

# Special Documentation

## Mechanical accessories for pressure measuring devices

### Pressure measurement



#### One point of contact saves time and cuts cost

Endress+Hauser offers you the complete service portfolio for pressure measurement, ranging from engineering, project management, measuring instruments and accessories to pre-assembled solutions and attractive life cycle management.

#### Accessories:

- Manifolds, block & bleed valves, pressure gauge valves, shutoff devices
- Flushing rings
- Siphons
- Oval flange adapter
- Mounting bracket
- Condensate traps
- Cable shortening kits
- Test adapter
- Protective roofs

#### Your benefits

- A single supplier for the transmitter and accessories ensures that everything is delivered in one shipment and no parts are missing
- The transmitter and accessories match
- One central point of contact

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## DA63M block & bleed valve for Cerabar

**Use**

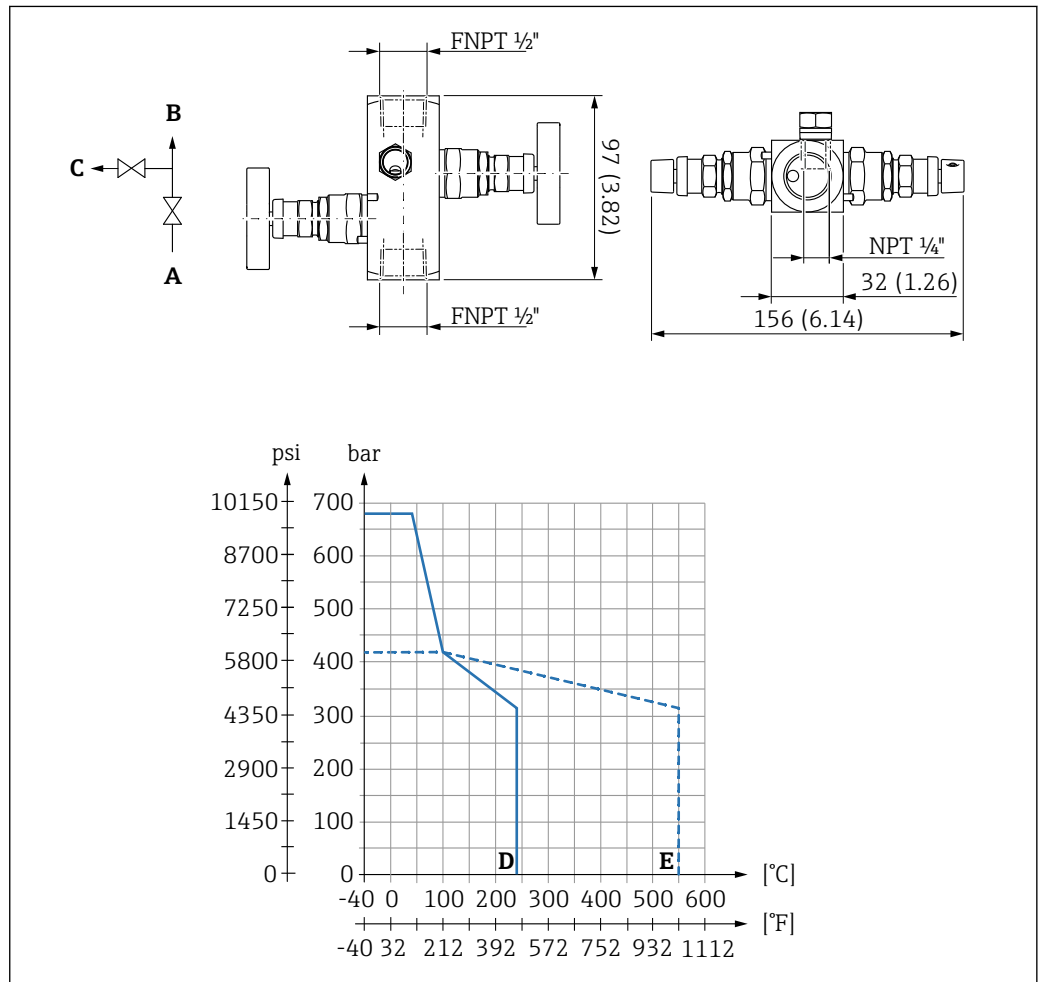
The valve is used to connect pressure gauges, pressure transmitters and pressure switches.



Used for:

- Cerabar M: PMC51, PMP51
- Cerabar S: PMC71, PMP71
- Cerabar: PMP50, PMP51B, PMC51B, PMP71B, PMC71B

FNPT x FNPT, milled



Unit of measurement mm (in)

- A Process side (inlet)
- B Transmitter side (outlet)
- C Vent
- D PTFE packing
- E Pure graphite packing

**Design and weight**

- Process side (inlet): FNPT ½"
- Transmitter side (outlet): FNPT ½"
- Exhaust air vent: NPT ¼"
- Weight: 1 kg (2.21 lb)

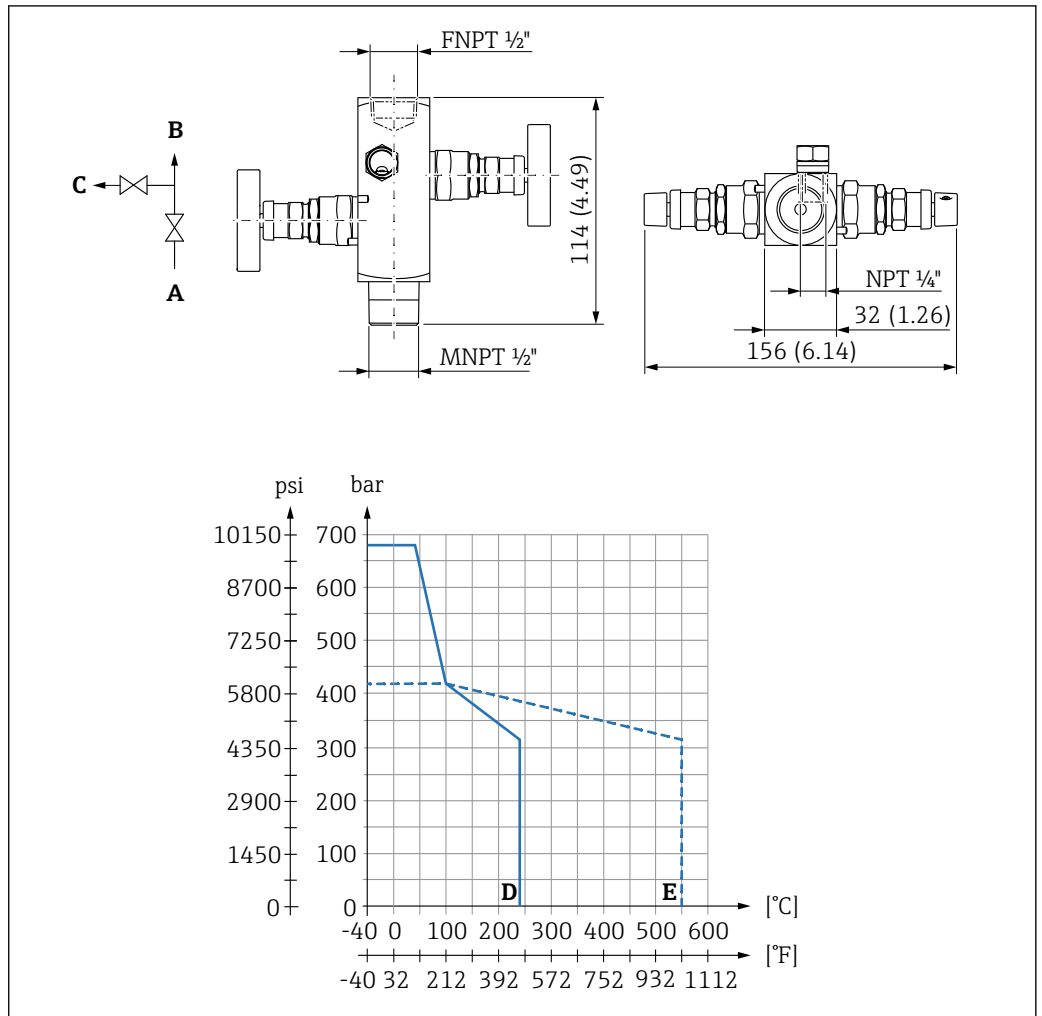
**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

Component	"316L" <sup>1)</sup>	"Alloy C276" <sup>2)</sup>
Housing	1.4404	2.4819
Protective cap	1.4404	2.4819
Nut	1.4401	1.4401
Valve body	1.4404	1.4404
Gland nut	1.4401	1.4401
Packing <sup>3) 4)</sup>	PTFE up to +230 °C (+446 °F) Maximum 689 bar (10 000 psi)	
	Pure graphite up to +550 °C (+1 022 °F) Maximum 420 bar (6 092 psi)	-
Certificates	EAC, CRN, NACE MR0175, NACE MR0103, ISO 15848-1 (TA-Luft regulation) <sup>5)</sup>	

- 1) Product Configurator: DA63M order code "300", option "TB2"; PMP51, PMC51, PMP71, PMC71 order code "610", option "P2" or order code "620", option "N2"; PMP51B, PMC51B, PMP71B, PMC71B order code "610", options "NL" and "NM" or order code "620", options "PL" and "PM", PMP50 order code "610", options "NL" and "NM".
- 2) Product Configurator: DA63M order code "300", option "TB3"; PMP51, PMC51, PMP71, PMC71 order code "610", option "P8" or order code "620", option "N8"; PMP51B, PMC51B, PMP71B, PMC71B order code "610", option "OE" or order code "620", option "QE".
- 3) Pay attention to the pressure and temperature limits of the measuring instrument!
- 4) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).
- 5) Use for TA-Luft in the temperature range -29 to +82 °C (-20 to +180 °F)

MNPT x FNPT, milled



A0028012

Unit of measurement mm (in)

- A Process side (inlet)
- B Transmitter side (outlet)
- C Vent
- D PTFE packing
- E Pure graphite packing

**Design and weight**

- Process side (inlet): MNPT ½"
- Transmitter side (outlet): FNPT ½"
- Exhaust air vent: NPT ¼"
- Weight: 1 kg (2.21 lb)

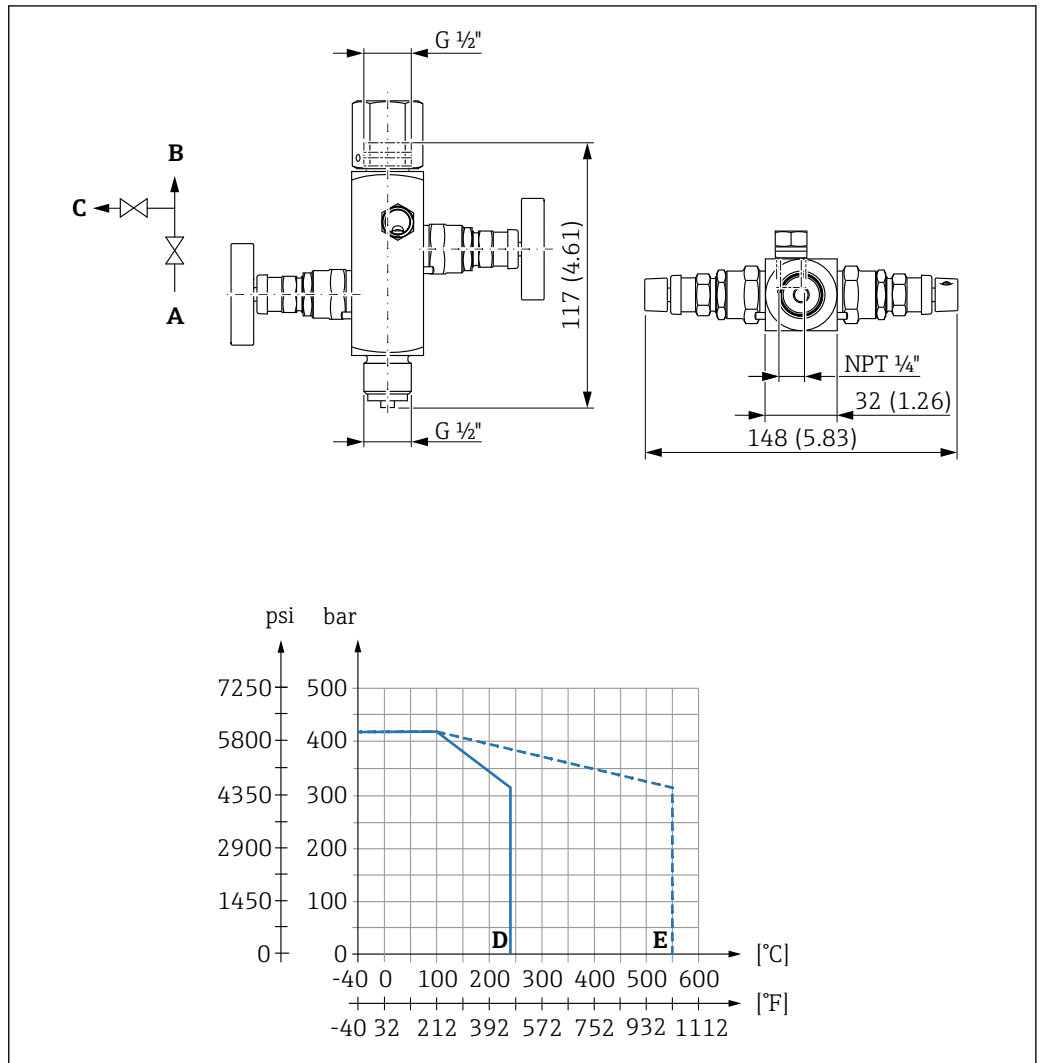
**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

Component	"316L" <sup>1)</sup>	"Alloy C276" <sup>2)</sup>
Housing	1.4404	2.4819
Protective cap	1.4404	2.4819
Nut	1.4401	1.4401
Valve body	1.4404	1.4404
Gland nut	1.4401	1.4401
Packing <sup>3) 4)</sup>	PTFE up to +230 °C (+446 °F) Maximum 689 bar (10 000 psi)	
	Pure graphite up to +550 °C (+1 022 °F) Maximum 420 bar (6 092 psi)	-
Certificates	EAC, CRN, NACE MR0175, NACE MR0103, ISO 15848-1 (TA-Luft regulation) <sup>5)</sup>	

- 1) Product Configurator: DA63M order code "300", option "TB2"; PMP51, PMC51, PMP71, PMC71 order code "610", option "P2" or order code "620", option "N2"; PMP51B, PMC51B, PMP71B, PMC71B order code "610", options "NP" and "NQ" or order code "620", options "PP" and "PQ", PMP50 order code "610", options "NP" and "NQ".
- 2) Product Configurator: DA63M order code "300", option "TB3"; PMP51, PMC51, PMP71, PMC71 order code "610", option "P8" or order code "620", option "N8"; PMP51B, PMC51B, PMP71B, PMC71B order code "610", option "OF" or order code "620", option "QF".
- 3) Pay attention to the pressure and temperature limits of the measuring instrument!
- 4) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).
- 5) Use for TA-Luft in the temperature range -29 to +82 °C (-20 to +180 °F)

G 1/2" + adjusting nut, milled



A0028017

Unit of measurement mm (in)

- A Process side (inlet)
- B Transmitter side (outlet)
- C Vent
- D PTFE packing
- E Pure graphite packing

**Design and weight**

- Process side (input): ISO228 G ½" EN837
- Transmitter side (outlet): G ½" + adjusting nut
- Exhaust air vent: NPT ¼"
- Weight: 1 kg (2.21 lb)

**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

Component	"316L" <sup>1)</sup>
Housing	1.4404
Protective cap	1.4404
Nut	1.4401
Valve body	1.4404
Gland nut	1.4401
Packing <sup>2) 3)</sup>	PTFE up to +230 °C (+446 °F) Maximum 420 bar (6 092 psi)
	Pure graphite up to +550 °C (+1 022 °F) Maximum 420 bar (6 092 psi)
Certificates	EAC, NACE MR0175, NACE MR0103, ISO 15848-1 (TA-Luft regulation) <sup>4)</sup>

- 1) Product Configurator: DA63M order code "300", option "TB2"; PMP51, PMC51, PMP71, PMC71 order code "610", option "P2" or order code "620", option "N2"; PMP51B, PMC51B, PMP71B, PMC71B order code "610", options "NN" and "NO" or order code "620", options "PN" and "PO", PMP50 order code "610", options "NN" and "NO".
- 2) Pay attention to the pressure and temperature limits of the measuring instrument!
- 3) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).
- 4) Use for TA-Luft in the temperature range -29 to +82 °C (-20 to +180 °F)



## DA63M 3-valve manifold for Deltabar

### Use

The manifold is used to connect impulse lines to the differential pressure transmitter.

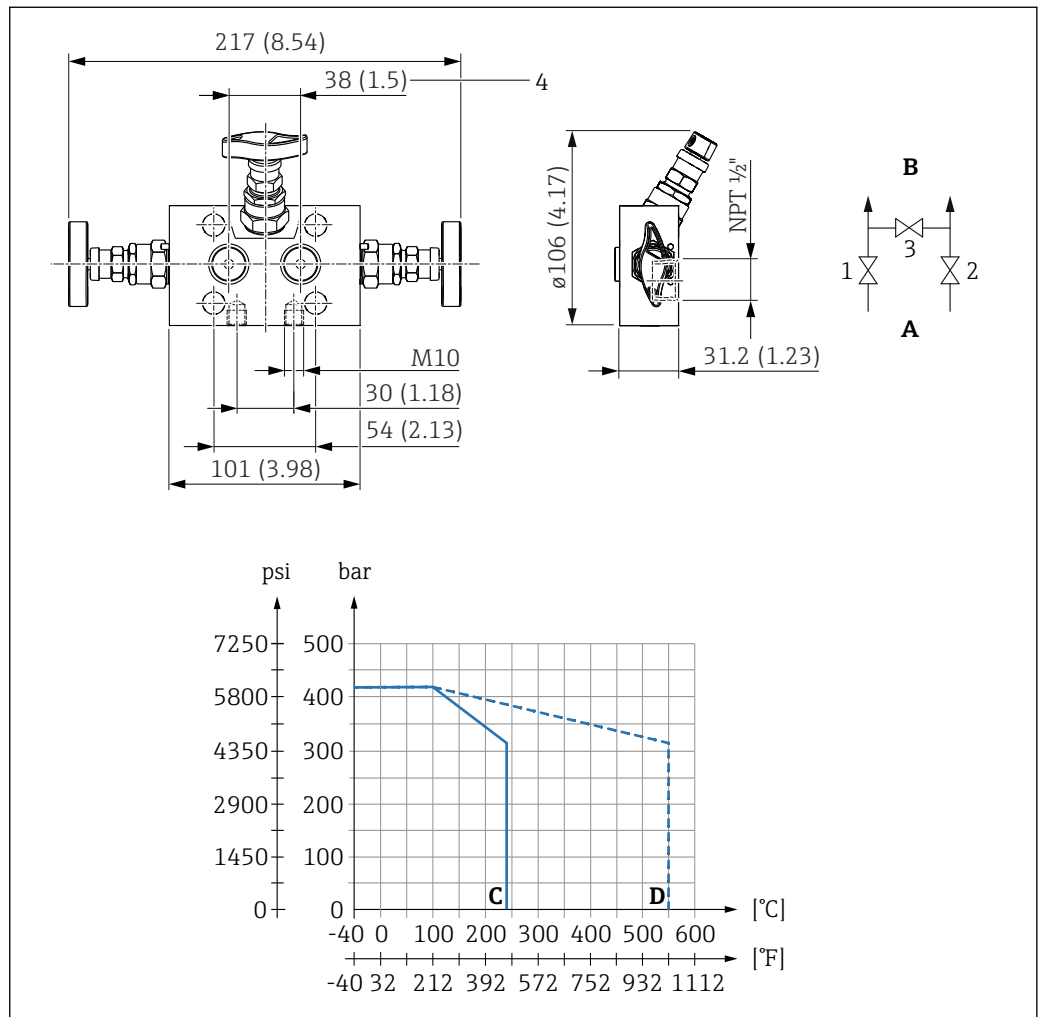


Used for:

- Deltabar M: PMD55
- Deltabar S: PMD75
- Deltabar: PMD50, PMD55B, PMD75B

### Milled

Version for gas and liquid applications.



Unit of measurement mm (in)

A Process side

B Transmitter side

C PTFE packing

D Pure graphite packing

1, 2 The transmitter can be disconnected from the piping with valves 1 and 2

3 Valve 3 is used for zero point equalization between the pipes

4 Distance between impulse line inputs

**Design and weight**

- Surface: phosphatized steel
- Stem thread: external
- Valve stem: cold-rolled surface, with back seat and non-rotating needle tip
- Inlet: FNPT ½"
- Outlet: IEC61518, Form A
- Attachment: 4 screws, 2 seals, 4 washers (only for M10 screw set)
- Weight: approx. 2 kg (4.4 lb)

**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

Component	"Steel" <sup>1)</sup>	"316L" <sup>2)</sup>	"Alloy C276" <sup>3)</sup>
Housing	1.0460	316L (1.4404)	Alloy C-276 (2.4819)
Housing temperature application limits	-10 to +450 °C (+14 to +842 °F)	-40 to +550 °C (-40 to +1022 °F)	-40 to +232 °C (-40 to +450 °F)
Bonnet	316 (1.4401)	316 (1.4401)	Alloy C-276 (2.4819)
Valve stem	1.4104	1.4404	2.4819
Needle tip	1.4122	1.4571	2.4819
Packing <sup>4) 5)</sup>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Pure graphite: up to +550 °C (+1022 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>
Gland nut	1.4301	1.4301	2.4819
T-handle	Stainless steel	Stainless steel	316
Securing screws (depending on process connection)	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: 8.8 ISO 898-1 Operating range 40 bar (580 psi) at -10 to +85 °C (+14 to +185 °F)</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: A4-70 ISO 3506-1</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: ASTM A193B8M Class2</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: A4-70 ISO 3506-1</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: ASTM A193B8M Class2</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>
Seal	<ul style="list-style-type: none"> <li>■ PTFE: -10 to +80 °C (+14 to +176 °F) (in accordance with EN61518)</li> <li>■ FKM Viton: -15 to +120 °C (+5 to +248 °F)</li> <li>■ Graphite: -40 to +120 °C (-40 to +248 °F) (in accordance with EN61518)</li> </ul>		
Certificates	-	EAC, CRN, NACE MR0175, NACE MR0103, ASME B31.1 <sup>6)</sup> , ISO 15848-1 (TA-Luft regulation) <sup>7)</sup>	EAC, CRN, NACE MR0175, NACE MR0103, ISO 15848-1 (TA-Luft regulation) <sup>7)</sup>

1) Product Configurator: DA63M order code "300", option "AB1"

2) Product Configurator: DA63M order code "300", option "AB2"; PMD55, PMD75 order code "610", option "N3" or order code "620", option "P3";

PMD55B, PMD75B order code "610", options "NR" and "NS" or order code "620", options "PR" and "PS", PMD50 order code "610", options "NR" and "NS"

3) Product Configurator: DA63M order code "300", option "AB3"; PMD55, PMD75 order code "610", option "N8" or order code "620", option "P8"; PMD55B, PMD75B order code "610", option "OC" or order code "620", option "QC".

4) Pay attention to the pressure and temperature limits of the measuring instrument!

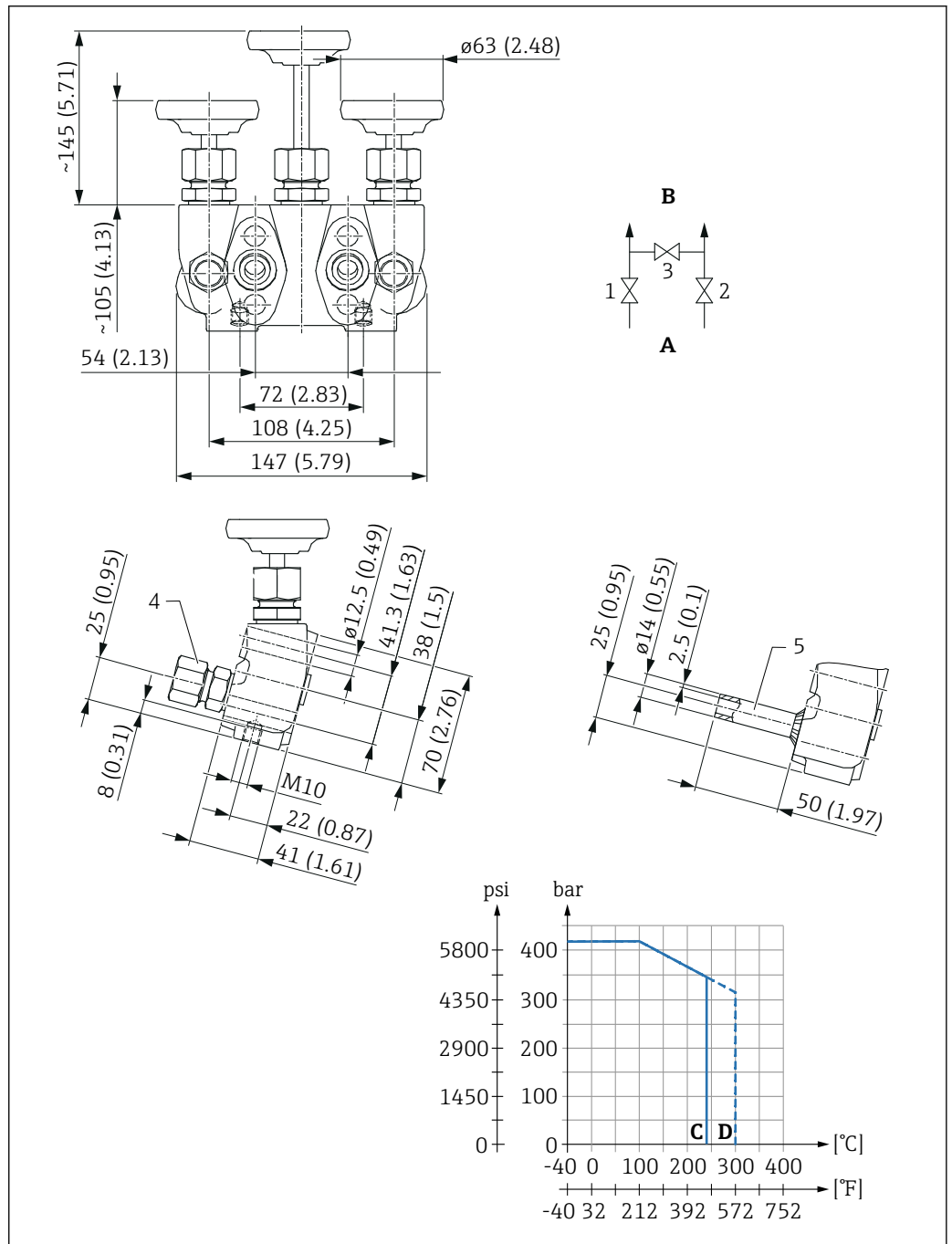
5) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).

6) Product Configurator: DA63M order code "300", option "AB4"

7) Use for TA-Luft in the temperature range -29 to +82 °C (-20 to +180 °F)

Forged

Version for steam applications.



A0027677

Unit of measurement mm (in)

- A Process side
- B Transmitter side
- C PTFE packing
- D Pure graphite packing
- 1, 2 The transmitter can be disconnected from the piping with valves 1 and 2
- 3 Valve 3 is used for zero point equalization between the pipes
- 4 Cutting ring
- 5 Weld connection

**Design and weight**

- Housing: die-pressed part
- Surface: phosphatized steel
- Stem thread: internal
- Valve seat: replaceable
- Valve stem: cold-rolled surface, with back seat and non-rotating needle tip
- Hand wheels: plastic
- Input:
  - Cutting ring fitting for pipe  $\varnothing$ 12 mm (0.47 in), series S, G 3/8 (Product Configurator: DA63M order code "610", option "NA")
  - Socket-weld for pipe  $\varnothing$  14 x 2.5 mm (Product Configurator: DA63M order code "320", option "D")
- Outlet: IEC61518, Form A
- Attachment: 4 screws, 2 seals, 4 washers (only for M10 screw set)
- Weight: approx. 3.2 kg (7 lb)

**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

Component	"Steel" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Housing	1.0460	1.4571
Housing temperature application limits	-10 to +300 °C (+14 to +572 °F)	-40 to +300 °C (-40 to +572 °F)
Bonnet	1.0501	1.4571
Valve seat	1.4571	1.4571
Valve stem	1.4104	1.4571
Needle tip	1.4122	1.4571
Packing <sup>3) 4)</sup>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Pure graphite: up to +300 °C (+572 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Pure graphite: up to +300 °C (+572 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>
Cap nut	Steel	1.4571
Socket-weld	1.4515	1.4571
Securing screws (depending on process connection)	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade 8.8 ISO 898-1 Operating range 40 bar (580 psi) at -10 to +85 °C (+14 to +185 °F)</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: A4-70 ISO 3506-1</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>
Seal	<ul style="list-style-type: none"> <li>■ PTFE: -10 to +80 °C (+14 to +176 °F) (in accordance with EN61518)</li> <li>■ FKM Viton: -15 to +120 °C (+5 to +248 °F)</li> <li>■ Graphite: -40 to +120 °C (-40 to +248 °F) (in accordance with EN61518)</li> </ul>	

1) Product Configurator: DA63M order code "300", Option "AA1"

2) Product Configurator: DA63M order code "300", Option "AA2"

3) Pay attention to the pressure and temperature limits of the measuring instrument!

4) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).

## DA63M 5-valve manifold for Deltabar

### Use

The manifold is used for installation or for zero point adjustment of the differential pressure transmitter and to shut off the impulse line.

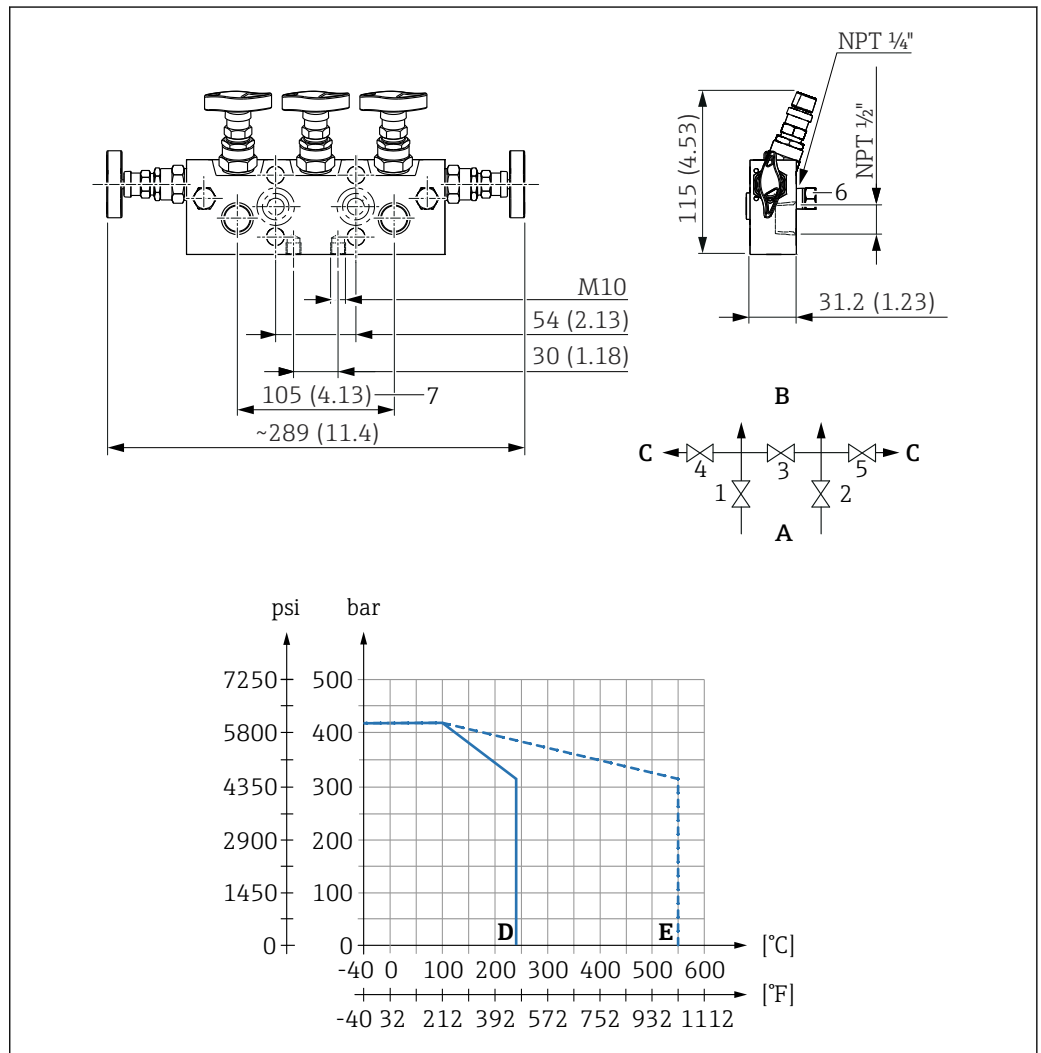


Used for:

- Deltabar M: PMD55
- Deltabar S: PMD75
- Deltabar: PMD50, PMD55B, PMD75B

### Milled

Version for gas and liquid applications with vent.



Unit of measurement mm (in)

A Process side

B Transmitter side

C Vent

D PTFE packing

E Pure graphite packing

1, 2 The transmitter can be disconnected from the piping with valves 1 and 2

3 Valve 3 is used for zero point equalization between the pipes

4, 5 The piping can be vented or blown clear with valves 4 and 5

6 Vent connection NPT 1/4", female

7 Distance between impulse line inputs.

**Design and weight**

- Surface: phosphatized steel
- Stem thread: external
- Valve stem: cold-rolled surface, with back seat and non-rotating needle tip
- Inlet: FNPT ½"
- Outlet: IEC 61518, Form A
- Attachment: 4 screws, 2 seals, 4 washers (only for M10 screw set)
- Weight: approx. 3.3 kg (7.3 lb)
- Vent connection: NPT ¼", female

**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

Component	"Steel" <sup>1)</sup>	"316L" <sup>2)</sup>	"Alloy C276" <sup>3)</sup>
Housing	1.0460	316L (1.4401)	Alloy C-276 (2.4819)
Housing temperature application limits	-10 to +550 °C (+14 to +1022 °F)	-40 to +550 °C (-40 to +1022 °F)	-40 to +232 °C (-40 to +450 °F)
Bonnet	316L (1.4401)	316L (1.4401)	Alloy C-276 (2.4819)
Valve stem	1.4104	1.4101	2.4819
Needle tip	1.4122	1.4571	2.4819
Packing <sup>4) 5)</sup>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Pure graphite: up to +550 °C (+1022 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>
Gland nut	1.4301	1.4301	2.4819
T-handle	Stainless steel	Stainless steel	316
Screw plug	1.0501	1.4404	2.4819
Securing screws (depending on process connection)	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade 8.8 ISO 898-1 Operating range 40 bar (580 psi) at -10 to +85 °C (+14 to +185 °F)</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: A4-70 ISO 3506-1</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: ASTM A193B8M Class2</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: A4-70 ISO 3506-1</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: ASTM A193B8M Class2</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>
Seal	<ul style="list-style-type: none"> <li>■ PTFE: -10 to +80 °C (+14 to +176 °F) (in accordance with EN61518)</li> <li>■ FKM Viton: -15 to +120 °C (+5 to +248 °F)</li> <li>■ Graphite: -40 to +120 °C (-40 to +248 °F) (in accordance with EN61518)</li> </ul>		
Certificates	-	EAC, CRN, NACE MR0175, NACE MR0103, ASME B31.1 <sup>6)</sup> , ISO 15848-1 (TA-Luft regulation) <sup>7)</sup>	EAC, CRN, NACE MR0175, NACE MR0103, ISO 15848-1 (TA-Luft regulation) <sup>7)</sup>

1) Product Configurator: DA63M order code "300", option "BB1"

2) Product Configurator: DA63M order code "300", option "BB2"; PMD55, PMD75 order code "610", option "N5" or order code "620", option "P5"; PMD55B, PMD75B order code "610", options "NT" and "NU" or order code "620", options "PT" and "PU", PMD50 order code "610", options "NT" and "NU"

3) Product Configurator: DA63M order code "300", option "BB3"; PMD55, PMD75 order code "610", option "N8" or order code "620", option "P8"; PMD55B, PMD75B order code "610", option "OD" or order code "620", option "QD"

4) Pay attention to the pressure and temperature limits of the measuring instrument!

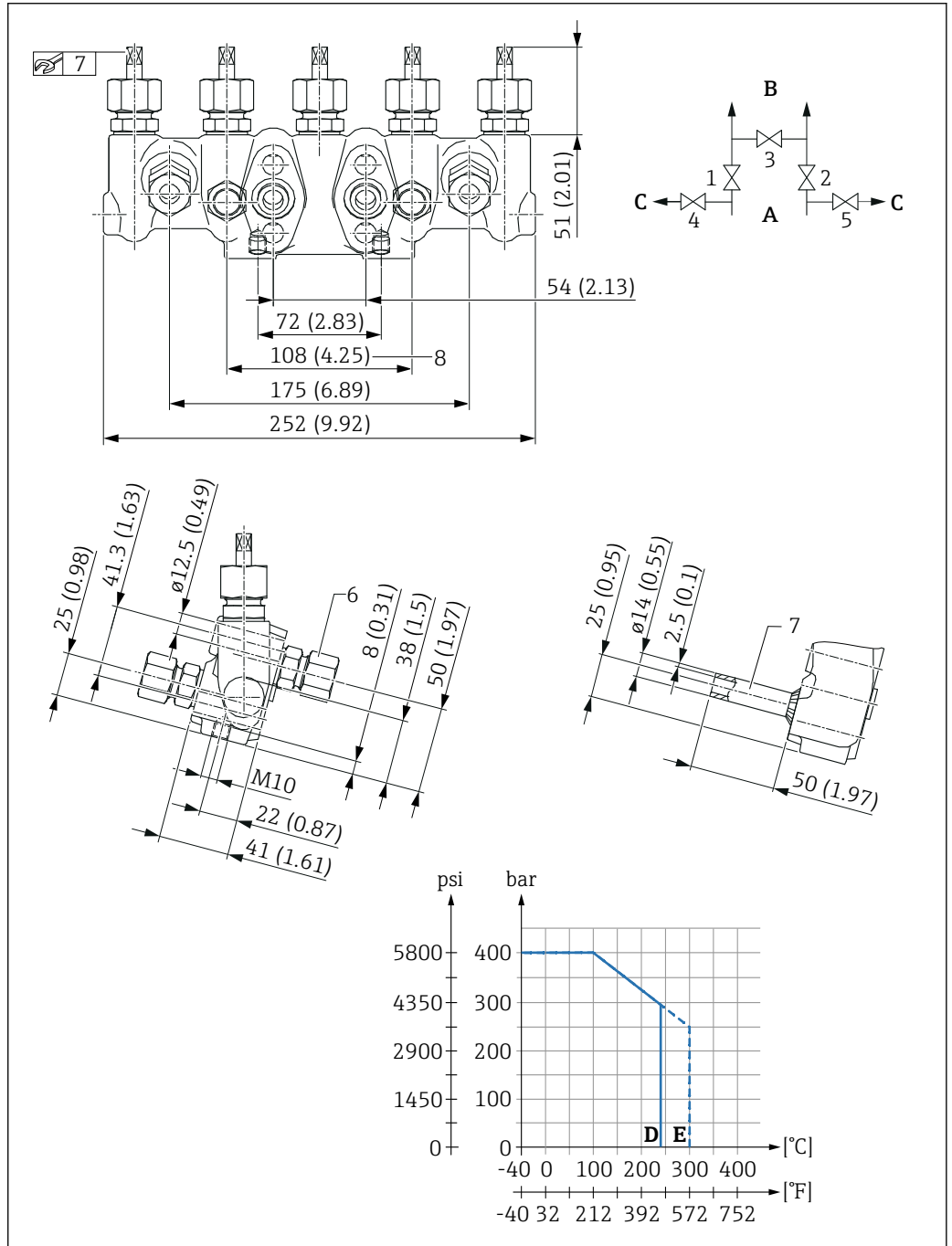
5) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).

6) Product Configurator: DA63M order code "300", option "BB4"

7) Use for TA-Luft regulation in the temperature range -29 to +82 °C (-20 to +180 °F)

Forged

Version for steam applications and with purge valve.



A0027749

Unit of measurement mm (in)

- A Process side
- B Transmitter side
- C Blow clear
- D PTFE packing
- E Pure graphite packing
- 1, 2 The transmitter can be disconnected from the piping with valves 1 and 2
- 3 Valve 3 is used for zero point equalization between the pipes
- 4, 5 The piping can be vented or blown clear with valves 4 and 5
- 6 Cutting ring fitting
- 7 Weld connection
- 8 Distance between impulse line inputs.

**Design and weight**

- Housing: die-pressed part
- Surface: phosphatized steel
- Stem thread: internal
- Valve seat: replaceable
- Valve stem: cold-rolled surface, with back seat and non-rotating needle tip
- Inlet/blow clear
  - Cutting ring fitting for pipe  $\varnothing 12$  mm (0.47 in), series S, G 3/8 (Product Configurator: DA63M order code "610", option "NA")
  - Socket-weld for pipe  $\varnothing 14 \times 2.5$  mm (Product Configurator: DA63M order code "320", option "D")
- Outlet: IEC 61518, Form A
- Attachment: 4 screws, 2 seals, 4 washers (only for M10 screw set)
- Weight: approx. 4.6 kg (10.2 lb)

**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

Component	"Steel" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Housing	1.0460	1.4571
Housing temperature application limits	-10 to +300 °C (+14 to +572 °F)	-40 to +300 °C (-40 to +572 °F)
Bonnet	1.0501	1.4571
Valve seat	1.4571	1.4571
Valve stem	1.4104	1.4571
Needle tip	1.4122	1.4571
Packing <sup>3) 4)</sup>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Pure graphite: up to +300 °C (+572 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Pure graphite: up to +300 °C (+572 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>
Cap nut	Steel	1.4571
Securing screws (depending on process connection)	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade 8.8 ISO 898-1 Operating range 40 bar (580 psi) at -10 to +85 °C (+14 to +185 °F)</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: A4-70 ISO 3506-1</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>
Seal	<ul style="list-style-type: none"> <li>■ PTFE: -10 to +80 °C (+14 to +176 °F) (in accordance with EN61518)</li> <li>■ FKM Viton: -15 to +120 °C (+5 to +248 °F)</li> <li>■ Graphite: -40 to +120 °C (-40 to +248 °F) (in accordance with EN61518)</li> </ul>	

1) Product Configurator: DA63M order code "300", option "CA1"

2) Product Configurator: DA63M order code "300", option "CA2"

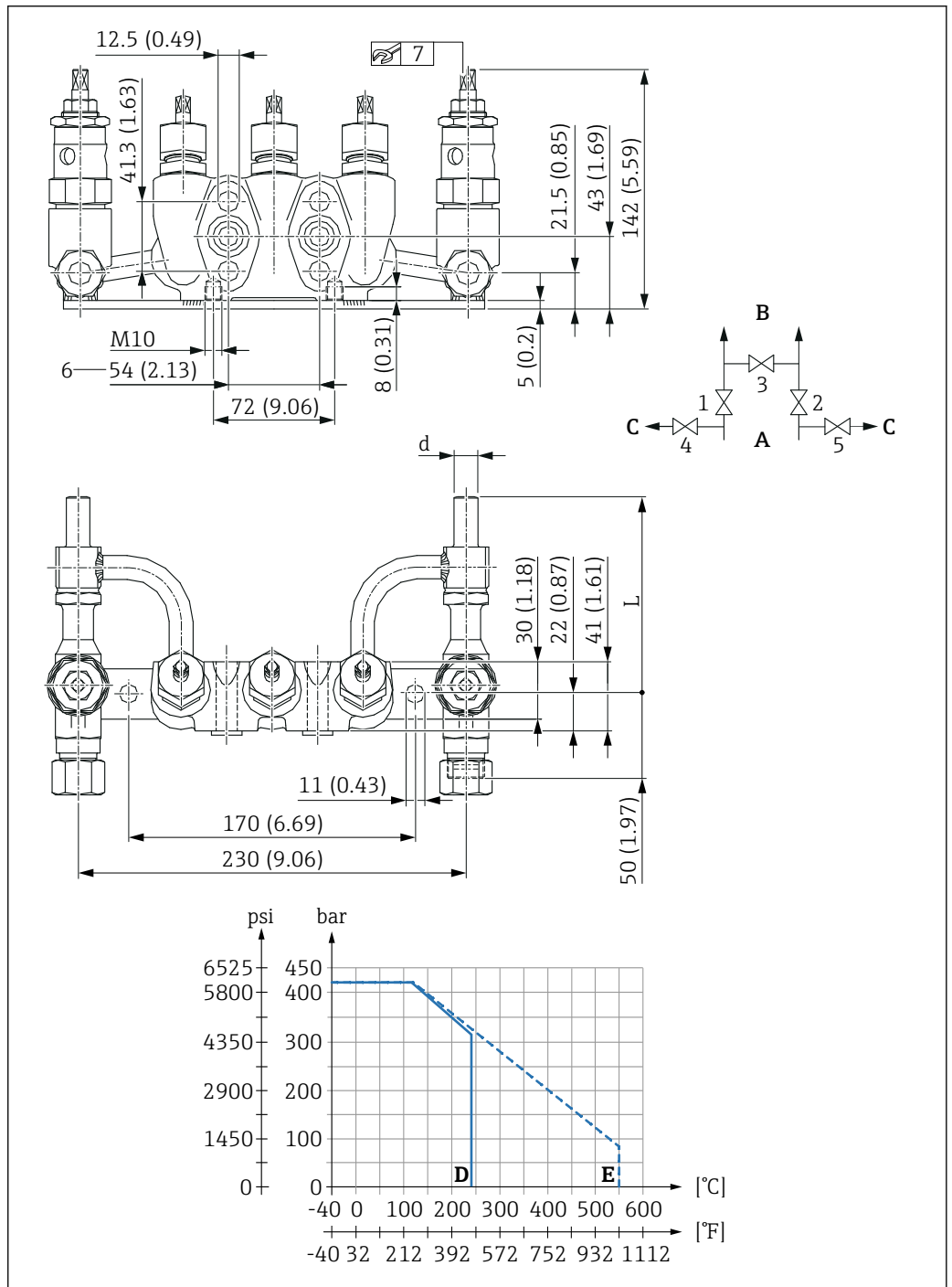
3) Pay attention to the pressure and temperature limits of the measuring instrument!

4) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).



Forged HT

Version for high-temperature steam applications and with purge valve.



A0027750

Unit of measurement mm (in)

- A Process side
- B Transmitter side
- C Purge valve
- D PTFE packing
- E Pure graphite packing
- 1, 2 The transmitter can be disconnected from the piping with valves 1 and 2
- 3 Valve 3 is used for zero point equalization between the pipes
- 4, 5 The piping can be vented or blown clear with valves 4 and 5
- 6 Distance between impulse line inputs.

**Design and weight**

- Housing: die-pressed part
- Surface: phosphatized steel
- Manifold stem thread: internal
- Purge valves: external stem thread
- Valve seat: replaceable
- Valve stem: cold-rolled surface, with back seat and non-rotating needle tip
- Inlet: butt weld connection for tube 14 x 2.5 mm (d)
- Manifold outlet: IEC 61518, Form A
- Purge valve outlet: cutting ring fitting for tube 14 mm (0.55 in), series S
- Attachment: 4 screws, 2 seals, 4 washers (only for M10 screw set)
- Weight: approx. 5.6 kg (12.4 lb)

**Materials and application**

Select the appropriate option in the order features in the Product Configurator.

"Steel" version (Product Configurator: DA63M order code "300", option "DA1")

Component	Valve manifold	Purge valve
Housing	1.0460	1.5415
Housing temperature application limits	-10 to +200 °C (+14 to +392 °F)	-10 to +550 °C (+14 to +1022 °F)
Bonnet	1.0501	1.7709
Valve seat	1.4571	1.4021
Valve stem	1.4104	1.4021
Needle tip	1.4122	1.4122
Packing <sup>1) 2)</sup>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Maximum 420 bar (6092 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ Pure graphite: +550 °C (+1022 °F)</li> <li>■ Maximum 420 bar (6092 psi)</li> </ul>
Cap nut	Steel	-
Gland nut	-	2.0550
Securing screws (depending on process connection)	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade 8.8 ISO 898-1 Operating range 40 bar (580 psi) at -10 to +85 °C (+14 to +185 °F)</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	
Seal	<ul style="list-style-type: none"> <li>■ PTFE: -10 to +80 °C (+14 to +176 °F) (in accordance with EN61518)</li> <li>■ FKM Viton: -15 to +120 °C (+5 to +248 °F)</li> <li>■ Graphite: -40 to +120 °C (-40 to +248 °F) (in accordance with EN61518)</li> </ul>	

1) Pay attention to the pressure and temperature limits of the measuring instrument!

2) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).

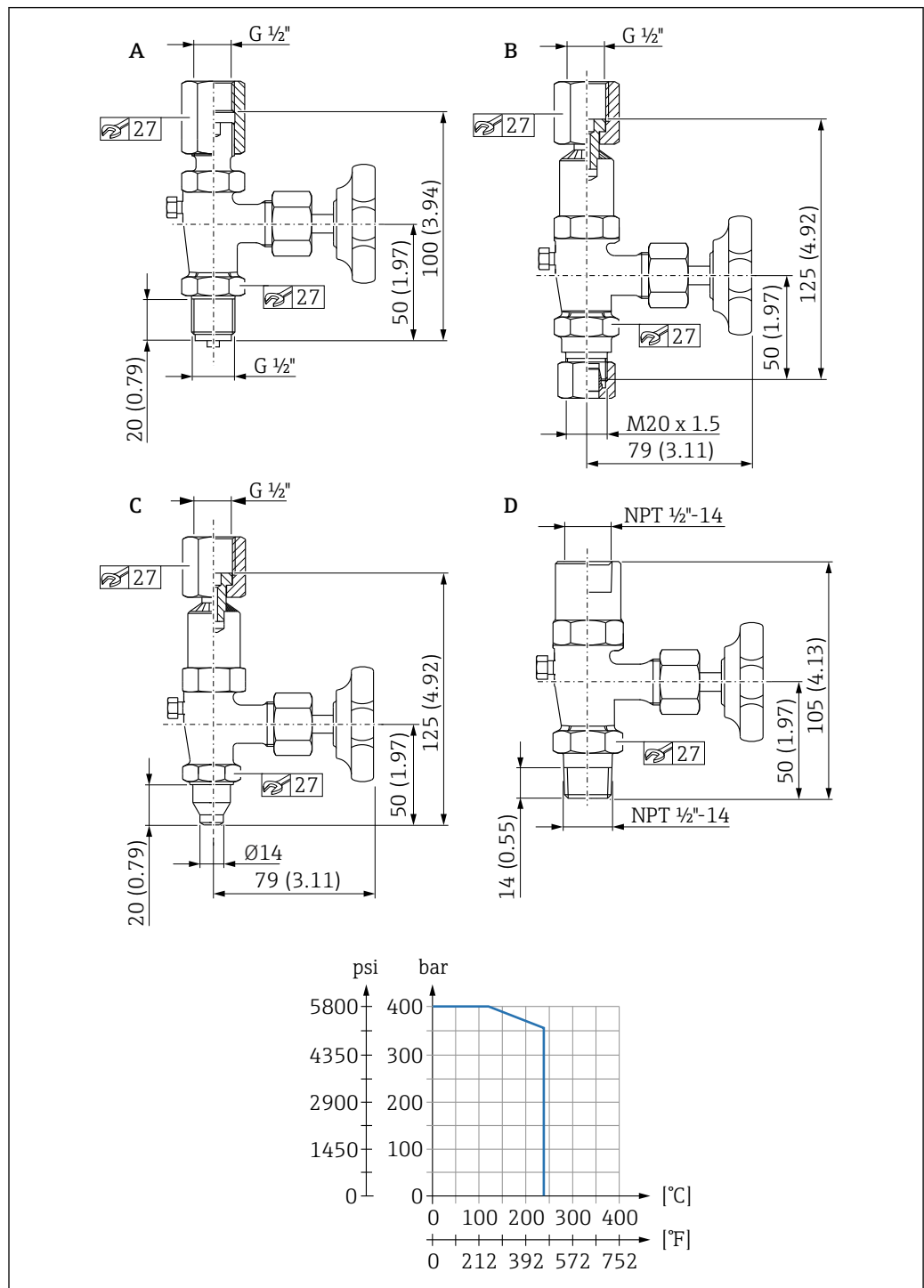
"316Ti" Version (Product Configurator: DA63M order code "300", option "DA2")

Component	Valve manifold	Purge valve
Housing	1.4571	1.4571
Housing temperature application limits	-40 to +200 °C (-40 to +392 °F)	-40 to +550 °C (-40 to +1022 °F)
Bonnet	1.4571	1.4571
Valve seat	1.4571	1.4571
Valve stem	1.4571	1.4571
Needle tip	1.4571	1.4571
Packing <sup>1) 2)</sup>	<ul style="list-style-type: none"> <li>■ PTFE: up to +230 °C (+446 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ Pure graphite: +550 °C (+1022 °F)</li> <li>■ Maximum 420 bar (6 092 psi)</li> </ul>
Cap nut	1.4571	-
Gland nut	-	1.4301
Securing screws (depending on process connection)	<ul style="list-style-type: none"> <li>■ M10 hex head screw ISO 4014/4017 Grade: A4-70 ISO 3506-1</li> <li>■ 7/16-20 UNF screw ASME B18.2.1 Grade: A4-70 ISO 3506-1</li> </ul>	
Seal	<ul style="list-style-type: none"> <li>■ PTFE: -10 to +80 °C (+14 to +176 °F) (in accordance with EN61518)</li> <li>■ FKM Viton: -15 to +120 °C (+5 to +248 °F)</li> <li>■ Graphite: -40 to +120 °C (-40 to +248 °F) (in accordance with EN61518)</li> </ul>	

- 1) Pay attention to the pressure and temperature limits of the measuring instrument!  
 2) The pressure and temperature limits of the manifold are related to one another (see pressure and temperature chart).

## PZAV: pressure gauge valves for Cerabar

Pressure gauge valve without test connection according to DIN 16270



A0027942

Unit of measurement mm (in)

### Use

Suitable for shutting off the impulse lines and for mounting pressure transmitters with ISO228 G ½" thread according to DIN16270 or NPT ½" thread.



Used for:

- Cerabar M: PMC51, PMP51
- Cerabar S: PMC71, PMP71
- Cerabar: PMP50, PMC51B, PMP51B, PMC71B, PMP71B

### Device type



Select the appropriate option in the order features in the Product Configurator.

Position	Input	Output (to measuring instrument)
A	ISO228 G ½" EN837	G ½" internal, clamping sleeve <sup>1)</sup>
B	Ermeto 12S	G ½" internal, rotating sleeve <sup>2)</sup>
C	Weld connection	G ½" internal, rotating sleeve <sup>3)</sup>
D	MNPT ½"	FNPT ½" internal <sup>4)</sup>

- 1) Product Configurator: PZAV order code "020", option "1" and order code "030", option "A"
- 2) Product Configurator: PZAV order code "020", option "1" and order code "030", option "B"
- 3) Product Configurator: PZAV order code "020", option "1" and order code "030", option "C"
- 4) Product Configurator: PZAV order code "020", option "1" and order code "030", option "D"

### Technical data

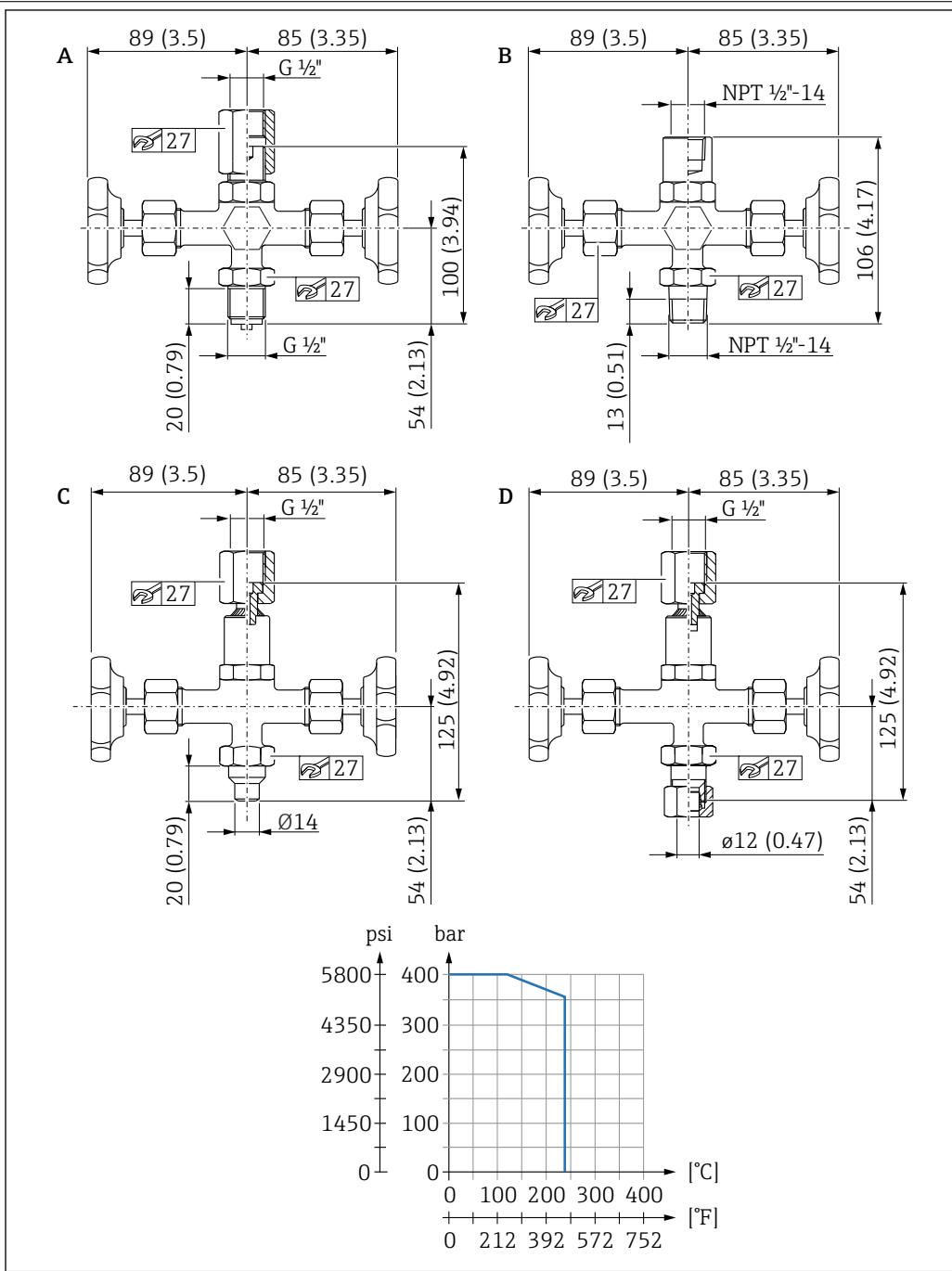


Select the appropriate option in the order features in the Product Configurator.

Component	"Steel" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Housing	1.0460	1.4571
Valve stem	1.4104	1.4571
Needle tip	1.4104	1.4571
Packing <sup>3) 4)</sup>	<ul style="list-style-type: none"> <li>■ PTFE up to +230 °C (+446 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE up to +230 °C (+446 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>
Input	1.0460	1.4571
Output	1.0460	1.4571
Vent screw	A4 (316)	A4 (316)
Hand wheel	Plastic	Plastic
3.1 Certificate	PZAV-B	PZAV-B

- 1) Product Configurator: PZAV order code "040", option "1"; PMC51, PMP51, PMP55 order code "620", option "P2"
- 2) Product Configurator: PZAV order code "040", option "2"
- 3) Pay attention to the pressure and temperature limits of the measuring instrument!
- 4) The pressure and temperature limits of the valves are related to one another (see pressure and temperature chart).

Pressure gauge valve with test connection M20x1.5 according to DIN 16272



A0027943

Unit of measurement mm (in)

### Use

Suitable for shutting off the impulse lines and for mounting pressure transmitters with ISO228 G½" thread according to DIN16272 or NPT ½" thread.



Used for:

- Cerabar M: PMC51, PMP51
- Cerabar S: PMC71, PMP71
- Cerabar: PMP50, PMC51B, PMP51B, PMC71B, PMP71B

### Device type



Select the appropriate option in the order features in the Product Configurator.

Position	Input	Output (to measuring instrument)
A	ISO228 G ½" EN837	G ½" internal, clamping sleeve <sup>1)</sup>
B	MNPT ½"	FNPT ½" innen <sup>2)</sup>
C	Weld connection 14x2.5	G ½" internal, rotating sleeve <sup>3)</sup>
D	Ermeto 12S	G ½" internal, rotating sleeve <sup>4)</sup>

- 1) Product Configurator: PZAV order code "020", option "2" and order code "030", option "A"
- 2) Product Configurator: PZAV order code "020", option "2" and order code "030", option "B"
- 3) Product Configurator: PZAV order code "020", option "2" and order code "030", option "C"
- 4) Product Configurator: PZAV order code "020", option "2" and order code "030", option "D"

### Technical data

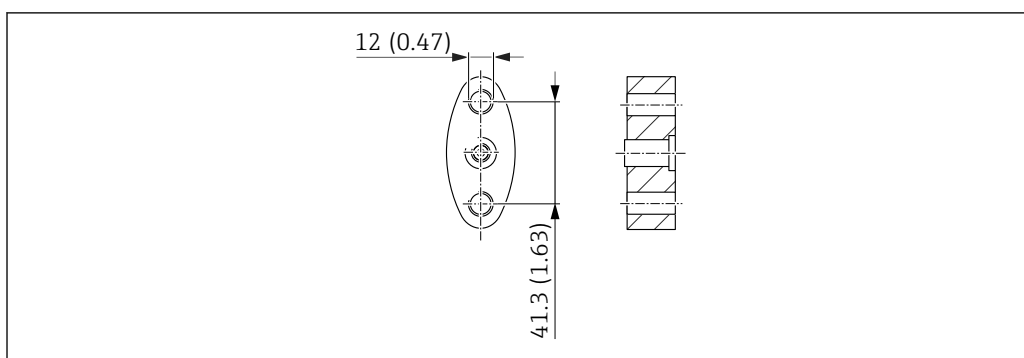


Select the appropriate option in the order features in the Product Configurator.

Component	"Steel" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Housing	1.0460	1.4571
Valve stem	1.4104	1.4571
Needle tip	1.4104	1.4571
Packing <sup>3) 4)</sup>	<ul style="list-style-type: none"> <li>■ PTFE up to +230 °C (+446 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE up to +230 °C (+446 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>
Input	1.0460	1.4571
Output	1.0460	1.4571
Vent screw	1.0460	1.4571
Hand wheel	Plastic	Plastic
3.1 Certificate	PZAV-B	PZAV-B

- 1) Product Configurator: PZAV order code "040", option "1"; PMC51, PMP51, PMP55 order code "620", option "P2"
- 2) Product Configurator: PZAV order code "040", option "2"
- 3) Pay attention to the pressure and temperature limits of the measuring instrument!
- 4) The pressure and temperature limits of the valves are related to one another (see pressure and temperature chart).

## PZO: Oval flange adapter for Deltabar



A0027940

Unit of measurement mm (in)

### Use

The oval flange adapter is used to connect the impulse lines to the oval flange process connection of the differential pressure transmitter (IEC 61518).



Used for:

- Deltabar M: PMD55
- Deltabar S: PMD75
- Deltabar: PMD50, PMD55B, PMD75B

### Technical data



Select the appropriate option in the order features in the Product Configurator.

Component	"Steel" <sup>1)</sup>	"316L" <sup>2)</sup>
Process connection	FNPT ½"-14 / JIS RC ½"	
Seal <sup>3)</sup>	<ul style="list-style-type: none"> <li>▪ PTFE: -10 to +80 °C (+14 to +176 °F) (in accordance with EN61518)</li> <li>▪ FKM Viton</li> </ul>	
Securing screw <sup>4)</sup>	<ul style="list-style-type: none"> <li>▪ 2x securing screws 7/16-20 UNF screws ASME B18.2.1 Grade: ASTM A449 Type 1 or</li> <li>▪ 2x securing screws M10 hex head screw ISO4014/4017 Grade: 8.8 ISO 898-1</li> </ul>	<ul style="list-style-type: none"> <li>▪ 2x securing screws 7/16-20 UNF scrow ANSI B18.2.1 Grade: ASTM A193 B8M Class 2 or</li> <li>▪ 2x securing screws M10 hex head screw ISO4014/4017 Grade: A4-70 ISO 3506-1</li> </ul>
Additional options	-	EN10204-3.1 certificate

1) Product Configurator: PZO order code "030", option "2"; PMD55 order code "620", option "P1"

2) Product Configurator: PZO order code "030", option "1"; PMD55 order code "620", option "P1"; PMD55B and PMD75B order code "620", option "P2", "P3", "P4" and "P5"

3) Pay attention to the pressure and temperature limits of the measuring instrument!

4) Securing screws are optional



## DA61V: Shutoff device for pipes

### Use

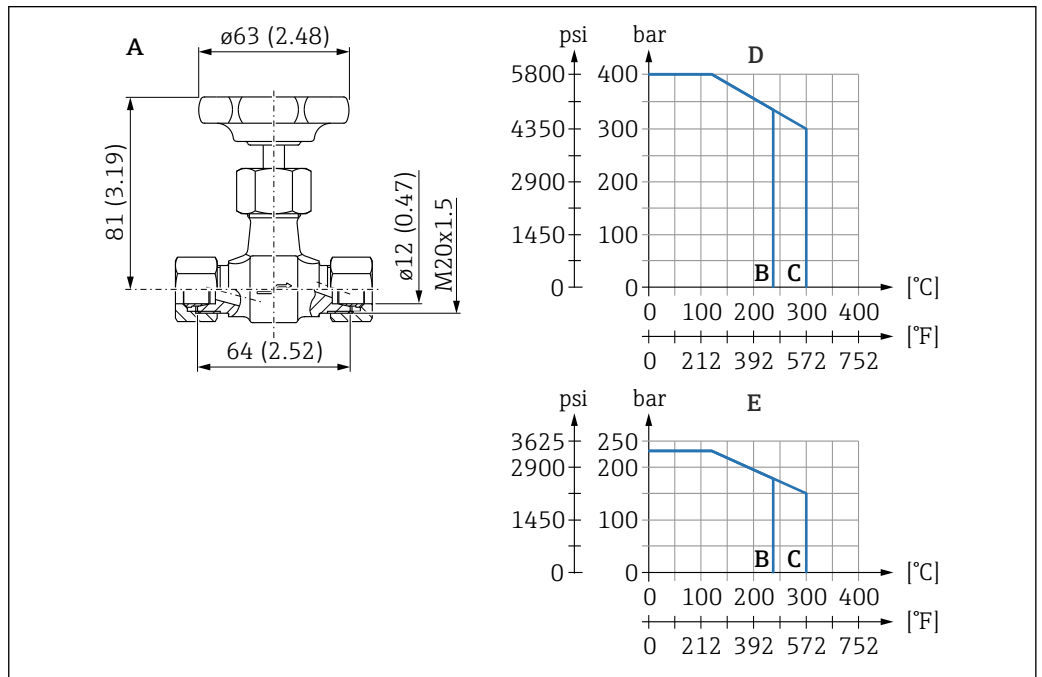
Suitable for shutting off the piping (e.g. for flow applications).

The shutoff valve is designed to separate the measuring system from the measuring tube if leaks are discovered or if maintenance work needs to be performed on the piping.

### Installation and commissioning

The shutoff valves must be closed on completion of the installation. As part of routine commissioning, the shutoff valves must first be opened carefully and the integrity of the entire system checked to ensure it is leak-tight.

### Shutoff assembly with screw-in bonnet



A0027977

Unit of measurement mm (in)

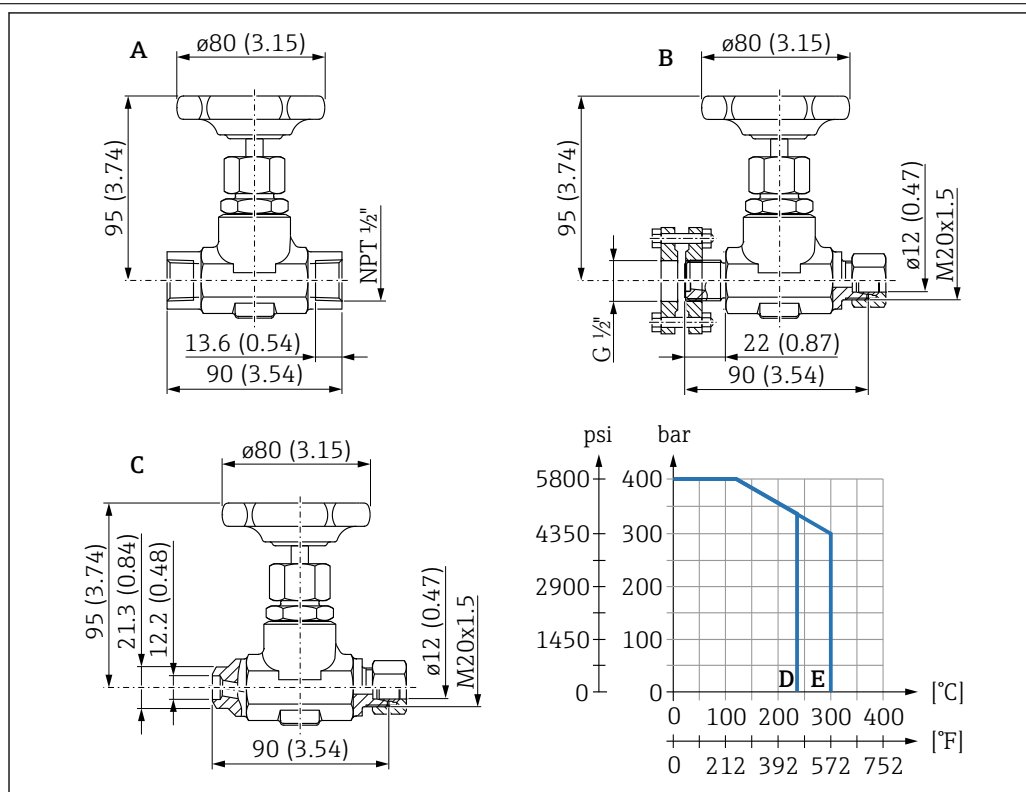
- A Inlet cutting ring; outlet cutting ring
- B PTFE packing
- C Pure graphite packing
- D Series S
- E Series L

### Technical data

Component part	"C22.8" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Housing	1.0460	1.4571
Valve stem	1.4104	1.4571
Needle tip	1.4122	1.4571
Packing <sup>3) 4)</sup>	<ul style="list-style-type: none"> <li>■ PTFE up to +230 °C (+446 °F)</li> <li>■ Pure graphite up to +300 °C (+572 °F)</li> </ul>	<ul style="list-style-type: none"> <li>■ PTFE up to +230 °C (+446 °F)</li> <li>■ Pure graphite up to +300 °C (+572 °F)</li> </ul>
Union nut	Steel	1.4571
Certificate	3.1 Certificate	3.1 Certificate
Weight	0.47 kg (1.04 lb)	0.47 kg (1.04 lb)

- 1) Product Configurator: DA61V order code "260", option "C"
- 2) Product Configurator: DA61V order code "260", option "D"
- 3) Pay attention to the pressure and temperature limits of the measuring device!
- 4) The pressure and temperature limits of the assembly are related to one another (see pressure and temperature chart).

## Shutoff assembly with integrated bonnet



A0027970

Unit of measurement mm (in)

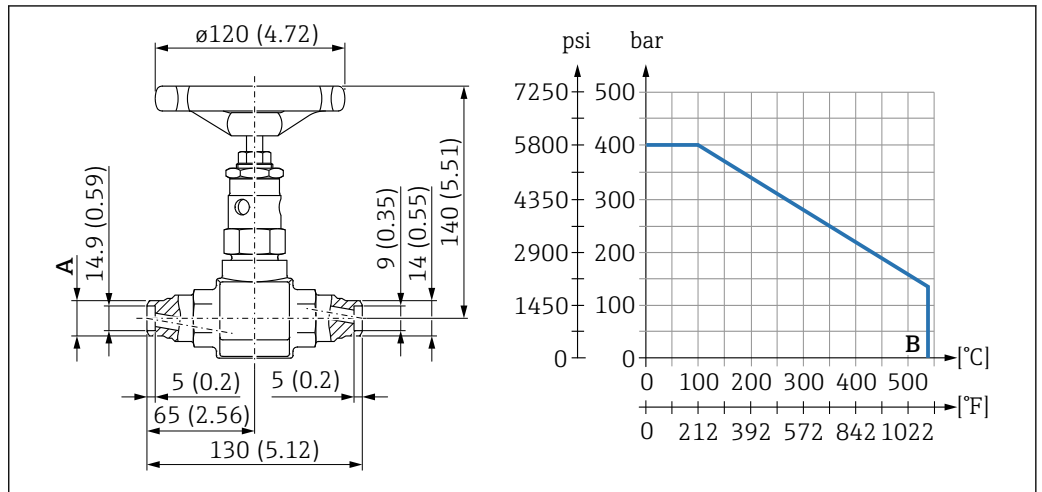
- A Inlet FNPT 1/2"; outlet FNPT 1/2"  
 B Inlet nipple DIN 19207 and threaded flanges; outlet cutting ring  
 C Inlet weld connection; outlet cutting ring  
 D PTFE packing  
 E Pure graphite packing

## Technical data

Component part	"C22.8" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Housing	1.0460	1.4571
Bonnet	1.0501	1.4571
Valve seat	1.4571 / 1.4021	1.4571
Valve stem	1.4571 / 1.4021	1.4571
Needle tip	1.4122	1.4571
Packing <sup>3) 4)</sup>	<ul style="list-style-type: none"> <li>PTFE up to +200 °C (+392 °F)</li> <li>Pure graphite up to +300 °C (+572 °F)</li> <li>Maximum 400 bar (5 800 psi)</li> </ul>	<ul style="list-style-type: none"> <li>PTFE up to +230 °C (+446 °F)</li> <li>Pure graphite up to +300 °C (+572 °F)</li> <li>Maximum 400 bar (5 800 psi)</li> </ul>
Union nut	Steel	1.4571
Certificate	3.1 Certificate	
Weight	A: 0.8 kg (1.76 lb); B: 1.45 kg (3.2 lb), C: 0.73 kg (1.61 lb)	

- Product Configurator: DA61V order code "260", option "C"
- Product Configurator: DA61V order code "260", option "D"
- Pay attention to the pressure and temperature limits of the measuring device!
- The pressure and temperature limits of the assembly are related to one another (see pressure and temperature chart).

**Shutoff assembly with integrated bonnet, high-temperature version**



A0028332

Unit of measurement mm (in)

- A Weld connection, inlet 21.3 mm (0.84 in) or 17.2 mm (0.68 in); weld connection, outlet 14 mm (0.55 in)  
 B Pure graphite packing

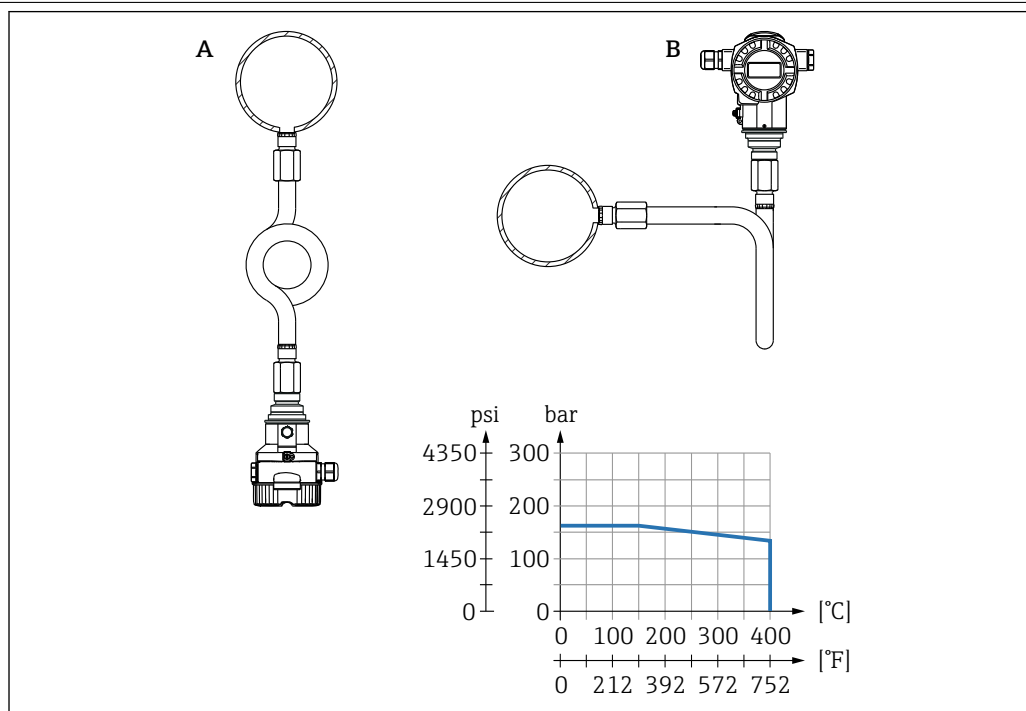
**Technical data**

Component part	"16Mo3" <sup>1)</sup>
Housing	1.5415
Bonnet	1.7709
Valve seat	1.4021
Valve stem	1.4021
Needle tip	1.4122
Packing <sup>2) 3)</sup>	<ul style="list-style-type: none"> <li>■ Pure graphite: up to +530 °C (+986 °F)</li> <li>■ Maximum 400 bar (5 800 psi)</li> </ul>
Union nut	Steel
Certificate	3.1 Certificate
Weight	1.6 kg (3.53 lb)

- 1) Product Configurator: DA61V order code "260", option "G"
- 2) Pay attention to the pressure and temperature limits of the measuring device!
- 3) The pressure and temperature limits of the assembly are related to one another (see pressure and temperature chart).

## PZW: siphons for Cerabar

### Overview



A0028335

- A O-shaped siphon. Suitable for vertical installation.  
 B U-shaped siphon. Suitable for horizontal installation.

### Use

Siphons according to DIN 16282 are used to cool the medium. Suitable for liquids, gases and vapors.



Used for:

- Cerabar M: PMC51, PMP51
- Cerabar S: PMC71, PMP71
- Cerabar: PMP50, PMC51B, PMP51B, PMC71B, PMP71B

### Function

The pressure transmitter is separated from the process by means of the circular pipe (vertical installation) or U (horizontal installation). In the presence of moist gases and steam, additional condensate forms, which further reduces the temperature compared to the process.

### Pressure measurement in steam

Use siphons for pressure measurement in steam. The siphon reduces the temperature to almost ambient temperature. Fill the siphon with liquid before commissioning. Preferably mount the device with the siphon below the tapping point.

Advantages:

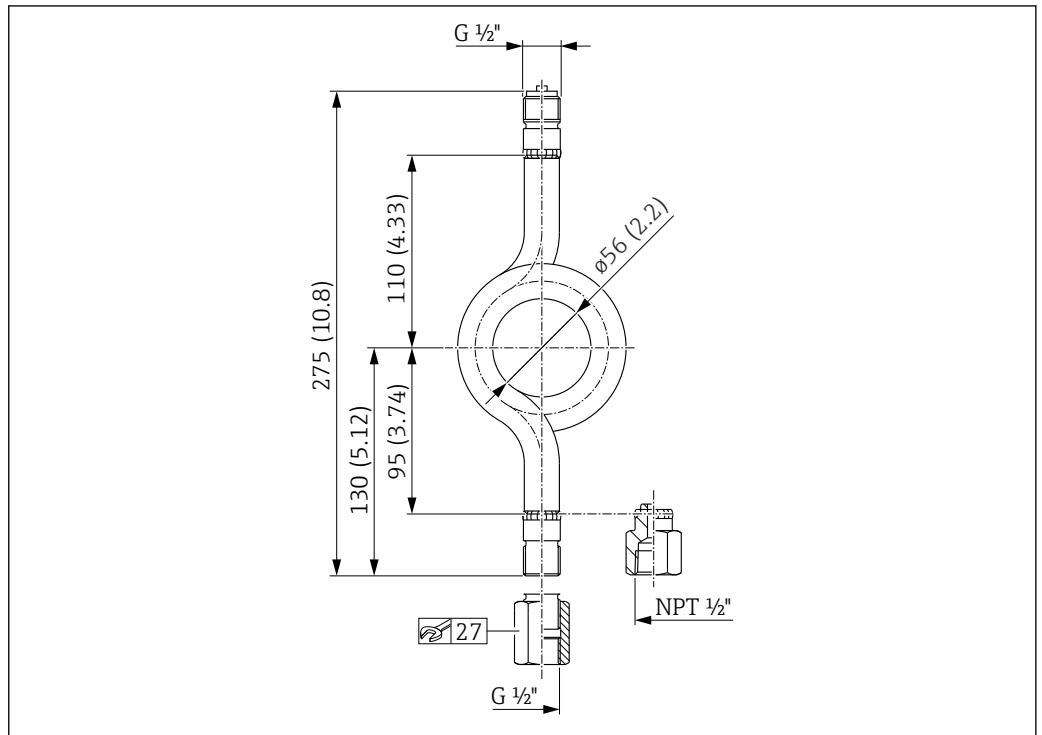
- Defined water column only causes minimal/negligible measurement errors
- Minimal/negligible thermal effects on the device

The device may also be mounted above the tapping point. Note the max. permitted ambient temperature of the device!

### Cooling effect

The cooling effect depends on the pressure, medium and ambient temperature. Average cooling effect for gases: 50 to 100 °C (122 to 212 °F) (The cooling effect only applies to gases and not to vapors)

Siphons - O-shaped



1 O-shaped. Unit of measurement mm (in)

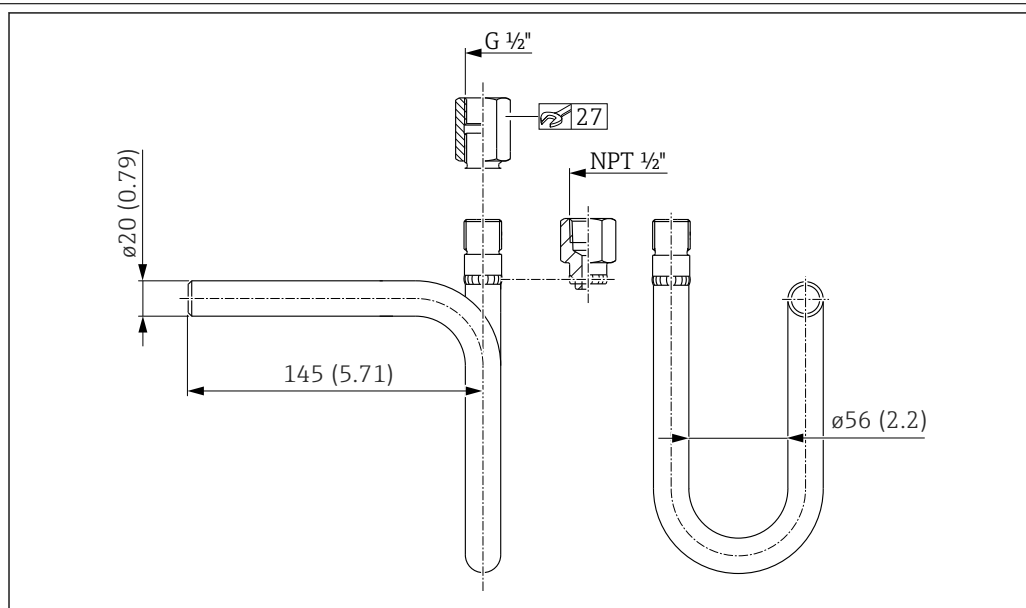
A0024011

Technical data

Component	"St35.8" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Transmitter side x process side	<ul style="list-style-type: none"> <li>■ FNPT 1/2" x MNPT 1/2"</li> <li>■ FNPT 1/2" x weld connection</li> <li>■ G 1/2" internal x G 1/2"</li> <li>■ G 1/2" internal x weld connection</li> </ul>	
Pipe	ST35.8	316Ti
Maximum working pressure	104 bar (1 508 psi) at 400 °C (752 °F)	
upstream from siphon (process side)	120 bar (1 740 psi) at 300 °C (572 °F)	
at maximum operating temperature <sup>3)</sup>	160 bar (2 320 psi) at 120 °C (248 °F)	
Additional options	Basic version	<ul style="list-style-type: none"> <li>■ Basic version</li> <li>■ EN10204-3.1 certificate</li> </ul>

- 1) Product Configurator: PZW order code "030", option "2" and order code "040", option "1"; PMP51, PMC51, PMP55 order code "620", option "P4"
- 2) Product Configurator: PZW order code "030", option "2" and order code "040", option "2"; PMP51, PMC51 and PMP55 order code "620", option "P4" PMP51B, PMP71B, PMC51B and PMC71B order code "620", option "P5" and "P7"
- 3) Pay attention to the pressure and temperature limits of the measuring instrument!

## U-shaped siphons



A0024012

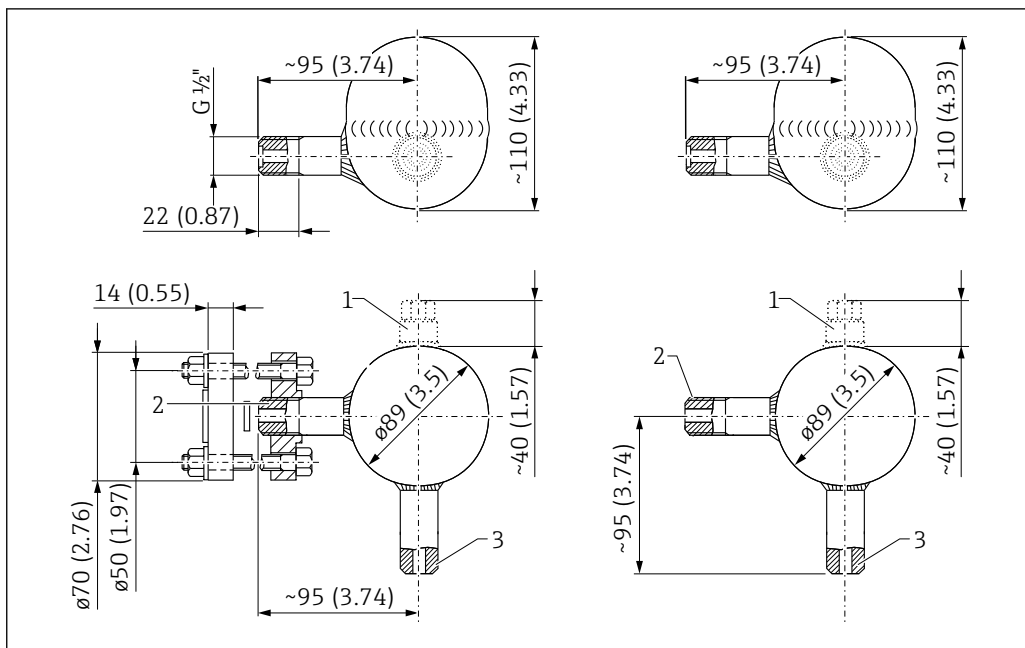
2 U-shaped. Unit of measurement mm (in)

## Technical data

Component	"St35.8" <sup>1)</sup>	"316Ti" <sup>2)</sup>
Transmitter side x process side	<ul style="list-style-type: none"> <li>▪ FNPT 1/2" x MNPT 1/2"</li> <li>▪ FNPT 1/2" x weld connection</li> <li>▪ G 1/2" internal x G 1/2"</li> <li>▪ G 1/2" internal x weld connection</li> </ul>	
Pipe	ST35.8	316Ti
Maximum working pressure	104 bar (1 508 psi) at 400 °C (752 °F)	
upstream from siphon (process side)	120 bar (1 740 psi) at 300 °C (572 °F)	
at maximum operating temperature <sup>3)</sup>	160 bar (2 320 psi) at 120 °C (248 °F)	
Additional options	Basic version	<ul style="list-style-type: none"> <li>▪ Basic version</li> <li>▪ EN10204-3.1 certificate</li> </ul>

- 1) Product Configurator: PZW order code "030", option "1" and order code "040", option "1"; PMP51, PMC51, PMP55 order code "620", option "P4"
- 2) Product Configurator: PZW order code "030", option "1" and order code "040", option "2"; PMP51, PMC51 and PMP55 order code "620", option "P4" PMP51B, PMP71B, PMC51B and PMC71B order code "620", option "P6" and "P8"
- 3) Pay attention to the pressure and temperature limits of the measuring instrument!

## DA61C: Condensate pot for steam applications



Unit of measurement mm (in)

- 1 Filling cap, NPT 1/2 (optional)
- 2 From the primary device
- 3 To the differential pressure transmitter


**Use** For flow and level measurement applications in order to maintain constant conditions in the condensate columns. Excess condensate can flow back into the main pipe or vessel.

**Design** Hot-pressed hemispherical heads welded together.

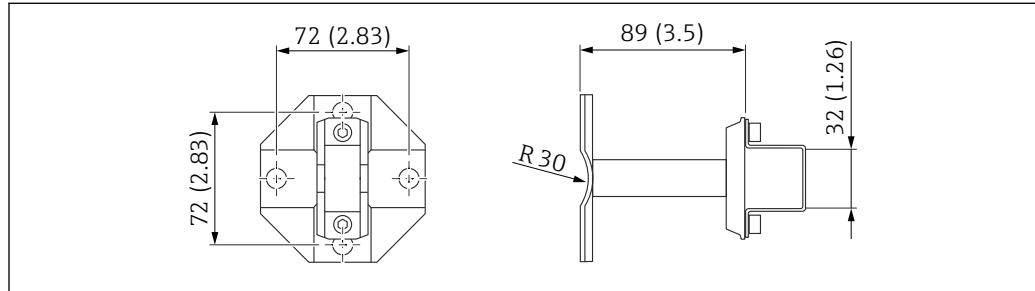
Component part	"H11 (265 GH)" <sup>1)</sup>	"316L" <sup>2)</sup>	"16Mo3" <sup>3)</sup>
Weight	1.7 kg (3.8 lb)		2.2 kg (4.9 lb)
Volume	300 cm <sup>3</sup>		250 cm <sup>3</sup>
Pressure, temperature <sup>4)</sup>	PN 100, 300 °C (572 °F)	PN 100, 400 °C (752 °F)	PN 250, 500 °C (932 °F)
Filling cap	NPT 1/2"		
Input	<ul style="list-style-type: none"> <li>■ Weld connection 21.3 mm (0.84 in)</li> <li>■ Nipple, weld connection 17.2 mm (0.68 in)</li> <li>■ G 1/2" DIN 19207 steel</li> <li>■ G 1/2" DIN 19207 stainless steel</li> </ul>		
Outlet	<ul style="list-style-type: none"> <li>■ Weld connection 21.3 mm (0.84 in)</li> <li>■ Nipple, 12 mm (0.47 in)</li> <li>■ Nipple G 1/2" DIN 19207</li> </ul>		
Certificate	3.1 Certificate		

- 1) Product Configurator: DA61C order code "200", option "B"
- 2) Product Configurator: DA61C order code "200", option "C"
- 3) Product Configurator: DA61C order code "200", option "K"
- 4) Pay attention to the pressure and temperature limits of the measuring device!

## Mounting bracket for DA63M

**Use** If the transmitter is mounted on a shutoff device (e.g. manifold or shutoff valve), it is recommended to use the bracket provided. This makes it easier to disassemble the transmitter. Alternatively, the transmitter can be mounted directly via a mounting bracket (→  34).

**Mounting bracket for block & bleed valve** The block & bleed valve can be mounted on walls or pipes with the mounting bracket.



Unit of measurement mm (in)

The mounting bracket set contains:

- 1 mounting bracket
- 1 U-bolt
- 2 Allen screws ISO4762 - M6x10
- 1 U-fixing bracket M8 for 2" pipe
- 2 washers 8.4 DIN 125-B
- 2 hexagonal nuts DIN EN 24032-M8

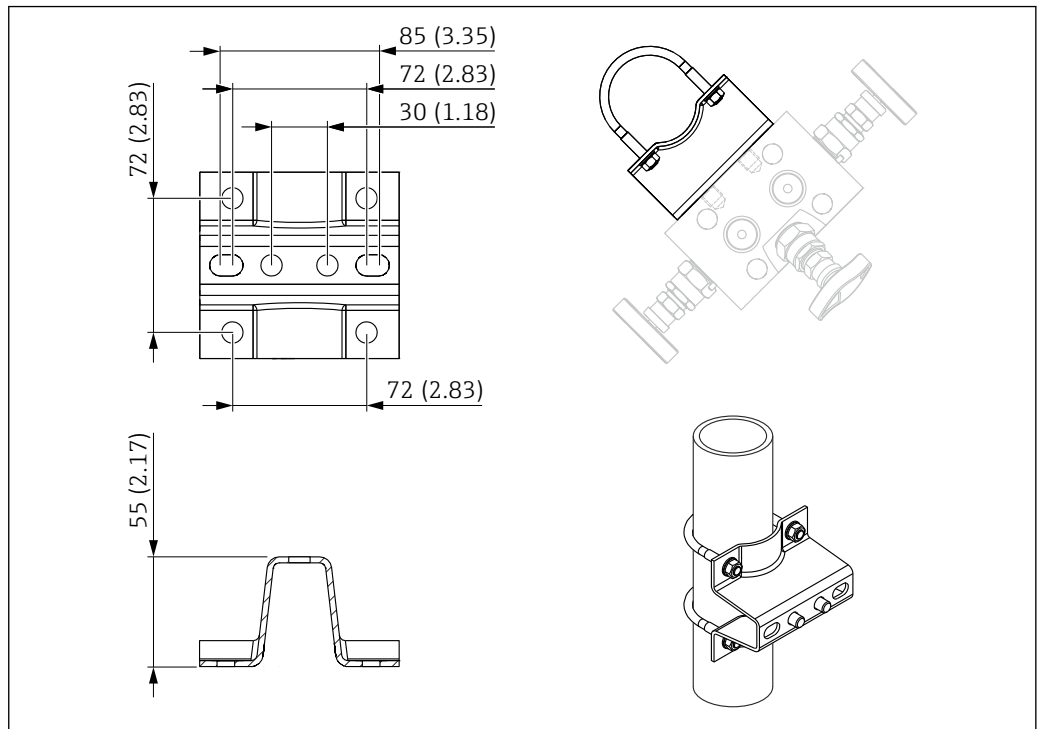
### Order information

- Order number: 71372498
- Product Configurator: DA63M order code for "540", option "EC "
- PMP51, PMC51, PMP71 and PMC71 order code "620", option "PK"  
PMP50, PMP51B, PMC51B, PMP71B and PMC71B order code "620", option "Q3"



**Mounting bracket for 3-valve and 5-valve manifold**

If the transmitter is mounted on a shutoff device (e.g. manifold or shutoff valve), it is recommended to use the bracket provided. This makes it easier to disassemble the transmitter.



A0028158

Unit of measurement mm (in)

The mounting bracket set contains:

- 1 mounting bracket
- 2 "U" bolts
- 4 washers – 8.4
- 4 hexagonal nuts M8
- 2 washers – 10.5
- 2 hexagonal-headed bolts M10x14
- 2 hexagonal-headed bolts 3/8-16 UNC x 5/8"

**Order information**

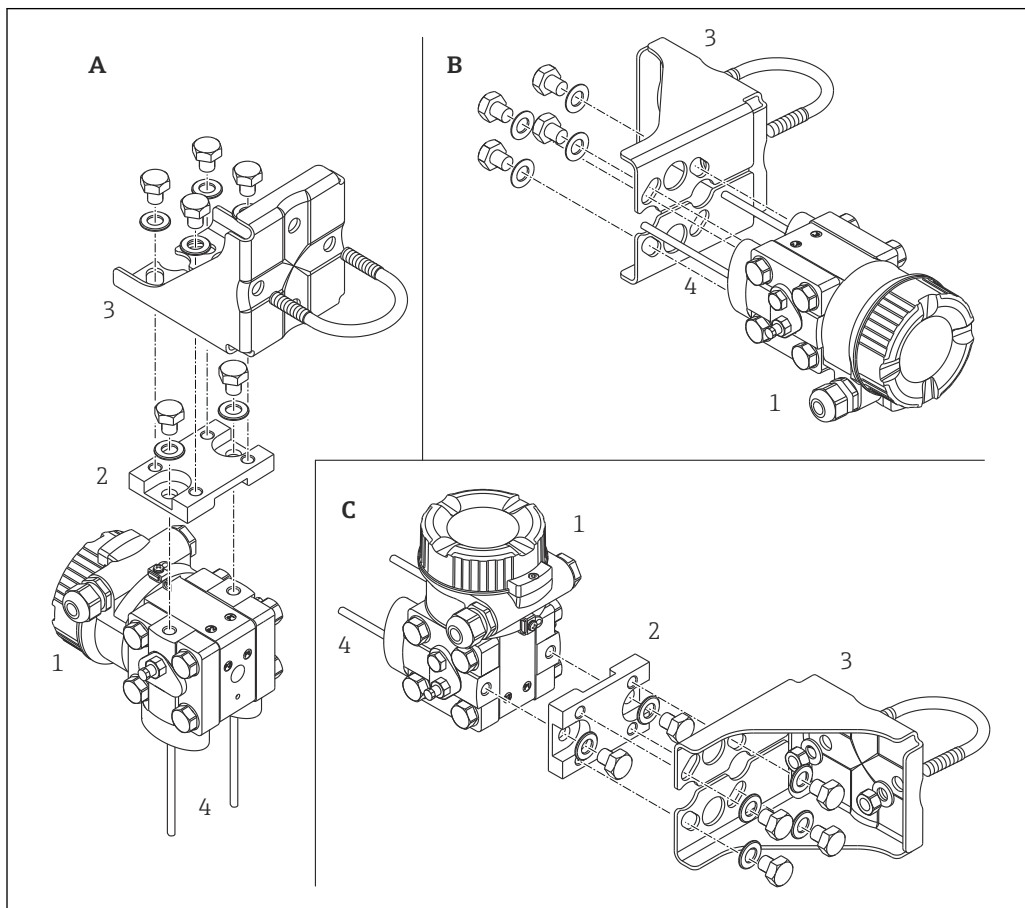
Order number:

- Stainless steel: 71372499
- Product Configurator: DA63M order code "540", option "EA" or "EB".
- PMD55 and PMD75 order code "620", option "PJ"
- PMD50, PMD55B and PMD75B order code "620", option "Q2"

## Mounting bracket for Deltabar

### Typical installation arrangements

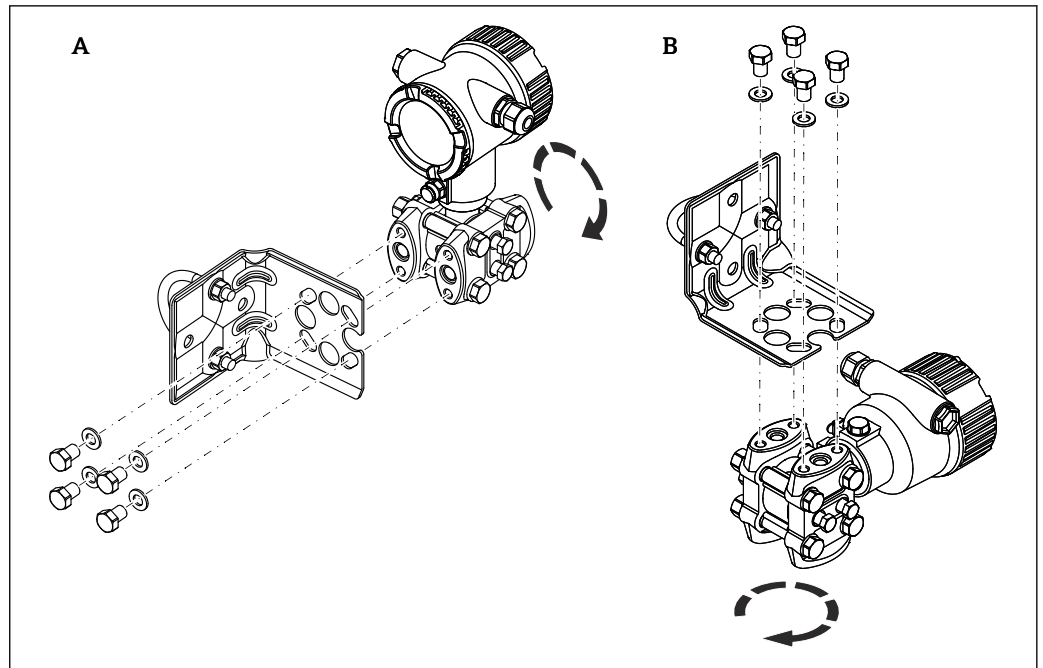
#### Deltabar PMD55



A0023109

- A Impulse line vertical, version V1, alignment 90°
- B Impulse line horizontal, version H1, alignment 180°
- C Impulse line horizontal, version H2, alignment 90°
- 1 Measuring instrument
- 2 Adapter plate
- 3 Mounting bracket
- 4 Pressure line

Deltabar PMD50, PMD75, FMD78, PMD55B, PMD75B, PMD78B



A0043325

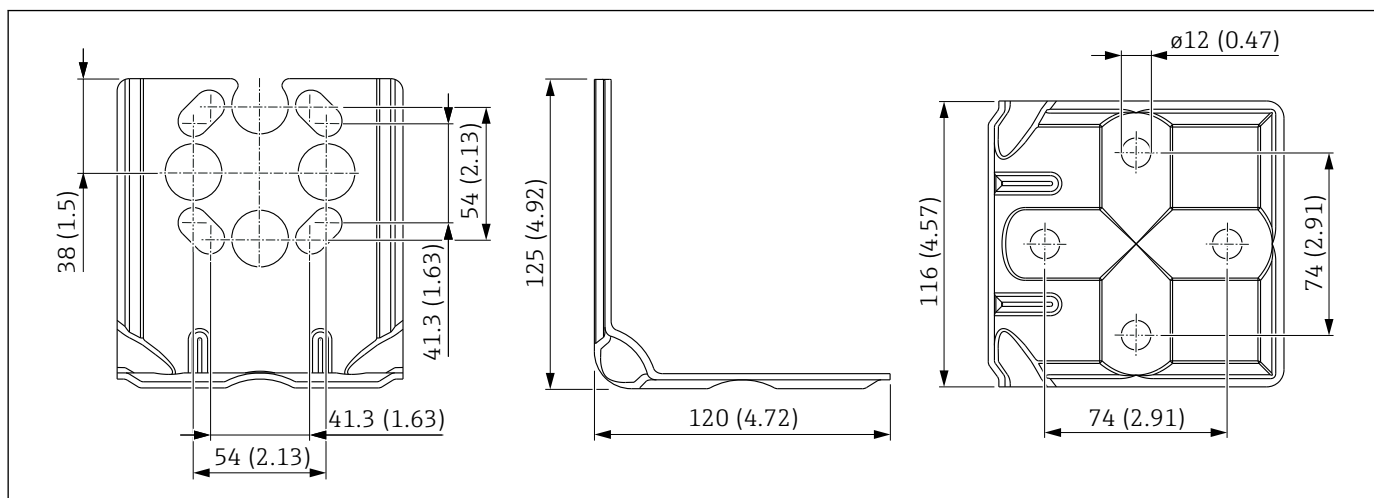
3 Can be arranged in 90° stages

A Arrangement example

B Arrangement example

**Standard version**

Mounting bracket for wall and pipe mounting including retaining bracket for pipe mounting and 2 nuts.



Unit of measurement mm (in)

**Ordering information for Deltabar PMD55**

Component	Material	Screw version <sup>1)</sup>	Accessory and spare part number
Mounting bracket with screws	Mounting bracket: 316L (1.4404) Screws: A4-70	<ul style="list-style-type: none"> <li>▪ 7/16 UNF</li> <li>▪ M10</li> </ul>	<ul style="list-style-type: none"> <li>▪ 71381907</li> <li>▪ 71435883</li> </ul>
Adapter plate with screws	Adapter plate: AISI 316L Screws: A4-70	<ul style="list-style-type: none"> <li>▪ 7/16 UNF</li> <li>▪ M10</li> </ul>	<ul style="list-style-type: none"> <li>▪ 71098632</li> <li>▪ 71101935</li> </ul>
Screw set including washers	Screws: A4-70	<ul style="list-style-type: none"> <li>▪ 7/16 UNF</li> <li>▪ M10</li> </ul>	<ul style="list-style-type: none"> <li>▪ 943153-0031</li> <li>▪ 943153-0011</li> </ul>

1) Depends on the selected process connection

**Ordering information Deltabar PMD50, PMD75, FMD78, PMD55B, PMD75B, PMD78B**

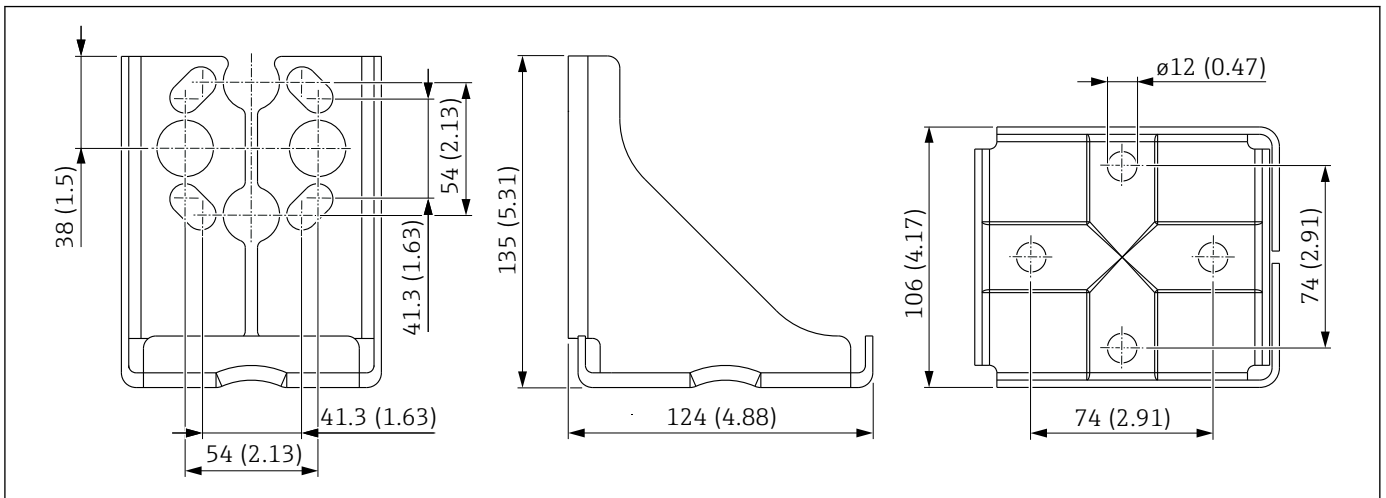

The mounting bracket can be ordered as an accessory "Q1" with the device.

Component	Material	Screw version <sup>1)</sup>	Accessory and spare part number
Mounting bracket with screws	Mounting bracket: 316L (1.4404) Screws: A4-70	<ul style="list-style-type: none"> <li>▪ 7/16 UNF</li> <li>▪ M10</li> <li>▪ M12</li> </ul>	<ul style="list-style-type: none"> <li>▪ 71381907</li> <li>▪ 71435883</li> <li>▪ 71435884</li> </ul>
Screw set including washers	Screws: A4-70	<ul style="list-style-type: none"> <li>▪ 7/16 UNF</li> <li>▪ M10</li> <li>▪ M12</li> </ul>	<ul style="list-style-type: none"> <li>▪ 943153-0031</li> <li>▪ 943153-0011</li> <li>▪ 943153-0021</li> </ul>

1) Depends on the selected process connection

**Heavy-duty version**

Mounting bracket for wall and pipe mounting including retaining bracket for pipe mounting and two nuts.



A0028156

Unit of measurement mm (in)

**Ordering information for Deltabar M PMD55**

Component	Material	Screw version <sup>1)</sup>	Accessory and spare part number
Mounting bracket with screws	Mounting bracket: 316L (1.4404) Screws: A4-70	<ul style="list-style-type: none"> <li>■ 7/16 UNF</li> <li>■ M10</li> </ul>	<ul style="list-style-type: none"> <li>■ 52024609</li> <li>■ 52024611</li> </ul>
Adapter plate with screws	Adapter plate: AISI 316L Screws: A4-70	<ul style="list-style-type: none"> <li>■ 7/16 UNF</li> <li>■ M10</li> </ul>	<ul style="list-style-type: none"> <li>■ 71098632</li> <li>■ 71101935</li> </ul>
Screw set including washers	Screws: A4-70	<ul style="list-style-type: none"> <li>■ 7/16 UNF</li> <li>■ M10</li> </ul>	<ul style="list-style-type: none"> <li>■ 943153-0031</li> <li>■ 943153-0011</li> </ul>

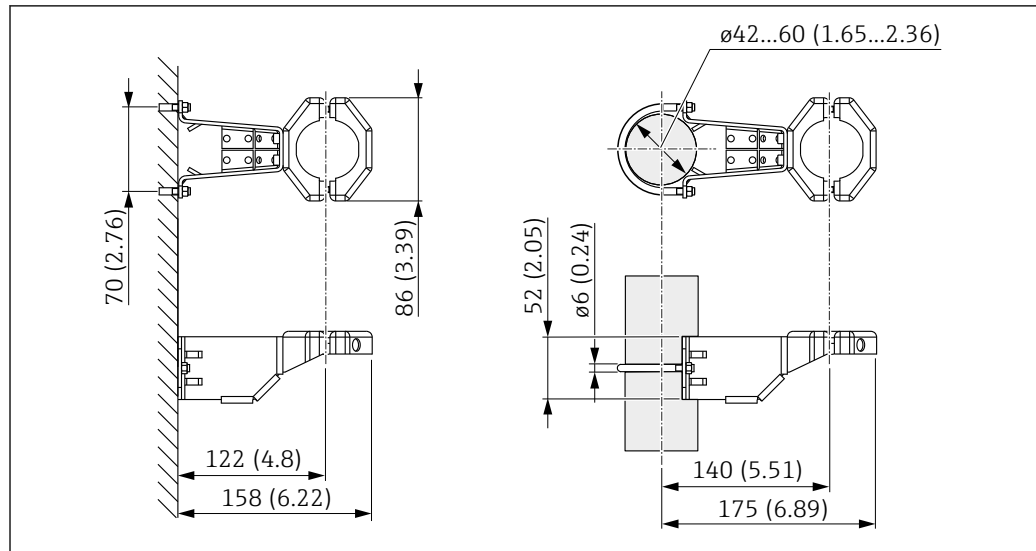
1) Depends on the selected process connection

**Ordering information for Deltabar PMD50, PMD75, PMD55B, PMD75B**

Component	Material	Screw version <sup>1)</sup>	Accessory and spare part number
Mounting bracket with screws	Mounting bracket: 316L (1.4404) Screws: A4-70	<ul style="list-style-type: none"> <li>■ 7/16 UNF</li> <li>■ M10</li> <li>■ M12</li> </ul>	<ul style="list-style-type: none"> <li>■ 52024609</li> <li>■ 52024611</li> <li>■ 52024610</li> </ul>
Screw set including washers	Screws: A4-70	<ul style="list-style-type: none"> <li>■ 7/16 UNF</li> <li>■ M10</li> <li>■ M12</li> </ul>	<ul style="list-style-type: none"> <li>■ 943153-0031</li> <li>■ 943153-0011</li> <li>■ 943153-0021</li> </ul>

1) Depends on the selected process connection

## Mounting bracket for Cerabar and Deltapilot



Unit of measurement mm (in)

Material: 316L (1.4404)

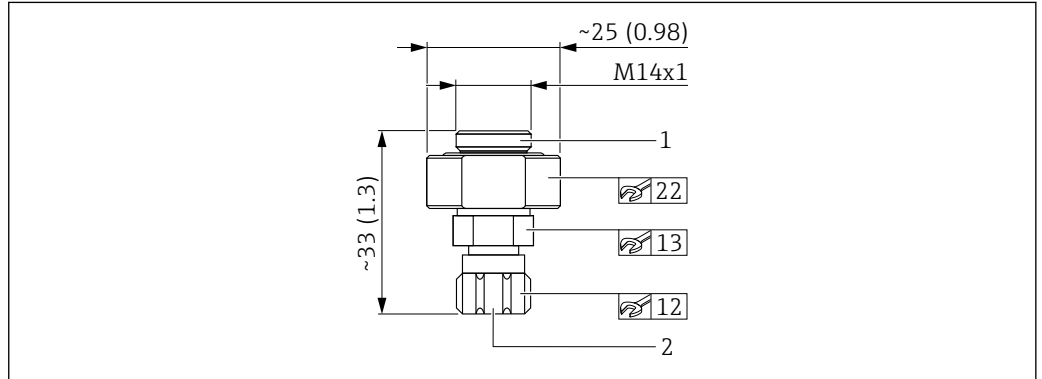
### Ordering information

- Order number: 71102216
- Product Configurator:  
 FMB50, FMB51, FMB52, FMB53, PMC51, PMP51, PMP55, PMC71, PMP71, PMP75 order code "620", option "PA"  
 PMP50, PMP51B, PMP71B, PMC51B, PMC71B, PMD55B, PMD75B, PMD78B order code "620", option "Q1"

## Test adapter for Waterpilot and Deltapilot

**Use** Test adapter for level probe for functional testing or calibration under pressure.

**Test adapter** Test adapter for level probe with outer diameter 22 mm (0.87 in) or 29 mm (1.14 in)

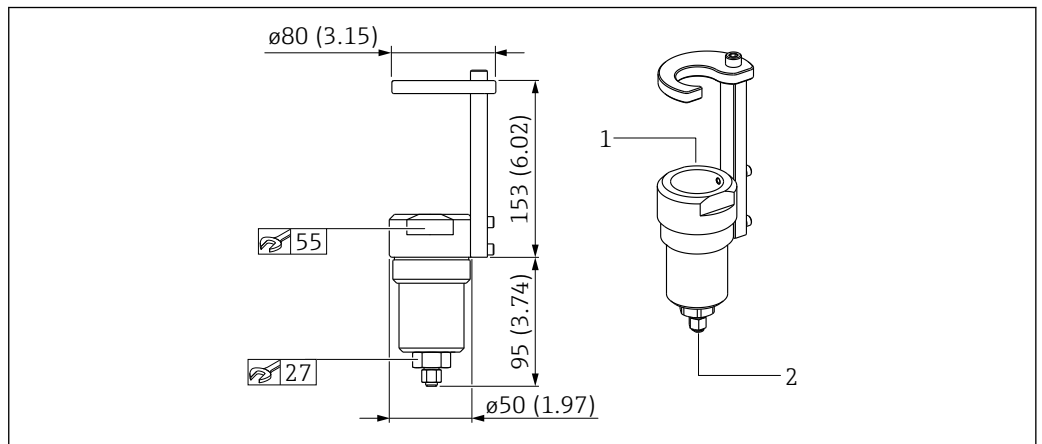


Unit of measurement mm (in)

- 1 Level probe connection
- 2 Compressed air hose connection, internal diameter, quick coupling piece 4 mm (0.16 in)

- Observe the maximum pressure for compressed air hose and maximum overload for level probe
- Maximum pressure for the quick coupling piece provided: 10 bar (145 psi)
- Adapter material: 304 (1.4301)
- Material of quick coupling piece: anodized aluminum
- Order number 52011868

**Test adapter for level probe with outer diameter 42 mm (1.65 in)**



Unit of measurement mm (in)

- 1 Level probe connection
- 2 Compressed air hose connection

- Observe the maximum pressure for compressed air hose and maximum overload for level probe
- Maximum pressure for the quick coupling piece provided: 10 bar (145 psi)
- Adapter material: 304 (1.4301)
- Material of quick coupling piece: anodized aluminum
- Order number 71110310

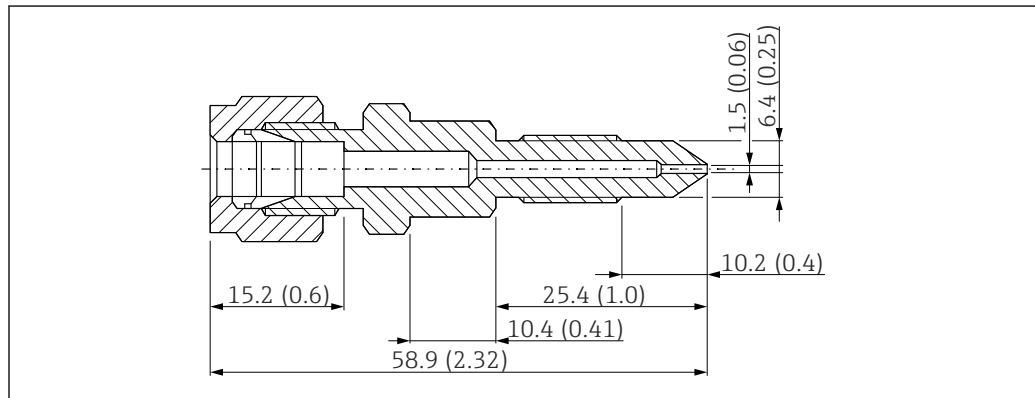
## Calibration adapter $5/16''$ - 24 UNF for Deltabar

**Use** Calibration adapter for connecting an external pressure calibrator.

**Procedure** Performing the calibration

1. Unscrew the spindle of the vent valve from the differential pressure transmitter.
2. Screw in the calibration adapter.
3. Establish a connection from the adapter to the pressure calibrator.

**Calibration adapter**



A0043688

Unit of measurement mm (in)

- Order number: 71557954
- Product Configurator: PMD55B, PMD75B order code "620", option "Q7"



## Cable shortening kit for Waterpilot and Deltapilot

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**Use**

The cable shortening kit is used to shorten a cable easily and professionally.

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**Ordering information for Waterpilot**

Order number: 71222671

Ordering information: Product Configurator, order code for "Accessories enclosed" option "PW"

Associated documentation SD00552P/00/A6.



The cable shortening kit is not designed for the FMX21 with FM/CSA approval.

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**Ordering information for Deltapilot**

Order number: 71125862

Ordering information: Product Configurator, order code for "Accessories enclosed" option "PW"

Associated documentation SD00553P/00/A6.

## Weather protection cover

### Weather protection cover 316L

#### Use

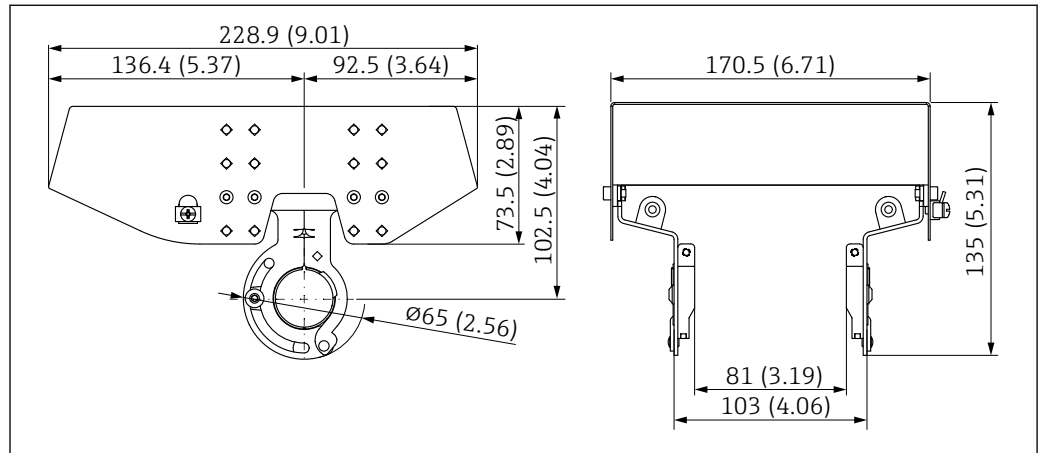
To protect the transmitter from direct sunshine, precipitation and ice.



Used for:

- Cerabar: PMC51B, PMP51B, PMC71B, PMP71B
- Deltabar: PMD55B, PMD75B, PMD78B

#### Overview



A0039231

Unit of measurement mm (in)

Weather protection cover for dual compartment housing made of aluminum or 316L. Including holder for direct mounting on the transmitter housing.

#### Technical data

Materials:

- Weather protection cover: 316L
- Clamping screw: A4
- Holder: 316L

For further information please contact your local Endress+Hauser Sales Center.

#### Ordering information

- The weather protection cover can be ordered together with the device via the product structure "Accessory enclosed".
- Order number: 71438303

**Weather protection cover  
316L**

**Use**

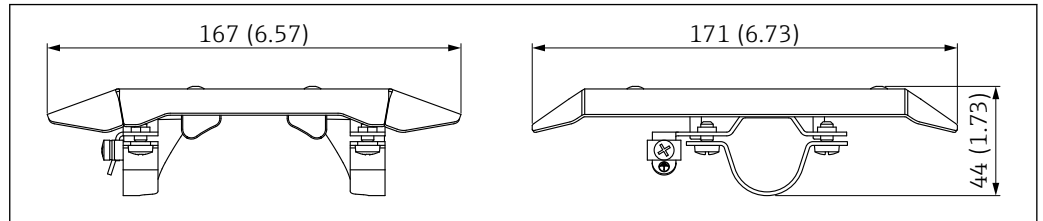
To protect the transmitter from direct sunshine, precipitation and ice.



Used for:

- Cerabar: PMP50
- Deltabar: PMD50

**Overview**



A0057100

Unit of measurement mm (in)

Weather protection cover for dual compartment housing made of aluminum or 316L. Including holder for direct mounting on the transmitter housing.

**Technical data**

Materials:

- weather protection cover: 316L (1.4404)
- Clamps with recess: 316L (1.4404)
- Screws: 316 L

For further information please contact your local Endress+Hauser Sales Center.

**Ordering information**

- The weather protection cover can be ordered together with the device via the product structure "Accessory enclosed".
- Order number: 71668067

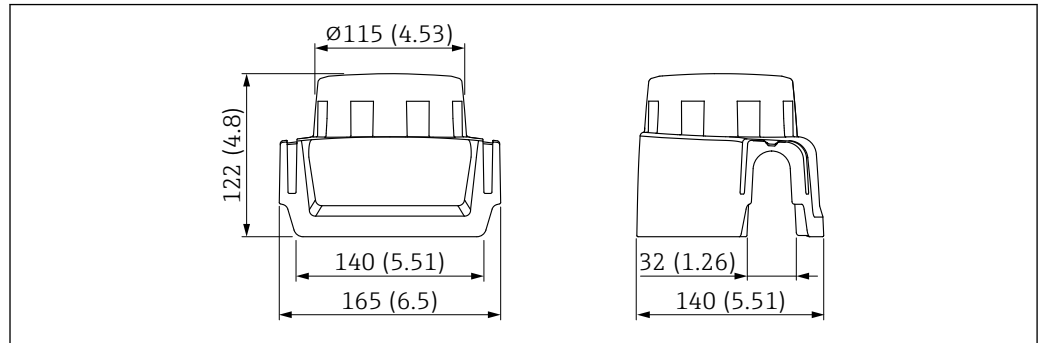
**Plastic weather protection cover****Use**

To protect the transmitter from direct sunshine, precipitation and ice.



Used for:

- Cerabar: PMC51B, PMP51B, PMC71B, PMP71B
- Deltabar: PMD55B, PMD75B

**Overview**

Unit of measurement mm (in)

Weather protection cover for single compartment housing made of aluminum. Including holder for direct mounting on the transmitter housing.

**Technical data**

Material: plastic

For further information please contact your local Endress+Hauser Sales Center.

**Ordering information**

- Order number: 71438291
- Product Configurator: Order code "620", option "PB"

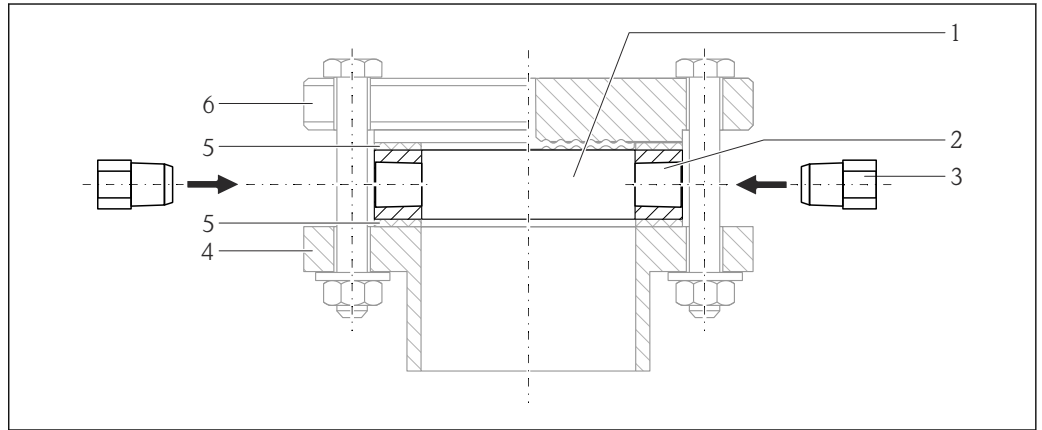
**Welding flanges and weld-in adapters**

For details refer to TI00426F "Weld-in adapters, process adapters and flanges".

## Flushing rings

Use flushing rings if there is a risk of medium buildup or clogging at the process connection. The flushing ring is fitted between the process connection and the process connection provided by the customer. Using the two lateral flushing holes, medium buildup or clogging in front of the process membrane can be rinsed away and the pressure chamber vented. Various nominal widths and forms allow adaption to the respective process flange.

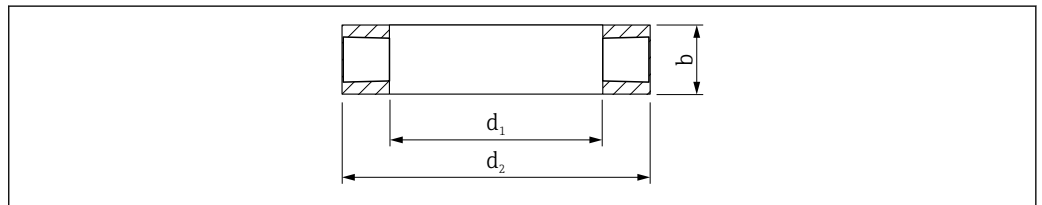
### Overview



A0034643

- 1 Flushing ring
- 2 Flushing hole
- 3 Locking screws 1/2 NPT (use suitable sealing material!)
- 4 Process connection provided by customer
- 5 Seals
- 6 Process connection of measuring device

### Technical data



A0034648

Material	Nominal diameter	Nominal pressure <sup>1)</sup>	d <sub>1</sub>	d <sub>2</sub>	b	Weight
AISI 316L	EN1092-1		[mm]	[mm]	[mm]	[kg (lb)]
	DN25	PN16-400	30	68	30	0.72 kg (1.59 lb)
	DN50	PN16-400	63	102	30	1.24 kg (2.73 lb)
	DN80	PN16-400	93	138	30	1.96 kg (4.32 lb)
	ASME B16.5		[in]	[in]	[in]	
	NPS 1"	Class 150-2500	1.18	2.2	1.18	0.56 kg (1.23 lb)
	NPS 2"	Class 150-2500	2.44	3.62	1.18	1.00 kg (2.21 lb)
	NPS 3"	Class 150-2500	3.62	5	1.18	1.56 kg (3.44 lb)

- 1) The specified nominal pressure applies to the flushing ring. The maximum pressure for the measuring device depends on the lowest-rated element, with regard to pressure, of the selected components.

#### Rinse connection

- ASME FNPT 1/2
- 2 x thread (use suitable sealing material!)
- Including 2 lock screws, 316L

## Order information

## Cerabar

Flushing rings can be ordered as a separate accessory or as an order option for the device.



Used for:

- Cerabar M: PMP55
- Cerabar S: PMP75
- Cerabar: PMP50, PMC51B, PMP51B, PMC71B, PMP71B



Select the appropriate option in the order features in the Product Configurator.

Material	Nominal diameter	Approval	Accessory <sup>1)</sup> Part number
AISI 316L	EN1092-1		
	DN25 <sup>2)</sup>	-	71377379
	DN50 <sup>3)</sup>	-	71377380
	DN80 <sup>4)</sup>	-	71377383
	ASME B16.5		
	NPS 1" <sup>5)</sup>	CRN	71377369
	NPS 2" <sup>6)</sup>	CRN	71377370
	NPS 3" <sup>7)</sup>	CRN	71377371

- 1) Inspection certification according to EN10204-3.1 material
- 2) Product Configurator: PMP55, PMP75 order code "620", option "PO"; PMC51B, PMC71B, PMP51B, PMP71B order code "620", option "RD"
- 3) Product Configurator: PMP55, PMP75 order code "620", option "PP"; PMC51B, PMC71B, PMP51B, PMP71B order code "620", option "RE"
- 4) Product Configurator: PMP55, PMP75 order code "620", option "PQ"; PMC51B, PMC71B, PMP51B, PMP71B order code "620", option "RF"
- 5) Product Configurator: PMP55, PMP75 order code "620", option "PK"; PMC51B, PMC71B, PMP51B, PMP71B order code "620", option "RA"
- 6) Product Configurator: PMP55, PMP75 order code "620", option "PL"; PMC51B, PMC71B, PMP51B, PMP71B order code "620", option "RB"
- 7) Product Configurator: PMP55, PMP75 order code "620", option "PM"; PMC51B, PMC71B, PMP51B, PMP71B order code "620", option "RC"

## Deltabar

Flushing rings can be ordered as a separate accessory or as an order option for the device.



Used for:

FMD77, FMD78, FMD71, FMD72 and PMD78B



Select the appropriate option in the order features in the Product Configurator.

Material	Nominal diameter	Approval	Accessory <sup>1)</sup> Part number
AISI 316L	EN1092-1		
	DN50 <sup>2)</sup>	-	71377380
	DN80 <sup>3)</sup>	-	71377383
	ASME B16.5		
	NPS 2" <sup>4)</sup>	CRN	71377370
	NPS 3" <sup>5)</sup>	CRN	71377371

- 1) Inspection certification according to EN10204-3.1 material
- 2) Product Configurator: FMD77, FMD78 order code "620", option "PP"; PMD78B order code "620", option "RE"
- 3) Product Configurator: FMD77, FMD78 order code "620", option "PQ"; PMD78B order code "620", option "RF"
- 4) Product Configurator: FMD77, FMD78 order code "620", option "PL"; PMD78B order code "620", option "RB"
- 5) Product Configurator: FMD77, FMD78 order code "620", option "PM"; PMD78B order code "620", option "RC"

## Ordering information

Detailed ordering information is available from your nearest sales organization [www.addresses.endress.com](http://www.addresses.endress.com) or in the Product Configurator at [www.endress.com](http://www.endress.com):

1. Select the product using the filters and search field.
2. Open the product page.
3. Select **Configuration**.



### **Product Configurator - the tool for individual product configuration**

- Up-to-the-minute configuration data
- Depending on the device: Direct input of measuring point-specific information such as measuring range or operating language
- Automatic verification of exclusion criteria
- Automatic creation of the order code and its breakdown in PDF or Excel output format
- Ability to order directly in the Endress+Hauser Online Shop

## Supplemental documentation

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### **Field of activities**

Pressure measurement, powerful measuring instruments for process pressure, differential pressure, level and flow:

FA00004P/00/

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### **Field of activities**

System components and data manager solutions to complete your measuring point:

FA00016K/09/



71685481

[www.addresses.endress.com](http://www.addresses.endress.com)

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