pilot and Exipilot solenoid actuated valves)	Three-Way 3/2 Valves 1 Normally Closed 2 Normally Open	'316' indicates that the basic construction material for valve parts is AISI 316 Stainless Steel (Conforms to NACE Standard MR-01-75)	-CA3 CMAP identifier	<b>Electrical</b> -HT High Temp coil -LA 0.85 Watt coil -LB 1.8 Watt coil -PC NEMA 4/4X -ST Stainless steel coil housing -U Upright solenoid end cap -XDB_ Stainless Steel housing, multi agency approvals -XX NEMA 7 & 9 -XN ATEX <b>See page 18</b> for Suffix specifications  <b>Rating Code:</b> A= 60Hz frequency D= Direct Current (DC) E= 50Hz frequency Three numbers follow the Rating Code to indicate voltage:  <b>Examples:</b> <table><tr><th>Voltage</th><th>Code</th></tr><tr><td>24V60 =</td><td>024</td></tr><tr><td>120V60 =</td><td>120</td></tr><tr><td>24VDC =</td><td>024</td></tr></table> <b>See Page 19</b> for specific coil and codes.	Voltage	Code	24V60 =	024	120V60 =	120	24VDC =	024
	Voltage	Code																	
	24V60 =	024																	
	120V60 =	120																	
	24VDC =	024																	
C	Cam Operator			3 Three-Way 3/2		2 Inpilot Body with threaded side-ports with internal drilling to supply inlet pressure to Solenoid-pilot actuator	Four-Way 5/2 Valves 2 2-Position	-NE_ NAMUR valve with 316 mounting screws, -NE1 10-28 -NE2 10-32 -NE3 M5											
G	Solenoid-pilot			4 Four-Way 5/2		3 Inpilot Manifold mounted with internal drilling to supply inlet pressure to Solenoid-pilot actuator. NAMUR Valve		-DG Dust Proof											
I	Hand Button (for panel mounting)							-44 Low Temperature seals											
P	Pressure-Pilot							-U Up Right coil housing											
S	Spring Return (spring pushes valve spool)							-ME Override, momentary contact <b>Page 15</b>											
Z	2-Position Detent (for 2-position manually operated valves)							<b>Tagging</b> -NV28A, Stainless steel ID tag; see <b>Page 15</b>											
		*NOTE "S" above is on left end of valve looking at inlet  "G" above is on right end of valve looking at inlet						<b>Combination Actuators</b> -136PE Palm Button, Spring Return <b>Page 6 &amp; 8</b> -150E Pilot-2-Position Detent <b>Page 9</b> -173E Solenoid, 2-Position Detent <b>Page 6</b> -314E Key Operated Actuator <b>Page 12-13</b> -356B Button Actuator W/ Latch – Reset <b>Page 7</b> -356BN Actuator W/ Latch – Reset No Button <b>Page 7, 9 &amp; 16</b> -357E Rotary Switch-2-Position Detent <b>Page 11-12</b>											



# THE C-316 SERIES

## 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

North American (-XX) (Cont.)	
Combination Suffix	Included Suffix
-XXK	-XX, -HT, -LB, -PC, -ST
-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

ATEX (XN) (Cont.)	
Combination Suffix	Included Suffix
-XNL4	-XN, -D14, -PC
-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 5)



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" wire 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

# Electrical

## 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

## HAZARDOUS LOCATION OPERATORS

	Suffix Identification	Protection Classification	Area Classification and (Gas Grouping)	Certification- (Conformance)	Ingress Protection
	-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 4 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	P65 & IP66
	-LB-XN			IECEX ATEX	
See page 4 for recommended options					
	-XDBS*	(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	IP66, IP67, & IP68
	-XDBT*			CSA	
See page 4 for recommended options					
	-XMAA -XMAE -XMAF -XMAG	(mb) Encapsulation (e) Increased Safety (tD) Tight Dust	Ex e mb II T5, T6 Gb Ex tD A21 T100°C, T85°C Db  II 2 G Ex e mb II T5, T6 II 2D Ex tD A21 T100°C, T85°C	IECEX	IP66 & IP67
	-XMFA -XMFE -XMFF -XMFG			ATEX	
	-XIFA -XIFE -XIFF	(ia) Intrinsic Safe	Ex (ia) IIC T4...T6 Gb Ex (ia) IIIC T130°C, T80°C Db  II 2 G Ex ia IIC T4...T6 II 2 D Ex iaD 21 T130°C, T80°C	IECEX  ATEX	IP66 & IP67
			-XISX6	II 2 G EEx ia IIC T6	ATEX
-XISC		Intrinsic Safe	Class I, Groups (A, B, C & D) Class II, Groups (E, F, &G) Class III	Factory Mutual CSA	

\* -U (up right coil cap) Recommended for use with -XDB\_, -XMA\_, -XMF\_ & XIF\_ coils on NAMUR valves for mounting clearance.  
See page 5 for dimensions.

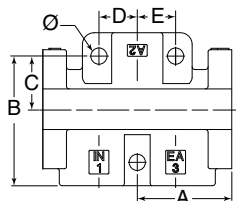
PRODUCT NUMBER COIL CODES: Complete product numbers require, when applicable, a coil code that represents the desired coil current type, frequency and voltage. The coil code takes the form shown below, with ratings and voltage substituted as required.

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

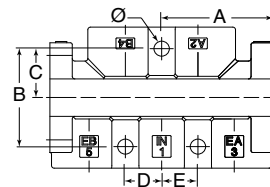
	<b>Voltage (Power)</b>	<b>Electrical Characteristics</b>	<b>Miscellaneous</b>																																		
	All usual 50 Hz & 60 Hz AC (6W) All usual DC (7W)	Class F epoxy molded coil (155°C). Continuous duty, 2 leads 24" (60 cm).	Steel cover with 1/2 NPT conduit entry.																																		
	24V60, 120V60, 240V60 (8.5W) 24V50, 110V50, 220V50 (8.5W) 12VDC, 24VDC, 48VDC (10.5W)	Class F epoxy molded coil (155°C), with 3 spade terminals. Continuous duty.	Mini DIN socket with PG9 cable gland (-HC) or 1/2" conduit connection (-HCC).																																		
	<b>Voltage (Power)</b>	<b>Electrical Characteristics</b>	<b>Miscellaneous</b>																																		
	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 stainless steel (182FM) coil housing add: (-ST)																																		
	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 stainless steel (182FM ) coil housing add: (-ST) 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 stainless steel (182FM) coil housing add: (-ST)																																		
	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 stainless steel (182FM) coil housing add: (-ST) Maximum pilot pressure 120 psi (8 bar) 1.8W nominal power.																																		
	24VDC (D024) 120V60 (A120) 110V50 (E110) 230V50 (E230)  1.8 Watt standard, for lower watt contact factory.	Epoxy molded coils rated for continuous duty, Class H, 180°C.	<table><tr><td rowspan="2">Stainless steel coil housing with internal Junction Box. Internal and external ground screw.</td><td colspan="4">Suffix Detail Ordering Code</td></tr><tr><td colspan="2">M 20 Connection</td><td colspan="2">½" Connection</td></tr><tr><td></td><td>No Diode</td><td>Diode</td><td>No Diode</td><td>Diode</td></tr><tr><td>Standard (vent to atmosphere)</td><td>XDBS1</td><td>XDBS5</td><td>XDBT1</td><td>XDBT5</td></tr><tr><td>1/8" Adapter (-H2E)</td><td>XDBS2</td><td>XDBS6</td><td>XDBT2</td><td>XDBT6</td></tr><tr><td>1/4" Adapter (-HE)</td><td>XDBS3</td><td>XDBS7</td><td>XDBT3</td><td>XDBT7</td></tr><tr><td>Dust Nut (-L14)</td><td>XDBS4</td><td>XDBS8</td><td>XDBT4</td><td>XDBT8</td></tr></table>	Stainless steel coil housing with internal Junction Box. Internal and external ground screw.	Suffix Detail Ordering Code				M 20 Connection		½" Connection			No Diode	Diode	No Diode	Diode	Standard (vent to atmosphere)	XDBS1	XDBS5	XDBT1	XDBT5	1/8" Adapter (-H2E)	XDBS2	XDBS6	XDBT2	XDBT6	1/4" Adapter (-HE)	XDBS3	XDBS7	XDBT3	XDBT7	Dust Nut (-L14)	XDBS4	XDBS8	XDBT4	XDBT8
Stainless steel coil housing with internal Junction Box. Internal and external ground screw.	Suffix Detail Ordering Code																																				
	M 20 Connection		½" Connection																																		
	No Diode	Diode	No Diode	Diode																																	
Standard (vent to atmosphere)	XDBS1	XDBS5	XDBT1	XDBT5																																	
1/8" Adapter (-H2E)	XDBS2	XDBS6	XDBT2	XDBT6																																	
1/4" Adapter (-HE)	XDBS3	XDBS7	XDBT3	XDBT7																																	
Dust Nut (-L14)	XDBS4	XDBS8	XDBT4	XDBT8																																	
	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), (-XMFA), Cable gland for 6-12 mm ø cable: (-XMAE), (-XMFE) 1/2 NPT conduit entry with adapter: (-XMAF), (-XMFF) Cable gland for 9-16 mm ø cable: (-XMAG), (-XMFG)																																		
	24VDC (10W inrush, 4 W holding) (Consult factory for other voltages)	Continuous duty. Coil & power controller potted with in housing.																																			
	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)																																		
	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)																																		

# THE C-316 SERIES

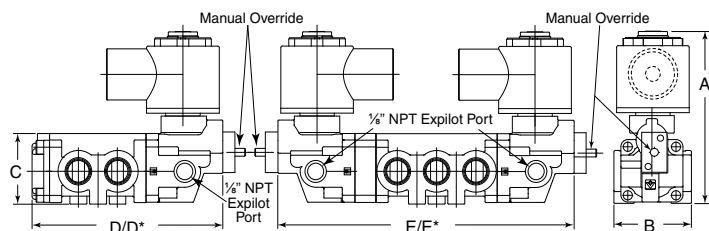
## Mounting Hole Dimensions Side Ported Valves



Mounting Hole Dimensions	A 3-Way	A 4-Way	B	C	D	E	Ø
Inches	1.0	1.25	1.13	0.56	0.41	0.41	0.17
mm	25.4	31.8	28.6	14.3	10.3	10.3	4.4



## Optional Upright Coil Housing



Available as an option on side ported valves.


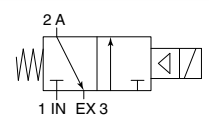
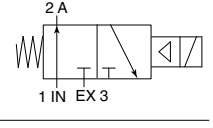
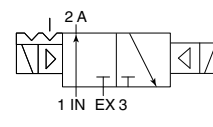
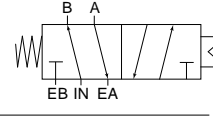

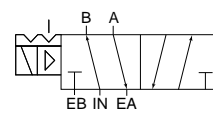
Recommended for use with -XDB\_, -XMA\_, -XMF\_ & XIF\_ coils on NAMUR valves for mounting clearance.

	A	B	C	D 3-Way	D* 4-Way	E 3-Way	E* 4-Way
<b>Side Ported</b>							
Inches	2.8	1.62	1.42	5.41	5.91	8.53	9.0
mm	72.1	41.1	36.1	137.5	150.1	217	288.6
<b>NAMUR</b>							
Inches	2.8	1.63	1.44	4.14	4.14	7.25	7.25
mm	72.1	41.3	36.6	105.2	105.2	184.2	184.2

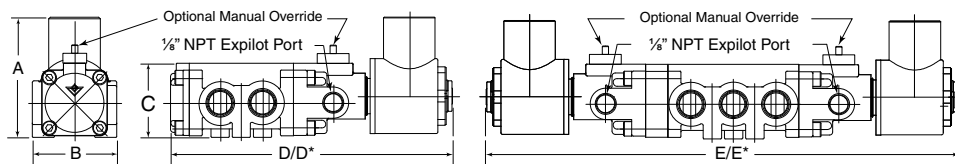
Solenoid shown is hazardous location type -XX. For more options see page 18.

## Body Ported Valves

### SOLENOID OPERATED

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Solenoid Spring Return	Inpilot	CSG-3321-316-(* )	1.6 lbs 0.7 kg	
			Expilot	CSG-3301-316-(* )		
	3-Way 2-Position Normally Open 3/2	Single Solenoid Spring Return	Inpilot	CGS-3322-316-(* )	1.6 lbs 0.7 kg	
			Expilot	CGS-3302-316-(* )		
	3-Way 2-Position 3/2	Double Solenoid Detent	Inpilot	CGG-3321-316-(* )	2.5 lbs 1.1 kg	
			Expilot	CGG-3301-316-(* )		
	4-Way 2-Position 5/2	Single Solenoid Spring Return	Inpilot	CSG-4322-316-(* )	1.7 lbs 0.8 kg	
			Expilot	CSG-4302-316-(* )		
	4-Way 2-Position 5/2	Double Solenoid Detent	Inpilot	CGG-4322-316-(* )	2.6 lbs 1.2 kg	
			Expilot	CGG-4302-316-(* )		

\* Add solenoid/coil voltages (page 19) & Suffix from Selector Chart (page 3)



Solenoid shown is hazardous location type -XX. For more options see page 18.


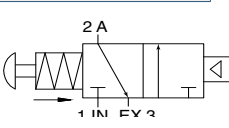

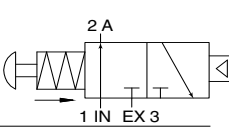

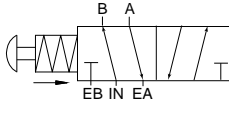
	A	B	C	D 3-Way	D* 4-Way	E 3-Way	E* 4-Way
Inches	2.8	1.62	1.42	5.41	5.91	8.53	9.0
mm	72.1	41.1	10.3	137.5	150.1	217	288.6



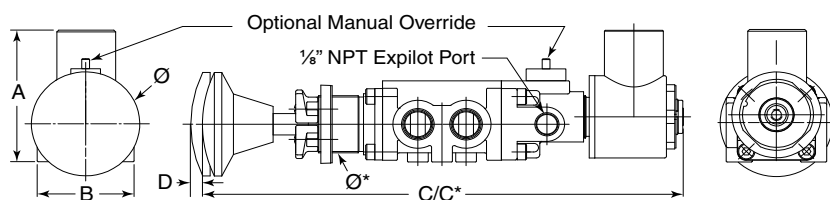
# THE C-316 SERIES

## Body Ported Valves

### SOLENOID, PALM BUTTON with SPRING RETURN

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Solenoid Palm Button Spring Return	Inpilot	CAG-3321-316-136PE-(* )	2.0 lbs 0.9 kg	
			Expilot	CAG-3301-316-136PE-(* )		
	3-Way 2-Position Normally Open 3/2	Single Solenoid Palm Button Spring Return	Inpilot	CGA-3322-316-136PE-(* )	2.0 lbs 0.9 kg	
			Expilot	CGA-3302-316-136PE-(* )		
	4-Way 2-Position 5/2	Single Solenoid Palm Button Spring Return	Inpilot	CAG-4322-316-136PE-(* )	2.1 lbs 1.0 kg	
			Expilot	CAG-4302-316-136PE-(* )		

\* Add solenoid/coil voltages (page 19) & Suffix from Selector Chart (page 3)


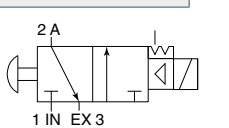

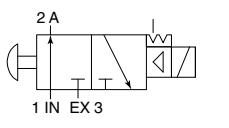

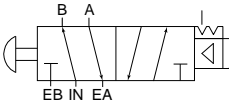


	A	B	C 3-Way	C* 4-Way	D Travel	Ø	Ø*
Inches	2.3	1.62	8.08	8.58	.20	1.81	1.0
mm	58.4	41.2	205.2	217.9	5.08	46	25.4

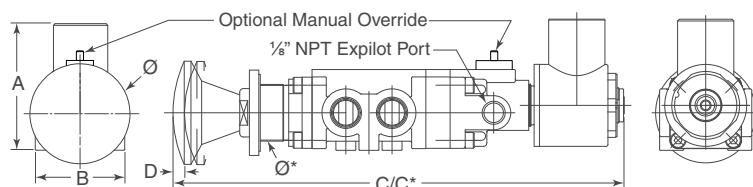
For mounting hole dimensions see page 5

Solenoid shown is hazardous location type -XX. For more options see page 18.  
Manual override see page 15

### SINGLE SOLENOID, PALM BUTTON with DETENT

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Solenoid Detent with Button	Inpilot	CIA-3321-316-173E-(* )	2.1 lbs 1.0 kg	
			Expilot	CIA-3301-316-173E-(* )		
	3-Way 2-Position- Normally Open 3/2	Single Solenoid Detent with Button	Inpilot	CAI-3322-316-173E-(* )	2.1 lbs 1.0 kg	
			Expilot	CAI-3302-316-173E-(* )		
	4-Way 2-Position 5/2	Single Solenoid Detent with Button	Inpilot	CAI-4322-316-173E-(* )	2.2 lbs 1.0 kg	
			Expilot	CAI-4302-316-173E-(* )		

\* Add solenoid/coil voltages (page 19) & Suffix from Selector Chart (page 3)



	A	B	C 3-Way	C* 4-Way	D Travel	Ø	Ø*
Inches	2.3	1.62	7.92	8.42	.20	1.81	1.0
mm	58.4	41.2	201.2	213.8	5.08	46	25.4


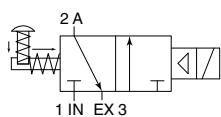

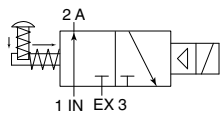

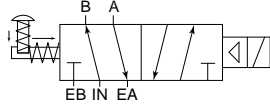
For mounting hole dimensions see page 5

Solenoid shown is hazardous location type -XX. For more options see page 18.  
Manual override see page 15

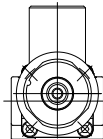
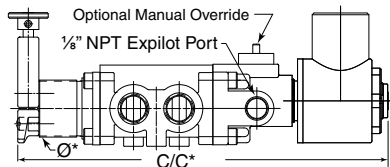
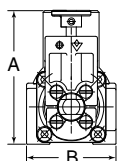
# THE C-316 SERIES

## Body Ported Valves

### LATCHING, SINGLE SOLENOID, SPRING RETURN without PALM BUTTON

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Solenoid Spring Return	Inpilot	CAG-3321-316-356BN-(* )	1.9 lbs 0.9 kg	
			Expilot	CAG-3301-316-356BN-(* )		
	3-Way 2-Position- Normally Open 3/2	Single Solenoid, Latching Reset	Inpilot	CGA-3322-316-356BN-(* )	1.9 lbs 0.9 kg	
			Expilot	CGA-3302-316-356BN-(* )		
	4-Way 2-Position 5/2	Single Solenoid Latching Reset	Inpilot	CAG-4322-316-356BN-(* )	2.0 lbs 0.9 kg	
			Expilot	CAG-4302-316-356BN-(* )		

\* Add solenoid/coil voltages (page 19) & Suffix Details from Selector Chart (page 3 )


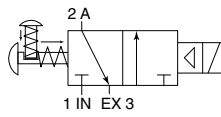

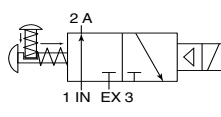

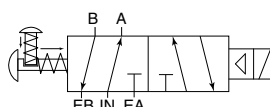


	A	B	C 3-Way	C* 4-Way	Ø*
Inches	2.3	1.62	6.5	7.0	1.0
mm	58.4	41.2	165	177.8	25.4

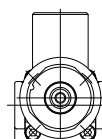
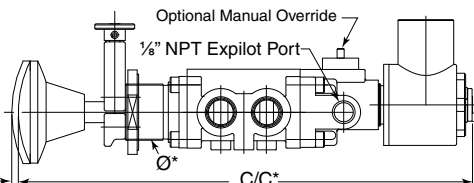
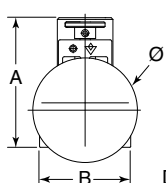
Solenoid shown is hazardous location type -XX. For more options see page 18.  
Manual override see page 15

For mounting hole dimensions see page 5

### LATCHING, SINGLE SOLENOID, SPRING RETURN with PALM BUTTON

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Sole- noid, Latching Reset with Button	Inpilot	CAG-3321-316-356B-(* )	2.0 lbs 0.9 kg	
			Expilot	CAG-3301-316-356B-(* )		
	3-Way 2-Position- Normally Open 3/2	Single Sole- noid, Latching Reset with Button	Inpilot	CGA-3322-316-356B-(* )	2.0 lbs 0.9 kg	
			Expilot	CGA-3302-316-356B-(* )		
	4-Way 2-Position 5/2	Single Sole- noid, Latching Reset with Button	Inpilot	CAG-4322-316-356B-(* )	2.1 lbs 1.0 kg	
			Expilot	CAG-4302-316-356B-(* )		

\* Add solenoid/coil voltages (page 19) & Suffix from Selector Chart (page 3 )



	A	B	C 3-Way	C* 4-Way	D Travel	Ø	Ø*
Inches	2.3	1.62	8.08	8.58	.20	1.81	1.0
mm	58.4	41.2	205.2	217.9	5.08	46	25.4


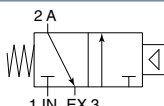

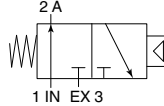

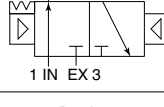
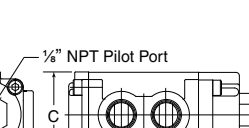
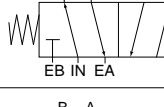


Solenoid shown is hazardous location type -XX. For more options see page 18.  
Manual override see page 15

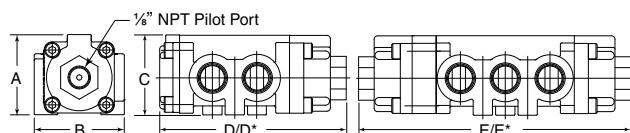
For mounting hole dimensions see page 5

# THE C-316 SERIES

## Body Ported Valves

### PILOT OPERATED


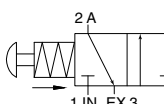

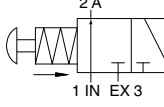
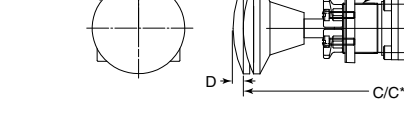
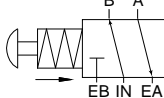
Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Pilot Spring Return	Remote Pilot	CSP-3301-316	1.0 lbs 0.5 kg	
	3-Way 2-Position- Normally Open 3/2	Single Pilot Spring Return	Remote Pilot	CPS-3302-316	1.0 lbs 0.5 kg	
	3-Way 2-Position 3/2	Double Pilot Detent	Remote Pilot	CPP-3301-316	1.3 lbs 0.6 kg	
	4-Way 2-Position 5/2	Single Pilot Spring Return	Remote Pilot	CSP-4302-316	1.0 lbs 0.5 kg	
	4-Way 2-Position 5/2	Double Pilot Detent	Remote Pilot	CPP-4302-316	1.4 lbs 0.6 kg	

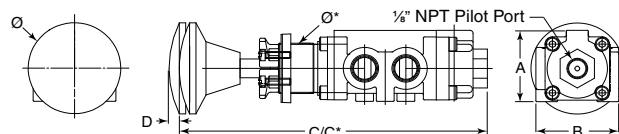


	A	B	C	D 3-Way	D* 4-Way	E 3-Way	E* 4-Way
Inches	2.8	1.62	1.42	3.36	3.86	4.43	4.94
mm	72.1	41.1	10.3	85	98	112.4	125.4

For mounting hole dimensions see page 5

### PILOT, PALM BUTTON with SPRING RETURN

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Pilot Palm Button Spring Return	Remote Pilot	CAP-3301-316-136PE	1.3 lbs 0.6 kg	
	3-Way 2-Position- Normally Open 3/2	Single Pilot Palm Button Spring Return	Remote Pilot	CPA-3302-316-136PE	1.3 lbs 0.6 kg	
	4-Way 2-Position 5/2	Single Pilot Palm Button Spring Return	Remote Pilot	CAP-4302-316-136PE	1.4 lbs 0.6 kg	




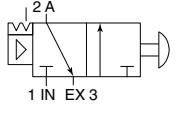
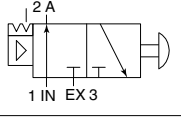

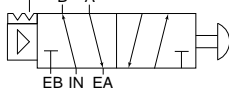
	A	B	C 3-Way	C* 4-Way	D Travel	Ø	Ø*
Inches	2.3	1.62	7.88	8.38	.20	1.81	1.0
mm	58.4	41.2	200.1	212.9	5.08	46	25.4

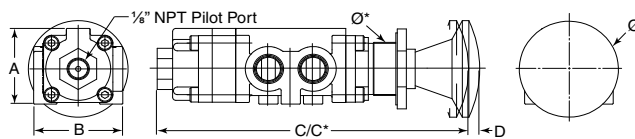
For mounting hole dimensions see page 5

# THE C-316 SERIES

## Body Ported Valves

### PILOT, PALM BUTTON with DETENT


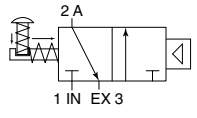
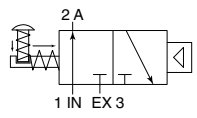
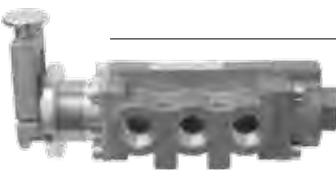
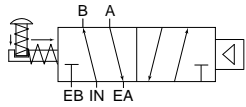
Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Pilot Detent with Button	Remote Pilot	CAI-3301-316-150E	1.5 lbs 0.7 kg	
	3-Way 2-Position- Normally Open 3/2	Single Pilot Detent with Button	Remote Pilot	CIA-3302-316-150E	1.5 lbs 0.7 kg	
	4-Way 2-Position 5/2	Single Pilot Detent with Button	Remote Pilot	CAI-4302-316-150E	1.6 lbs 0.7 kg	

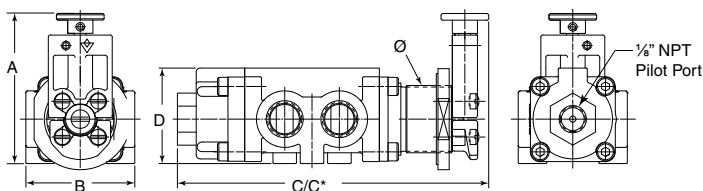


	A	B	C 3-Way	C* 4-Way	D Travel	Ø	Ø*
Inches	1.42	1.62	5.86	6.36	.20	1.81	1.0
mm	36.1	41.2	149	161.4	5.08	46	25.4

For mounting hole dimensions see page 5

### LATCHING, PILOT, SPRING RETURN without PALM BUTTON

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Pilot, Latching, Spring Return	Remote Pilot	CAP-3301-316-356BN	1.3 lbs 0.6 kg	
	3-Way 2-Position- Normally Open 3/2	Pilot, Latching Spring Return	Remote Pilot	CPA-3302-316-356BN	1.3 lbs 0.6 kg	
	4-Way 2-Position 5/2	Pilot, Latching Spring Return	Remote Pilot	CAP-4302-316-356BN	1.4 lbs 0.6 kg	




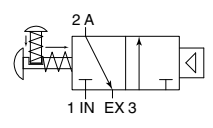

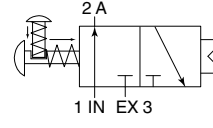

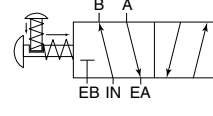
	A	B	C 3-Way	C* 4-Way	Ø
Inches	2.23	1.42	4.36	4.86	1.81
mm	56.6	36.1	117.5	123.4	46

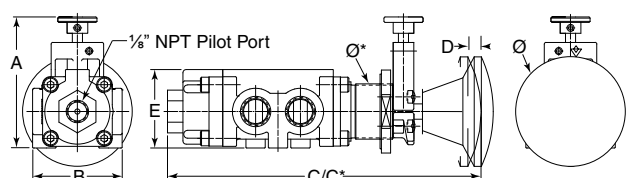
For mounting hole dimensions see page 5

# THE C-316 SERIES

## Body Ported Valves

### LATCHING, PILOT, SPRING RETURN with PALM BUTTON


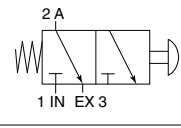

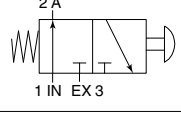

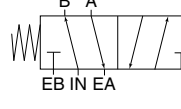
Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Pilot, Latching Reset with Palm Button	Remote Pilot	CAP-3301-316-356B	1.4 lbs 0.6 kg	
	3-Way 2-Position- Normally Open 3/2	Pilot, Latching Reset with Palm Button	Remote Pilot	CPA-3302-316-356B	1.4 lbs 0.6 kg	
	4-Way 2-Position 5/2	Pilot, Latching Reset with Palm Button	Remote Pilot	CAP-4302-316-356B	1.5 lbs 0.7 kg	

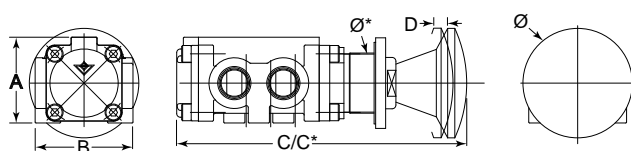


	A	B	C 3-Way	C* 4-Way	D Travel	E	Ø	Ø*
Inches	2.23	1.62	8.08	8.58	.20	2.3	1.81	1.0
mm	56.6	41.2	205.2	217.9	5.08	58.4	46	25.4

For mounting hole dimensions see page 5

### MANUAL, PALM BUTTON, SPRING RETURN

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Palm Button Spring Return	NA	CSI-3301-316	1.1 lbs 0.5 kg	
	3-Way 2-Position- Normally Open 3/2	Palm Button Spring Return	NA	CIS-3302-316	1.1 lbs 0.5 kg	
	4-Way 2-Position 5/2	Palm Button Spring Return	NA	CSI-4302-316	1.3 lbs 0.6 kg	



	A	B	C 3-Way	C* 4-Way	D Travel	Ø	Ø*
Inches	2.3	1.62	8.08	8.58	.20	1.81	1.0
mm	58.4	41.2	205.2	217.9	5.08	46	25.4


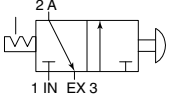
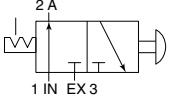

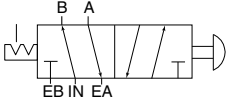
For mounting hole dimensions see page 5

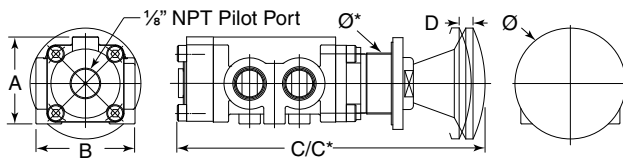


# THE C-316 SERIES

## Body Ported Valves

### MANUAL, PALM BUTTON, DETENTED


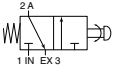
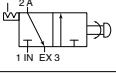
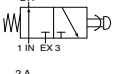
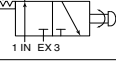

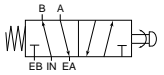
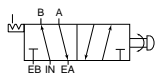
Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Palm Button Detent	NA	CZI-3301-316	1.3 lbs 0.6 kg	
	3-Way 2-Position- Normally Open 3/2	Palm Button Detent	NA	CIZ-3302-316	1.3 lbs 0.6 kg	
	4-Way 2-Position 5/2	Palm Button Detent	NA	CZI-4302-316	1.4 lbs 0.6 kg	

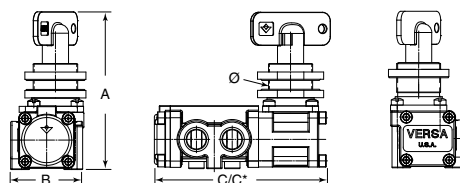


	A	B	C 3-Way	C* 4-Way	D Travel	Ø	Ø*
Inches	1.42	1.62	4.8	5.3	.20	1.81	1.0
mm	36.1	41.2	122	135	5.1	46	25.4

For mounting hole dimensions see page 5

### MANUAL, ROTARY, SPRING RETURN & DETENTED

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Spring Return  Detent	NA	CSA-3301-316-357E  CZA-3301-316-357E(*)	1.6 lbs 0.7 kg  1.8 lbs 0.8 kg	 
	3-Way 2-Position Normally Open 3/2	Spring Return  Detent	NA	CAS-3302-316-357E  CAZ-3302-316-357E(*)	1.6 lbs 0.7 kg  1.8 lbs 0.8 kg	 
	4-Way 2-Position 5/2	Spring Return  Detent	NA	CSA-4302-316-357E  CAZ-3302-316-357E(*)	1.8 lbs 0.8 kg  2.0 lbs 0.9	 




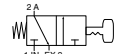


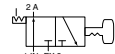

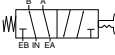

	A	B	C 3-Way	C* 4-Way	Ø
Inches	3.5	1.62	3.73	4.23	1.0
mm	90	41.2	95	107.4	25.4

For mounting hole dimensions see page 5

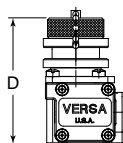
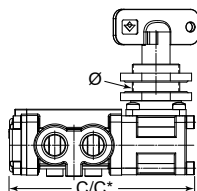
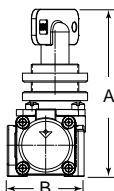
# THE C-316 SERIES

## Body Ported Valves

### MANUAL, KEY , SPRING RETURN & DETENT

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Spring Return	NA	CSA-3301-316-314E(*)	1.8 lbs 0.8 kg	
		Detent		CZA-3301-316-314E(*)	1.9 lbs 0.9 kg	
	3-Way 2-Position- Normally Open 3/2	Spring Return	NA	CAS-3302-316-314E(*)	1.8 lbs 0.8 kg	
		Detent		CAZ-3301-316-314E(*)	1.9 lbs 0.9 kg	
	4-Way 2-Position 5/2	Spring Return	NA	CSA-4302-316-314E(*)	2 lbs 0.9 kg	
		Detent		CAZ-4302-316-314E(*)		


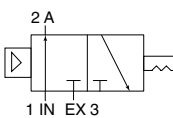
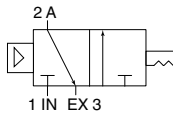
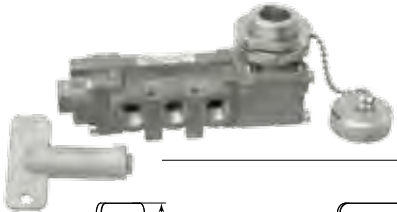
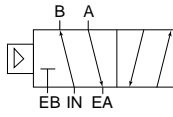
\*Key Number - Key number assigned by Versa



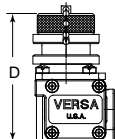
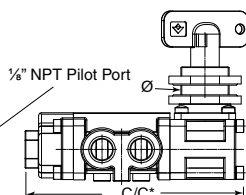
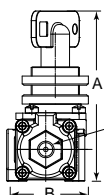
	A	B	C 3-Way	C* 4-Way	D	Ø
Inches	3.5	1.62	3.73	4.23	2.8	1.0
mm	90	41.2	95	107.4	71.3	24.5

For mounting hole dimensions see page 5

### MANUAL, KEY, PILOT RETURN

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Key Pilot Return	Remote Pilot	CPA-3301-316-314E(*)	2 lbs 0.9 kg	
	3-Way 2-Position Normally Open 3/2	Key Pilot Return	Remote Pilot	CAP-3302-316-314E(*)	2 lbs 0.9 kg	
	4-Way 2-Position 5/2	Key Pilot Return	Remote Pilot	CPA-4302-316-314E(*)	2 lbs 0.9 kg	

\*Key Number - Key number assigned by Versa




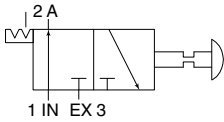

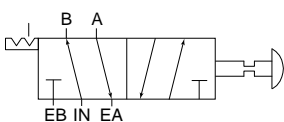
	A	B	C 3-Way	C* 4-Way	D	Ø
Inches	3.53	1.62	8.08	8.58	2.8	1.0
mm	90	41.2	205.2	217.9	71.3	24.5

For mounting hole dimensions see page 5

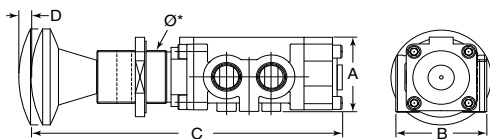
# THE C-316 SERIES

## Body Ported Valves

### MANUAL, LOCK - OUT

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Palm Button Detent	NA	CIZ-3301-316-LOVBE	1.3 lbs 0.6	
	4-Way 2-Position 5/2	Palm Button Detent	NA	CIZ-4302-316-LOVEE	1.4 lbs 0.6	


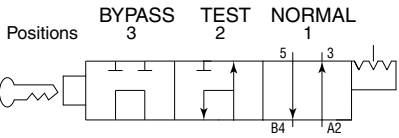
Note: locks not included

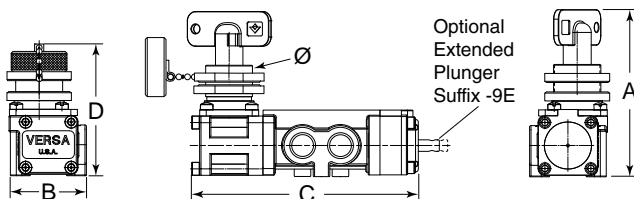


	A	B	C (3-Way)	C* (4-Way)	D (Travel)	Ø	Ø*
Inches	2.3	1.62	8.08	8.58	.20	1.81	1.0
mm	58.4	41.2	205.2	217.9	5.08	46	25.4

For mounting hole dimensions see page 5

### MANUAL, By Pass Valve

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	1/4" NPT* 4Way 3-Position	Key Operated	NA	CAU-430X-316-314E***-2039  (***) = key code assigned at factory) Add -9E Suffix Detail for Extended Plunger	2 lbs 0.9 kg	



	A	B	C	D*	E	Ø
Inches	3.53	1.62	5.14	4.7	2.8	1.0
mm	90	41.2	130	217.9	71.3	24.5

For mounting hole dimensions see page 5

The, basic valve is a 3 position manual valve. Operation is as follows:

Position 1. This position is the normal position or the regular operation mode.

Position 2. This position places the control circuit in the test mode. In this position the bypass valve allows pressure to the circuit for testing while maintaining pressure on the actuator. With pressure to solenoid inlet and solenoid circuit outlet blocked/isolated this position allows complete testing of solenoid circuit while not shutting down the system.


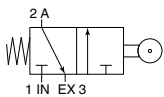
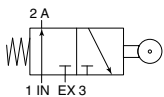

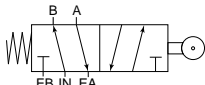
Position 3. This position places the control system in a replace mode. Should it be determined that a component in the control circuit needs to be repaired and or replaced this position allows total isolation from pressure while still holding system pressure to actuator.

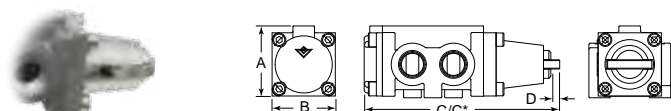
\*1/2" NPT available; part number: VAU-450X-316-314E507-2039. See V-316 Series.

# THE C-316 SERIES

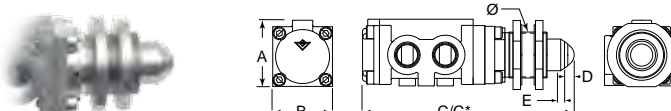
## Body Ported Valves

### MANUAL, CAM

Side Ported	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Cam Spring Return	NA	CSC-3301-316	1.0 lbs 0.5 kg	
	3-Way 2-Position Normally Open 3/2	Cam Spring Return	NA	CCS-3302-316	1.0 lbs 0.5 kg	
	4-Way 2-Position 5/2	Cam Spring Return	NA	CSC-4302-316	1.0 lbs 0.5 kg	



Standard Cam



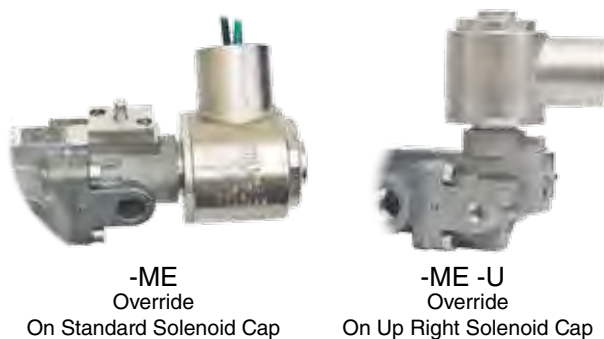
Over Travel Cam Suffix -18E

	A	B	C (3-Way)	C* (4-Way)	D (Travel)	E (Over Travel)	Ø
Inches	1.42	1.62	3.87	4.37	.20	0.19	1.0
mm	58.4	41.2	110.9	217.9	5.08	4.8	25.4

For mounting hole dimensions see page 5

## Options

### Override



### Solenoid Vent Options



### Stainless Steel Tag

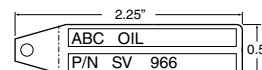
#### ORDERING INFORMATION

Order any B-316, C-316, T, V or V-316 valve. As a separate line item (listed directly under valve part number to be tagged) list the tag part number P- 2002-16-NV28A. In remarks field specify the tag marking instructions. If sequential numbering is required provide the start and end numbers required in the sequence for the appropriate number of valves.

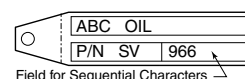
#### Engraving Options

Versa's engraved tags are available in two configurations.

Configuration one: is a simple text field consisting of two lines of text, 20 characters maximum per line. The text can be specified as alpha, numeric or both.




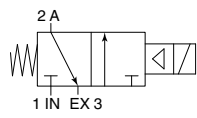

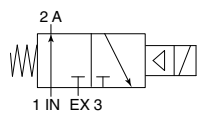

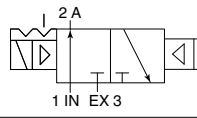

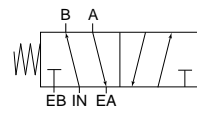

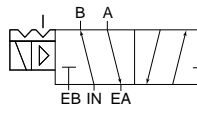
Configuration two: is a text field with sequential numbering added. This option includes two lines of text. Line one is text. Line two allows for sequentially numbering the tag, 20 characters maximum per line.



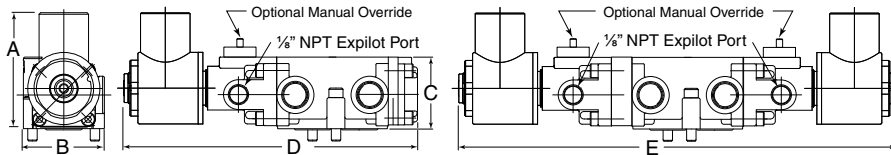
# THE C-316 SERIES NAMUR

Note:  
3-Way & 4-Way  
NAMUR valves  
look the same  
externally.

## NAMUR, SOLENOID OPERATED

NAMUR	Function	Actuation	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Single Solenoid Spring Return	Inpilot	CGS-3331-316-NE†-(* )	1.7 lbs 0.8 kg	
	3-Way 2-Position- Normally Open 3/2	Single Solenoid Spring Return	Inpilot	CSG-3332-316-NE†-(* )	1.7 lbs 0.8 kg	
	4-Way 2-Position 5/2	Double Solenoid Detent	Inpilot	CGG-3331-316-NE†-(* )	2.3 lbs 1.0 kg	
	4-Way 2-Position 5/2	Single Solenoid Spring Return	Inpilot	CGS-4332-316-NE†-(* )	1.7 lbs 0.8 kg	
	4-Way 2-Position 5/2	Double Solenoid Detent	Inpilot	CGG-4332-316-NE†-(* )	2.3 lbs 1.0 kg	


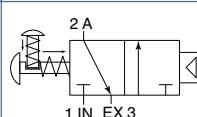

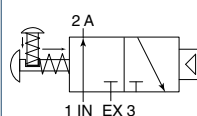

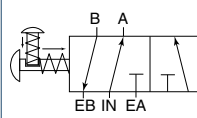
† Add mounting screw type from Selector Chart "Suffix" column (page 3) \* Add solenoid/coil voltages (page 19) & Suffix from Selector Chart (page 3).



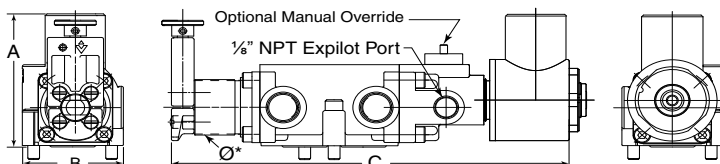
	A	B	C	D
Inches	2.3	1.62	5.7	8.8
mm	58.4	41.2	144	223

Solenoid shown is hazardous location type -XX. For more options see page 18. Manual override see page 15

## NAMUR LATCHING, SOLENOID, SPRING RETURN without PALM BUTTON

NAMUR	Function	Actuation**	Pilot Type	Part Number	Weight	Flow Symbol
	3-Way 2-Position Normally Closed 3/2	Pilot, Latching Reset without Button	Inpilot	CAG-3331-316-356BN-NE†-(* )	1.5 lbs 0.7 kg	
	3-Way 2-Position- Normally Open 3/2	Pilot, Latching Reset without Button	Inpilot	CGA-3332-316-356BN-NE†-(* )	1.5 lbs 0.7 kg	
	4-Way 2-Position 5/2	Single Solenoid, Latching Reset without Button	Inpilot	CAG-4332-316-356BN-NE†-(* )	1.5 lbs 0.7 kg	

† Add mounting screw type from Selector Chart "Suffix" column (page 3). \* Add solenoid/coil voltages (page 19) & Suffix from Selector Chart (page 5).



\*\*Consult  
factory for other  
configurations

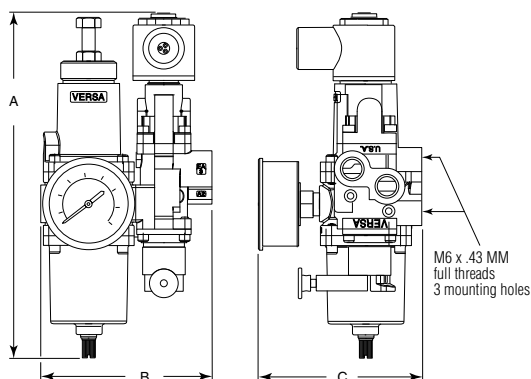
	A	B	C	Ø*
Inches	2.23	1.62	5.7	1
mm	56.6	41.2	144	25.4

Solenoid shown is hazardous location type -XX. For more options see page 18. Manual override see page 15



# THE C-316 SERIES

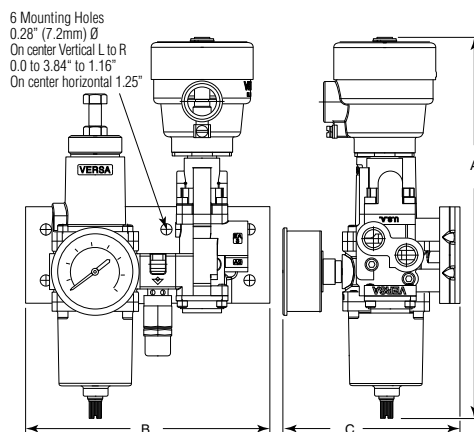
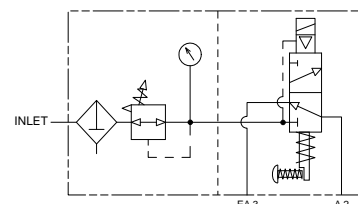
## CMAP Modular Air Package



	A	B	C
Inches	8.44	4.0	3.85
mm	214	101.6	97.9

### Bill of Materials

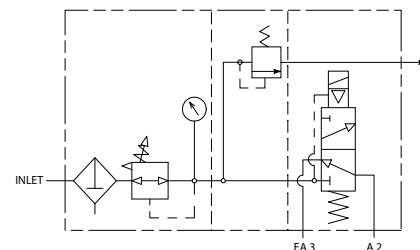
Description	Part Number
Regulator	ARFA-3111-316-CA3-GBG
Valve	CAG-3321-316-356BN-CA3-XX-A120



	A	B	C
Inches	9.39	6.0	3.85
mm	238	152.4	97.9

### Bill of Materials

Description	Part Number
Regulator	ARFA-3111-316-CA3-GBG
Valve	CSG-3321-316-CA3-XDBS1-A120
Spacer	CY-3209-32-316-CA3
Bracket	4302-99-316-CA3
Relief Valve	RV-3-316-100



### Air Prep Selection

Regulator, Filter and manual drain*	Description	Part Number		Weights	
		0-100 psi	0-150 psi	lbs	kg
	No gauge	ARFA-3112-316-CA3	ARFA-3111-316-CA3	2.7	1.22
	2" gauge liquid filled	ARFA-3112-316-CA3-GBG	ARFA-3111-316-CA3-GBG	2.9	1.32
	2 1/2" gauge liquid filled	ARFA-3112-316-CA3-GAG	ARFA-3111-316-CA3-GAG	2.9	1.32

### Valve Selection

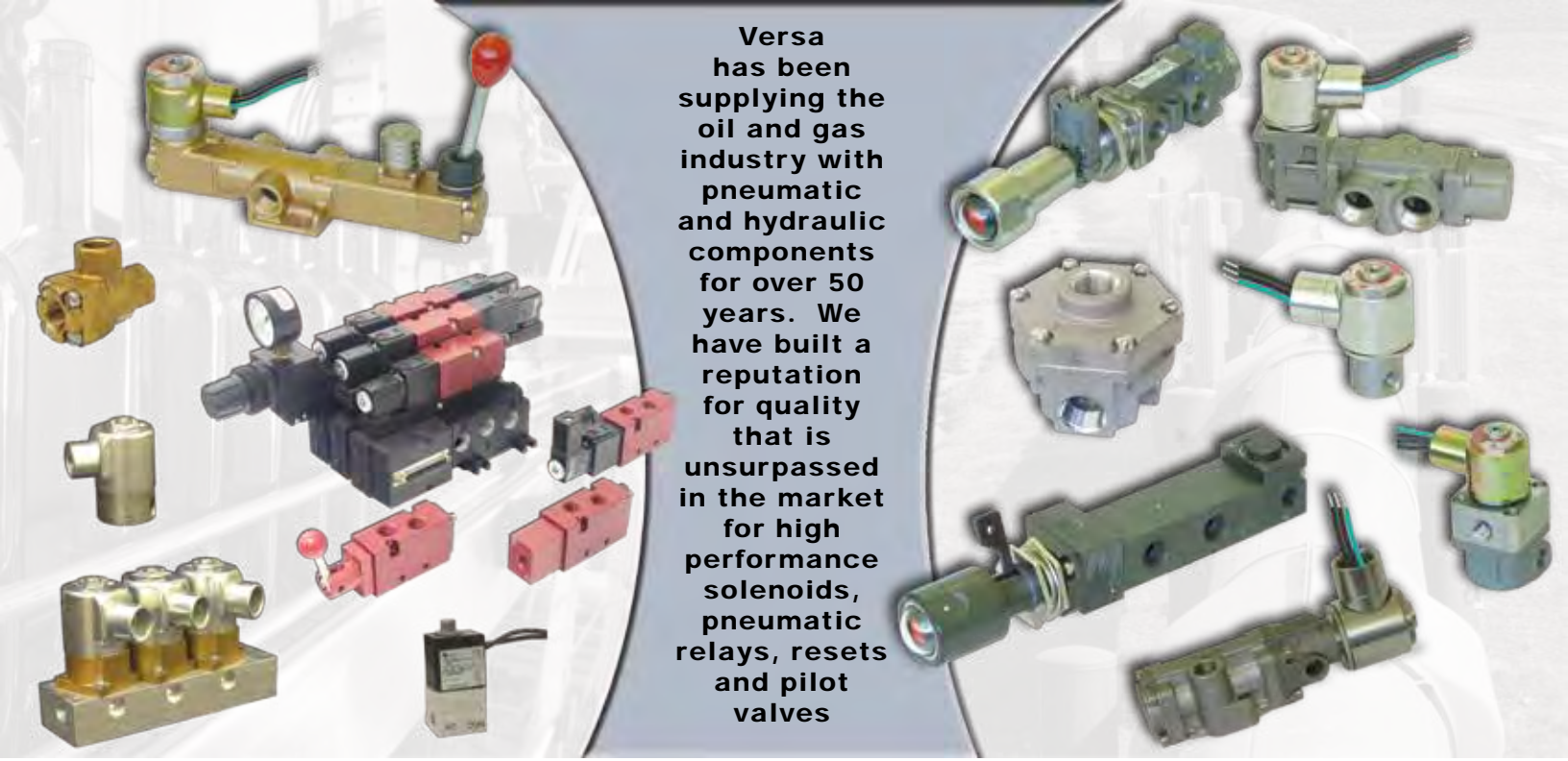
Description	Part Number		Weights ††	
	3-way, normally closed †	3-way, normally open †	lbs	Kg
3/2 Pilot, Spring Return	CSG-3321-316-CA3-**	CGS-3322-316-CA3-**	1.9	0.86
3/2 Double Pilot, detented	CGG-3321-316-CA3-**	CGG-3322-316-CA3-**	2.5	1.13
3/2 Pilot, spring return w/ latch	CAG-3321-316-CA3-356BN-**	CGA-3322-316-CA3-356BN-**	2.2	0.99
3/2 Pilot, spring return w/ latch and button	CAG-3321-316-CA3-356B-**	CGA-3322-316-CA3-356B-**	2.3	1.04
3/2 Pilot, spring return	CSP-3301-316-CA3	CPS-3302-316-CA3	1.3	0.59

### Accessories

Description	Part Number	Weights	
		lbs	kg
Mounting bracket	Add 4302-99-316-CA3 to bill of Material	0.5	0.23
Auxiliary port plate	Add CY-3209-32-316-CA3 to bill of Material	0.2	0.09
Relief Valve (also specify Aux port plate)	Add RV-3-316-*** to bill of Material	0.2	0.09
Speed Control, close only	Add suffix -BC3 to Control Valve p/n	0.1	0.05
Speed Control, both open closed	Add FCV-3-316 to bill of Material	0.5	0.23

### Notes:

\* For regulator auto drain, consult factory  
 \*\* Add voltage and Pilot options. See page 19  
 † For expilot change 3321 to 3301  
 †† Weight are for -XX type Pilots  
 \*\*\* Add set pressure, for example RV-3-316-080 for 80 psi



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that is  
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in the market  
for high  
performance  
solenoids,  
pneumatic  
relays, resets  
and pilot  
valves

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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.

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