

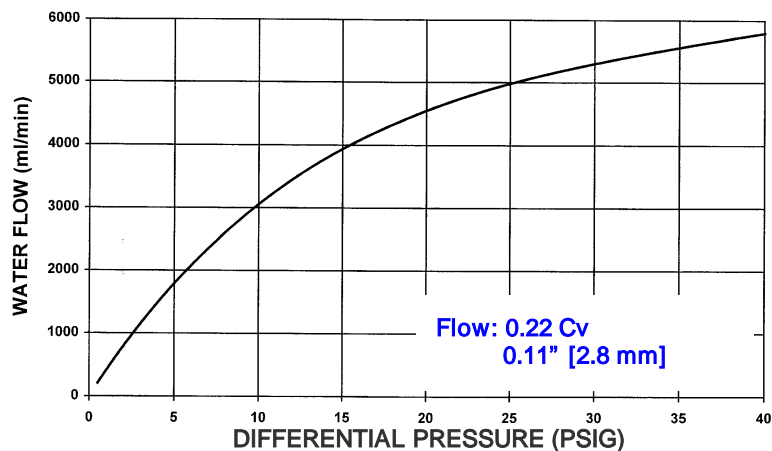
# INERT DIAPHRAGM VALVE (370 SERIES)

3-WAY UNIVERSAL SOLENOID VALVE FOR LIQUID AND GAS

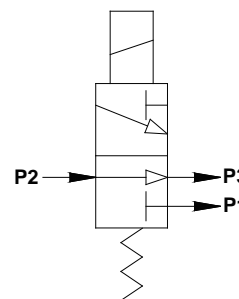
## COMPONENT FEATURES

- Inert wetted materials provide broad chemical compatibility
- Max pressure: 35 psig (2.4 bar) standard
- Flow rates: 0 – 150 slpm air or 0 – 5.25 lpm water
- Integral diaphragm/poppet isolates flow path from solenoid
- Continuous-duty encapsulated & impregnated coil for operation in wet / nearly submersible environments
- Suitable for high fluid temperatures - up to 203°F (95°C)
- Robust design, life tested to beyond 5 million cycles
- Individual testing insures reliability & repeatability
- Porting, mounting, and manifold design flexibility

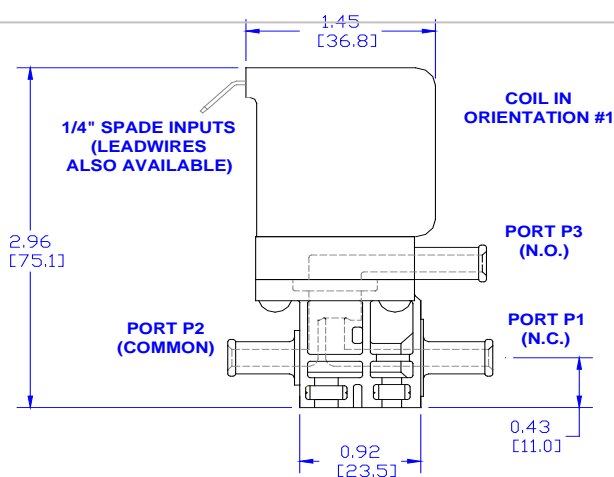
## TYPICAL FLOW VS PRESSURE DROP



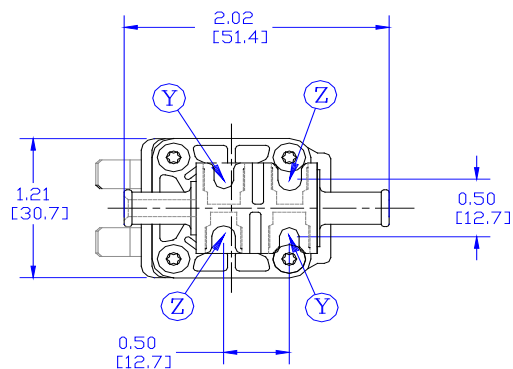
INERT DIAPHRAGM VALVE



FLOW SCHEMATIC



MOUNTING NUT SOCKETS  
(2) "Y" FOR #6-32  
(2) "Z" FOR M4



All dimensions are inches [millimeters]

SOUTH BEND CONTROLS

1237 NORTHSIDE BOULEVARD • SOUTH BEND, IN 46615  
TEL+1.574.234.3157 • FAX+1.574.234.3948 • WEB [WWW.SBCONTROLS.COM](http://WWW.SBCONTROLS.COM)

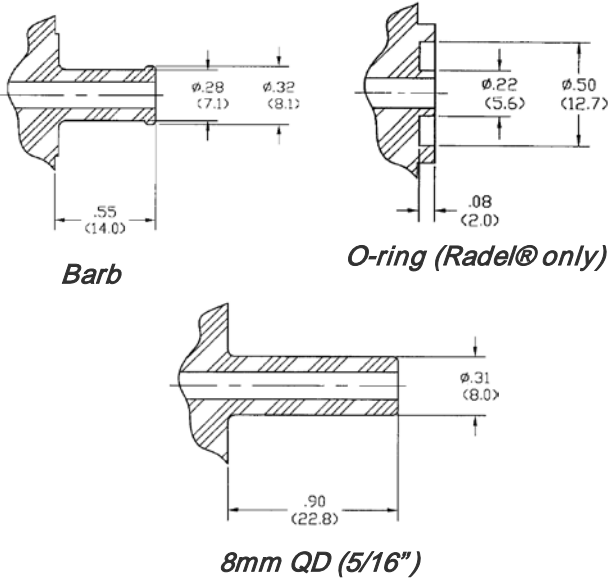
BULLETIN IV-409

TECH DATA

## INERT DIAPHRAGM VALVE SPECS (370 SERIES)

OPERATING VOLTAGE	DROPOUT VOLTAGE	MAX POWER	RESISTANCE	RESPONSE TIME	SEALING	MAX PRESSURE ALL PORTS	MAX VACUUM
24 VDC*	2.0 VDC	8.2 WATTS	70 OHM	35 MSEC	BUBBLE TIGHT	35 PSIG [2.41 BAR]	28" HG

### Body Style - Options



#### Operating Voltage Rating (Ambient):

0° to 120°F (-18°C to 50°C): 24 VDC -10%+5%  
 0° to 150°F (-18°C to 65°C): 24 VDC -5%+5%

#### Fluid Temperature Range:

0° to 203°F (-18°C to 95°C) EPDM

#### Fluid Compatibility:

Biological solutions, Dialysate, Renaline®, Formaldehyde, Aqueous solutions such as Saline, Dextrose/Sugars, Hydrogen Peroxide, Citric Acid, Acetic Acid, Bleach (Sodium Hypochlorite). Consult factory for assistance. Applications include medical, clinical chemistry, food processing, beverage dispensing, and gaseous flow control.

The valve body is available in Ultem® (polyetherimide) or Radel® (polyphenylsulfone). The flow path is isolated from the solenoid by a diaphragm made of ethylene propylene (EPDM) or highly fluorinated Viton® (FKM-GF). These materials are biocompatible to FDA & USP Class VI standards and perform well in high temperature and corrosive environments. Applications include medical equipment, clinical instrumentation, food processing, beverage dispensing, and any other form of flow control.

This valve is configured to provide high flow with an exceptionally high tolerance to particulate matter and precipitates. The poppet and seat are configured to provide bubble-tight leakage characteristics.

## 370 SERIES ORDERING INFORMATION

# 370

# 0

### Material (Body – Seals)

1. Ultem®-EPDM
2. Ultem®-Viton® - GF\*\*\*
3. Radel®-EPDM
4. Radel®-Viton® - GF\*\*\*

### Body Style (P2-P1-P3)

1. Barb-Barb-Barb
2. Barb-O-ring-Barb (Radel® only)
3. N/A
4. N/A
5. 8mm-8mm-8mm (Quick Disconnect)

### Coil Type & Orientation

- (In Relation to Port P2)
1. Spade Terminal / Standard
  2. Spade Terminal / 90°
  3. Spade Terminal / 180°
  4. Spade Terminal / 270°
  5. Lead Wire / Standard
  6. Lead Wire / 90°
  7. Lead Wire / 180°
  8. Lead Wire / 270°

### Port 3 Orientation

- (In Relation to Port P2)
1. Inline
  2. 90°
  3. 180°
  4. 270°

ISO 9001:2000  
AS9100



\*\*\*FKM-GF (Highly Fluorinated Viton®)  
 Viton® is a registered trademark of Dupont, Inc.  
 Ultem® is a registered trademark of GE Plastics  
 Radel® is a registered trademark of Solvay Advanced Polymers

Notes: Standard Lead Wire is 20 AWG x 45",  
 Coil Orientations are clockwise looking down from top of coil.

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