

DIRECT MOUNT ACTUATOR VALVES

ALUMINUM CONSTRUCTION

SERIES C5 NAMUR

3-Way/4 Way Field Convertible Solenoid Valves

General Description

The Versa C5 NAMUR mount control valve is a high flow, 5-port, solenoid/pilot valve. It is designed to mount directly to any NAMUR actuator, thus reducing actuator response time and cost of tubing, fittings, brackets, and labor. Many adaptor kits are available for non-NAMUR actuators. Consult factory for kit availability.



The 5-port design allows the C5 NAMUR to be ordered as either 4-way (for double acting actuators) or 3-way (for spring return or fail-safe actuators). The function of this valve is field convertible utilizing no special tools, gaskets, or sealants. Relocation of a port plug converts a 3-way to a 4-way, or a 4-way to a 3-way. 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 since all Versa C5 NAMUR valves are leakfree/bubbletight. A complete selection of electrical connections, area classifications, and

Operating Pressures and Weights

Valve Type	Operating Pressure Range ^{††} Pneumatic	Approximate Weights	
		Ordinary Service	Hazardous Service
Single Solenoid/spring return (2-position)	15-115 psi (1-8 bar)	0.8 lbs. (363 g)	1.1 lbs. (500 g)
Double Solenoid/detented (2-position)	10-115 psi (0.7-8 bar)	1.2 lbs. (545 g)	1.8 lbs. (816 g)
Double Solenoid/spring centered (3-position)	15-115 psi (1-8 bar)	1.2 lbs. (545 g)	1.8 lbs. (816 g)

†† Pressure ranges may change based on solenoid option. See page 6.
MPa = $\frac{\text{bar}}{10}$

For higher pressure applications, consult factory.

Porting Size

Inlet and exhaust — 1/4 NPT or G1/4
Cylinder ports — O ring seal per NAMUR standard (For non-NAMUR actuators, consult factory)

Installation, Filtration and Lubrication

Valves have no limitations on mounting orientation.
40 to 50 micron filtration and general purpose lubricating oil ISO, ASTM viscosity grade 32 recommended.
Ambient temperature range 5°F (15°C) to 125°F (50°C).

power requirements makes the most exacting and demanding specifications or applications easy to satisfy. Manual overrides (guarded-push to operate) are standard on all C5 NAMUR valves. Consult factory for other manual overrides available as an option.

Materials

Valve body and plunger: anodized aluminum (for stainless steel direct mount valve, consult factory)
Actuating Caps: solenoid— anodized aluminum
spring cap— synthetic resin
Valve seals: plunger and body— FKM (fluorocarbon)
pilot piston— NBR (nitrile)
valve/actuator mounting O rings— NBR (nitrile)
Pilot Piston: synthetic resin
Screws: stainless steel (except valve to actuator = carbon steel)
Port plug: brass
Solenoid parts: sleeve, plunger & spring— 304 & 430F stainless steel
coils— epoxy encapsulated with 3 spade terminals (std) or 2 or 3 wire lead (opt)
coil cover— (when applicable) option:—C50 = carbon steel, painted;
—LB—XN, —LB—XX, —PC, —PC—XN,
—PC—XX, —XN, —XX= carbon steel, zinc chromate plated

Flow Rates

$C_v = 0.75$ ($K_v = 11$) average for all ports (48 SCFM at 100 psi; 82 Nm³/h at 7 bar).
For actuator speed rates see page 6.

Options Suffix

Manual Override: none Standard on basic valves, guarded-push to operate.
All other options see page 6.

C5 NAMUR Valve Product Number Selector

		Basic Valve Number*				
FUNCTION**	PORT SIZE	Cv (Kv)	SINGLE SOLENOID/SPRING RETURN, 2 POSITION	DOUBLE SOLENOID/DETENT, 2 POSITION	DOUBLE SOLENOID/SPRING CENTERED, 3 POSITION	
					Blocked Center	Exhaust Ports Open
4-way 5/2 & 5/3	1/4 NPT G1/4	.75 (11)	CGS-4232-NB1 -†- (coil code)	CGG-4232-NB1 -†- (coil code)	CXX-4233-NB1 -†- (coil code)	CXX-4234-NB1 -†- (coil code)
		.75 (11)	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 (11)	CGS-3232-NB1 -†- (coil code)	CGG-3232-NB1 -†- (coil code)	CXX-3233-NB1 -†- (coil code)	CXX-3234-NB1 -†- (coil code)
		.75 (11)	CGS-3292-NB1 -†- (coil code)	CGG-3292-NB1 -†- (coil code)	CXX-3293-NB1 -†- (coil code)	CXX-3294-NB1 -†- (coil code)

* All valves include O ring interface seals and #10-24 mounting screws.

For #10-32 screws change NB1 to NB2. For M5 screws change NB1 to NB3.

** 3-way is the same valve as 4-way, but is provided with a relocated cylinder port plug. See note on page 7

For coil code see page 6.
† Add suffix option here, if required.