

TVC5 NAMUR Mount
Solenoid Valve

Description

The Triac TVC5 Solenoids are design to mount directly to the Triac pneumatic actuators which eliminates tubing and fittings. The Triac TVC5 Solenoid is field convertible from a 3-way to a 4-way by simply relocating a port plug. All Triac TVC5 Solenoids are leakfree and bubbletight.



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 | AC Voltage | Inrush amps | Holding amps | ohms | Nominal Power | Operator Type | DC Voltage | Inrush & Holding amps | ohm | Nominal Power |
|-------------------|--------------------------------|-------------|--------------|------|---------------|------------------|------------|-----------------------|-----|---------------|
| TVC5-xxxx-4N-A24 | 24VAC / 60HZ | 0.63 | 0.50 | 26 | 8.5 Watt | TVC5-xxxx-4N-D12 | 12VDC | 0.87 | 14 | 10.5 Watt |
| TVC5-xxxx-4N-A120 | 110VAC / 50HZ 120VAC / 60HZ | 0.13 | 0.10 | 647 | 8.5 Watt | TVC5-xxxx-4N-D24 | 24VDC | 0.43 | 55 | 10.5 Watt |
| TVC5-xxxx-4N-A240 | 220VAC / 50HZ 240VAC / 60HZ | 0.06 | 0.05 | 2790 | 8.5 Watt | TVC5-xxxx-4N-D48 | 48VDC | 0.22 | 222 | 10.5 Watt |
| TVC5-xxxx-7N-A24 | 24VAC / 60HZ | 0.42 | 0.33 | 41 | 5.6 Watt | TVC5-xxxx-7N-D12 | 12VDC | 0.60 | 20 | 7.2 Watt |
| TVC5-xxxx-7N-A120 | 110VAC / 50HZ 120VAC / 60HZ | 0.08 | 0.06 | 1138 | 5.6 Watt | TVC5-xxxx-7N-D24 | 24VDC | 0.30 | 80 | 7.2 Watt |
| TVC5-xxxx-7N-A240 | 220VAC / 50HZ 240VAC / 60HZ | 0.04 | 0.03 | 4550 | 5.6 Watt | TVC5-xxxx-7N-D48 | 48VDC | 0.15 | 320 | 7.2 Watt |
| | | | | | | TVC5-xxxx-IS-D24 | 24VDC | 0.07 | 360 | 1.6 Watt |

4N - Watertight, NEMA 4, CSA Approved

7N - Flameproof, NEMA 7 & 9, UL Listed & CSA Approved

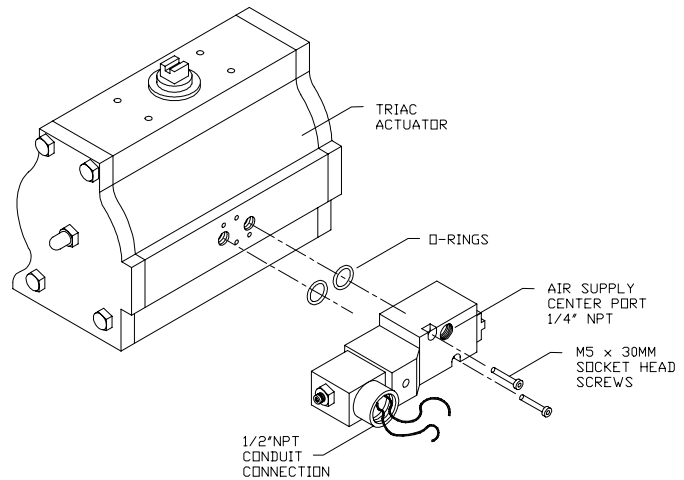
Flow Pattern Schematics

| 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 | 1/4 NPT | .75 (11) .75 (11) | TVC5-X411 - (coil code) | TVC5-X421 - (coil code) | TVC5-3421 - (coil code) | TVC5-3422 - (coil code) |
| 5/2 & 5/3 | | | | | | |
| 3-way** | 1/4 NPT | .75 (11) .75 (11) | TVC5-X411 - (coil code) | TVC5-X421 - (coil code) | TVC5-3421 - (coil code) | TVC5-3422 - (coil code) |
| 3/2 & 3/3 | | | | | | |

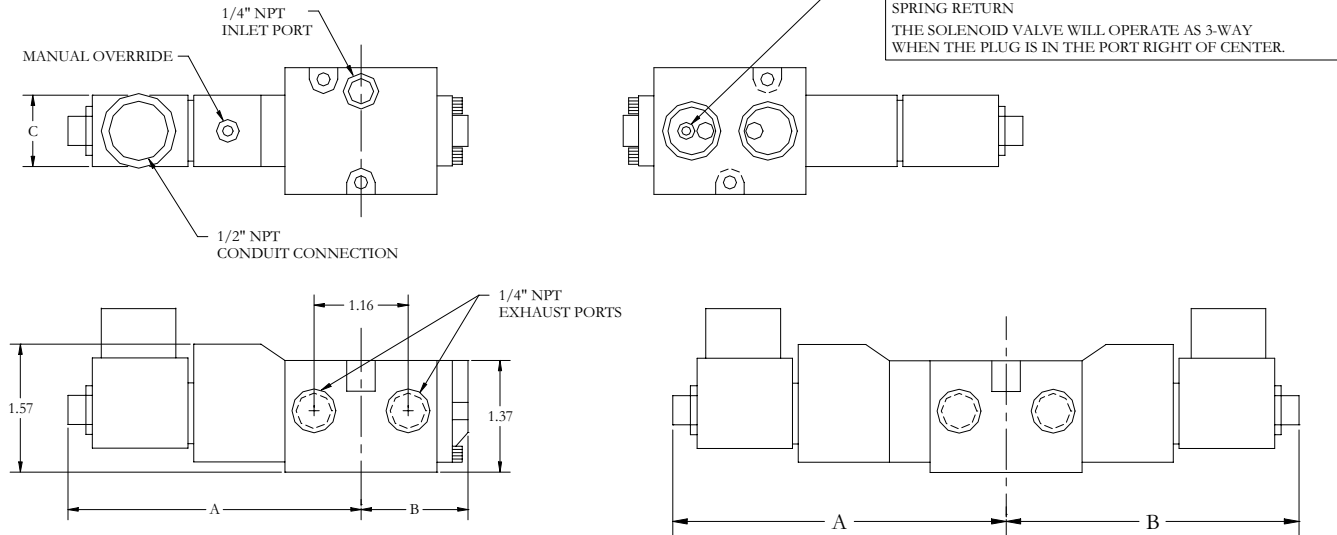
** 3-way is the same as 4-way, but is provided with a relocated cylinder port plug.

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 TVC5 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



DOUBLE ACTING
WHEN THE PLUG IS IN THE CENTER POSITION,
THE SOLENOID VALVE OPERATES AS A 4-WAY.

SPRING RETURN
THE SOLENOID VALVE WILL OPERATE AS 3-WAY
WHEN THE PLUG IS IN THE PORT RIGHT OF CENTER.

| Valve Type | Coil Options | | | | | |
|------------------------|--------------|------|------|------|------|------|
| | - N4 | | | - N7 | | |
| | A | B | C | A | B | C |
| TVC5-X411 | 3.71 | 1.31 | 0.89 | 3.79 | 1.31 | 1.45 |
| TVC5-X421 TVC5-3421 | 4.21 | 3.71 | 0.89 | 4.29 | 3.79 | 1.45 |