

## 310/410 Valves

310, S310, 410, S410, M310, M410

*Humphrey's popular valve series, the 310 and 410 solenoid valves, provide outstanding performance and reliability in a simple, versatile design. The pressure-balanced poppet, direct-acting operating principle provides multi-purpose functionality in a compact body.*

**310:** 2- or 3-way, normally closed or open

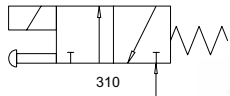
**410:** 4-way

**410-70:** 4-way with integral flow controls

*Available in several mounting options, as inline, stackable or manifold mount. The new 410M manifold accepts the standard 310 and 410 inline valves for a low cost manifold solution.*

### Features and Benefits:

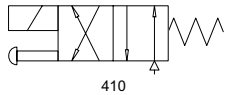
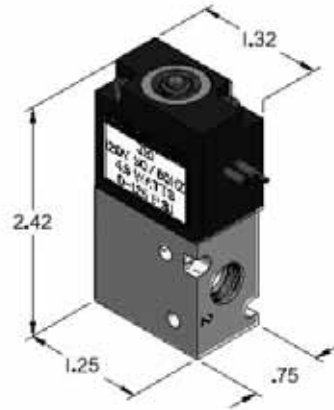
- Compact, high flow construction.
- Quiet operation. No AC hum.
- Electrical connection options include lead wires, DIN-type or conduit.
- Short stroke, fast response, poppet design.
- Low leak rate.
- Reliable, tolerant of difficult ambient/media conditions.
- Order "V310" for multi-purpose 3-port use, for pressure or vacuum, diverter or selector. See Vacuum, p. 76-77.
- Use 410 as universal valve, 3-way or 4-way, multi-purpose.
- Available in common AC or DC voltages.



310



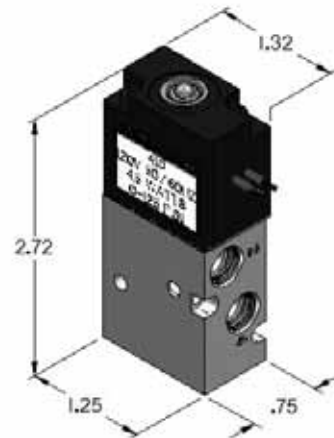
310



410



410



### SPECIFICATIONS FOR 310 AND 410

Design Principle: Pressure Balanced – Spring Return

Porting Type: 2-, 3- or 4-Way

Port Size: 1/8 PIPE

Media: Air, Inert Gases

Pressure Range: 28"Hg to 125 PSIG (see Vacuum, p. 76-77)

Temperature Range: 32°F to 125°F

Flow @100 PSIG: 10 CFM, 283 LPM (CV=0.15)

Power: 4.5 W

Available Voltages: 12VDC, 24VDC, 24/50/60, 120/50/60, 240/50/60

**Manifolds and Subbases**

310 and 410 series valves are available in three mounting/porting types: Inline, Stackable, and Manifold.

- **Inline:** 310, 410 and 410-70 valves can be individually mounted via body mounting holes or hard plumb mount. **410M Manifolds** accept inline valves, are low profile/cost effective, and ideal for OEM applications. Manifolds are shipped with gaskets and screws.

- **Stackable:** S310, S410 and S410-70 valves “stack” together with tie-rods, gaskets and end plate kit (PN 7-900A) for a compact, expandable solution.
- **Manifold:** M310, M410 and M410-70 valves are base piping types to permit manifold mounting to SM manifolds. Ports 1, 2, 3 and 4 located in manifold for convenient valve replacement without disturbing the plumbing.



**410M**  
Accepts 310 and/or  
410 Series Inline Valves  
(410M6 shown)



**S410, S410-70,  
and S310**  
Stackable Assembly



**(8) M310 Valves on  
SM8 Manifold**

DIRECT-ACTING SOLENOID VALVES

Stackable Valve and Manifold Types Available	Overall Size (valves not mounted)	Nominal Dimensions (inch)		
		L	H	D
<b>410M Manifold:</b> Extruded Aluminum. Delivery port 2 and 4 located on VALVE. Accepts 310 and 410 valve models.	Two Station ( 410M2 )	2.69	0.89	1.57
	Each Additional station	0.76		
	Max # of stations	12		
<b>Stackable Valve Type:</b> Extruded Aluminum End Plates for Stackable Valves. Delivery port 2 and 4 located on VALVE. Available in S310 and S410 valve models.	Two Valves plus End Plates	1.94	2.82	1.86
	Each Additional Valve	0.75		
	Max # of stations	12		
<b>SM Manifold:</b> Extruded Aluminum. Delivery ports 1 and 2 located on MANIFOLD. Accepts M310 and M410 valve models.	Two Station ( SM2 )	1.94	2	1.62
	Each Additional station	0.75		
	Max # of stations	12		

*Consult website for exact dimensions and additional manifold configurations.*

**HOW TO OBTAIN SPECIFICATIONS FOR A PARTICULAR VALVE(S)**

- Go directly to [www.humphrey-products.com/dynamic/products](http://www.humphrey-products.com/dynamic/products)
- Or, visit [www.humphrey-products.com](http://www.humphrey-products.com) and select "Online Product Guide."
- Once you have followed the steps to get the valve you need, select "Download Spec Sheet." Doing this will create a personalized PDF of the valve, which you may save to your computer and print at your convenience. These spec sheets are helpful when placing your order(s).

**HOW TO ORDER HUMPHREY VALVES AND ACCESSORIES**

- Go directly to: [www.humphrey-products.com/?q=content/find-distributor](http://www.humphrey-products.com/?q=content/find-distributor)
- Or, visit [www.humphrey-products.com](http://www.humphrey-products.com), select "Find A Distributor," and input your information to locate a distributor nearest you.
- Or, call Customer Service at 1-800-477-8707 for the name and phone number of your local distributor.



**HUMPHREY PRODUCTS ARE SOLD WORLD-WIDE THROUGH AUTHORIZED DISTRIBUTORS**