

Description

The Triac® TVCI (Intrinsically Safe) Solenoids are design to mount directly to the Triac® pneumatic actuators which eliminates tubing and fittings. The Triac® TVCI Solenoid is field convertible from a 3-way to a 4-way by simply relocating a port plug. All Triac® TVCI Solenoids are leakfree and bubbletight.

Material

Part Description	Material
Valve Body & Plunger	Anodized Aluminum
Actuating Caps – Solenoid	Anodized Aluminum
Actuating Caps – Spring Cap	Synthetic Resin
Plunger & Body Seals	FKM (Fluorocarbon)
Pilot Piston Seals	NBR (Nitrile)
Actuator mounting O-Rings	NBR (Nitrile)
Pilot Piston	Synthetic Resin
Screws	Plated Steel
Port Plug	Brass

Porting Size

Inlet & Exhaust = 1/4" NPT

Flow Rates

Cv = 0.75 (Ky = 11) 48 SCFM @ 100 PSI)

Ambient Temp

20 Deg F to 125 Deg F

(For temperatures below 32 Deg F, Air must be free of water vapor)

Pressure -

15 PSI Minimum / 115 PSI Maximum

Media -

Dry or lubricated non-corrosive gas compatible with nitrile seals









Part Numbers & Coil Data

Operator Type	DC Voltage	Inrush & Holding amps	ohm	Nominal Power
TVCI-xxxx-D24	24VDC	0.07	275	1.6 Watt

Entity parameters: Vmax=28V, Imax=115mA, Li=0, Ci=0, Imin=37mA, Vmin=12V

Intrinsically Safe: FM & CSA Approved - Class I (Group A, B, C, D); Class II (Group E, F, G), Class III, DIV I with PG9 cable gland, mini-DIN type connector

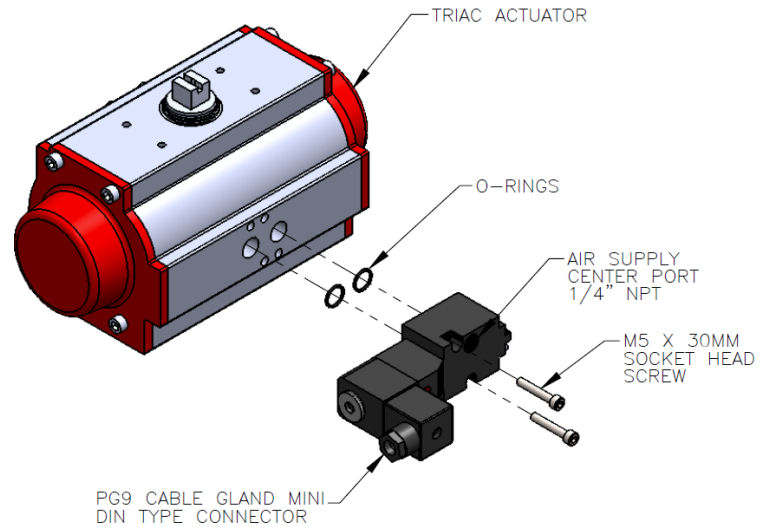
Flow Pattern Schematics

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	.75 (11)	TVCI-X411-(coil code) 	TVCI-X421-(coil code) 	TVCI-3421-(coil code) 	TVCI-3422-(coil code) 
3-way** 3/2 & 3/3	1/4 NPT	.75 (11)	TVCI-X411-(coil code) 	TVCI-X421-(coil code) 	TVCI-3421-(coil code) 	TVCI-3422-(coil code) 

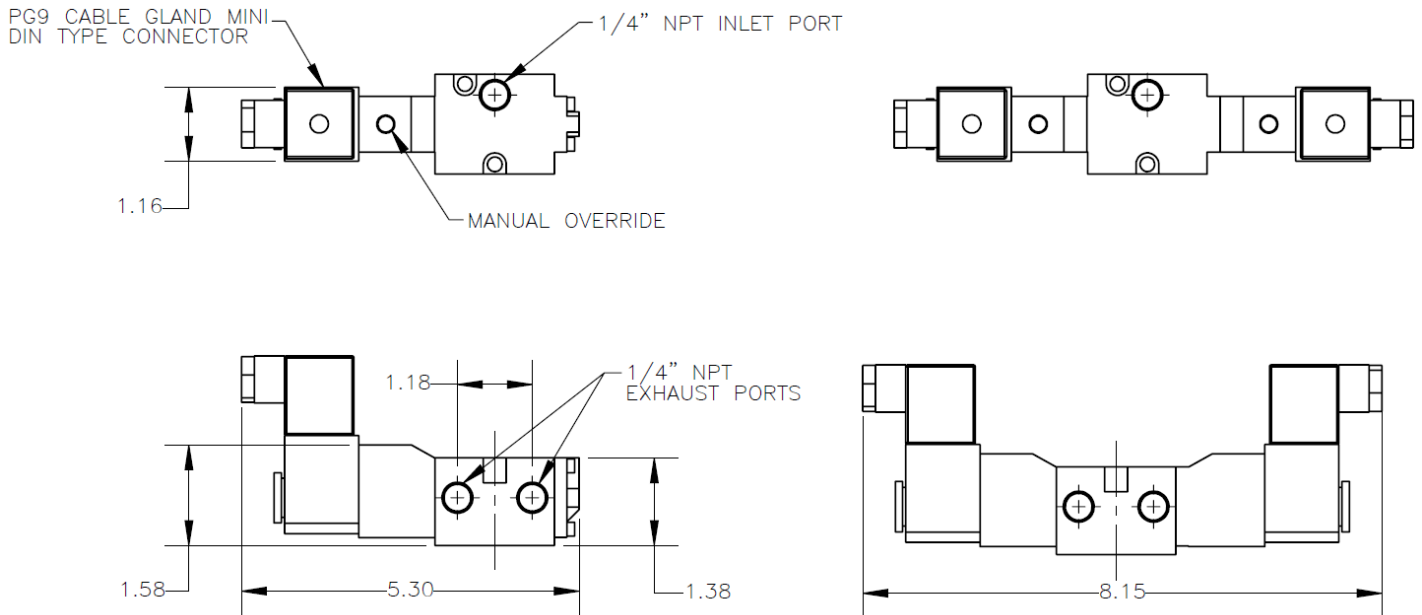
** 3-way is the same as 4-way, but is provided with a relocated cylinder port plug.

Installation Instructions

1. Place the o-rings provided into the o-ring bores on the face of the solenoid valve. Each o-ring should be completely seated in the bore.
2. Place the actuator with the two ports facing you, and the stem pointing up. Orient the TVCI Solenoid Valve with the (2) o-rings toward the actuator and the operator towards the left.
3. The solenoid valve is then mounted to the actuator with the two screws provided.
4. Connect the air supply to the center port and wire solenoid per local and national electrical codes. The assembly is now ready for operation.
5. Optional bronze vents or adjustable speed controls can be added to the exhaust ports.



Dimensions



A-T Controls product, when properly selected, is designed to perform its intended function safely during its useful life. However, the purchaser or user of A-T Controls products should be aware that A-T Controls products might be used in numerous applications under a wide variety of industrial service conditions. Although A-T Controls can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser / user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of A-T Controls products. The user should read and understand the installation operation maintenance (IOM) instructions included with the product, and train its employees and contractors in the safe use of A-T Controls products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only. Because A-T Controls is continually improving and upgrading its product design, the specifications, dimensions and information contained in this literature are subject to change without notice. Should any question arise concerning these specifications, the purchaser/user should contact A-T Controls.

For product specifications go to <http://download.a-tcontrols.com/>

A-T Controls, Inc. • 9955 International Boulevard, Cincinnati, OH 45246 • Phone: (513) 530-5175 • Fax: (513) 247-5462 • www.a-tcontrols.com