# Metran Manifolds

- **Operating fluid: liquid, steam, gas**
- **Process pressure: up to 68 MPa**
- **Temperature of operating medium: –60 to 400°C**
- **Upper and lower limits of ambient temperature at –60 to 85°C**
- **Process connections:**
  **- threaded connection – female and male K1/2, 1/2-14 NPT, M20x1.5;**
  **- flanged connection - center-to-center distance 54 mm**
- **30-year average lifetime**
- **TU 3742-057-51453097-2009**

Metran 0104, 0105, 0106 Manifolds are designed for connection of Metran pressure transmitters to pulse lines in process control systems.

**Benefits:**

- Easy in-process calibration of a transmitter;
- Factory-assembled to a transmitter and leak-tested;
- Lightweight design (3 kg max);
- Compact design;
- Special styles: oxygen.

The manufacturer reserves the right to make design changes that do not degrade manifold performance and durability.



**General Queries:** T. +7 351 24-24-444; info@metran.ru
**Customer Support Center:** +7 351 24-24-000; support@metran.ru

The manifolds are divided into series depending on their design.

*Table 1*

| Manifold Series | Application |
|---|---|
| 0104 | Traditional manifolds with flanged and threaded process connections |
| 0105 | In-Line manifold |
| 0106 | Manifolds for in-line pressure transmitters |

**CORRESPONDENCE TABLE - BEST-SELLING A, B, C and E MANIFOLDS VS 0104 И 0106 MANIFOLDS**

*Table 2*

| Series [1] | Former Name | New Name |
|---|---|---|
| B(2) | B22 02 P1 | 0104 MT2 2 D 1 1 |
| B(3) | B30 02 P1 | 0104 MT3 2 D 1 1 |
| | B32 02 P1 | 0104 MT3 2 D 1 1 H1 |
| | B30 02 P5 | 0104 MT3 2 C 1 1 |
| | B32 02 P5 | 0104 MT3 2 C 1 1 H1 |
| B(5) | B52 02 P5 | 0104 MT5 2 C 1 1 |
| | B52-01 02 P5 | 0104 MT5 2 C 1 1 H2 |
| | B52 02 P1 | 0104 MT5 2 D 1 1 |
| | B52-01 02 P1 | 0104 MT5 2 D 1 1 H2 |
| | B52-01 02 P1 K | 0104 MT5 2 D 3 1 H2 UC |
| C(3) | C30 02 P1 | 0104 MW3 2 D 1 1 |
| | C32 02 P1 | 0104 MW3 2 D 1 1 H1 |
| | C30 02 P5 | 0104 MW3 2 C 1 1 |
| | C32 02 P5 | 0104 MW3 2 C 1 1 H1 |
| C(5) | C52 02 P1 | 0104 MW5 2 D 1 1 |
| | C52-01 02 P1 | 0104 MW5 2 D 1 1 H2 |
| | C52 02 P5 | 0104 MW5 2 C 1 1 |
| | C52-01 02 P5 | 0104 MW5 2 C 1 1 H2 |

*Table 2 (Continued)*

| Series | Former Name | New Name |
|---|---|---|
| A(3) | A30 02 | 0104 MT3 2 F 1 1 |
| | A32 02 | 0104 MT3 2 F 1 1 H1 |
| A(5) | A52 02 | 0104 MT5 2 F 1 1 |
| E(1) | E12 56NPT 02 | 0106 MT1 2 C A 1 1 |
| | E12 50 02 | 0106 MT1 2 C B 1 1 |
| | E12 53 02 | 0106 MT1 2 C C 1 1 |
| | E12 16NPT 02 | 0106 MT1 2 D A 1 1 |
| | E12 10 02 | 0106 MT1 2 D B 1 1 |
| | E12 13 02 | 0106 MT1 2 D C 1 1 |
| E(2) | E22 56NPT 02 | 0106 MT2 2 C A 1 1 |
| | E22 50 02 | 0106 MT2 2 C B 1 1 |
| | E22-01 50 02 | 0106 MT2 2 C B 1 1 H2 |
| | E22-01 50 02 K | 0106 MT2 2 C B 3 1 H2 UC |
| | E22 53 02 | 0106 MT2 2 C C 1 1 |
| | E22 16NPT 02 | 0106 MT2 2 D A 1 1 |
| | E22 10 02 | 0106 MT2 2 D B 1 1 |
| | E22 13 02 | 0106 MT2 2 D C 1 1 |

[1] The number of valves is specified in brackets.

## MANIFOLDS CONNECTION TO AND OPERATION WITH PRESSURE TRANSMITTERS

### Three- and five-valve manifolds

The manifolds are used assembled to differential pressure transmitters. Conventional three- and five-valve manifolds enable pressure equalization in the transmitter chambers for zero output trim, as well as isolation of the transmitter from the process line. The advantage of the five-valve manifold is that a pulse line or metrological equipment may be connected to a drain port and be isolated by a separate valve.

### One- and two-valve manifolds

The manifolds are used assembled to gage and absolute pressure transmitters. The manifolds consist of a housing and an isolate valve that provides instrument isolation and a drain/vent valve that allows draining and simplified in-process calibration.

## WETTED MATERIALS

*Table 3*

| Component | | Process Contact | Material Code | |
|---|---|---|---|---|
| | | | 2 (SST) | 4 (316 SST and Alloy C-276) |
| Manifold Housing | | Yes | 12Cr18Ni10Ti (12X18H10T) or 316 SST | 316 SST |
| Valve | Valve Body | Yes | 12Cr18Ni10Ti (12X18H10T) or 316 SST | 316 SST |
| | Valve Gate | Yes | 12Cr18Ni10Ti (14X17H2) or 316 SST | Alloy C-276 |
| | Valve Stem | Yes | 12Cr18Ni10Ti (14X17H2) or 12Cr18Ni10Ti (14X17H2) or 316 SST | Alloy C-276 |
| | Packing Nut | No | 12Cr18Ni10Ti (12X18H10T) or 316 SST | 316 SST |
| | Gland Lock Nut | No | Stainless steel or 300 series SST | 300 series SST |
| | Handle and Handle Bolt | No | Stainless steel or 300 series SST | 300 series SST |
| Manifold Parts | Plug/Adapter for Metrological Equipment | Yes | 12Cr18Ni10Ti (12X18H10T) or 316 SST | 316 SST |
| | Drain Screw | Yes | 12Cr18Ni10Ti (14X17H2) or 316 SST | Alloy C-276 |
| | Lock Pin | No | Stainless steel or 300 series SST | 300 series SST |
| | Drain Plug | Yes | 12Cr18Ni10Ti (12X18H10T) or 316 SST | Alloy C-276 |
| Unspecified Components | Wetted Metal | Yes | SST or 316 SST | 316 SST |
| | Non-wetted Metal | No | Stainless steel or 300 series SST | 300 series SST |

## WEIGHT

*Table 4*

| Manifold Model | Weight, kg max |
|---|---|
| 0104 M T 2 | 2.3 |
| 0104 M T 3 | 2.5 |
| 0104 M T 5 | 2.6 |
| 0104 M W 3 | 1.8 |
| 0104 M W 5 | 2.6 |
| 0105MC5 | 3.0 |
| 0105MC3 | 2.1 |
| 0105MC2 | 2.0 |
| 0105MT3 | 2.7 |
| 0105MT2 | 2.7 |
| 0105MS5 | 3.0 |
| 0105MS3 | 2.1 |
| 0105MS2 | 2.0 |
| 0106MT2 | 1.1 |
| 0106MT1 | 0.5 |

## WARRANTY

The manifolds are warranted for 36 months from the date of putting such transmitters into operation or for 60 months after their delivery, whichever period expires first. The manifolds with WR5 option are warranted for 5 years from the date of putting such transmitters into operation or for 7 years after their delivery, whichever period expires first.

The warranty shelf life is 12 months from the date of sale.

## 0104 MANIFOLD

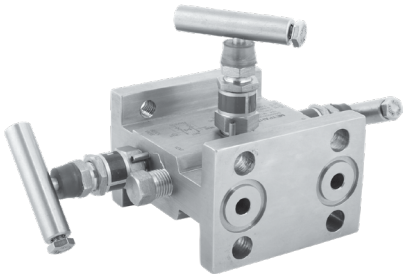


**Figure 1. 0104MT3 Conventional Three-valve Manifold, Flanged Process Connection**

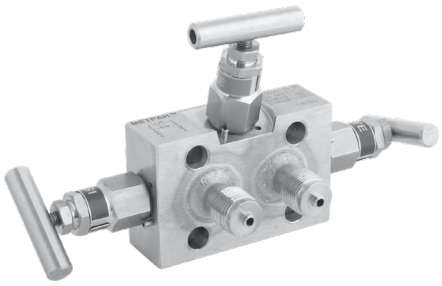


**Figure 2. 0104MW3 Compact Three-valve Manifold, M20x1.5 Treaded Process Connection**

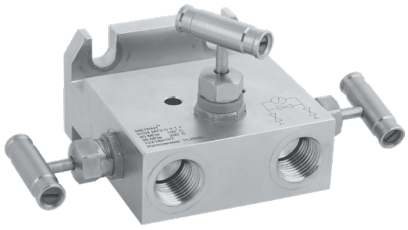


**Figure 3. 0104MT3 Conventional Three-valve Manifold, K1/2 or 1/2-14NPT Treaded Process Connection**

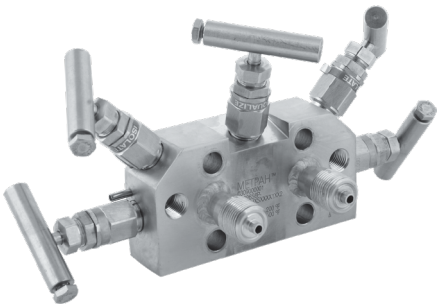


**Figure 4. 0104MW5 Compact Five-valve Manifold, M20x1.5 Treaded Process Connection**

**Pressure and Temperature Ratings for Packing Materials**

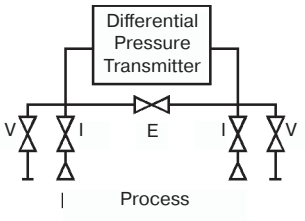
*Table 5*

| O-ring material | Maximum Operating Pressure, MPa | Maximum Process Temperature, °C[1)] |
|---|---|---|
| Polytetrafluorethylene (PTFE) | 40<br>30 | 100<br>200 |
| Graphite | 40<br>10 | 100<br>400 |
| Graphite-Filled PTFE | 40<br>30 | 100<br>150 |

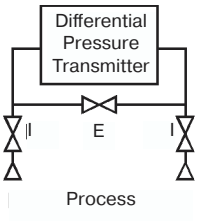
[1)] For manifolds assembled to a transmitter, temperature limits depends on the values for the relevant pressure transmitter.

## CONNECTION SCHEMATIC, DIMENSIONAL DRAWINGS

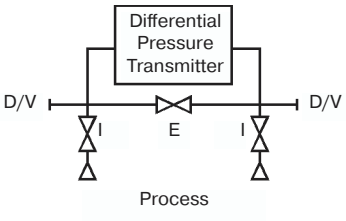
**5-valve Manifold**



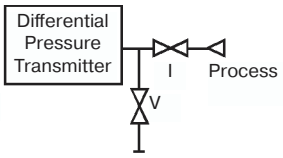

**3-valve Manifold without Vent/Drain**




**3-valve Manifold with Vent/Drain**




**2-valve Manifold**




**I** – Isolate Valve
**E** – Equalize Valve
**V** – Drain/Vent Valve
**D/V** – Drain/Vent Valve

**M** – Manifold

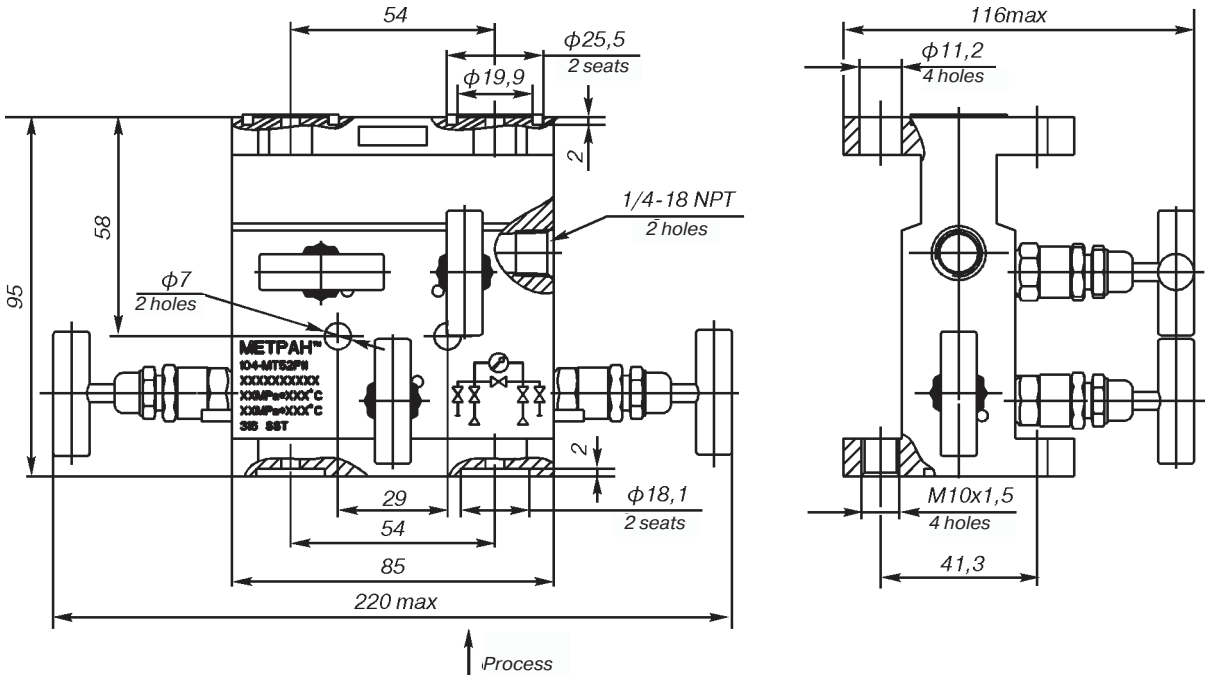



**Figure 5. 0104 M T 5 Five-Valve Manifold with Process Connection Code F**

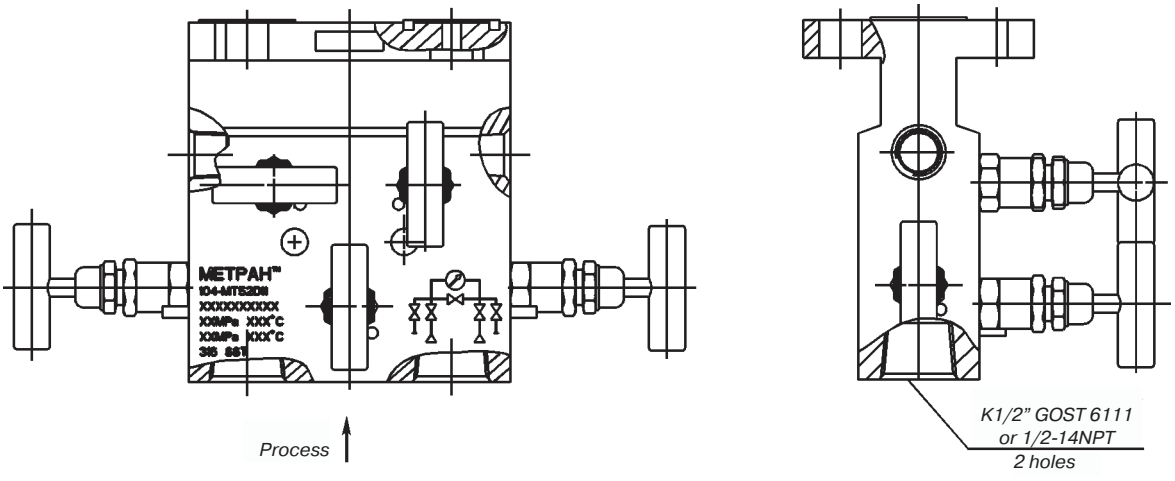



**Figure 6. 0104 M T 5 Five-Valve Manifold with Process Connection Code B (D)**
**For dimensional drawing, refer to Figure 5.**

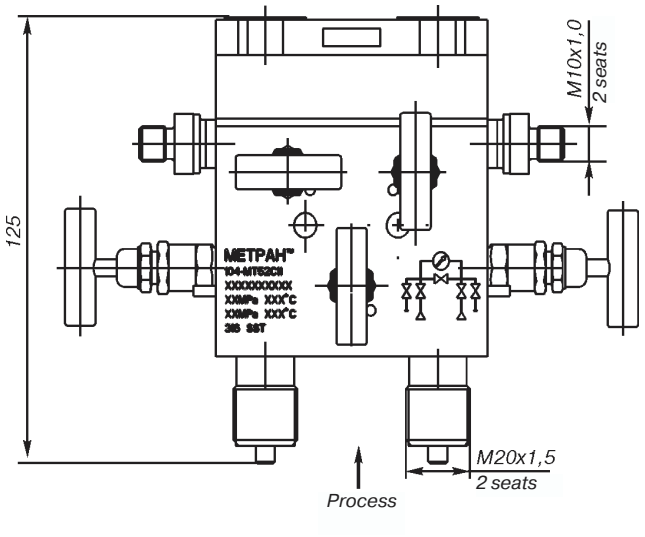



**Figure 7. 0104 M T 5 Five-Valve Manifold with Process Connection Code C**
**For dimensional drawing, refer to Figure 5.**

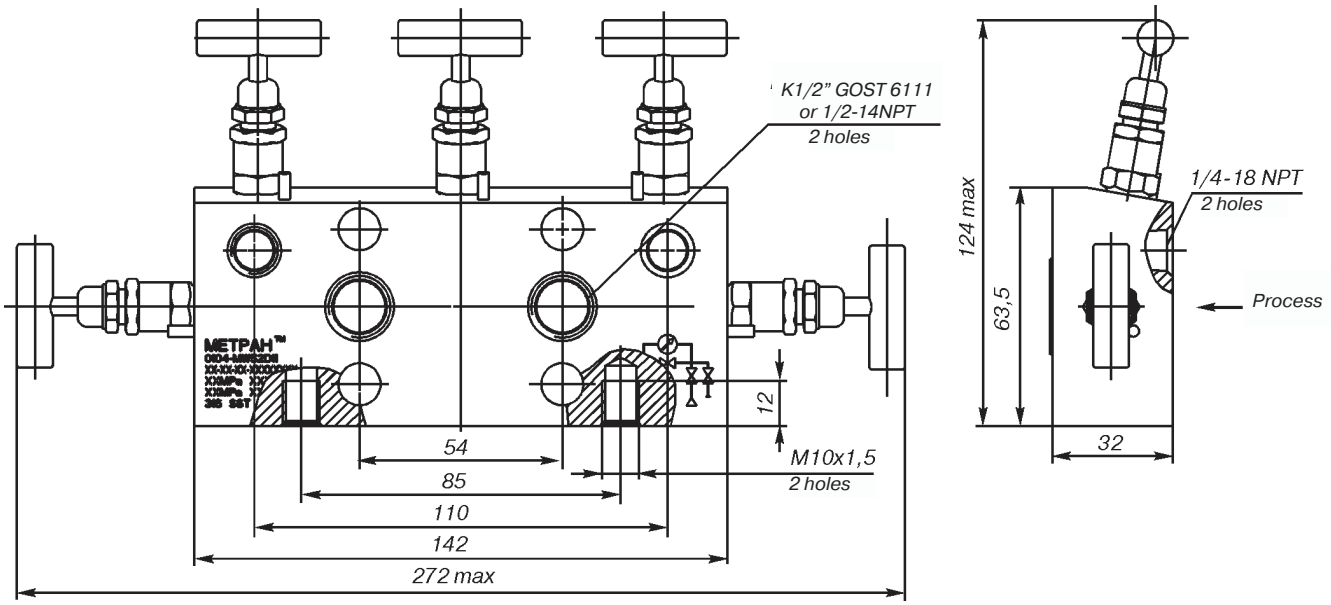



**Figure 8. 0104 M W 5 Five-Valve Manifold with Process Connection Code B (D)**

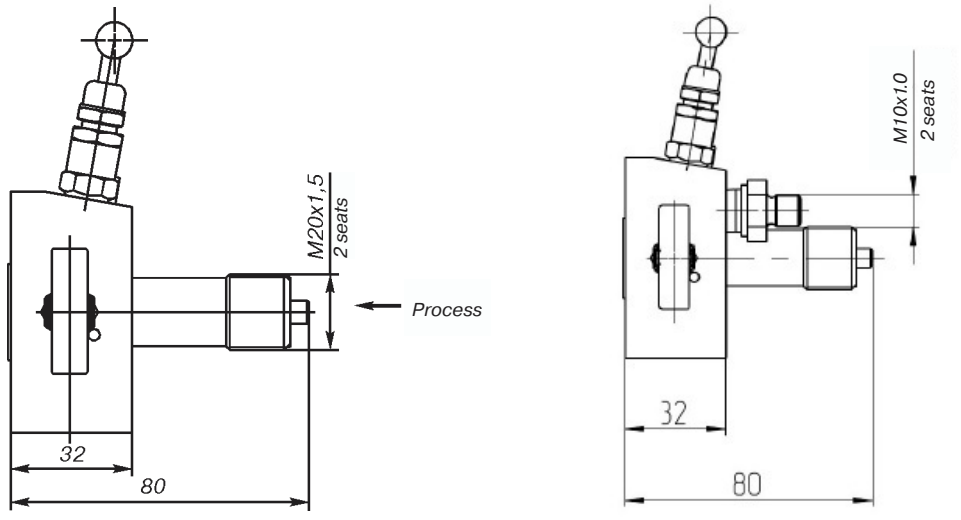



**Figure 9. 0104 M W 5 Five-Valve Manifold with Process Connection Code C and Option Code H2 for Metrological Equipment Connection For dimensional drawing, refer to Figure 8.**

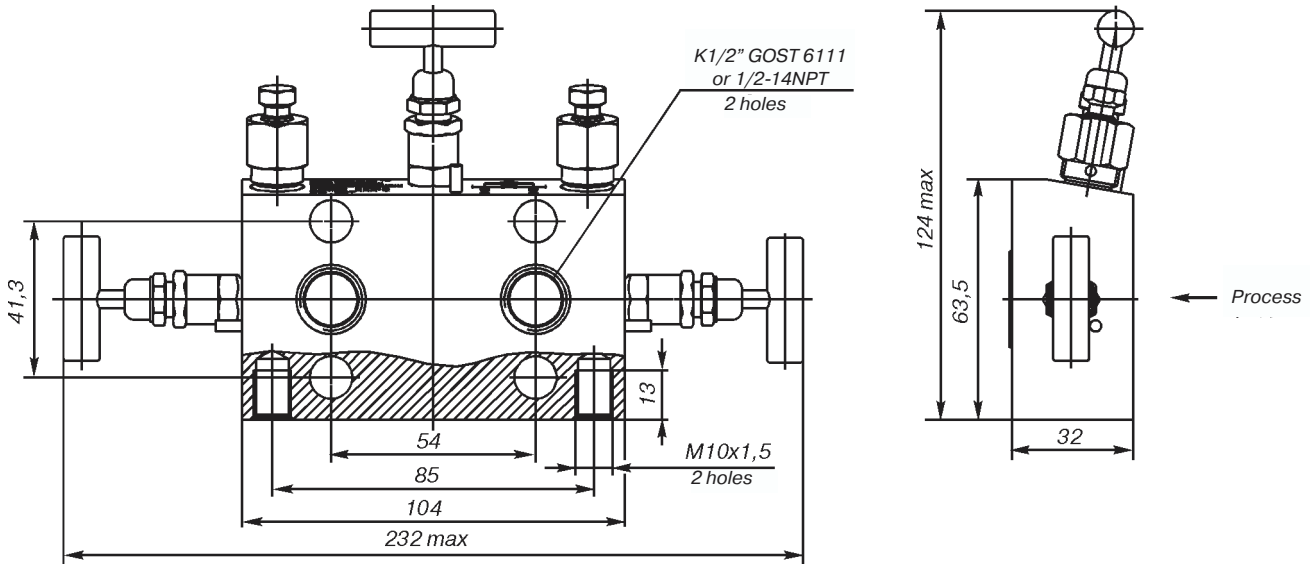



**Figure 10. 0104 M W 3 Three-Valve Manifold with Process Connection Code B (D) with Drain/Vent Valve Downstream of Isolate Valve**

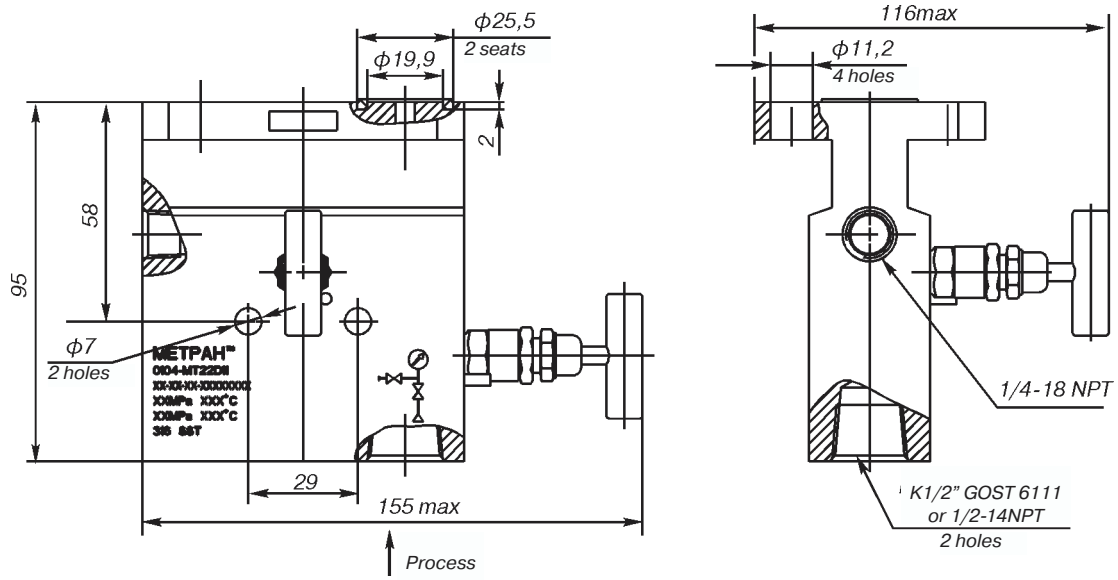



**Figure 11. 0104 M T 2 Two-Valve Manifold with Process Connection Code B (D) with Drain/Vent Valve Downstream of Isolate Valve**

## ORDERING INFORMATION

Best-selling styles that have minimum lead time are marked with ● symbol in Standard column.

*Table 6*

| Model | Description | Standard |
|---|---|---|
| 0104 | Conventional Manifold | ● |
| **Code** | **Manufacturer** | |
| M | Metran | ● |
| **Code** | **Process Type** | |
| T | Conventional (flange-flange) | ● |
| W | Wafer (flange-flange) (Available with material code 2 only. Not available with manifold type code 2, process connection code F) | ● |
| **Code** | **Manifold type** | |
| 2 | 2-valve (not available with manifold option code W) | ● |
| 3 | 3-valve | ● |
| 5 | 5-valve | |
| **Code** | **Body** | |
| 2 | 316 SST or 12Cr18Ni10Ti (12X18H10T) | ● |
| 4 | 316 SST and Alloy C-276 | |
| **Code** | **Process connection** | |
| B | Threaded, 1/2NPT female | |
| C | Threaded, M20x1.5 male | ● |
| D [1)] | Threaded, K1/2 female | |
| F | Flanged (not available with option code W, manifold type 2, option codes D1- D6 should be selected) | ● |
| **Code** | **Packing material [2)]** | |
| 1 | Polytetrafluorethylene (PTFE) | ● |
| 2 | Graphite-based | |
| 3 | Graphite-filled PTFE (available with special cleaning option code UC only) | |
| **Code** | **Type of transmitter to be connected** | |
| 1 | With conventional flange, M10 thread | ● |
| 2 | With conventional flange for high pressure (available with manifold option code W only) | |
| **Code** | **Special cleaning** | |
| UC | Cleaning for use in oxygen gas process (available with packing material option code 3 only) | |
| **Code** | **Special style** | |
| H1 | Hydraulic circuit with drain valves (available with manifold type code 3 only) | ● |
| H2 | For metrological equipment connection (M10x1 fitting installed in drain/vent port; available for manifold type code 5, process connection codes B, C, D; maximum pressure for fitting is 16 MPa) | ● |
| | **ADDITIONAL OPTIONS** | |
| WR5 | 5-year limited warranty | ● |
| **Code** | **Mounting brackets** | |
| VC | Pipe mounting bracket, CS | ● |
| VS | Pipe mounting bracket, SST | ● |
| **Code** | **Mounting parts [4) 5)]** | |
| D0 [3)] | Nipple and coupling nut M20x1.5 for 14 mm outer pipe diameter mounting (available with process connection code C only) | ● |
| D1 | SST 316 mounting flange with K1/4” threaded hole to GOST 6111 (available for manifold style code T and process connection code F only) | |
| D2 | SST 316 mounting flange with K1/2” threaded hole to GOST 6111 (available for manifold style code T and process connection code F only) | |
| D3 | SST 316 mounting flange with 1/4 NPT threaded hole (available for manifold style code T and process connection code F only) | |
| D4 | SST 316 mounting flange with 1/2 NPT threaded hole (available for manifold style code T and process connection code F only) | |
| D5 | SST 316 mounting flange with nipple and M20x1.5 coupling nut for 14 mm outer pipe diameter mounting (available for manifold style code T and process connection code F only) | ● |
| D6 | Coated CS mounting flange with nipple for 14 mm outer pipe diameter mounting (available for manifold style code T and process connection code F only) | ● |
| **Code** | **Nipple material (available with mounting part codes D0, D5, D6 only)** | **Standard** |
| 2 | 12Cr18Ni10Ti (12X18H10T) or 316L SST | ● |
| 3 | Coated carbon steel | |

*Table 6 (Continued)*

| | | |
|---|---|---|
| 5 | 09G2S (09Г2С) coated low-temperature carbon steel | |
| **Code** | **Bolt for assembly to pressure transmitter** | |
| L3 | M20x1.5 bolt, coated CS | ● |
| L4 | M10 bolt, SST (not available with process connection code F) | |
| L8 | 7/16-20UNF bolt, SST, ASTM A193 B8M Class 2 (available for manifold style code W only, available for code 2 of transmitter to be connected only) | |
| **Code** | **Plug (available for manifold type codes 2 and 5 only)** | |
| H3 [6] | 1/4 NPT plug for drain/vent ports (1 ea. for manifold type code 2, 2 ea. for manifold type code 5) | |
| | **ADDITIONAL OPTIONS** | |
| SR | Additional set of O-rings (2 ea.) for manifold assembly to transmitter (material complies with packing material code) | |
| MW1 | Technical supervision of the Russian Maritime Register of Shipping (not available with code BR6) | |
| MW2 | Technical supervision of the Russian Maritime Register of Shipping to use with additional sign WINTERIZATION(-50) (available with packing material code 1 only; not available with code BR6). | |
| SM | Certificate of compliance with seismic resistance norms | |
| BR6 | Ambient temperature is from –60 °C (available with packing material code 1 only) | |
| Q8 | Material traceability certification per EN 10204 3.1 | |
| Q15 [7] | Certificate of Compliance to NACE MR0175/ISO 15156:2015, NACE MR0103/ISO 17945:2015 | |

[1] It may be replaced with process connection code B
[2] O-ring material for pressure transmitter and manifold assembly complies with packing material code of a manifold's valve.
[3] Coupling nut material for mounting part codes D0, D5 in combination with nipple material code 3 or 5 is coated carbon steel, in combination with nipple material code 2 is stainless steel. Packing gland material: copper for nipple material codes 3 and 5, 12Cr18Ni10Ti (12X18H10T) stainless steel for nipple material code 2.
[4] Manifold-to-flange bolt material is coated CS.
[5] O-ring material for mounting flanges corresponds to packing material code of a manifold's valve.
[6] 1 ea. for manifold type code 2, 2 ea. for manifold type code 5.
[7] Available with c material code 4 only. Not available with process connection code C, mounting part code D0, D5, D6.

**Typical Model Number: 0104 M T 3 2 F 1 1 VC D1 2 L3**

## 0105 MANIFOLD

### Pressure and Temperature Ratings for Packing Materials

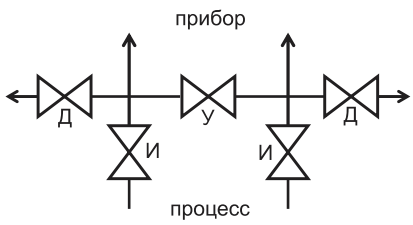
*Table 7*

| Model | Packing Material | Maximum Operating Pressure Pp, MPa | Maximum Process Temperature, ˚C |
|---|---|---|---|
| 0105 | PTFE | 40 | 100 |
| | | 30 | 200 |
| 0105 | Graphite-based | 40 | 100 |
| | | 10 | 400 |
| 0105 with option code UC | Graphite-filled PTFE | 40 | 100 |
| | | 30 | 150 |

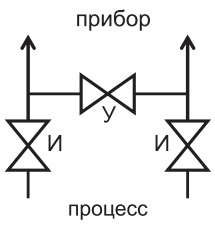
Notes: For manifolds assembled to a transmitter, temperature limits depends on the values for the relevant pressure transmitter.

### CONNECTION SCHEMATIC, DIMENSIONAL DRAWINGS

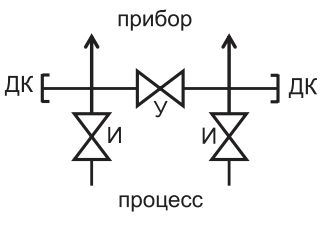
**Five-valve Manifold with Drain/Vent Valves**



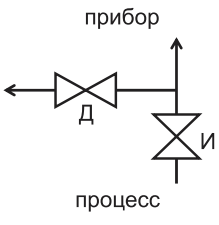

**Three-valve Manifold without Vent/Drain**




**Three-valve Manifold with Drain/Vent Valves**




**Two-valve Manifold with Drain/Vent Valve**




**I** – Isolate Valve
**E** – Equalize Valve
**V** – Drain/Vent Valve
**D/V** – Drain/Vent Valve

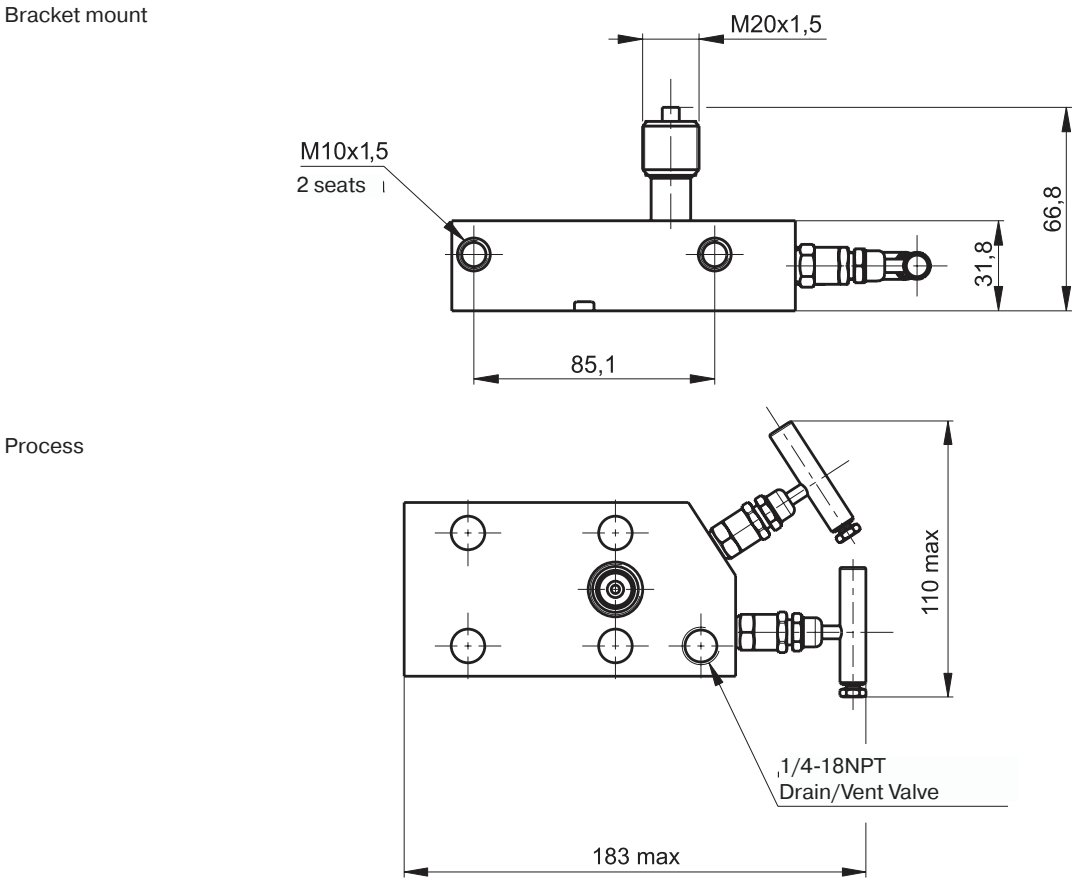



**Figure 12. 0105 M C 2 Two-valve Manifold with Process Connection Code C**

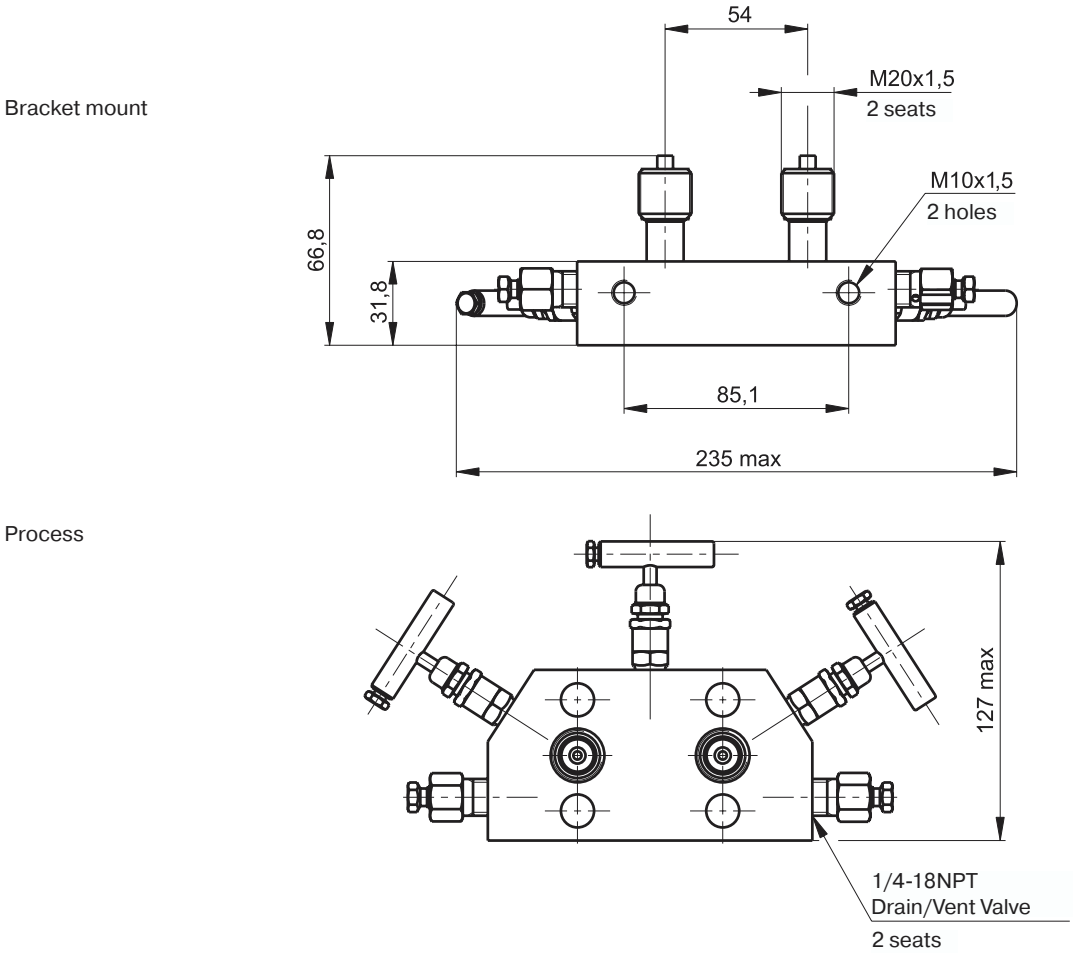



**Figure 13. 0105 M C 3 Three-valve Manifold with Process Connection Code C and Code H1.**

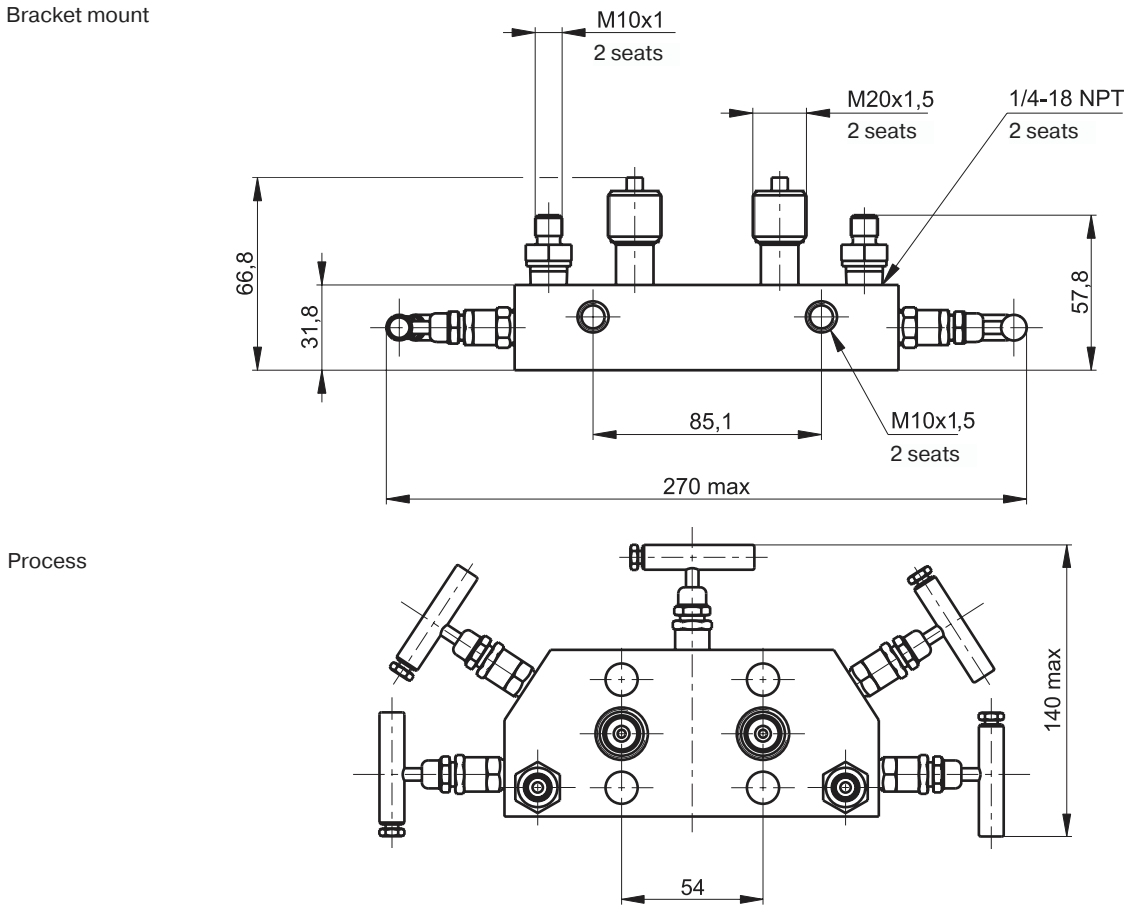



**Figure 14. 0105 M C 2 Five-valve Manifold with Process Connection Code C and Code H2**

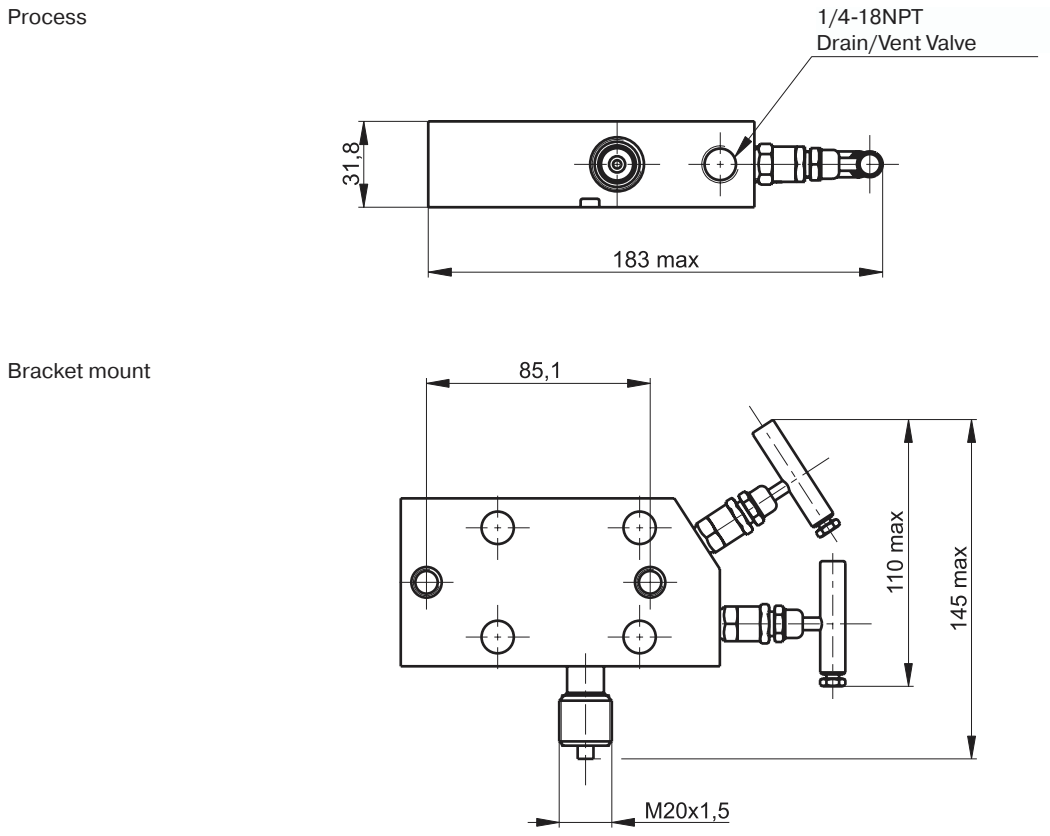



**Figure 15. 0105 M S 2 Two-valve Manifold with Process Connection Code C**

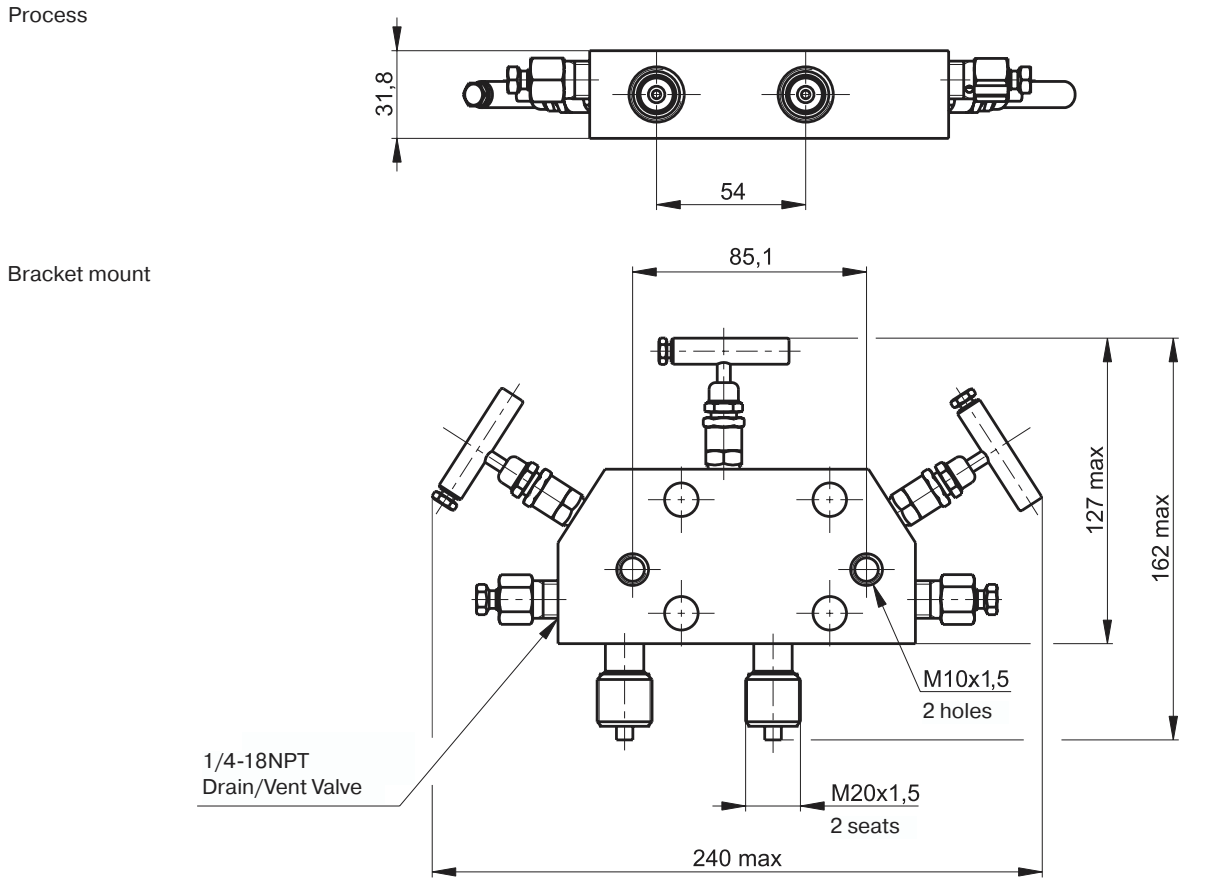



**Figure 16. 0105 M S 3 Three-valve Manifold with Process Connection Code C and Code H1**

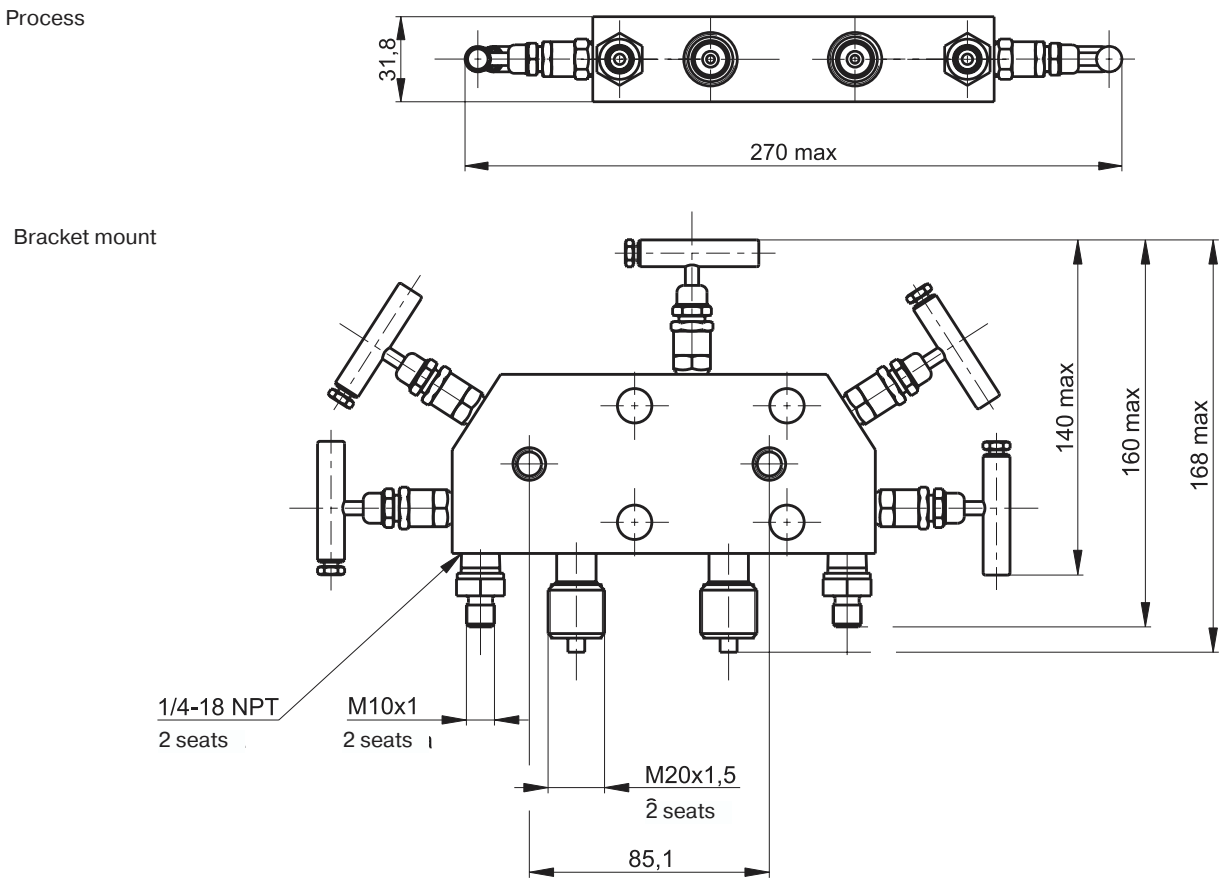



**Figure 17. 0105 M S 5 Five-valve Manifold with Process Connection Code C and Code H2**

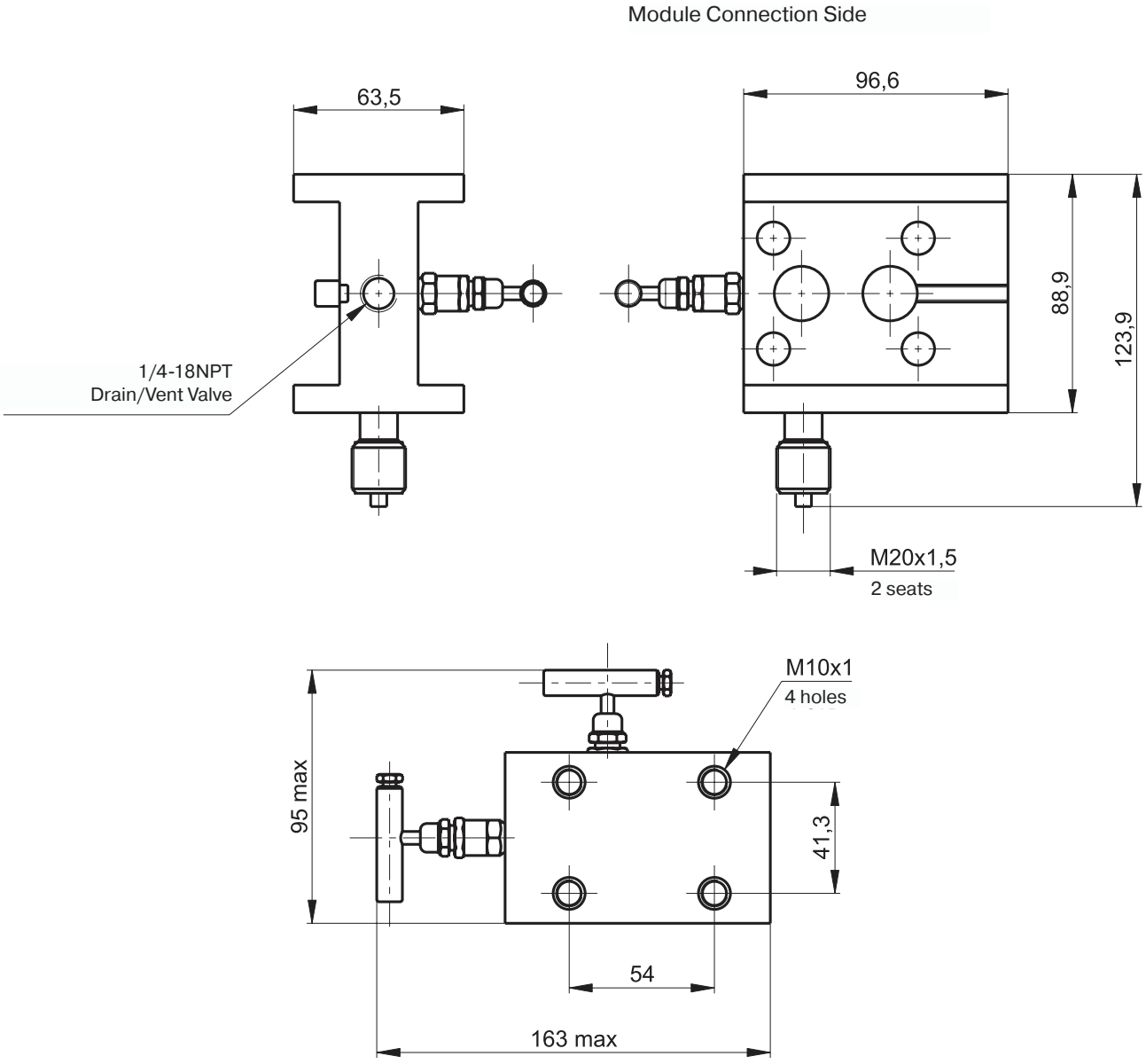



**Figure 18. 0105 M T 2 Two-valve Manifold with Process Connection Code C**

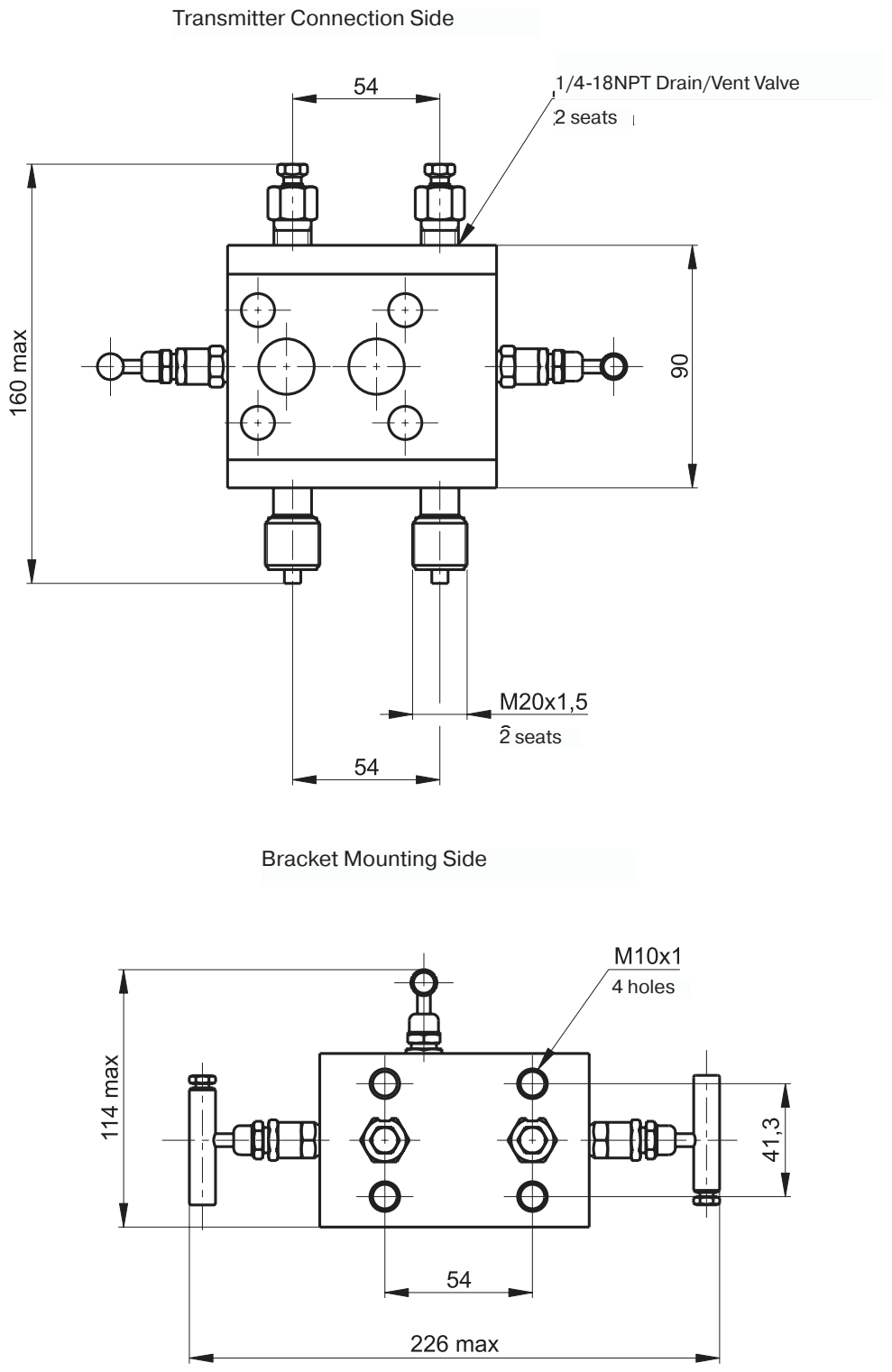



**Figure 19. 0105 M T 3 Three-valve Manifold with Process Connection Code C and H1**

**ORDERING INFORMATION**

*Table 8*

| Code | Description | Standard |
|---|---|---|
| 0105 | Integral manifold | |
| **Code** | **Manufacturer** | |
| M | Metran | |
| **Code** | **Manifold style** | |
| C | Coplanar | |
| S | Coplanar with side connection | |
| T | Traditional | |
| **Code** | **Manifold type** | |
| 2 | 2-valve | |
| 3 | 3-valve | |
| 5 | 5-valve (not available with manifold style code T) | |
| **Code** | **Body** | |
| 2 | 316 or 12Cr18Ni10Ti (12X18H10T) SST | |
| 4 | 316 SST and Alloy C-276 | |
| **Code** | **Process connection** | |
| B | Threaded, 1/2-14 NPT , female | |
| C | Threaded, M20x1.5 male | |
| D [1)] | Threaded, K1/2", GOST 6111, female | |
| F | Flanged, threaded 1/4-18 NPT female (available with manifold style code T only) | |
| **Code** | **Packing material** | |
| 1 | Polytetrafluorethylene (PTFE) | |
| 2 | Graphite-based | |
| 3 | Graphite-filled PTFE (available with special cleaning option code UC only) | |
| **Code** | **Valve seat** | |
| 1 | Integral | |
| **Code** | **Special cleaning** | |
| UC | Cleaning for use in oxygen gas process (available with packing material option code 3 only) | |
| **Code** | **Special style** | |
| H1 | With drain/vent valves (available with manifold type code 3 only) | |
| H2 | For metrological equipment connection (M10x1 fitting installed in drain/vent port; available for manifold type code 5, process connection codes B, C, D; maximum pressure for fitting is 16 MPa) | |
| **Code** | **Extended product warranty** | |
| WR5 | 5–year limited warranty | |
| **Code** | **Mounting brackets** | |
| B1 | Mounting bracket for manifold (manifold style code T (Traditional)) to be mounted on 60 mm outer diameter pipe (bracket and bolt material is coated CS) | |
| B4 | Mounting bracket for manifold (manifold style code C and S (Coplanar and Coplanar with side entry process connection) to be mounted on panel or 60 mm outer diameter pipe (bracket and bolt material is SST) | |
| **Code** | **Mounting parts [3) 4)]** | |
| D0 [2)] | Nipple and coupling nut M20x1.5 for 14 mm outer pipe diameter mounting (available with process connection code C only) | |
| D1 | SST 316 mounting flange with K1/4" threaded hole to GOST 6111 (available for manifold style code T and process connection code F only) | |
| D2 | SST 316 mounting flange with K1/2" threaded hole to GOST 6111 (available for manifold style code T and process connection code F only) | |
| D3 | SST 316 mounting flange with 1/4 NPT threaded hole (available for manifold style code T and process connection code F only) | |
| D4 | SST 316 mounting flange with 1/2 NPT threaded hole (available for manifold style code T and process connection code F only) | |
| D5 [2)] | SST 316 mounting flange with nipple and M20x1.5 coupling nut for 14 mm outer pipe diameter mounting (available for manifold style code T and process connection code F only) | |
| D6 | Coated CS mounting flange with nipple for 14 mm outer pipe diameter mounting (available for manifold style code T and process connection code F only) | |
| **Code** | **Nipple material (available with mounting part codes D0, D5, D6 only)** | |
| 2 | 12Cr18Ni10Ti (12X18H10T) or 316L SST | |

*Table 8 (Continued)*

| | | |
|---|---|---|
| 3 | Coated carbon steel | |
| 5 | 09G2S (09Г2С) coated low-temperature carbon steel | |
| **Code** | **Bolting materials** | |
| L3 | 7/16-20UNF coated CS bolts, ASTM A 449 Type 1 | |
| L4 | 7/16-20UNF 316 SST bolts, ASTM F593 GP2 CW | |
| L8 | 7/16-20UNF SST bolts, ASTM A193 B8M, Class 2 (available with special style code BR6, for assembly to pressure transmitter with code HP) | |
| **Code** | **Plug (available for manifold type codes 2 and 5 only)** | |
| H3 | 1/4 NPT plug kit for drain/vent ports (1 ea. for manifold type code 2, 2 ea. for manifold type code 5) | |
| **Code** | **Additional options** | |
| MW1 | Technical supervision of the Russian Maritime Register of Shipping (not available with code BR6) | |
| MW2 | Technical supervision of the Russian Maritime Register of Shipping to use with additional sign WINTERIZATION(-50) (available with packing material code 1 only; not available with code BR6). | |
| SM | Certificate of compliance with seismic resistance norms | |
| BR6 | Ambient temperature is from –60 °C (available with packing material code 1 only) | |
| Q8 | Material traceability certification per EN 10204 3.1 | |
| Q15 | Certificate of Compliance to NACE MR0175/ISO 15156:2015, NACE MR0103/ISO 17945:2015 | |

[1] It may be replaced with process connection code B.
[2] Coupling nut material: coated CS, packing gland material: copper for nipple material codes 3 and 5, 12Cr18Ni10Ti (12X18H10T) stainless steel for nipple material code 2.
[3] Manifold-to-flange bolt material is coated CS.
[4] O-ring material for mounting flanges corresponds to packing material code of a manifold.

**Typical Model Number: 0105 M C 2 2 C 1 1 D0 2 L3**

## 0106 MANIFOLD

**Figure 20. 0106MT1 Manifold, 1/2-14 NPT treaded process connection, female**

**Figure 21. 0106MT2 Two-valve Manifold, M20x1.5 Treaded Process Connection, Male**

**Pressure and Temperature Ratings for Packing Materials**

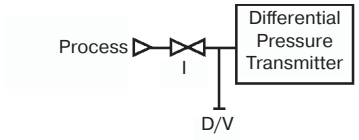
*Table 9*

| O-ring material | Maximum Operating Pressure, MPa | Maximum Process Temperature[1], °C |
|---|---|---|
| Polytetrafluorethylene (PTFE) | 68<br>30 | 50<br>200 |
| Graphite-filled Polytetrafluorethylene (PTFE) | 40<br>30 | 100<br>150 |
| Graphite-based | 40<br>10 | 100<br>400 |

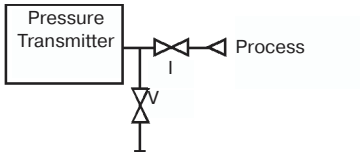
[1] For manifolds assembled to a transmitter, temperature limits depends on the values for the relevant pressure transmitter

## CONNECTION SCHEMATIC, DIMENSIONAL DRAWINGS

**Manifold with drain after isolating valve**




**2-valve manifold with drain after isolating valve**




**I** – Isolate Valve
**V** – Drain/Vent Valve
**D/V** – Drain/Vent Valve
**M** – Manifold

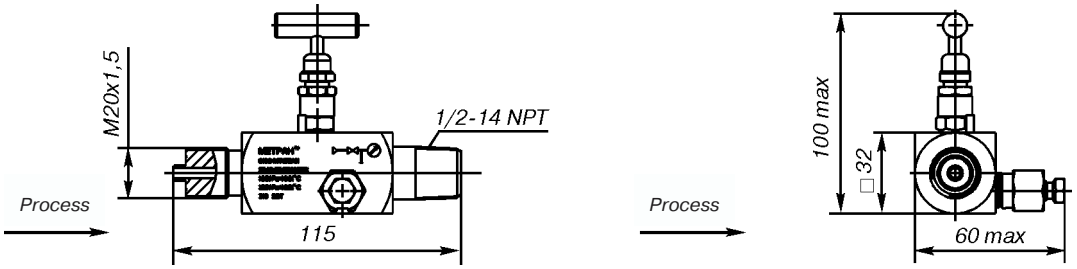



**Figure 22. 0106 M T 1 Manifold with Process Connection Code C and Transmitter Connection Code A**

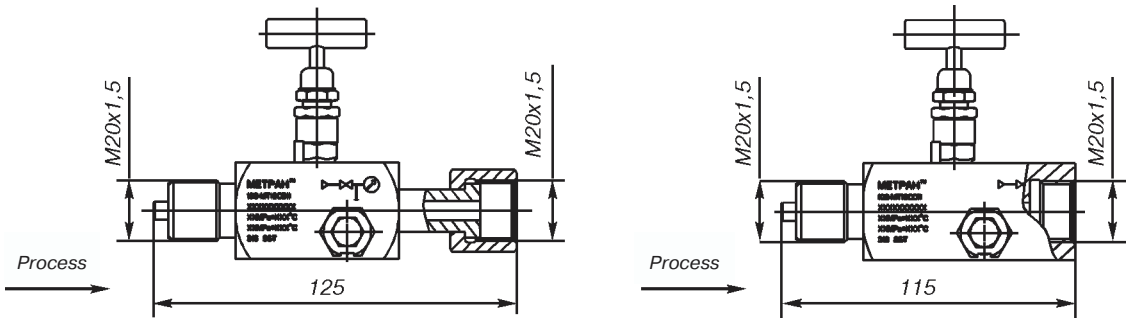



**Figure 23. 0106 M T 1 Manifold with Process Connection Code C and Transmitter Connection Code B (C)**

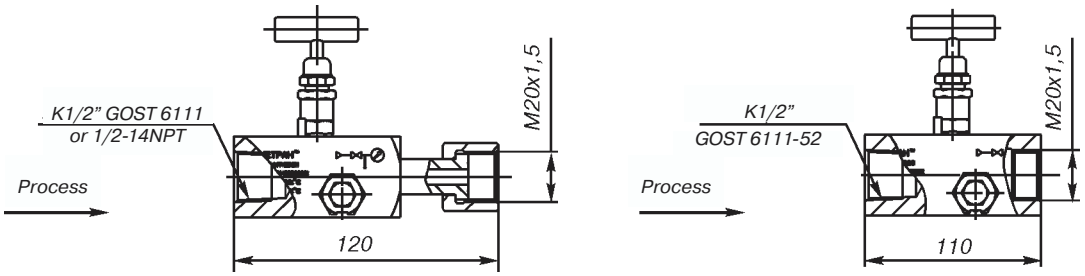



**Figure 24. 0106 M T 1 Manifold with Process Connection Code B (D) and Transmitter Connection Code B (C).**

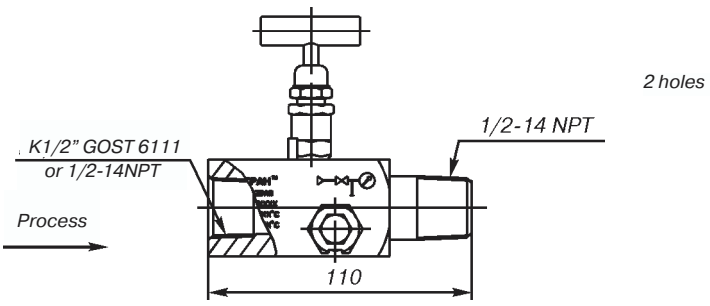



**Figure 25. 0106 M T 1 Manifold with Process Connection Code B (D) and Transmitter Connection Code A**

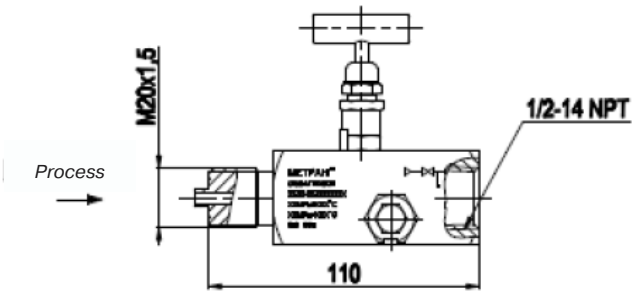



**Figure 26. 0106 M T 1 Manifold with Process Connection Code C and Transmitter Connection Code D**

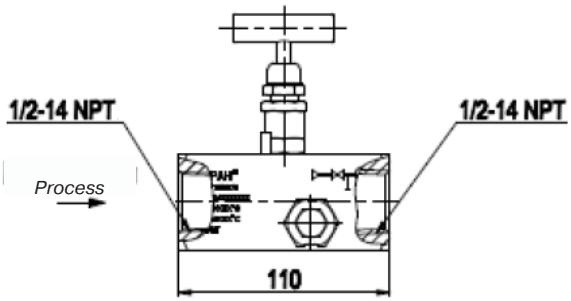



**Figure 27. 0106 M T 1 Manifold with Process Connection Code B and Transmitter Connection Code D**

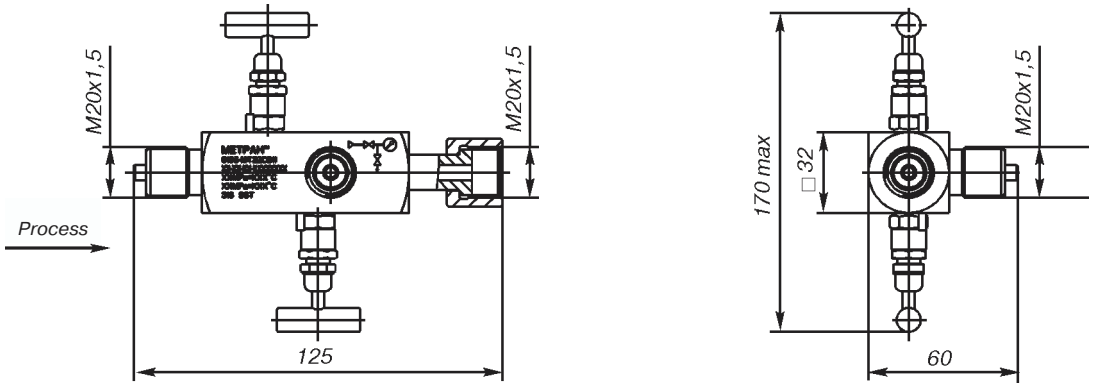



**Figure 28. 0106 M T 2 Two-Valve Manifold with Process Connection Code C and Option Code H2 for Metrological Equipment Connection**

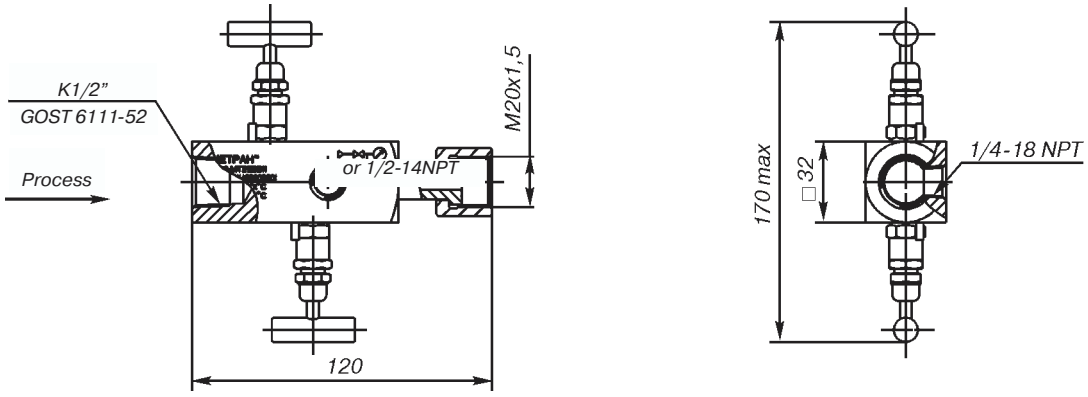



**Figure 29. 0106 M T 2 Two-valve Manifold with Process Connection Code B (D) and Transmitter Connection Code B**

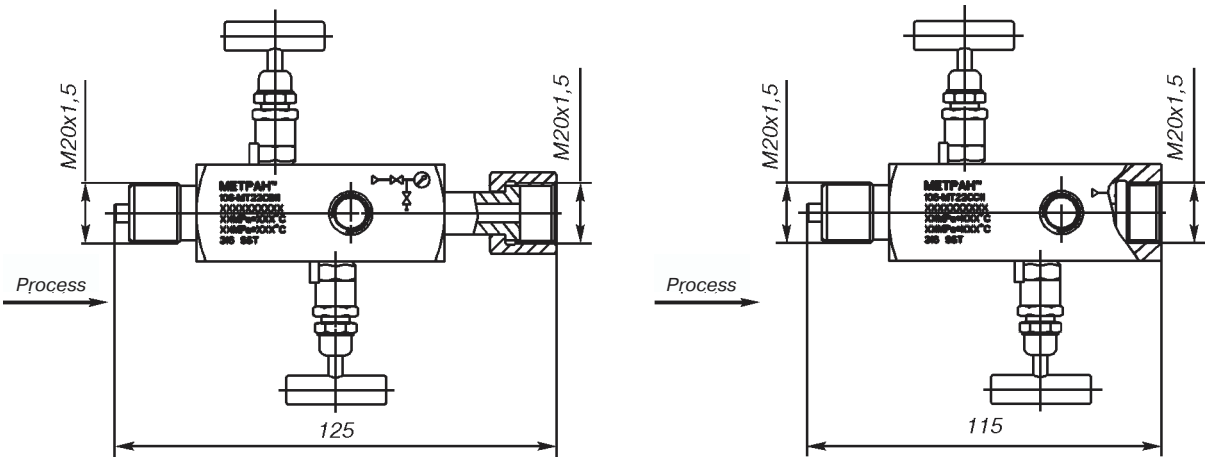



**Figure 30. 0106 M T 2 Two-valve Manifold with Process Connection Code C and Transmitter Connection Code B (C)**

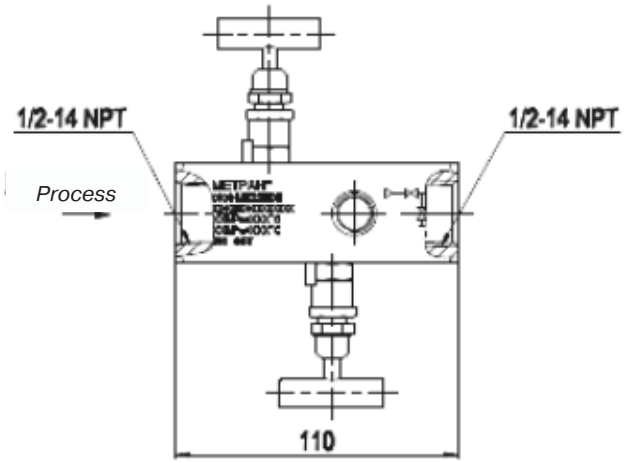



**Figure 31. 0106 M T 2 Two-valve Manifold with Process Connection Code B and Transmitter Connection Code D**

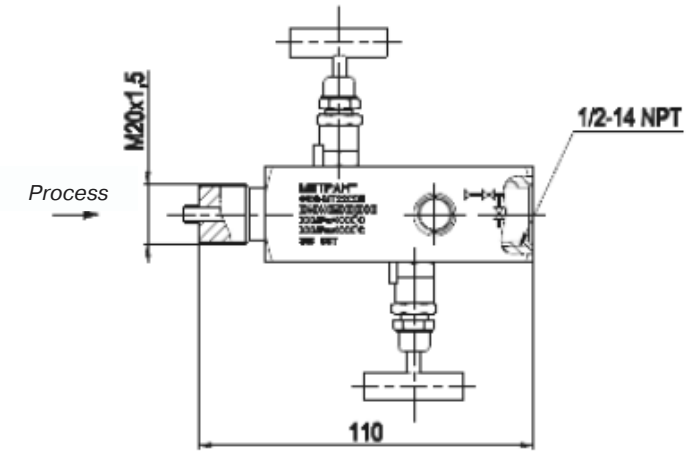



**Figure 32. 0106 M T 1 Two-valve Manifold with Process Connection Code C and Transmitter Connection Code D**

**ORDERING INFORMATION**

*Table 10*

| Code | Description | Standard |
|---|---|---|
| 0106 | In-line manifold | ● |
| **Code** | **Manufacturer** | |
| M | Metran | ● |
| **Code** | **Manifold style** | |
| T | Threaded (thread-thread) | ● |
| **Code** | **Manifold type** | |
| 1 | Block-and-bleed | ● |
| 2 | 2-valve | ● |
| **Code** | **Body** | |
| 2 | 316 SST or 12Cr18Ni10Ti (12X18H10T) | ● |
| 4 | 316 SST and Alloy C-276 | |
| **Code** | **Process connection** | |
| A | Threaded, 1/2 NPT, male | |
| B | Threaded, 1/2 NPT, female | |
| C | Threaded, M20x1.5 male | ● |
| D | Threaded, K 1/2, female | |
| **Code** | **Transmitter connection type** | |
| A | Threaded, 1/2NPT, male | |
| B | Coupling nut M20x1.5 (for direct connection to transmitter) | ● |
| C | Threaded, M20x1.5, female | ● |
| D | Threaded, 1/2 NPT, female | |
| **Code** | **Packing material** | |
| 1 | Polytetrafluorethylene (PTFE) | ● |
| 3 | Graphite-filled polytetrafluorethylene (PTFE) (available with code UC only) | |
| **Code** | **Valve seat** | |
| 1 | Integral | ● |
| **Code** | **Special cleaning** | |
| UC | Cleaning for use in oxygen gas process (available with packing material option code 3 only) | |
| **Code** | **Special style** | |
| H2 | For connection of metrological equipment with M20x1.5 welded fitting (available with manifold type code 2, process connection code C, transmitter connection code B only) | ● |
| | **ADDITIONAL OPTIONS** | |
| WR5 | 5-year limited warranty | ● |
| **Code** | **Mounting parts** [1] | |
| D5 | SST mounting flange with nipple and M20x1.5 coupling nut for 14 mm outer pipe diameter mounting (available with transmitter connection code B, C only) | ● |
| 2F | Nipple and M20x1.5 coupling nut for 14 mm outer pipe diameter mounting (available with process connection code C only) | ● |
| **Code** | **Nipple material** | |
| 2 | 12Cr18Ni10Ti (12X18H10T) or 316L SST | ● |
| 3 | Coated carbon steel | |
| 5 | 09G2S (09Г2С) coated low-temperature carbon steel | |
| **Code** | **Plug (available with manifold type code 2 only)** | |
| H3 | 1/4 NPT plug for drain/vent port (available with manifold type code 2 only) | |
| | **ADDITIONAL OPTIONS** | |
| MW1 | Technical supervision of the Russian Maritime Register of Shipping (not available with code BR6) | |
| MW2 | Technical supervision of the Russian Maritime Register of Shipping to use with additional sign WINTERIZATION(-50) (available with packing material code 1 only; not available with code BR6). | |
| SM | Certificate of compliance with seismic resistance norms | |
| BR6 | Ambient temperature is from –60 °C (available with packing material code 1 only) | |
| Q8 | Material traceability certification per EN 10204 3.1 | |
| Q15 | Certificate of Compliance to NACE MR0175/ISO 15156:2015, NACE MR0103/ISO 17945:2015 | |

[1] Coupling nut material is coated CS. Packing gland material: copper for nipple material codes 3 and 5, 12Cr18Ni10Ti (12X18H10T) stainless steel for nipple material code 2

**Typical Model Number: 0106 M T 2 2 C B 1 1**

**MOUNTING OPTIONS**

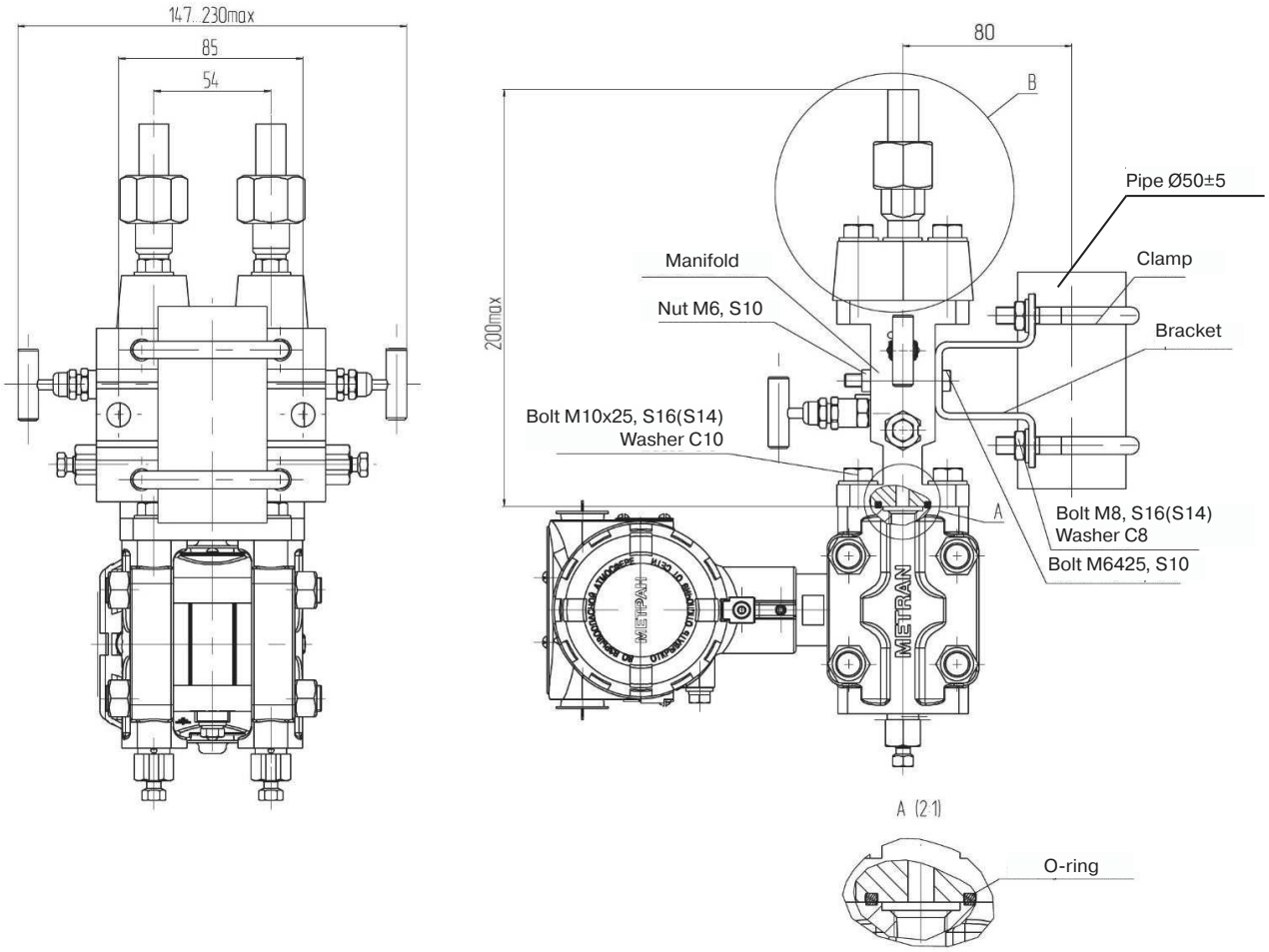



**Figure 33. 0104 M T Manifold with Mounting Flanges (D1-D6) and Brackets (Code VC, VS) Assembled to Metran-150CD Transmitters for 50 mm Outer Diameter Pipe Mounting**

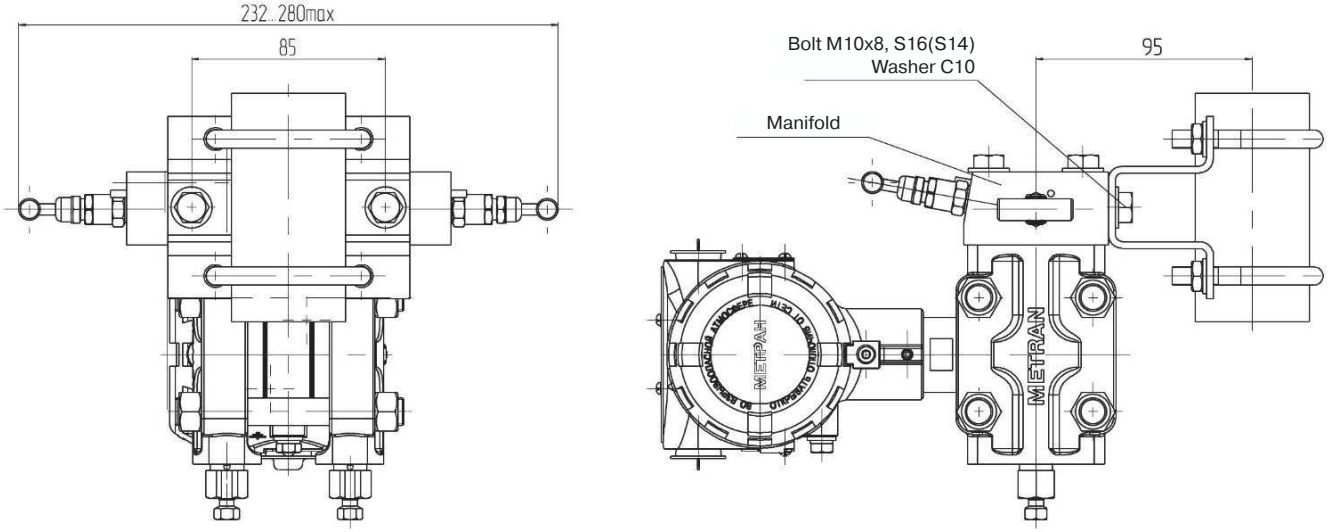



**Figure 34. 0104 M W Manifold and Brackets (Code VC, VS) Assembled to Metran-150CD Transmitters for 50 mm Outer Diameter Pipe Mounting**

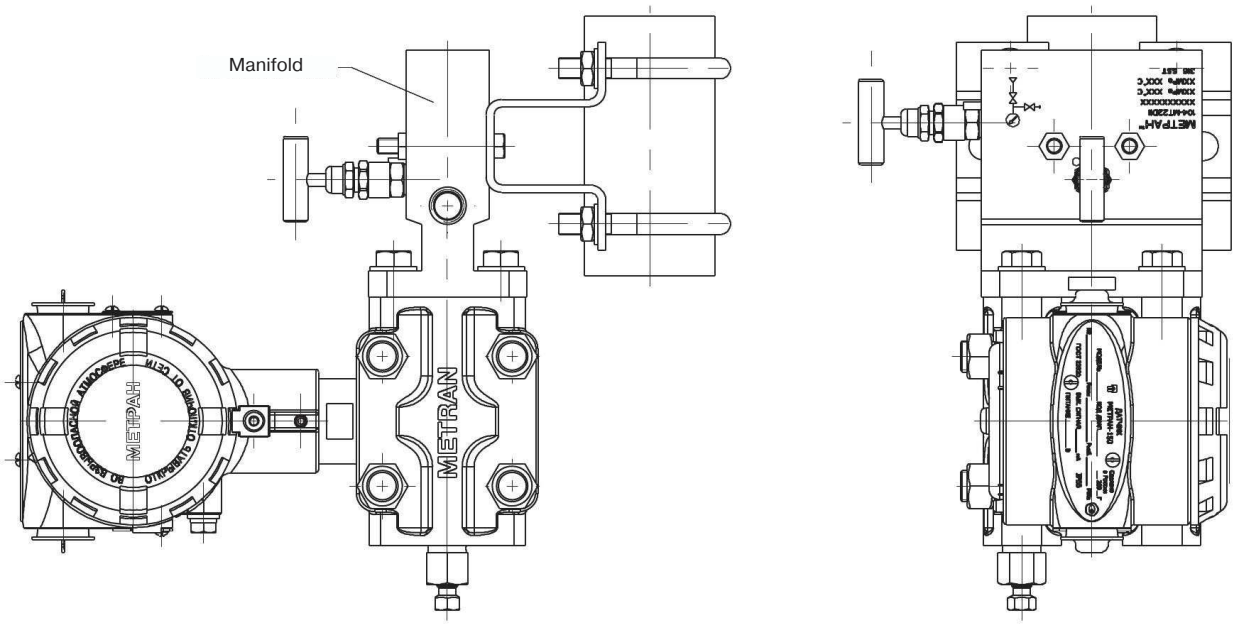



**Figure 35. 0104 M T Manifold and Brackets (Code VC, VS) Assembled to Metran-150CG Transmitters for 50 mm Outer Diameter Pipe Mounting**

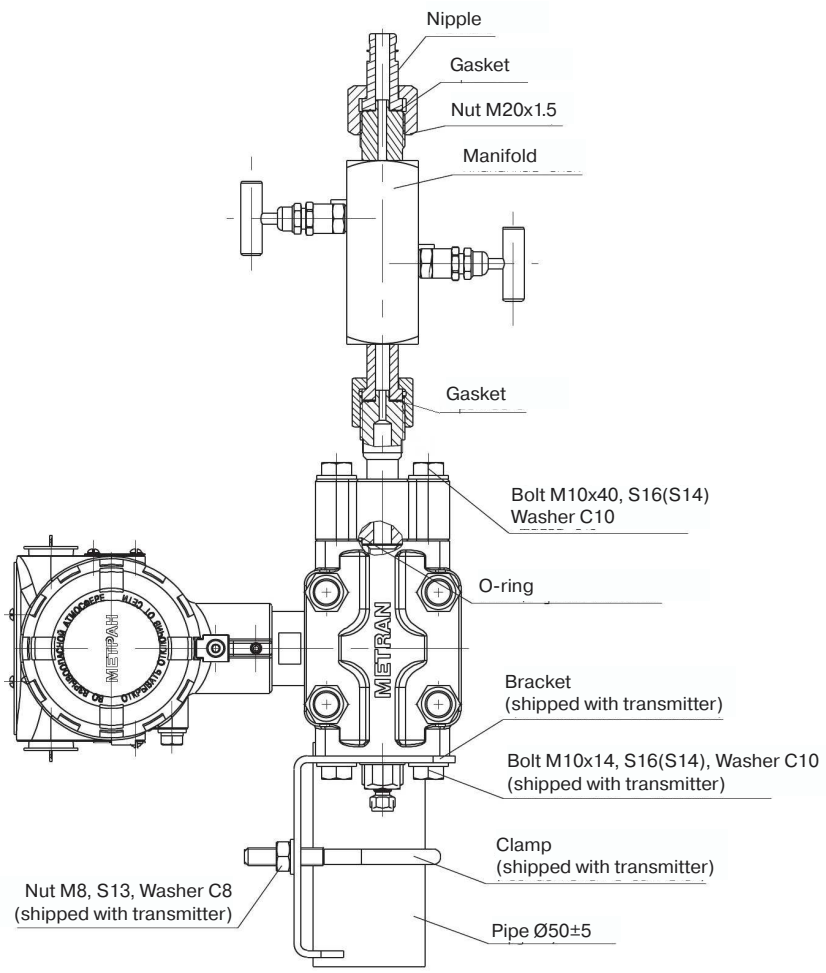



**Figure 36. 0106 M T Manifold Mounting Option for Metran-150CG Transmitters**
**For dimensional drawing, refer to Figure 21.**

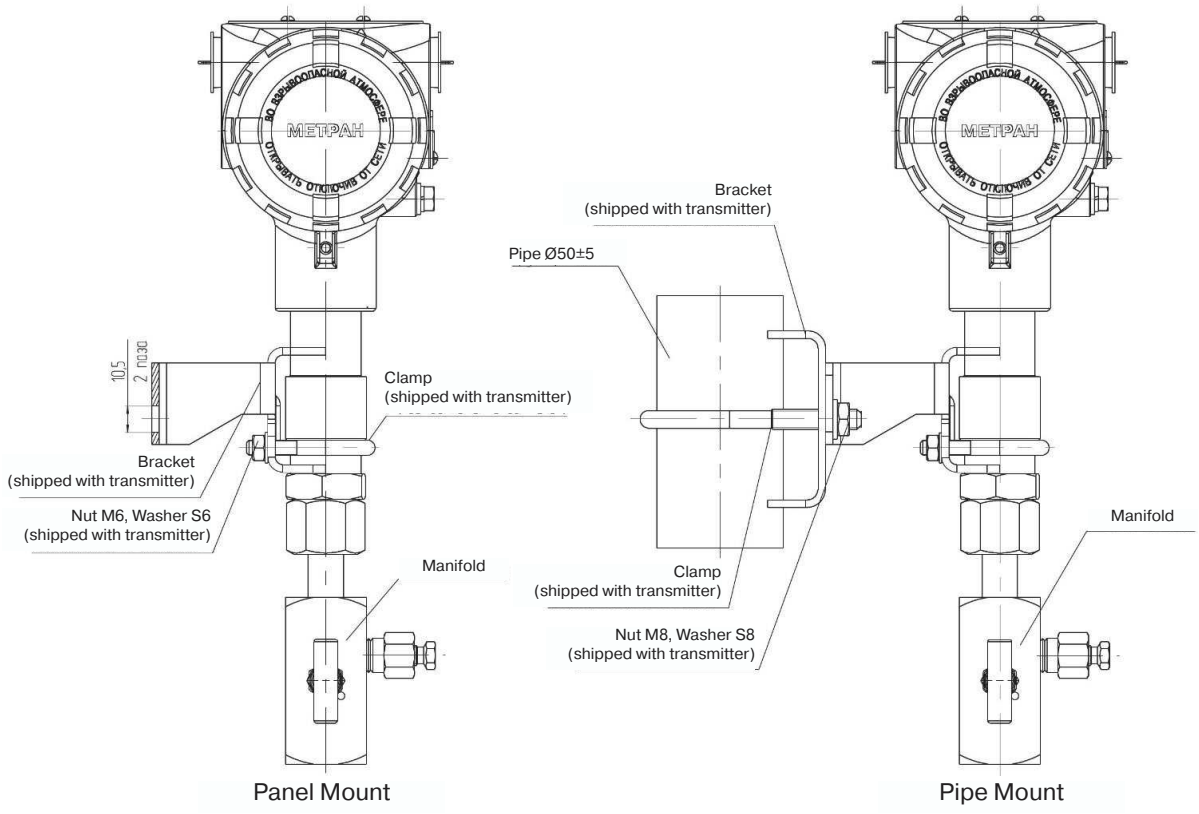



**Figure 37. 0106 M T Manifold Assembled to Metran-150TG Transmitter for Panel/Pipe Mounting**

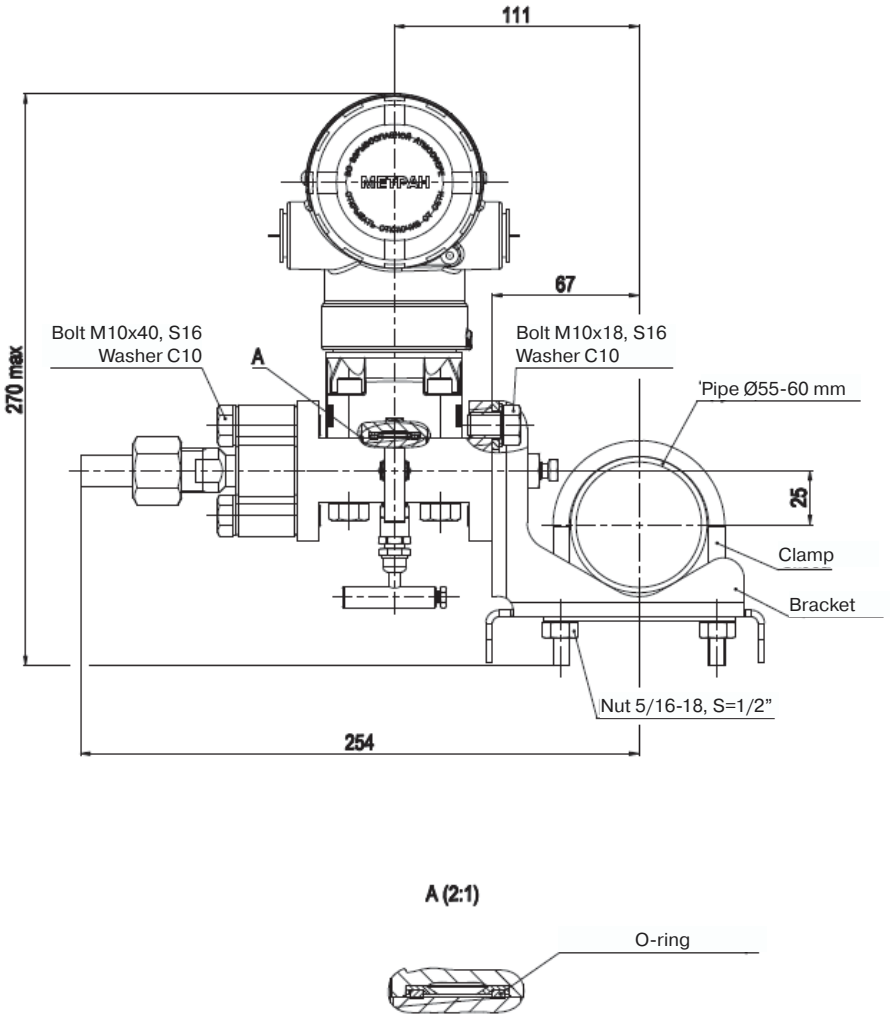



**Figure 38. 0105 M T 3 and 0105 M T 2 Manifold with Mounting Flanges (D1-D6), Bracket (Code B1) Assembled to Metran-150CDR Transmitters for Pipe Mounting**

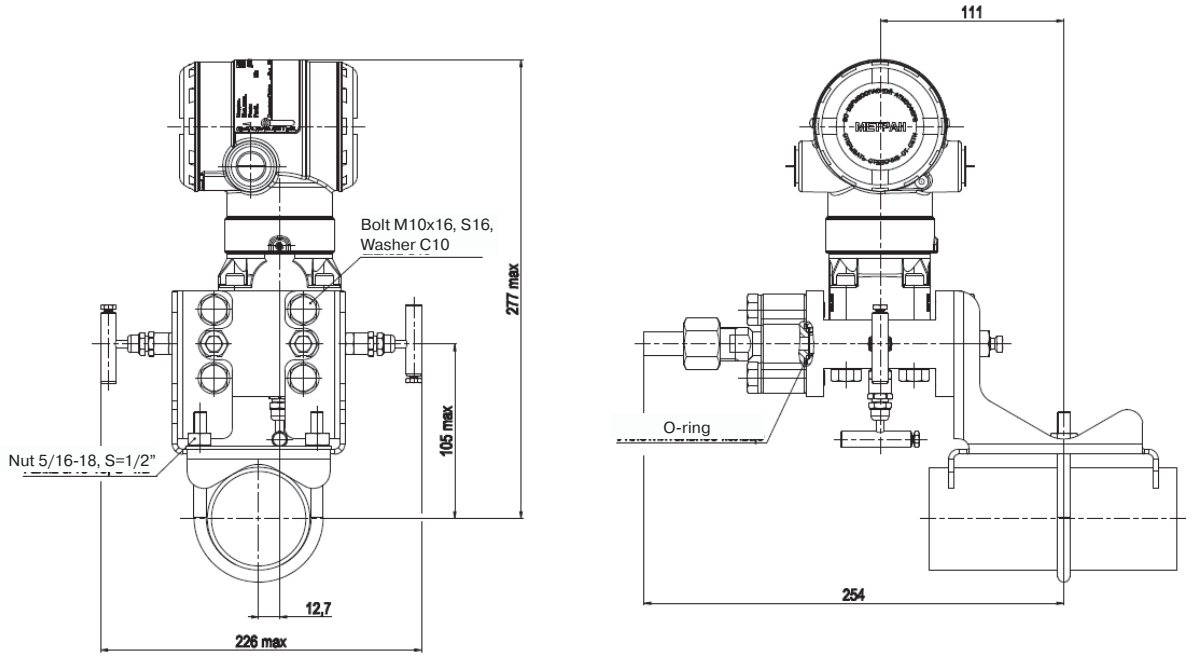



**Figure 39. 0105 M T 3 and 0105 M T 2 Manifold with Mounting Flanges (D1-D6), Brackets (Code B1) Assembled to Metran-150CDR Transmitters for Pipe Mounting**

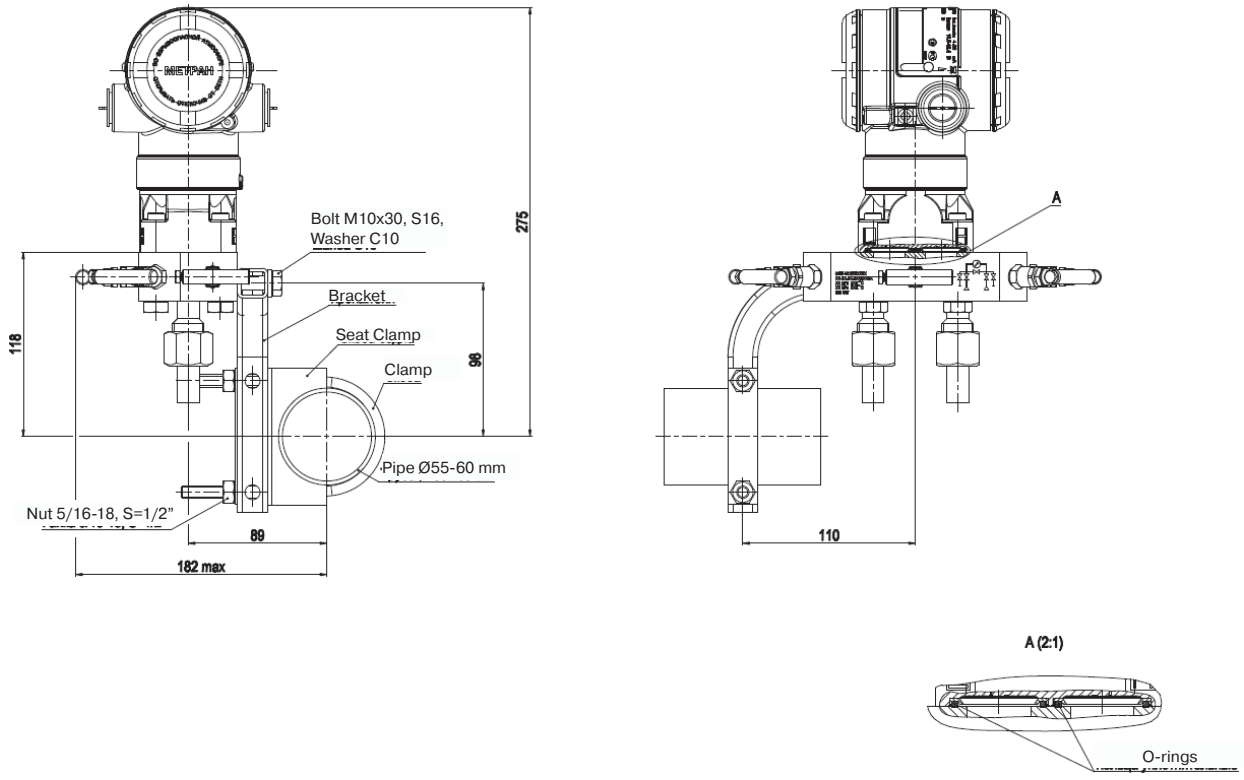



**Figure 40. 0105 M C 5 Manifold and Bracket (Code B4) Assembled to Metran-150CDR Transmitters for Pipe Mounting**

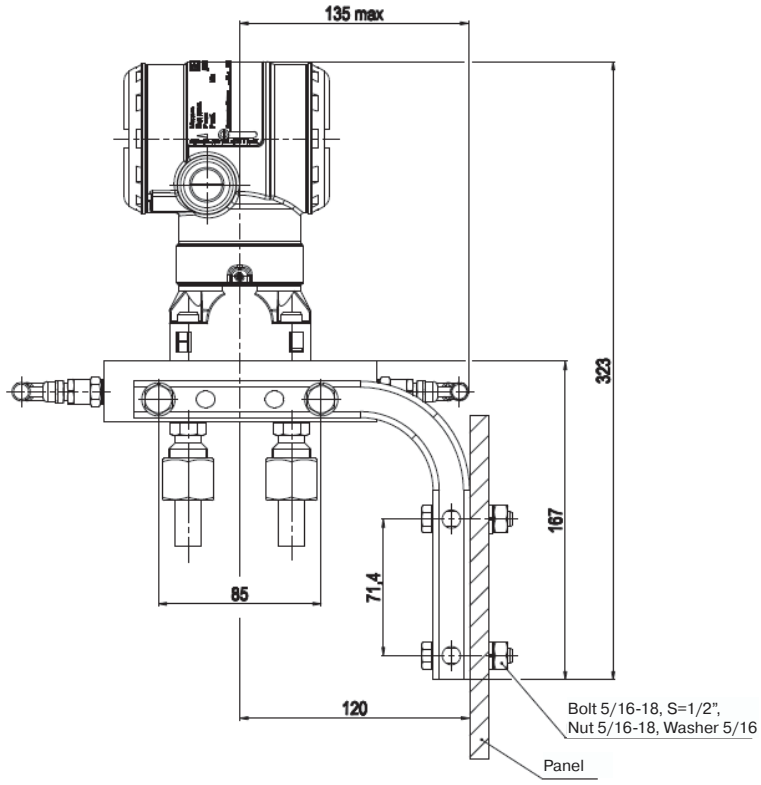



**Figure 41. 0105 M C 5 Manifold and Bracket (Code B4) Assembled to Metran-150CDR Transmitters for Panel Mounting**

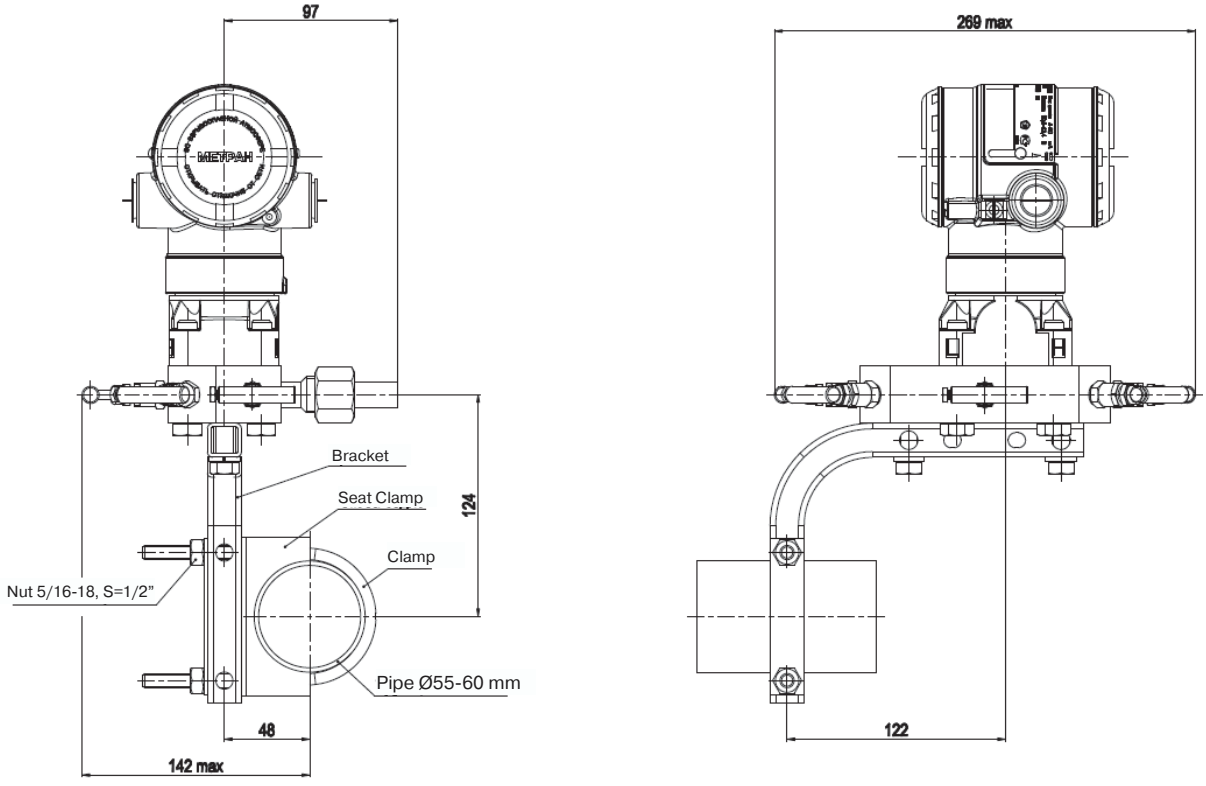



**Figure 42. 0105 M S 5 Manifold and Mounting Bracket (Code B4) Assembled to Metran-150CDR Transmitters for Pipe Mounting**

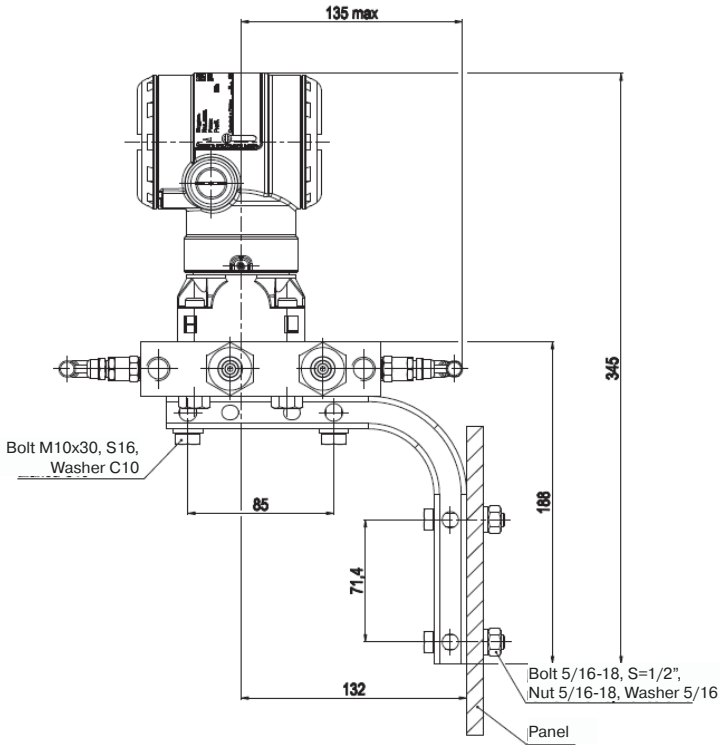



**Figure 43. 0105 M S 5 Manifold and Bracket (Code B4) Assembled to Metran-150CDR Transmitters for Panel Mounting**