

Description

The Triac® TVSS Solenoids are design to mount directly to the Triac® pneumatic actuators which eliminates tubing and fittings. The Triac® TVSS Solenoid has a 5-port design that makes it field convertible from a 3-way (for Spring Return actuators) to a 4-way (for Double Acting actuators) by simply relocating a port plug. 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 open or close direction by utilizing speed or bleed controls. Single or double solenoid 2-position models are available. Single solenoid spring return models utilize an air assisted spring return feature, assuring a positive return. Double solenoid valves may be used in applications where a momentary signal is required or in a “fail in last shifted position” actuator application. Double solenoid models are equipped with a detent that maintains the valve in the last shifted position, even in high vibration applications. All Triac® TVSS Solenoids are leakfree and bubbletight.



Material

Part Description	Material
Valve Body & Plunger	316L Stainless Steel
Actuating Caps – Solenoid	316L Stainless Steel
Actuating Caps – Spring Cap	316L Stainless Steel
Plunger, Body & Valve to Actuator Seals	FKM (Fluorocarbon) Low Temp Nitrile (optional)
Solenoid Internal Parts: Sleeve, Plunger & Spring	304, 430F & 302 Stainless Steel

Porting Size

Inlet & Exhaust = 1/4" NPT

Flow Rates

Cv = 1.6 (Kv = 23.5)

Ambient Temp

Standard: -5°F to 200°F (-20°C to 93°C)

Low Temp: -40°F to 200°F (-48°C to 93°C)

Pressure -

411 Model: 25 PSI Minimum / 150 PSI Maximum

421 Model: 15 PSI Minimum / 150 PSI Maximum

Part Numbers & Coil Data

Operator Type	Voltage	Inrush amps	Holding amps	ohms	Nominal Voltage
TVSS-xxxx-4N-D24	24VDC	0.32	0.32	75	7 Watts
TVSS-xxxx-4N-A24	24VAC/60Hz	0.633	0.604	19	6 Watts
TVSS-xxxx-4N-A120	120VAC/60Hz	0.127	0.121	475	6 Watts
TVSS-xxxx-4N-E120	110VAC/50Hz	0.132	0.081	475	6 Watts
TVSS-xxxx-4N-A240	240VAC/60Hz	0.063	0.06	2000	6 Watts
TVSS-xxxx-4N-E220	220VAC/50Hz	0.066	0.041	2030	6 Watts
TVSS-xxxx-7N-D24	24VDC	0.32	0.32	75	7.2 Watts
TVSS-xxxx-7N-A24	24VAC/60Hz	0.633	0.604	19	5.6 Watts
TVSS-xxxx-7N-A120	120VAC/60Hz	0.127	0.121	475	5.6 Watts
TVSS-xxxx-7N-E110	110VAC/50Hz	0.132	0.081	475	5.6 Watts
TVSS-xxxx-7N-A240	240VAC/60Hz	0.063	0.06	2000	5.6 Watts
TVSS-xxxx-7N-E220	220VAC/50Hz	0.066	0.041	2030	5.6 Watts

4N - Watertight, Type 4X, CSA Approved





7N - Hazardous Locations, Type 4, 7 & 9, UL & CSA Approved

CLASS I, DIV 1, GRPS C & D

CLASS I, DIV 2, GRPS A & B

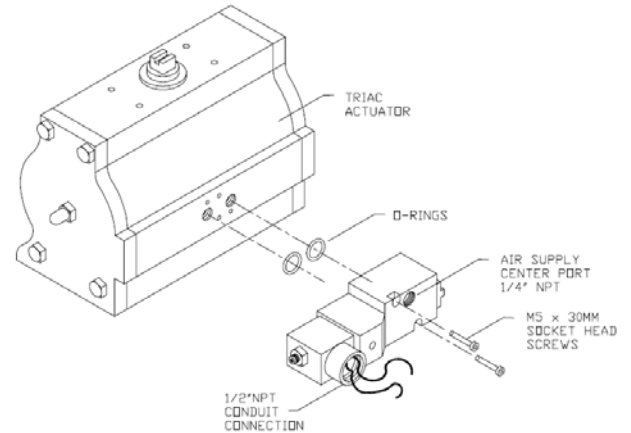
CLASS II, DIV 1, GRPS E, F & G

Flow Pattern Schematics

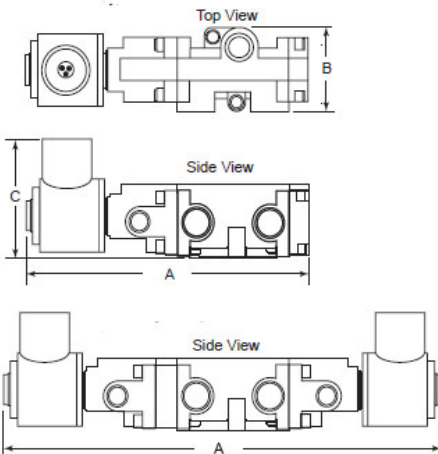
FUNCTION	PORT SIZE	CV (Kv)	SINGLE SOLENOID/ SPRING RETURN, 2 POSITION	DOUBLE SOLENOID/ DETENT 2 POSITION
4-way 5/2 &	1/4 NPT	1.6 (23.5)	TVSS-X411-(coil code) 	TVSS-X421-(coil code) 
3-way**	1/4 NPT	1.6 (23.5)	TVSS-X411-(coil code) 	TVSS-X421-(coil code) 

Installation Instructions

- 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.
- Place the actuator with the two ports facing you, and the stem pointing up. Orient the TVSS Solenoid Valve with the (2) o-rings toward the actuator and the operator towards the left.
- The solenoid valve is then mounted to the actuator with the two screws provided.
- Connect the air supply to the center port and wire solenoid per local and national electrical codes. The assembly is now ready for operation.
- Optional bronze vents or adjustable speed controls can be added to the exhaust ports.



Dimensions



Dimensions (in)	Weight	- N4			- N7		
		A	B	C	A	B	C
Model	Lbs.						
TVSS-X411	1.7 lbs	5.56	1.63	2.15	5.56	1.63	2.32
TVSS-X421	2.3 lbs.	8.70	1.63	2.15	8.78	1.63	2.32

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

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