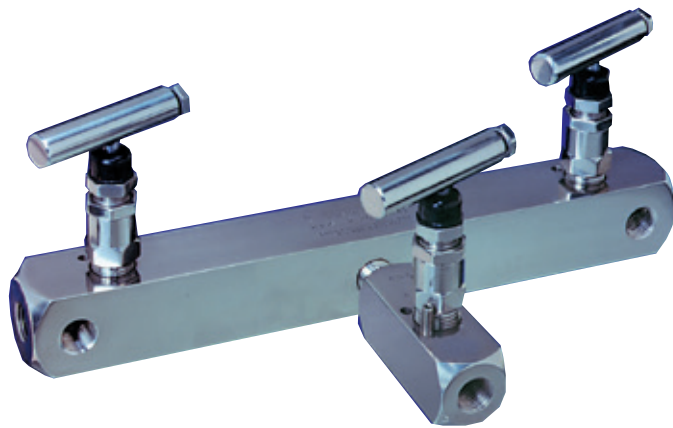


## ANDERSON GREENWOOD M19 METER MANIFOLD

A three or five valve harness manifold for use with orifice meters in natural gas service at pressures to 6000 psig (414 barg)



### FEATURES

- Soft seat replaceable valve operates in dirty service with repetitive bubble-tight shutoff.
- Packing below threads prevents lubricant washout, thread corrosion, process contamination and eliminates galling.
- Easily adjustable PTFE packing decreases replacement downtime and increases valve life.
- Dust cover protects stem from lubricant contamination.
- Safety back seating prevents stem blowout or accidental removal and provides a metal-to-metal secondary stem seal while in the fully open position.
- ENC plated 316 SS stem prevents galling or freezing of stem threads. CS valves use a 303 SS stem for 'hard-to-soft' contact, to prevent galling.
- Rolled stem and bonnet threads provide additional strength.
- Mirror stem finish in the packing area provides smooth operation and extends packing life.
- Straight-through flow path means high flow capacity, bi-directional flow and rodding capabilities.
- Metal-to-metal body-to-bonnet seal in constant compression prevents bonnet thread corrosion, eliminates possible tensile breakage and gives a reliable seal point.

### GENERAL APPLICATION

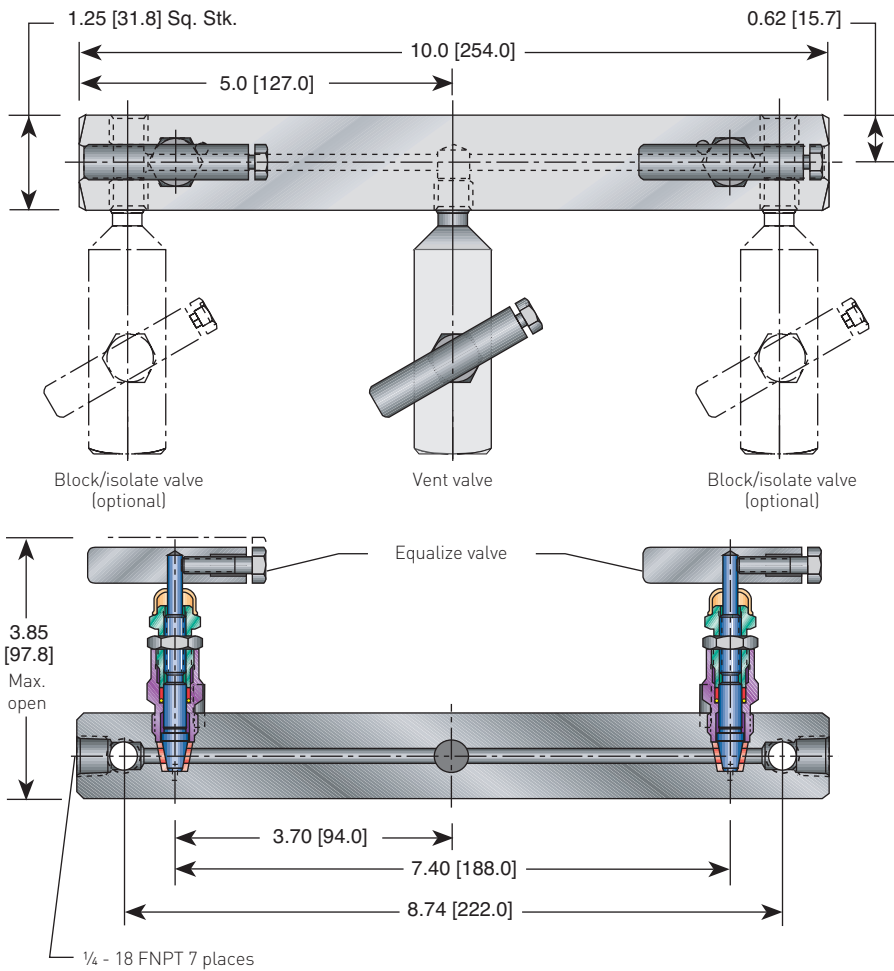
The three-valve manifold is used when the orifice meter is mounted adjacent to the orifice flange and the two process block valves provide convenient closure. The five-valve assembly is for orifice meters remote from the orifice flange union.

### TECHNICAL DATA

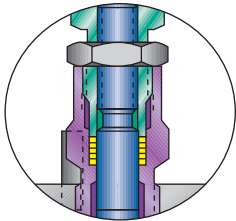
Materials:	CS, SS
Seats:	Soft
Connections	
Instrument:	¼" NPT
Process:	¼" NPT
Pressure (max.):	6000 psig (414 barg)
Temperature (max.):	400°F (204°C)

ANDERSON GREENWOOD M19 METER MANIFOLD

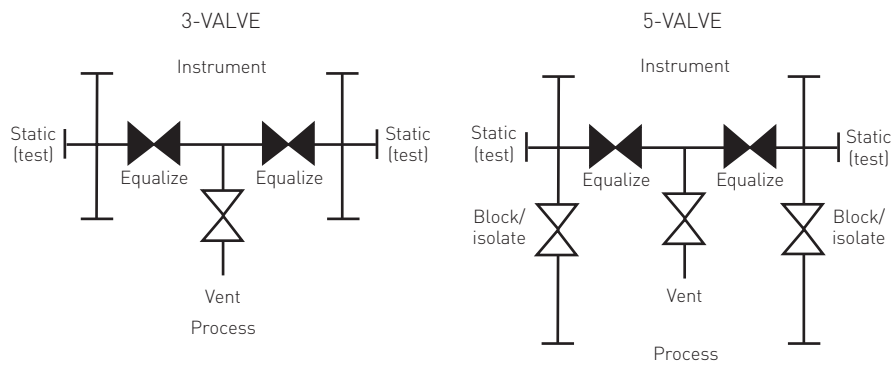
DIMENSIONS, INCHES [mm]



**NOTE**  
1. Approximate valve weight: 5.5 lb [2.4 kg]. 8.0 lb [3.6 kg] with optional block valves. 0.187-inch [4.8 mm] diameter orifice. Valve C<sub>v</sub> 0.83 maximum.



Optional PTFE packed (O-ring, standard)



# ANDERSON GREENWOOD M19 METER MANIFOLD

## BONNET ASSEMBLIES

The roddable soft-seated bonnet assemblies have a one-piece rotating stem and plug. The stem threads are rolled and lubricated to prevent galling and reduce operating torque. They are available with a FKM O-ring and PTFE back-up ring or a patented PTFE packing gland, which is adjustable in service. 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.

## STANDARD MATERIALS

Valve	Body	Bonnet	Stem	Packing	Seat <sup>(1)</sup>
CS <sup>(2)</sup>	A108 CS	A108 CS	A581-303 SS	FKM O-ring with PTFE backup ring	Delrin <sup>®</sup>
SS	A479-316 SS	A476-316 SS	A276-316 SS	FKM O-ring with PTFE backup ring	Delrin <sup>®</sup>
SG <sup>(3)</sup>	A479-316 SS	A479-316 SS	Monel <sup>®</sup> R405	PTFE	Delrin <sup>®</sup>

## PRESSURE AND TEMPERATURE RATINGS

Seat	Ratings
Delrin <sup>®</sup> and PCTFE <sup>(1)</sup>	6000 psig at 200°F [414 barg at 93°C]
PEEK	6000 psig at 200°F [414 barg at 93°C] 2000 psig at 400°F [138 barg at 204°C]
PTFE	1000 psig at 150°F [69 barg at 66°C] 200 psig at 500°F [14 barg at 260°C]

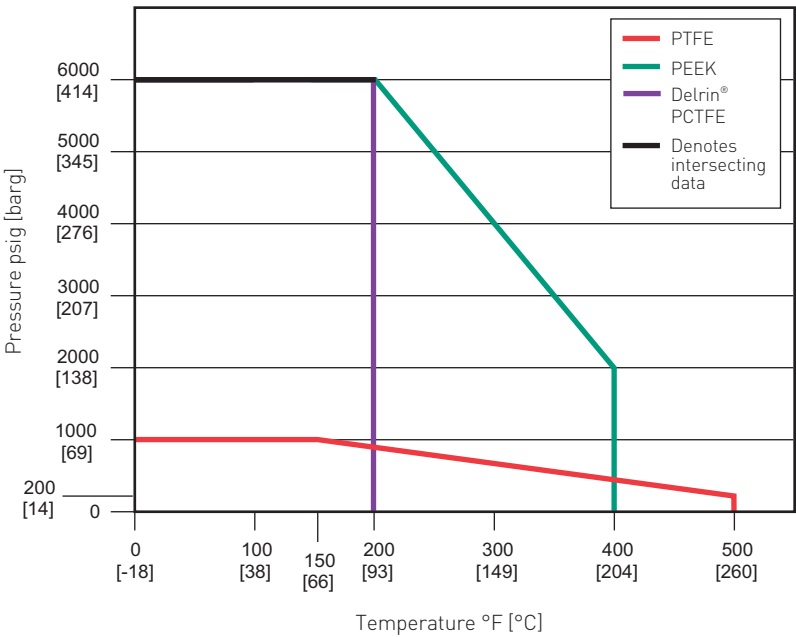
## MINIMUM TEMPERATURE

Carbon steel:	-20°F [-29°C]
316 SS O-ring seal:	-20°F [-29°C]
316 SS PTFE Packed:	-70°F [-57°C]

## NOTES

1. PCTFE (Polychlorotrifluoroethylene is exact equivalent of Kel-F<sup>®</sup>), PEEK and PTFE are available.
2. CS is zinc plated to prevent corrosion.
3. SG (Sour Gas) meets the requirements of NACE MR0175-latest revision.
4. Also available with PTFE packing.

## PRESSURE VS. TEMPERATURE



## ANDERSON GREENWOOD M19 METER MANIFOLD

### SELECTION GUIDE

Example:	M19	C	T	-H1	-SG			
<b>Materials of construction</b>								
C	CS, A108							
S	SS, A479-316							
<b>Configuration</b>								
T	Three-valve							
F	Five-valve							
<b>Vent valve type</b>								
H1								
H5								
<b>Options</b>								
CL00	Cleaned for chlorine service							
OC00	Cleaned for oxygen service							
HD	Hydrostatic testing (100 percent) (MSS-SP-61)							
MS	Monel® stem							
PHB	Phenolic black handle							
SG	Sour Gas meets the requirements of NACE MR0175/ISO 15156 (for chloride conditions ≤ 50 mg/l (ppm)) and NACE MR0103-2005 (SS only)							