

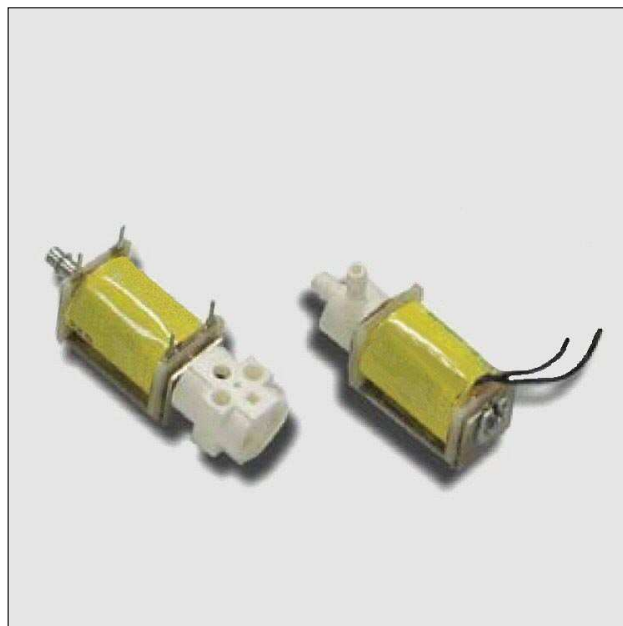


## TQ Series

### Switching solenoid valve

#### FEATURES

- 2-way or 3-way, 2 position valve (NO, NC & Distributor)
- Meets performance characteristics for a minimum of 25 million cycles
- Cost-effective, unique PBT body
- Manifold mount design or molded barbed fittings to fit a range of needs
- PRO services



#### MEDIA COMPATIBILITY

Non-corrosive gases

#### WETTED MATERIALS

Body:  
PBT (Polybutylene Terephthalate)

Stem base:  
360 HO2 brass

All others:  
FKM; 430 FR series stainless steel (passivated);  
302 series stainless steel; Loctite® 290

#### ELECTRICAL

Power	0.5, 1.0 or 2.0 W
Voltage	5, 12, 24 V <sub>DC</sub> ± 10%

#### PHYSICAL PROPERTIES

Operating environment	0 to 70 °C
Storage temperature	-40 to 70 °C
Length	43.9 mm (1.73 in)
Width	15.9 mm (0.625 in)
Height	17 mm (0.67 in)
Porting	Barb fittings for 1/8 in I.D. tubing or manifold mount
Weight	34 g (1.2 oz)
Internal volume	0.016 cm <sup>3</sup> (nominal)
Filtration (recommended)	40 µm
Lubrication	None required

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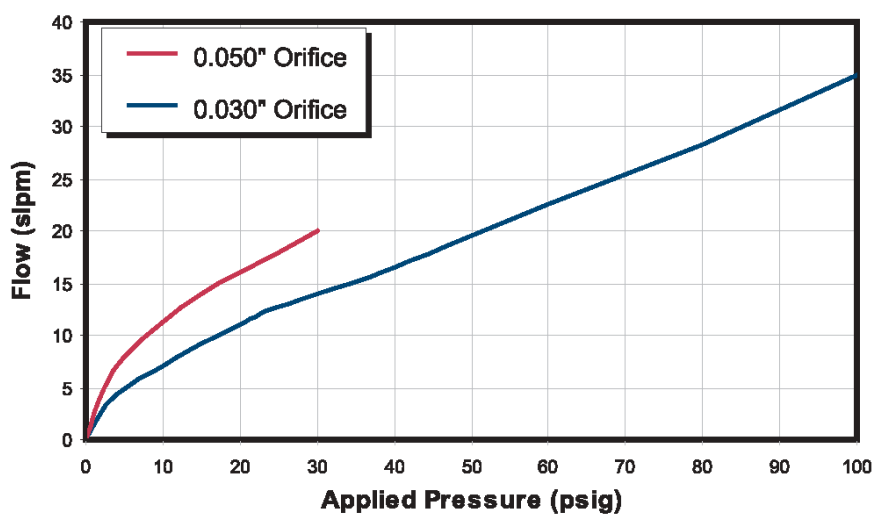
## TQ Series

### Switching solenoid valve

#### PERFORMANCE CHARACTERISTICS

Part no.	Pressure	Vacuum	Orifice sizes/ Equivalent $C_v^1$	Power	Leak rate <sup>2</sup>	Response
TQ...P100...	0...100 psig	0...27 "Hg (0...13 psi)	0.030" (0.762 mm)/ 0.017 $C_v$	2 W	$\leq 0.2$ sccm	<30 msec cycling
TQ...P050...	0...50 psig			1 W		
TQ...P025...	0...25 psig			0.5 W		
TQ...P030...	0...30 psig		0.050" (1.270 mm)/ 0.035 $C_v$	2 W		
TQ...P015...	0...15 psig			1 W		
TQ...P006...	0...6 psig			0.5 W		

#### FLOW CURVES (typical air flow)<sup>3</sup>



#### Notes:

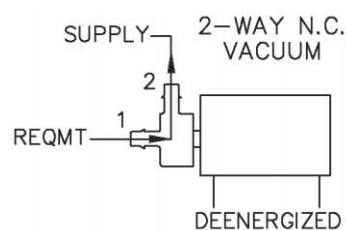
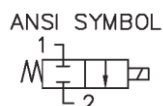
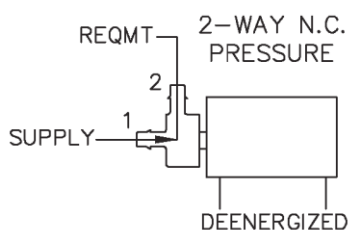
1. The  $C_v$  value is the volume flow in US gallons/min under specific flow conditions and describes the relative flow capacity of a valve. The equivalent european measure is the  $k_v$  value expressed in  $m^3/h$  ( $k_v = 0.86 C_v$ ).
2. sccm denotes Standard Cubic Centimeters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1000 sccm = 1 slpm.
3. slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.



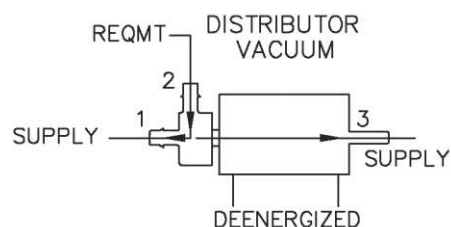
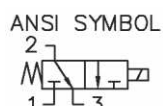
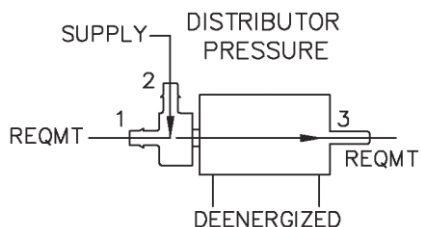
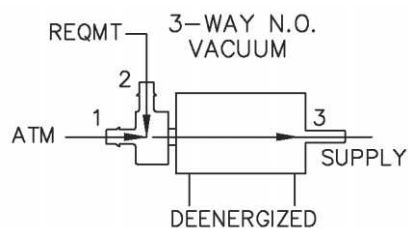
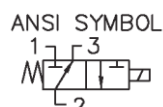
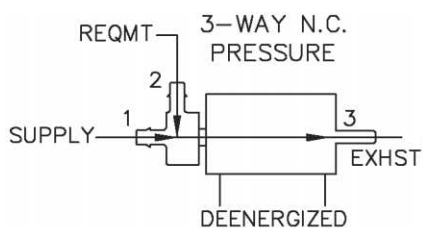
## TQ Series Switching solenoid valve

### VALVE TYPE

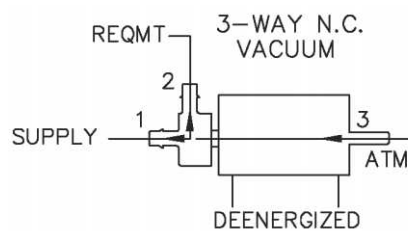
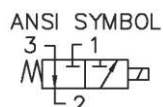
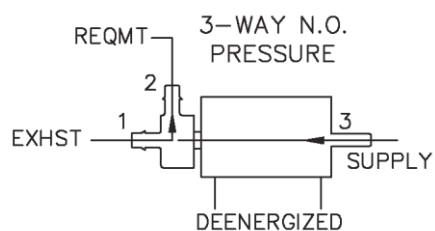
#### 2 way NC



#### 3 way NC or distributor



#### 3 way NO

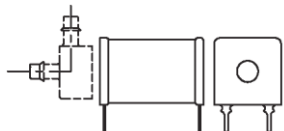




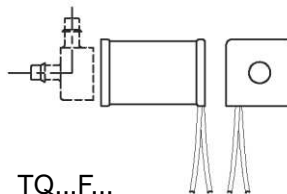
# TQ Series

## Switching solenoid valve

### ELECTRICAL CONNECTION

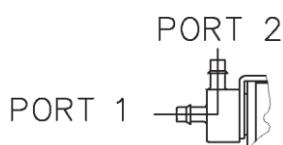


TQ...P...  
(PC mount, 4 PC pins)

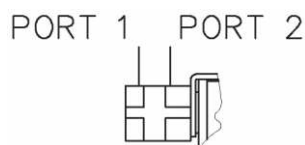


TQ...F...  
(Wire leads, no terminals)

### PNEUMATIC CONNECTION - BODY

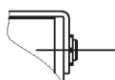


TQ...8...  
(1/8" I.D. tubing)

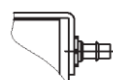


TQ...0...  
(Manifold mount)

### PNEUMATIC CONNECTION - STEM



TQ...0  
(Top seat, plugged)



TQ...8  
(0.125" top seat, 1/8" I.D. tubing)

### ORDERING INFORMATION

Series		Ways		Pressure		Function		Elastomer		Voltage		Electrical		Pneumatic connection			
Options	TQ													Body		Stem	
		2	2 way	P006	6 psi	C*	NC	V	Viton (FKM)	05	5 V <sub>DC</sub>	F	Wire leads	0	no barbs	0	none
		3	3 way	P015	15 psi	P	NO			12	12 V <sub>DC</sub>	P	PC board mount	8	1/8" barbs	8	1/8" barbs
				P025	25 psi					24	24 V <sub>DC</sub>						
				P030	30 psi												
				P050	50 psi												
				P100	100 psi												
* 3 way NC version can also be used as distributor																	
Example:	TQ	3	P030		C		V		12		P		8		8		

**Note:** Not all combinations might be available. Please contact First Sensor.

#### PRO services:

- Extended warranty period of 2 years
- Advanced logistics models for supply inventory and short delivery times
- Technical support through application engineers on the phone or at your site
- Fastest possible technical response for design and QA engineers
- ... plus other services on request

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