Natural Gas Manifolds – M63A, M65T and M65A 5-Valve Manifolds

Product Overview

¾-inch [9.5 mm] Orifice

This product series parallels the M6A series but with the larger ¾-inch [9.5 mm] orifices. The series was developed to answer two needs: 1) a larger valve orifice to assure positive line drainage where wet gas and hydrates are a problem; and 2) to match the flange tap drilling of ¾-inch [9.5 mm] reducing signal variance when pulsating flow is experienced and the manifold (M65A) is mounted as close to the flange outlet as practical.

Features and Benefits

- **The valves are identical** for all three manifold configurations:
  
  M63A - pipe x pipe  
  M65T - pipe x flange  
  M65A - flange x flange

- **As with the M6A series**, the M63A is generally mounted and supported by the ¾-inch or 1½-inch tubing lines for orifice meter applications.

- **The M65T and M65A may be pipe-stand mounted** with the appropriate AGCO Mount Kit to support a differential transmitter. Advantages of AGCO Mount are: that installation may be made prior to availability of the transmitter; and, easier and faster removal of transmitter for maintenance since transmitter is supported only by the manifold.

- **Soft seats** are available in a variety of materials to suit sweet or sour gas.

- **The seats are field replaceable** without removing the manifold.

- **Bonnet assemblies have blow-out proof stems** that seal and isolate the packing when the valve is fully open.

- **Packing** is below the stem threads for corrosion protection.
Natural Gas Manifolds – M63A Specifications

M63A Dimensions, inches [mm]

<table>
<thead>
<tr>
<th>Packing</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teflon®</td>
<td>11.90 [302.3]</td>
</tr>
<tr>
<td>O-ring</td>
<td>11.36 [288.5]</td>
</tr>
</tbody>
</table>

Notes

1. Approximate valve weight: 8.0 lb [3.6 kg], 0.375-inch [9.5 mm] diameter orifice. Valve $C_v$ 3.0 maximum.
2. Bottom static (test) connections available. See options, page 137.
Natural Gas Manifolds – M65A Specifications

Dimensions, inches [mm]

<table>
<thead>
<tr>
<th>Packing</th>
<th>A</th>
<th>[ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teflon®</td>
<td>11.90</td>
<td>302.3</td>
</tr>
<tr>
<td>O-ring</td>
<td>11.36</td>
<td>288.5</td>
</tr>
</tbody>
</table>

Notes
1. Approximate valve weight: 7.6 lb [3.4 kg].
2. Bottom static pressure connections ¼-inch - 18 NPT available (see options page 137).
3. PCTFE (Polychlorotrifluoroethylene) is the exact equivalent of Kel-F®.
4. M65A Installation Kit consists of 4 bolts 7/16-inch - 20 x 1-inch A193-B7, 4 washers, and 2 Teflon® gaskets.
Natural Gas Manifolds – M65T Specifications

M65T Dimensions, inches [mm]

<table>
<thead>
<tr>
<th>Packing</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teflon®</td>
<td>11.90 [302.3]</td>
</tr>
<tr>
<td>O-ring</td>
<td>11.36 [288.5]</td>
</tr>
</tbody>
</table>

Notes

1. Approximate valve weight: 7.6 lb [3.4 kg].
   0.375-inch [9.5 mm] diameter orifice.
   Valve Cv, 3.0 maximum.
2. Bottom static pressure connections
   1/4-inch - 18 NPT available (see options
   page 137).
3. M65T Installation Kit consists of 4 bolts
   7/16-inch-20 x 1-inch A193-B7, 4 washers,
   and 2 Teflon® gaskets.
Natural Gas Manifolds – M63A, M65T and M65A Specifications

<table>
<thead>
<tr>
<th>Standard Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve</td>
</tr>
<tr>
<td>CS</td>
</tr>
<tr>
<td>SS</td>
</tr>
<tr>
<td>SG</td>
</tr>
<tr>
<td>SG3</td>
</tr>
</tbody>
</table>

Pressure and Temperature Ratings

<table>
<thead>
<tr>
<th>Packing</th>
<th>Seat Material</th>
<th>Seat</th>
<th>Standard Bolting</th>
<th>SS Bolting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teflon®, O-ring</td>
<td>Delrin®</td>
<td>Soft</td>
<td>3000 psig @ 200°F</td>
<td>3000 psig @ 200°F</td>
</tr>
<tr>
<td></td>
<td>PCTFE</td>
<td></td>
<td>[207 barg @ 93°C]</td>
<td>[207 barg @ 93°C]</td>
</tr>
<tr>
<td>Teflon®, O-ring</td>
<td>PEEK</td>
<td>Soft</td>
<td>6000 psig @ 200°F</td>
<td>4500 psig @ 100°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3000 psig @ 300°F</td>
<td>3000 psig @ 300°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[207 barg @ 149°C]</td>
<td>[207 barg @ 149°C]</td>
</tr>
<tr>
<td>Teflon®</td>
<td>Teflon®</td>
<td>Soft</td>
<td>1000 psig @ 150°F</td>
<td>1000 psig @ 150°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>200 psig @ 500°F</td>
<td>200 psig @ 500°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[69 barg @ 66°C]</td>
<td>[69 barg @ 66°C]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[14 barg @ 260°C]</td>
<td>[14 barg @ 260°C]</td>
</tr>
<tr>
<td>Teflon®</td>
<td>SS</td>
<td>Metal</td>
<td>1500 psig @ 500°F</td>
<td>1500 psig @ 500°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[103 barg @ 260°C]</td>
<td>[103 barg @ 260°C]</td>
</tr>
</tbody>
</table>

Notes

1. CS parts are zinc cobalt plated.
2. M63A body material is A108
3. M63A body material is A240-316.
4. SG (Sour Gas) meets the requirements of NACE MR0175-2002.
5. PCTFE (Polychlorotrifluoroethylene) is the exact equivalent of Kel-F®.
6. SG3 (Sour Gas) meets the requirements of NACE MR0175-2003.
Natural Gas Manifolds – M63A¹, M65T and M65A Specifications

Notes
1. Use left Pressure Temperature Ratings column for M63A.
2. PCTFE (Polychlorotrifluoroethylene) is the exact equivalent of Kel-F®.
3. 316 SS bolts lower pressure ratings to a maximum of 4500 psi [310 barg]. Consult factory for full rating with 316 SS bolts.
Natural Gas Manifolds – M63A, M65T and M65A Specifications

Ordering Information

Valve Type

\( \frac{3}{8} \) -inch [9.5 mm] orifice

- M63A – Pipe x Pipe
- M65T – Pipe x Flange
- M65A – Flange x Flange

Packing

- V – Teflon® (patent protected)
- R – O-ring

Seat (cone)

Soft (Block valves only) Hard

- V – Teflon®
- D – Delrin®
- E – PEEK
- K – PCTFE

- S – SS, A479-316
- M – Monel®

Body Material

- C – CS1, A105
- S – SS, A479-316
- J – Hastelloy®

Process Connections

M63A and M65T Only

- 4 – \( \frac{1}{2} \) -inch FNPT

Options Code

- AM AGCO Mount Kit for 2-inch pipestand mounting of manifold (page 138).
- BC Accessory bracket for mounting conduit with AGCO Mount
- BP Accessory bracket for mounting purge meters with AGCO Mount
- CL Cleaned for Chlorine Service.
- OC Cleaned for Oxygen Service.
- HD Hydrostatic testing includes test report (MSS-SP-61)
- R3V Add when mounting to Rosemount® Model 3051C, 2024, 3095, specify on all components, use SS columns for rating except for M63A.
- SG Sour Gas meets the requirements of NACE MR0175-2002. (SS valves only) (Not available for O-ring packed valves)
- SG3 Sour Gas meets the requirements of NACE MR0175-2003
- SSA SS flange bolts (grade 18-8) - Maximum pressure rating 4500 psi [310 barg]
- SSC SS flange bolts (316 SS) - Maximum pressure rating 4500 psi [310 barg]
- TB Test/Calibration Ports (bottom of manifold) \( \frac{1}{4} \)-inch -18 NPT, 2 places, M65T, M65A only.
- EL ( ) Installed street elbows in static test ports (M65T and M65A only)
  - Elbows provided with \( \frac{1}{4} \)-inch NPT Plugs
  - EL1 – Elbow facing bottom of manifold
  - EL2 – Elbow facing outlet of manifold
  - EL3 – Elbow facing top of manifold
- SP Special Requirements - provide complete description of requirements.

Notes

1. CS is zinc cobalt plated to resist corrosion.
2. Equalizer valve is ball seated. Ball material is 316 SS for SS body, 17-4 PH for CS body.