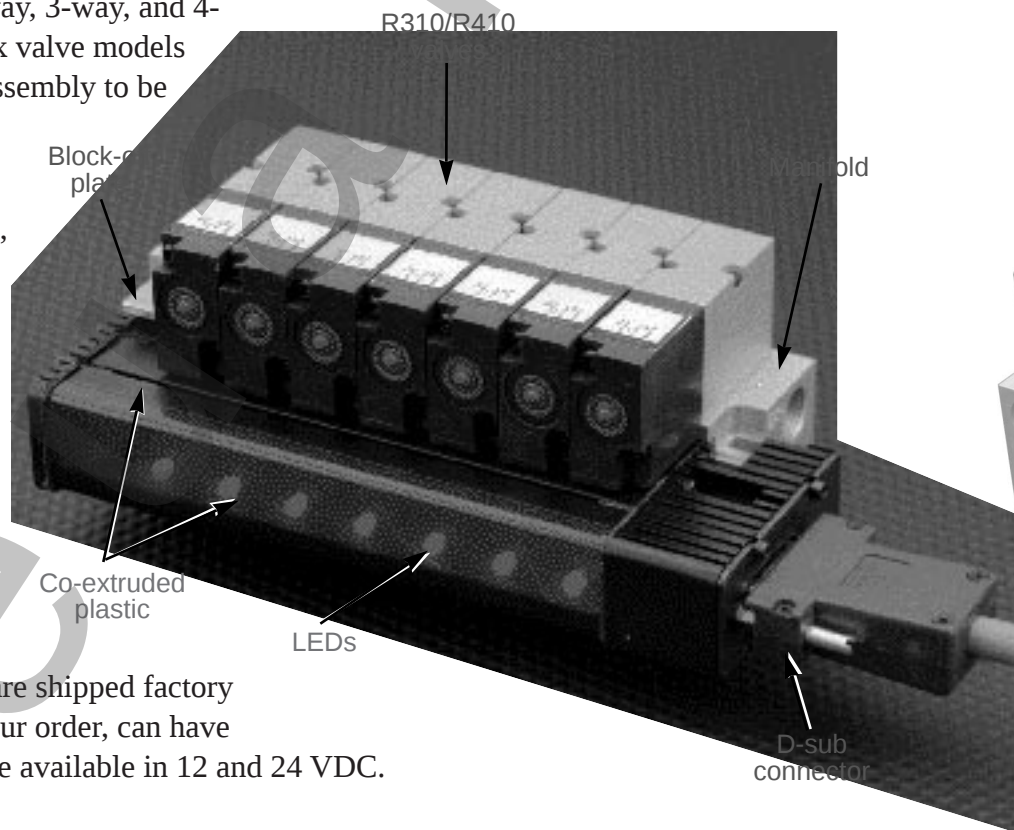


## R310/R410

**RACEWAY**

- ▶ The R310/R410 manifold raceway assembly is made up of a manifold, a raceway, and valves. The manifold raceway assembly is available as a NEMA 4 rated assembly and is factory tested for sealing integrity.
- ▶ The raceway is one piece of co-extruded plastic enclosing an integral printed circuit board. The integral printed circuit board eliminates bulky wiring associated with other raceway systems. The circuit board has a surge suppression diode, LED, and reverse polarity protection for each station. The LED's are visible through the red, transparent part of the raceway.
- ▶ The valves are available in 2-way, 3-way, and 4-way models. The ability to mix valve models allows the manifold raceway assembly to be very flexible in meeting your specific needs. A non-locking manual override is standard on prefix "R" valves. Prefix "RN" valves are available only without manual override.
- ▶ The manifold is a rugged piece of extruded aluminum that is anodized for corrosion resistance. Also, all ports are available in metric sizes.
- ▶ Manifold raceway assemblies are shipped factory pre-assembled, according to your order, can have from four to 16 stations, and are available in 12 and 24 VDC.
- ▶ The manifold raceway assembly interfaces with your equipment using a D-sub connector. All NEMA 4 assemblies have a 25-pin D-sub connector regardless of the number of stations (4 to 16). The chart below lists the breakdown of D-sub connector availability:



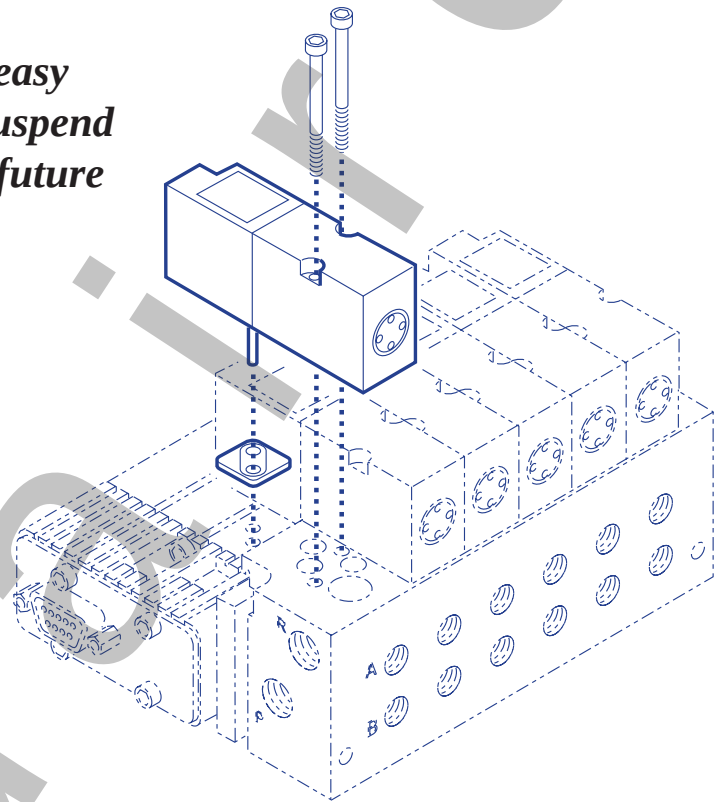
| D-Sub connector | Number of stations  |
|-----------------|---------------------|
| 9 pin           | 4, 5, 6             |
| 15 pin          | 7, 8, 9, 10, 11, 12 |
| 25 pin          | 13, 14, 15, 16      |

- ▶ Manifold raceway's are tested and fully operational when shipped, simply plumb the manifold, plug in the D-sub connector, and you're ready to go.

R310/R410

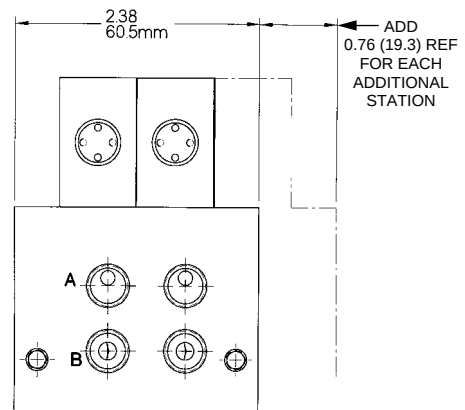
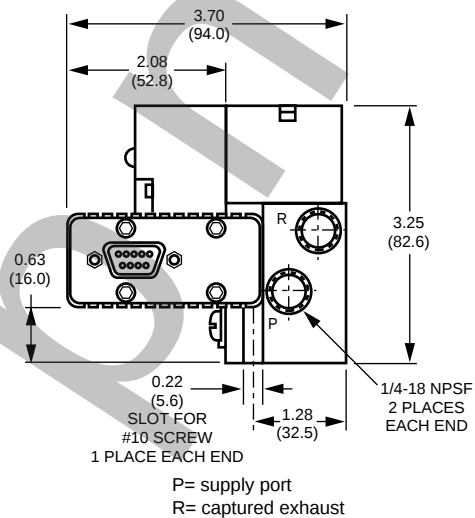
**RACEWAY**

**All valves plug-in for quick and easy changes. Use block-off plates to suspend the use of any station or to permit future valve additions.**



### MANIFOLD RACEWAY SPECIFICATIONS

|                           |                                                           |
|---------------------------|-----------------------------------------------------------|
| Pressure range            | 0 - 125 psig (0 - 8.5 bar)                                |
| Vacuum range              | 0 - 28" Hg. (prefix "V" 3-way and all 4-way models)       |
| Ambient temperature range | 32° to 124° F (0° to 50° C)                               |
| Voltage                   | 12 or 24 VDC internal circuitry not grounded to manifold. |
| Weight                    | .37 lbs., plus .49 lb. per station                        |
| Raceway materials         | Rigid PVC, nylon, steel, buna                             |



Delivery ports: A= normally closed  
B= normally open

inch (mm)

R310/R410

**RACEWAY**



## HOW TO ORDER

Unless specified otherwise the D-sub connector is located on the left end of the manifold (as viewed with the delivery ports facing you). Valve station number one will always be that station closest to the D-sub connector. Order manifolds first. Order the valves next with station position requested. Remember, option codes marked STD and NA are not used as part of the model number. All other options must be specified when ordering.

## MANIFOLDS

| MODEL   | DESCRIPTION                                    |
|---------|------------------------------------------------|
| RM *    | D-sub connector on left side (standard)        |
| RM * R  | D-sub connector on right side                  |
| RM * N  | D-sub connector on left side (standard)-NEMA 4 |
| RM * NR | D-sub connector on right side-NEMA 4           |

\* Specify number of stations (4 minimum, up to 16 maximum).

To order metric ports include E as a model number prefix, example ERM-7-R.

Include SA (ship assembled) as a model number suffix, example RM-7-R-SA.

## VALVES

| MODEL                                   | OPTION DESCRIPTION |                         |             |                  |                             |                |             |
|-----------------------------------------|--------------------|-------------------------|-------------|------------------|-----------------------------|----------------|-------------|
|                                         | FLOW CONTROL       | LOCKING MANUAL OVERRIDE | NO OVERRIDE | FLUORO-ELASTOMER | NON-LOCKING MANUAL OVERRIDE | SHIP ASSEMBLED | VOLTAGE     |
| Option Code                             | 70                 | 81                      | 87          | VAI              |                             |                |             |
| <b>R310</b><br>(3-way plug-in)          | NA                 | SP                      | SP          | SP               | STD                         | SA             | 12 / 24 VDC |
| <b>R410</b><br>(4-way plug-in)          | SP                 | SP                      | SP          | SP               | STD                         | SA             | 12 / 24 VDC |
| <b>RN310</b><br>(3-way plug-in, NEMA 4) | NA                 | NA                      | STD         | SP               | NA                          | SA             | 12 / 24 VDC |
| <b>RN410</b><br>(4-way plug-in, NEMA 4) | SP                 | NA                      | STD         | SP               | NA                          | SA             | 12 / 24 VDC |

• STD = Standard • N/A = Not available • SP = Specify (additional charges for this option)

Consult the Humphrey Pneumatic Valves catalog for complete specifications on 310/410 Series Air Valves.

## ORDER EXAMPLES

### One, four station manifold assembly consisting of:

- 1 RM-4-SA
- 2 R310-SA 24VDC - Assy on Sta 1 & 2
- 1 R410-SA 24VDC - Assy on Sta 3
- 1 R410-70-SA 24VDC - Assy on Sta 4

### Three, six station manifold assemblies consisting of:

- 3 RM-6-NR-SA
- 9 RN310-VAI-SA 12VDC - Assy on Sta 1, 2 & 3
- 9 RN410-VAI-SA 12VDC - Assy on Sta 4, 5 & 6

## D-SUB CABLES

| MODEL | DESCRIPTION                         | NUMBER OF S*       |
|-------|-------------------------------------|--------------------|
| DS9   | 9-pin D-sub cable (120 in.)         | 4, 5, 6.           |
| DS15  | 15-pin D-sub cable (120 in.)        | 7, 8, 9, 10, 11, 1 |
| DS25  | 25-pin D-sub cable (120 in.)        | 13, 14, 15, 16     |
| DS25N | 25-pin D-sub NEMA 4 cable (120 in.) | 4 thru 16          |

