Multi-Port Gauge Valves

A $\frac{1}{4}$ " FNPT x (3) $\frac{1}{4}$ " FNPT multi-port block valve for universal use wherever more than one outlet is required

General Application

Typically used as a block valve with multiple port outlets in natural gas applications.

TECHNICAL DATA

Materials

CS, 316 SS

Seats:

Soft

Connections:

1/4" (7 mm) NPT

Pressure (max):

6,000 psig (414 barg) **Temperature (max):**

500°F (260°C)



Features

- Metal-to-metal body-to-bonnet seal in constant compression prevents bonnet thread corrosion, eliminates possible tensile breakage and gives a reliable seal point.
- Rolled stem and bonnet threads provide additional strength.
- Dust cover protects stem from lubricant contamination.
- Packing below threads prevents lubricant washout, thread corrosion, process contamination and eliminates galling.
- Replaceable soft seat and can operate in dirty service with repetitive bubble-tight shutoff.
- Easily adjustable PTFE packing decreases replacement downtime and increases valve life.
- Mirror stem finish in the packing area provides smooth operation and extends packing life.
- Safety back seating prevents stem blowout or accidental removal and provides a metal-to-metal secondary stem seal while in the fully open position.
- Straight-through flow path means high flow capacity, bi-directional flow and rodding capabilities.



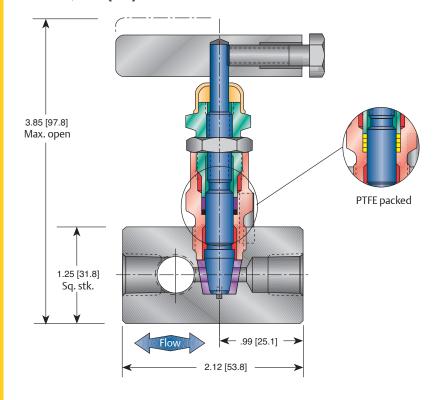
M5F SERIES

Multi-Port Gauge Valves

Bonnet Assembly Options

The M5F features a soft-seated bonnet assembly which has a one-piece rotating stem and plug. The stem threads are rolled and lubricated to prevent galling and reduce operating torque. It is available with a patented PTFE packing gland, which is adjustable in service or with an FKM O-ring and PTFE back-up ring. A protective dust cap is fitted to contain stem lubricant and prevent the influx of contaminants. All bonnets are assembled with a bonnet locking pin to prevent accidental removal while in service.

Dimensions, inches [mm]



Multi-Port Gauge Valves

Standard Materials

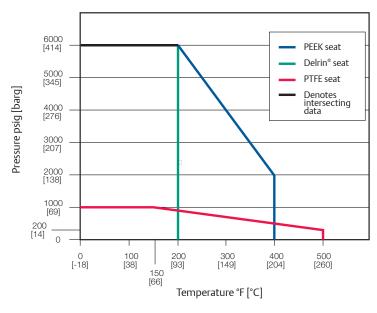
| Valve ^[1] | Body and bonnet | Stem | Stem seal | Seat |
|----------------------|------------------|------------------|-------------|---------|
| CS ^[2] | A108 CS | A581-303A SS | FKM or PTFE | Delrin® |
| 316 SS | A479-316 SS | A276-316 SS | FKM or PTFE | Delrin® |
| SG ^[6] | A479-316 SS | Monel® 400 | PTFE | Delrin® |
| SG3 ^[7] | Hastelloy® C-276 | Hastelloy® C-276 | PTFE | Delrin® |

Pressure vs. Temperature

Pressure and Temperature Ratings

| Valve | Packing ^[3] | Seat | Ratings |
|---------------------------------|------------------------|------------------------------|--|
| CS ^[2] , 316 SS, SG3 | FKM or PTFE | Delrin®/PCTFE ^[4] | 6000 psig at 200°F [414 barg at 93°C] |
| CS ^[2] , 316 SS, SG3 | FKM or PTFE | PEEK | 6000 psig at 200°F [414 barg at 93°C] |
| | | | 2000 psig at 400°F [138 barg at 204°C] |
| CS ^[2] , 316 SS, SG3 | FKM or PTFE | PTFE | 1000 psig at 150°F [69 barg at 66°C] |
| | | | 200 psig at 500°F [14 barg at 260°C] |

Pressure vs. temperature



NOTES

- 1. Approximate valve weight:
- Standard 1.0 lb [0.5 kg].
- Orifice size: 0.187-inch [4.8 mm] diameter.
- Valve Cv 0.83 maximum.
- 2. CS body and bonnet are zinc TCP plated to prevent corrosion.
- 3. O-ring packed maximum temperature 400°F [204°C].
- 4. PCTFE (Polychlorotrifluoroethylene) is the exact equivalent of Kel-F®.
- 5. For Hastelloy® and SG3 call factory for dimensions and weights.
- SG (Sour Gas) meets the requirements of NACE MR0175/ISO 15156 (for chloride conditions ≤ 50 mg/l (ppm)) and NACE MR0103-2005.
- 7. SG3 (Sour Gas) meets the requirements of NACE MR0175/ISO 15156 (for chloride conditions > 50 mg/l (ppm)).
- 8. Minimum temperature for 316 SS PTFE packing: -70°F (-57°C) with Peek seats, for Delrin -40°F (-40°C). Carbon Steel minimum temperature -20°F (-29°C).



M5F SERIES

Multi-Port Gauge Valves

Selection Guide

| M5F | V | D | S | -2 | -SG |
|-----------------|---------------|---|----------------------------|------------------------------------|--|
| BASIC SERIES | PACKING | SEAT | BODY | CONNECTIONS (INLET/OUTLET) | OPTIONS |
| M5F | V PTFE | D Delrin® (standard) | C CS ^[3] | 2 ¼-inch FNPT x (3) ¼-inch FNPT | SG Sour Gas meets the requirements of NACE MR0175/ISO 15156 (for chloride conditions ≤ 50 mg/l (ppm)) and NACE MR0103-2005 (SS only) |
| | | K PCTFE^[1] E PEEK V PTFE | S 316 SS | | SG3 Sour Gas meets the requirements of NACE MR0175/ISO 15156 (for chloride conditions > 50 mg/l (ppm)) – if accessories are added, consult factory for materials |

- PCTFE (Polychlorotrifluoroethylene) is the exact equivalent of Kel-F[®].
 O-ring packed maximum temperature 400°F [204°C].
 CS is zinc TCP plated to prevent corrosion.