

Technical Information

Weld-in adapter, process adapter and flanges

Level, pressure, temperature



Application

The adapters and the flanges are used to connect level, pressure or temperature measuring instruments to a vessel or a pipe.

Advantages

- High-quality, corrosion resistant materials for use in aggressive media
- Versions without crevices and dead space of the weld-in adapters and process adapters according to international hygiene regulations
- Weld-in adapters with a variety of seals for use in diverse processes

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General information

NOTICE

Maximum temperature and pressure values of the sensor can reduce the specified limit values.

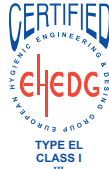
- Observe the maximum temperature and pressure limits of the sensor used!

Pressure Equipment Directive 2014/68/EU

The adapters listed here do not fall within the scope of the Pressure Equipment Directive, irrespective of the maximum working pressure as they do not have a pressure-bearing volume.

Suitability for hygienic processes

3-A and EHEDG



The connections listed in this documentation have EHEDG and 3-A approval. Suitable for hygienic applications, see also "Hygienic certificates" documentation, SD02503F. All seals that are FDA-compliant are permitted for 3-A applications.

Material compliance



The information on suitability for hygienic processes is listed under the version in question. The weld-in adapters have been manufactured in accordance with the material specifications to the latest standard. Particular versions of weld-in adapters, e.g. an older material batch, must be requested and ordered via the TSP workflow.

Seals:

Comply with FDA 21 CFR (Code of Federal Regulations)

PART 177 - Indirect food additives: Polymers

- Part 177.1550: Perfluorocarbon resins (PTFE)
- Part 177.2600: Rubber articles (EPDM, silicone (VMQ), Viton (FKM))

Comply with regulation (EC) No. 1935/2004 on materials and articles intended to come into contact with food (Europe)

- BfR (Federal Institute for Risk Assessment) Recommendation XV. Commodities based on silicones: Silicone (VMQ)
- BfR (Federal Institute for Risk Assessment) Recommendation XXI. Commodities based on natural and synthetic rubber: EPDM, Viton (FKM)
- PTFE conform to regulation (EU) No. 10/2011

Metals:

Metals meet at least the voluntary standard of the Council of Europe - EDQM Guide "metals and alloys used in food contact materials and articles 2013 (1st edition)".

CRN approval

Device versions with a CRN approval (Canadian Registration Number) are listed in the corresponding registration documents. CRN-approved devices are marked with a registration number.

Any restrictions regarding the maximum process pressure values are listed on the CRN certificate. CRN approvals for adapters are available in the Downloads area of the product pages: www.endress.com → Downloads.

Ordering information



Product Configurator: www.endress.com

Product Configurator - the tool for individual product configuration

- Up-to-the-minute configuration
- Depending on the device: direct input of information specific to the measuring point, such as the 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

Symbols

Safety icons



This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.



This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in serious or fatal injury.



This symbol alerts you to a potentially dangerous situation. Failure to avoid this situation can result in minor or medium injury.



This symbol alerts you to a potentially harmful situation. Failure to avoid this situation can result in damage to the product or something in its vicinity.

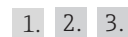
Symbols for certain types of Information



Additional information

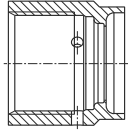
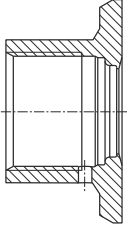
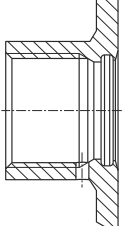
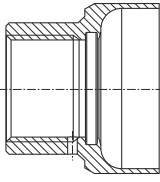
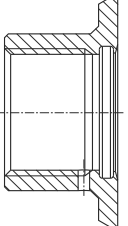
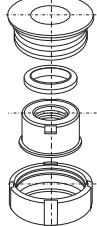


Please recycle component or device.



Series of steps

Weld-in adapter - Level overview

[Part 1] Weld-in adapter Level overview						
	A0008246	A0008251	A0008256	A0011924	A0008248	A0008253
	G ¾, d=29 pipe-mounting	G ¾, d=50 vessel- mounting	G ¾, d=55 with flange	G 1, d=53 pipe-mounting	G 1, d=60 with flange	G 1 adjustable
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)
Roughness µm (µin) process side	≤ 1.5 (59.1)	≤ 0.8 (31.5)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.8 (31.5)
Order number weld-in adapter	71258357	71258355	52001052	71258358	52001051	52001221
Order number weld-in adapter with inspection certificate ¹⁾	52028295	52018765	52011897	71093129	52011896	52011898
Order number replacement seal (5 pieces)	Silicone O-ring 52021717 ²⁾	Silicone O-ring 52021717 ²⁾	Silicone O-ring 52014473 ²⁾	Silicone O-ring 52014472 ²⁾	Silicone O-ring 52014472 ²⁾	Silicone profile gasket 52014424 ³⁾
Order number welding dummy ⁴⁾	71174959	71174959	71168889	71166879	71166879	71181945
Order number blind plug ⁴⁾	71167850	71167850	71177193	71173810	71173810	71166366
Order number blind plug with inspection certificate ^{1) 4)}	–	–	71190074	71167291	71167291	71196853
Measuring instrument	Suitable for process connection Option⁵⁾					
Liquicap						
FMI51	–	GQJ	–	GWJ	GWJ	–
FMI52	–	–	–	GWJ	GWJ	–
FTI51	–	GQJ	–	GWJ	GWJ	–
FTI52	–	–	–	GWJ	GWJ	–
Liquipoint						
FTW23, FTW33	W5J	W5J	–	WSJ	WSJ	–
Liquitrend						
QMW43	W5J	W5J	–	WSJ	WSJ	–
Rod probe						
11371	4	4	4	–	–	–

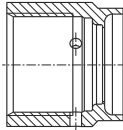
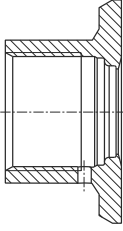
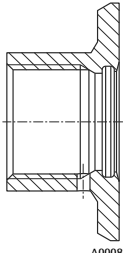
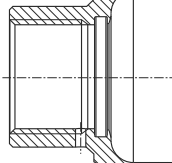
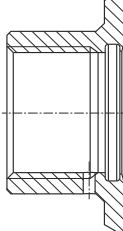
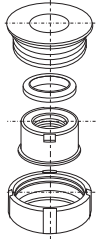
1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG).

3) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

4) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

5) The option can be selected in the Product Configurator via the order feature "Process Connection".

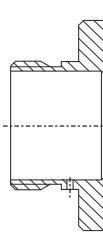
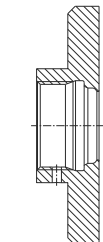
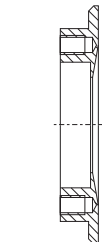
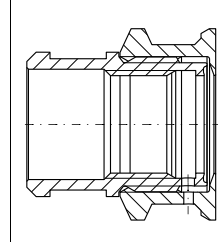
[Part 1 continued] Weld-in adapter Level overview						
	G ¾, d=29 pipe-mounting	G ¾, d=50 vessel- mounting	G ¾, d=55 with flange	G 1, d=53 pipe-mounting	G 1, d=60 with flange	G 1 adjustable
Order number weld-in adapter	71258357	71258355	52001052	71258358	52001051	52001221
Order number weld-in adapter with inspection certificate ¹⁾	52028295	52018765	52011897	71093129	52011896	52011898
Measuring instrument	Suitable for process connection Option ²⁾					
Liquiphant						
FTL33, FTL31	W5J	W5J	–	WSJ	WSJ	WSJ
FTL50, FTL50H	–	–	GQ2	GW2	GW2	GW2
FTL51, FTL51H	–	–	–	GW2	GW2	GW2
FTL41, FTL43, FTL51B, FTL63	–	–	W5J ³⁾	WSJ	WSJ	WSJ
FTL80	–	–	WCJ	WSJ	WSJ	WSJ
FTL81	–	–	–	WSJ	WSJ	WSJ
Liquipoint	As "Accessory enclosed" Option ⁴⁾					
FTW23, FTW33	PC/PD	PA/PB	–	PG/PH	PE/PF	–
Liquitrend						
QMW43	PC/PD	PA/PB	–	PG/PH	PE/PF	–
Liquiphant						
FTL31, FTL33	PC/PD	PA/PB	–	PG/PH	PE/PF	–
FTL41, FTL43, FTL51B, FTL63	–	–	PO/PP	PG/PH	PE/PF	PI/PJ

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process Connection".

3) The option can be selected in the Product Configurator only via the order feature "Type of probe", option 1 "Compact version".

4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

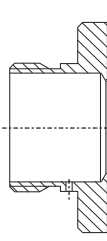
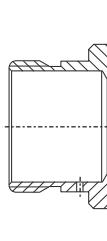
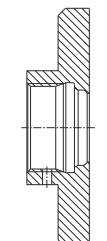
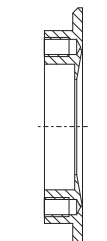
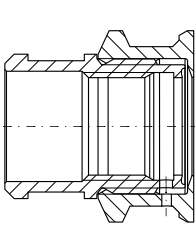
[Part 2] Weld-in adapter Level overview						
	A0008252	A0008245	A0017639	A0008552	A0008254	A0045641
	RD52	UNI D85	UNI D65	M24 D65	DRD DN50 65 mm (2.56 in) (weld-in flange)	G 1 1/4 with thread adapter G 1
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)/ 304 (1.4301)	316L (1.4404)
Roughness μm (μin), process side	≤ 0.8 (31.5)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)/ ≤ 0.8 (31.5)	≤ 0.76 (29.9)
Order number weld-in adapter	52001047	52006262	214880-0002	71041381	52002041/ 916743-0000	–
Order number weld-in adapter with inspection certificate ¹⁾	52006909	52010173	52010174	71041383	52011899/ –	71444432
Order number replacement seal (5 pieces) ²⁾	Silicone profile gasket 52014424	Silicone profile gasket 52023572	Silicone profile gasket 52023572	EPDM O-ring 52024267	PTFE flat seal 52024228	Silicone profile gasket 71075662
Order number welding dummy	71181945 ³⁾	71114210	71114210	–	71114209	–
Order number blind plug ³⁾	71166366	71580894	71580894	71171418	71181450	–
Order number slotted nut	52021715	52021715	52021715	–	–	–
Measuring instrument	Suitable for process connection Option ⁴⁾					
Liquicap						
FMI5x	–	UPJ	UPJ	–	–	–
FTI5x	–	UPJ	UPJ	–	–	–
Liquipoint						
FTW23, FTW33	–	–	–	X2J	–	–
Liquitrend						
QMW43	–	–	–	X2J	–	–

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

3) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

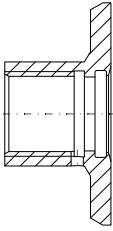
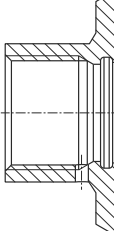
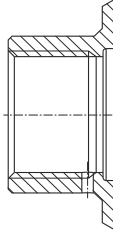
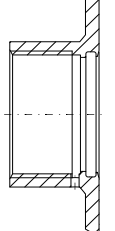
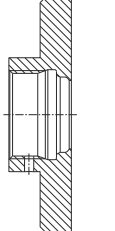
4) The option can be selected in the Product Configurator via the order feature "Process connection".

[Part 2 continued] Weld-in adapter Level overview						
	A0008252	A0008245	A0017639	A0008552	A0008254	A0045641
	RD52	UNI D85	UNI D65	M24 D65	DRD DN50 65 mm (2.56 in) (weld-in flange)	G 1¼ with thread adapter G 1
Order number weld-in adapter	52001047	52006262	214880-0002	71041381	52002041/ 916743-0000	–
Order number weld-in adapter with inspection certificate ¹⁾	52006909	52010173	52010174	71041383	52011899/ –	71444432
Measuring instrument	Suitable for process connection Option ²⁾					
Liquiphant						
FTL33	5ZJ	–	–	X2J	–	–
FTL43, FTL63	5ZJ	–	–	–	–	–
FTL5xH	EE2	–	–	–	PE2	–
Nivector						
FTI26	–	–	–	–	–	WDJ
Levelflex						
FMP53	–	–	–	U1J	–	–
Liquipoint	As "Accessory enclosed" Option ³⁾					
FTW23, FTW33	–	–	–	PM/PN	–	–
Liquitrend						
QMW43	–	–	–	PM/PN	–	–
Liquiphant						
FTL33	PO/PQ	–	–	PM/PN	–	–
FTL43, FTL63	PR/PS	–	–	–	–	–
Nivector						
FTI26	–	–	–	–	–	PK

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process connection".

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

[Part 3] Only for Micropilot Weld-in adapter Level overview					
	G ½, d=55 with flange	G ¾, d=55 with flange	G 1, d=60 with flange	G 1½, d=90 with flange	M24 D65
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)
Roughness µm (µin) process side	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)
Order number weld-in adapter	71653545	71653580	71653587	71653592	71653537
Order number weld-in adapter with inspection certificate ¹⁾	71653547	71653581	71653588	71653594	71653541
Order number EPDM replacement seal (5 pieces) ²⁾	71655736	71655741	71655743	71655745	71653949
Order number FKM replacement seal (1 piece) ²⁾	71655740	71655742	71655744	71655746	71337274
Order number FFKM replacement seal (1 piece) ³⁾	-	-	-	-	71567760
Order number welding dummy ⁴⁾	On request	71174959	71166879	On request	-
Order number blind plug	On request				
Measuring instrument	Suitable for process connection Option ⁵⁾				
Micropilot					
FMR43	WJJ	WKJ	WLJ	WNJ	X2J
FMR63B	-	-	-	-	X2J
Micropilot	As "Accessory enclosed" Option ⁶⁾				
FMR43	QA	QC	QE	QG	QI
FMR63B	-	-	-	-	QI, QH

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) There is no seal included in the delivery for Micropilot FMR43.

3) FFKM O-ring applies to Micropilot FMR63B only.

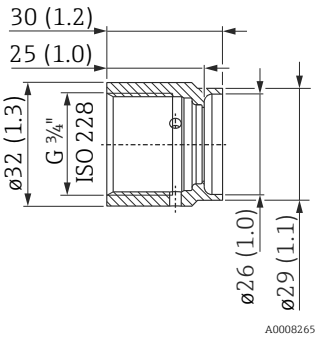
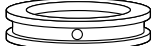
4) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

5) The option can be selected in the Product Configurator via the order feature "Process connection".

6) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

Weld-in adapter and accessories - Level

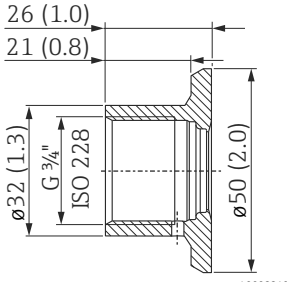
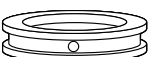
G 3/4, d=29 pipe-mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 1.5 µm (59.1 µin) Certified according to CRN	71258357 52028295
	Welding dummy for welding the weld-in adapter Material: Brass	71174959 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 3.2 µm (126 µin)	71167850 ¹⁾
Seals, pressure ring		Order number
	Standard seal	
	Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: VMQ 70 FDA-compliant	52021717 ²⁾ (5 pieces)
	The seal can be easily replaced with this version.	
	Alternative seals	
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71529759 ²⁾ (5 pieces)
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: FKM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71167890 ¹⁾ (5 pieces)
	ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: Silicone VMQ 80 Complies with FDA, USP Class VI	71086117 (3 pieces)
	Pressure ring Material: 316L (1.4435) The seal with pressure ring enables easy exchange of defective sealing rings.	52027421

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

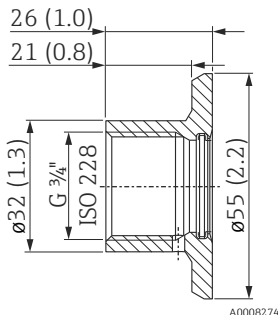
G 3/4, d=50 vessel-mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.8 µm (31.5 µin) Certified according to CRN	71258355 52018765
	Welding dummy for welding the weld-in adapter Material: Brass	71174959 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 3.2 µm (126 µin)	71167850 ¹⁾
Seals, pressure ring		Order number
	Standard seal	
	Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: VMQ 70 FDA-compliant The seal can be easily replaced with this version.	52021717 ²⁾ (5 pieces)
	Alternative seals	
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71529759 ²⁾ (5 pieces)
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: FKM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71167890 ¹⁾ (5 pieces)
	ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: Silicone VMQ 80 Complies with FDA, USP Class VI	71086117 (3 pieces)
	Pressure ring Material: 316L (1.4435) The seal with pressure ring enables easy exchange of defective sealing rings.	52027421

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

G 3/4, d=55 with flange for flush mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 (29.9) Certified according to CRN	52001052 52011897
	Welding dummy for welding the weld-in adapter Material: Brass	71168889 ¹⁾
	Blind plug for sealing the weld-in adapter - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71177193 ¹⁾ 71190074 ¹⁾
	Only for Micropilot FMR43: - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 (29.9) Certified according to CRN  Seal not included in the scope of delivery.	71653580 71653581
	Only for Micropilot FMR43: Welding dummy for welding the weld-in adapter Material: Brass	71174959 ¹⁾

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

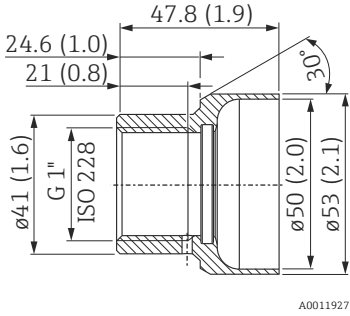


See the following table for seals that can be ordered.

Seals, ø 21.89 x 2.62 mm (0.86 x 0.10 in)		Order number
 A0021901	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014473 ¹⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71140670 ²⁾ (3 pieces)
	Material: FFKM Kalrez 6221 Complies with FDA, USP Class VI	71167883 ¹⁾
	Material: FKM	71172153 ¹⁾ (5 pieces)
	Material: FKM FEP coated Complies with FDA, USP Class VI, EC1935	71167747 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935, GB4806	71086100 (3 pieces)
	Only for Micropilot FMR43: Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 Material: FKM Complies with FDA, USP Class VI, EC1935	71655741 (5 pieces) 71655742

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

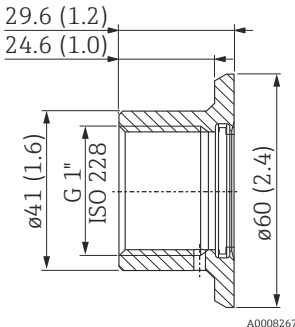
G 1, d=53 pipe-mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	71258358 71093129
	Welding dummy for welding the weld-in adapter Material: Brass	71166879 ¹⁾
	Blind plug for sealing the weld-in adapter - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71173810 71167291 ¹⁾
Seals, $\varnothing 28.17 \times 3.53 \text{ mm}$ (1.11 x 0.14 in)		Order number
	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014472 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 EHEDG certified	71140668 ²⁾ (3 pieces)
	Material: FKM 75	71182264 ¹⁾ (5 pieces)
	Material: FFKM Kalrez 4079	71166292 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935	71086102 (3 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

G 1, d=60 with flange for flush mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52001051 52011896
	Welding dummy for welding the weld-in adapter Material: Brass	71166879 ¹⁾
	Blind plug for sealing the weld-in adapter ■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71173810 71167291 ¹⁾
	Only for Micropilot FMR43: ■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN  Seal not included in the scope of delivery.	71653587 71653588
	Only for Micropilot FMR43: Welding dummy for welding the weld-in adapter Material: Brass	71166879 ¹⁾
	Only for Micropilot FMR43: Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	On request

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

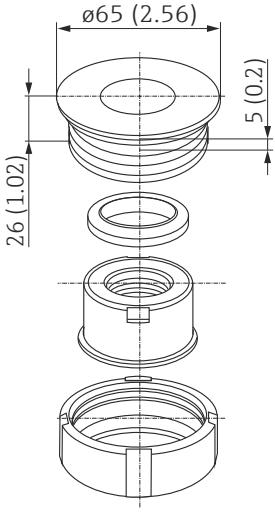


See the following table for seals that can be ordered.

Seals, ø 28.17 x 3.53 mm (1.11 x 0.14 in)		Order number
 A0021901	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014472 ¹⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 EHEDG certified	71140668 ¹⁾ (3 pieces)
	Material: FKM 75	71182264 ¹⁾ (5 pieces)
	Material: FFKM Kalrez 4079	71166292 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935	71086102 (3 pieces)
	Only for Micropilot FMR43: Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 Material: FKM Complies with FDA, USP Class VI, EC1935	71655743 (5 pieces) 71655744

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

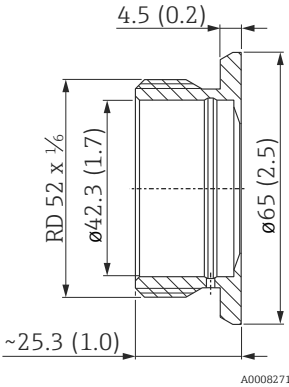
G1 sensor adjustable

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F) A0008272	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $Ra \leq 0.8 \mu\text{m}$ (31.5 μin) Certified according to CRN	52001221 52011898
	Welding dummy for welding the weld-in adapter Material: Brass	71181945 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): $Ra \leq 0.76 \mu\text{m}$ (29.9 μin)	71166366 ¹⁾
Seals, $\varnothing 29 \times 36 \times 3.7 \text{ mm}$ (1.14 x 1.42 x 0.15 in)		Order number
 A0021901	Standard seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, EC1935	52014424 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70	71168375 ¹⁾ (5 pieces)
	Material: VMQ 60 Complies with FDA, USP Class VI, EC1935	71075662 (5 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

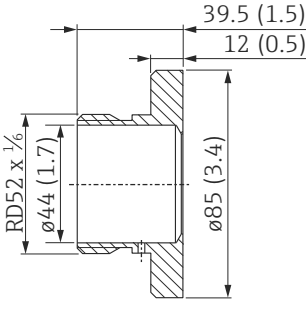
RD52 sensor adjustable

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)	52001047 52006909
	Welding dummy for welding the weld-in adapter Material: Brass	71181945 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71166366 ¹⁾
Seals, Ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)		Order number
	Standard seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, EC1935	52014424 ²⁾ (5 pieces)
	The seal can be easily replaced with this version.	
	Alternative seals	
	Material: EPDM 70	71168375 ¹⁾ (5 pieces)
	Material: VMQ 60 Complies with FDA, USP Class VI, EC1935	71075662 (5 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

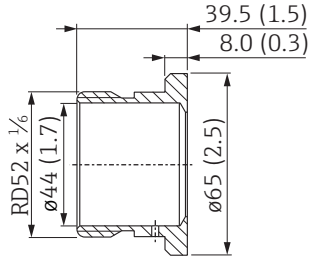
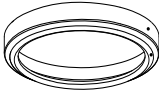
2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

UNI D85

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 16 bar (232 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52006262 52010173
	Welding dummy for welding the weld-in adapter Material: Brass	71114210
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71580894
Seals, backup ring		Order number
	Standard seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572 ¹⁾ (5 pieces)
	Alternative seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: ø 36 x 2.5 mm (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

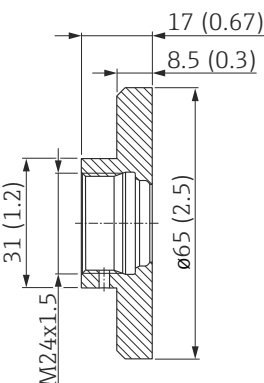
1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

UNI D65

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 16 bar (232 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	214880-0002 52010174
	Welding dummy for welding the weld-in adapter Material: Brass	71114210
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71580894
Seals, backup ring		Order number
	Standard seal Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572 ¹⁾ (5 pieces)
	Alternative seal Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: Ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: Ø 36 x 2.5 mm (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

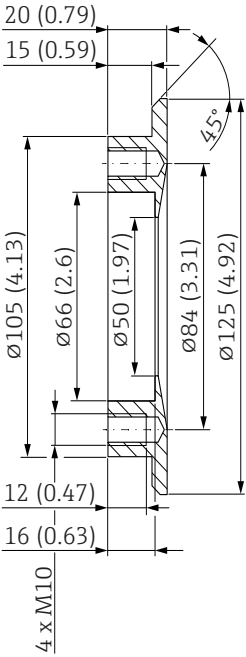
M24 D65

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	71041381 71041383
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71171418 ¹⁾
	Only for Micropilot FMR43, FMR63B: - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN  Seal not included in the scope of delivery.	71653537 71653541
	Only for Micropilot FMR43, FMR63B: Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	On request
Seal ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Standard seal	
	O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267²⁾ (5 pieces)
	Only for Micropilot FMR43, FMR63B: Material: EPDM 70 Material: FKM Only for Micropilot FMR63B: Material: FFKM	71653949 (5 pieces) 71337274 71567760

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

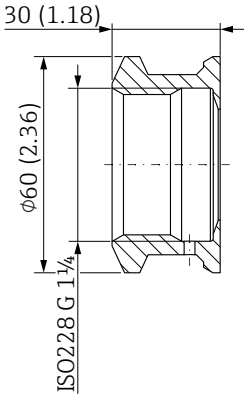
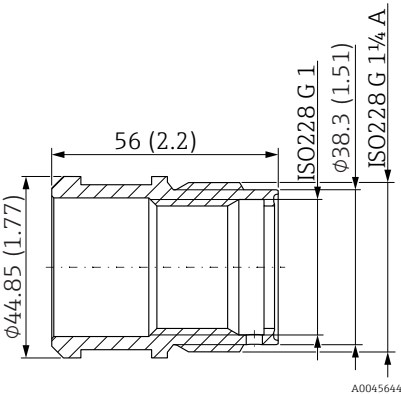
**DRD DN50 (65 mm (2.6 in))
for flush mounting of devices
with DRD flange**

Dimensions in mm (in)	Version	Order number
 A0008263 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	52002041 52011899
	Material: AISI 304 (1.4301) Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)	916743-0000
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71181450 ¹⁾
	Welding dummy for welding the weld-in adapter Material: Brass	71114209
Seals ø 50 x 65 x 1 mm (1.97 x 2.56 x 0.04 in)		Order number
 A0021901	Standard seal	
	Flat seal Material: PTFE Complies with FDA, EC1935	52024228 ²⁾ (5 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

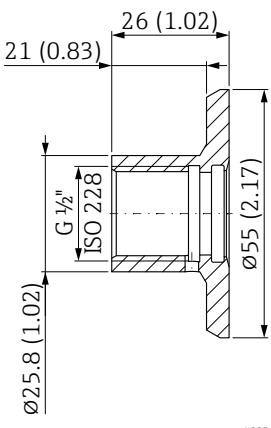
2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

G 1¼ with G 1 thread adapter

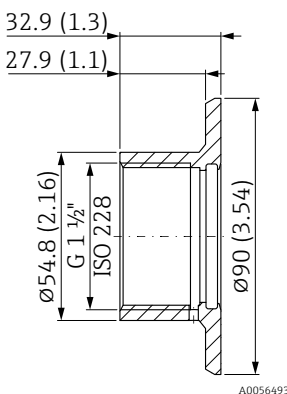
Dimensions in mm (in)	Version	Order number
 30 (1.18) 60 (2.36) ISO228 G 1¼ Weld-in adapter G 1¼ A0045643  56 (2.2) 44.85 (1.77) ISO228 G 1 38.3 (1.51) ISO228 G 1¼ Threaded sleeve A0045644 Pressure and temperature range max. 6 bar (87 psi) / -20 °C to +80 °C (-4 °F to +176 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4404) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	- 71444432
Seals, ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)		Order number
 A0021901	Standard seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, USP Class VI, EC1935 EHEDG certified	71075662¹⁾ (5 pieces)
	Alternative seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, EC1935 EHEDG certified	52014424¹⁾ (5 pieces)

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

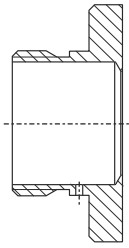
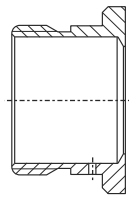
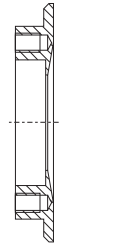
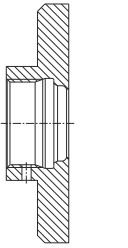
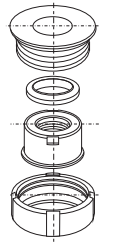
**G ½, d=55 with flange for
flush mounting -
Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 (29.9)  Seal not included in the scope of delivery.	71653545 71653547
	Welding dummy for welding the weld-in adapter Material: Brass	On request
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	On request
Seal ø 17.2 x 2.62 mm (0.68 x 0.1 in)		Order number
	O-ring Material: EPDM Complies with FDA, USP Class VI, EC1935	71655736 (5 pieces)
	O-ring Material: FKM Complies with FDA, USP Class VI, EC1935	71655740

**G 1½, d=90 with flange for
flush mounting -
Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 (29.9)  Seal not included in the scope of delivery.	71653592 71653594
	Welding dummy for welding the weld-in adapter Material: Brass	On request
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	On request
Seal, ø 40.87 x 3.53 mm (1.61 x 0.14 in)		Order number
	O-ring Material: EPDM Complies with USP Class VI	71655745 (5 pieces)
	O-ring Material: FKM Complies with FDA, USP Class VI, EC1935	71655746

Weld-in adapter - Pressure overview

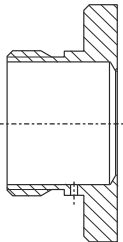
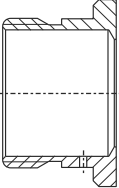
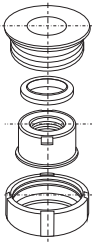
[Part 1] Weld-in adapter Pressure overview					
	A0008245	A0017639	A0008254	A0008552	A0008253
	UNI D85	UNI D65	DRD DN50 (65 mm (2.56 in)) (weld-in flange)	M24 D65	G 1 adjustable
Material	316L (1.4435)	316L (1.4435)	316L (1.4435) 304 (1.4301)	316L (1.4435)	316L (1.4435)
Roughness μm (μin) process side	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.8 (31.5)
Order number weld-in adapter	52006262	214880-0002	52002041/ 916743-0000	71041381	52001221
Order number weld-in adapter with inspection certificate ¹⁾	52010173	52010174	52011899/ –	71041383	52011898
Order number replacement seal (5 pieces) ²⁾	Silicone profile gasket 52023572	Silicone profile gasket 52023572	PTFE flat seal 52024228	EPDM O-ring 52024267	Silicone profile gasket 52014424)
Order number welding dummy	71114210	71114210	71114209	–	71181945
Order number blind plug ³⁾	71181340	71181340	71181450	71171418	71196853
Measuring instrument	Suitable for process connection Option ⁴⁾				
Cerabar					
PMP23	52J	52J	–	X2J/X3J	–
Ceraphant					
PTP33B	–	–	–	X2J/X3J	–
Cerabar					
PMP43	50J/52J	50J/52J	–	–	
Cerabar M					
PMC51	UNJ/UPJ	UNJ/UPJ	TIJ	–	–
PMP51	–	–	TIJ	–	–
PMP55	UPJ	UPJ	TIJ	–	–

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

3) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

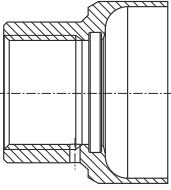
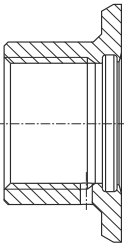
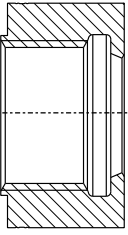
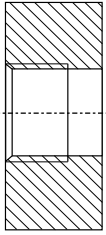
4) The option can be selected in the Product Configurator via the order feature "Process connection".

[Part 1 continued] Weld-in adapter Pressure overview					
	A0008245	A0017639	A0008254	A0008552	A0008253
	UNI D85	UNI D65	DRD DN50 (65 mm (2.56 in)) (weld-in flange)	M24 D65	G 1 adjustable
Order number weld-in adapter	52006262	214880-0002	52002041/ 916743-0000	71041381	52001221
Order number Weld-in adapter with inspection certificate ¹⁾	52010173	52010174	52011899/ –	71041383	52011898
Measuring instrument	Suitable for process connection Option ²⁾				
Deltapilot M					
FMB50	UNJ/UPJ	UNJ/UPJ	TIJ	–	–
Deltapilot S					
FMB70	00/01	00/01	TK	–	–
Deltabar S					
FMD78	00/UT	00/UT	TK	–	–
Deltabar					
FMD71	UNJ/UPJ	UNJ/UPJ	TIJ	–	–
FMD72	–	–	TIJ	–	–
Measuring instrument	As "Accessory enclosed" Option ³⁾				
Ceraphant					
PTP33B	QP/QR	QL/QM	–	PM/PN	–
Cerabar					
PMP23	QP/QR	QL/QM	–	PM/PN	–
PMP43	QQ	QP	–	–	PJ
Cerabar M					
PMC51	Q2/Q3	QT/QU	QP/QR	–	–
PMP51	–	–	QP/QR	–	–
PMP55	–	–	QP/QR	–	–
Deltapilot M					
FMB50	Q2/Q3	QT/QU	QP/QR	–	–

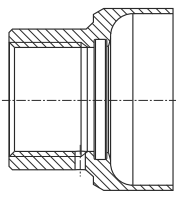
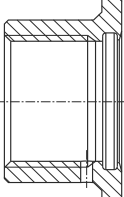
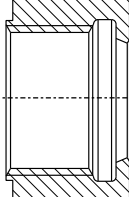
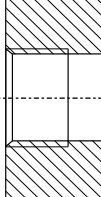
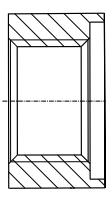
1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process connection".

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

[Part 2] Weld-in adapter Pressure overview						
	A0011924	A0008248	A0008247	A0008249	A0008250	A0037352
	G 1, d=53 pipe-mounting	G 1, d=60 with flange	G 1½ flush mount	G 1 flush mount (sealing taper)	G ½ flush mount	G ½ DIN3852
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4404)	316L (1.4435)	316L (1.4404)
Roughness µm (µin) process side	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.8 (31.5)	≤ 0.8 (31.5)	≤ 0.8 (31.5)	≤ 0.8 (31.5)
Order number weld-in adapter	71258358	52001051	52024469	52005087	52002643	71389241
Order number weld-in adapter with inspection certificate ¹⁾	71093129	52011896	52024470	52010171	52010172	71389243
Order number replacement seal (5 pieces) ²⁾	Silicone O-ring 52014472	Silicone O-ring 52014472	–	–	–	–
Order number welding dummy	71166879	71166879	52024471	52005272	52005082	52005082
Order number blind plug	71173810	71173810	–	71171731	–	–
Order number blind plug with inspection certificate ³⁾	71167291	71167291	–	–	–	–
Measuring instrument	Suitable for process connection Option ⁴⁾					
Ceraphant						
PTP31	–	–	–	–	AG	–
PTP35	BB	BB	–	BA	–	–
PTP31B	–	–	–	–	WUJ	WJJ
PTP33B	WSJ	WSJ	–	WQJ	–	–
Cerabar						
PMP11	–	–	–	–	–	WJJ
PMP135	N	N	–	M	–	–
PMP21	–	–	–	–	WUJ	WJJ
PMP23	WSJ	WSJ	–	WQJ	–	–
PMP43	WSJ	WSJ	WNJ	WQJ	WUJ	WJJ
PMP51B	–	–	WNJ	–	–	WJJ
PMP71B	–	–	WNJ	–	–	WJJ
PMC51B	–	–	WNJ	–	–	–
PMC71B	–	–	WNJ	–	–	–

- 1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.
- 2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)
- 3) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.
- 4) The option can be selected in the Product Configurator via the order feature "Process connection".

[Part 2 continued] Weld-in adapter Pressure overview						
	G 1, d=53 pipe-mounting	G 1, d=60 with flange	G 1½ flush mount	G 1 flush mount (sealing taper)	G ½ flush mount	G ½ DIN3852
Order number weld-in adapter	71258358	52001051	52024469	52005087	52002643	71389241
Order number weld-in adapter with inspection certificate ¹⁾	71093129	52011896	52024470	52010171	52010172	71389243
Measuring instrument	Suitable for process connection Option ²⁾					
Cerabar M						
PMC51	–	–	GVJ	–	–	–
PMP51	–	GZJ	GVJ	GXJ	GOJ/GCJ	GRJ/GRC
PMP55	–	–	GVJ ³⁾	–	–	–
Cerabar S						
PMC71	–	–	1G/1H/1J	–	–	–
PMP71	–	–	1G/1H	–	–	1A/1B
PMP75	–	–	1G/1H	–	–	–
Deltapilot M						
FMB50	–	–	GGJ/GGC	–	–	–
FMB51	–	–	GGJ/GGC	–	–	–
FMB52	–	–	GGJ/GGC	–	–	–
Deltapilot S						
FMB70	–	–	1G/1H	–	–	–
Deltabar S						
FMD78	–	–	1G/1H	–	–	–
Deltabar						
FMD71	–	–	GVJ	–	–	–
FMD72	–	–	GVJ	–	–	–

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) The option can be selected in the Product Configurator via the order feature "Process connection".

3) Flush mounting is not possible with this combination.

[Part 2 continued] Weld-in adapter Pressure overview						
	G 1, d=53 pipe-mounting	G 1, d=60 with flange	G 1½ flush mount	G 1 flush mount (sealing taper)	G ½ flush mount	G ½ DIN3852
Measuring instrument	As "Accessory enclosed" Option ¹⁾					
Ceraphant						
PTP31B	–	–	–	–	QA/QB	–
PTP33B	–	QJ/QK	–	QE/QF ²⁾	–	–
Cerabar						
PMP21	–	–	–	–	QA/QB	QM/QN
PMP23	–	QJ/QK	–	QE/QF ²⁾	–	–
PMP43	PH	PF	QG	QE	QB	QB
PMC51	–	–	QJ/QK	–	–	–
PMP51	–	–	QJ/QK	QE/QF ²⁾	QA/QB	QM/QN
PMP55	–	–	QJ/QK ³⁾	–	–	–
PMP51B	–	–	QJ	–	–	–
PMP71B	–	–	QJ	–	–	–
PMC51B	–	–	QJ	–	–	–
PMC71B	–	–	QJ	–	–	–
Deltapilot M						
FMB50	–	–	QJ/QK	–	–	–
FMB51	–	–	QJ/QK	–	–	–
FMB52	–	–	QJ/QK	–	–	–

- 1) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".
- 2) Only suitable for screwing in once (observe the information provided below on a leaking connection).
- 3) Flush mounting is not possible with this combination.

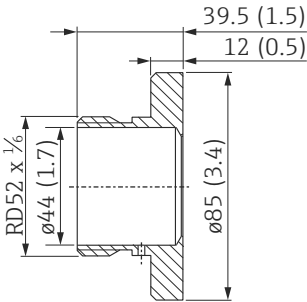
NOTICE
Leaking connection

Repeated screwing in of the process connection can cause damage to the weld-in adapter.
The connection will not be leak-tight.

- Use sealing taper G 1 flush mount for screwing in only once.

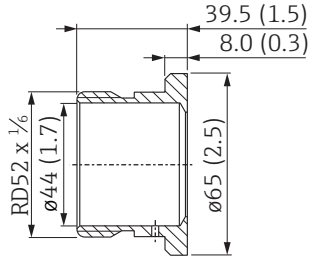
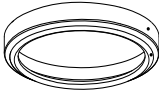
Weld-in adapter and accessories - Pressure

UNI D85

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 16 bar (232 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $Ra \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	52006262 52010173
	Welding dummy for welding the weld-in adapter Material: Brass	71114210
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): $Ra \leq 0.76 \mu\text{m}$ (29.9 μin)	71580894
Seals, backup ring		Order number
	Standard seal $\varnothing 34 \times 41.5 \times 6.4 \text{ mm}$ (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572 ¹⁾ (5 pieces)
	Alternative seal $\varnothing 34 \times 41.5 \times 6.4 \text{ mm}$ (1.34 x 1.63 x 0.25 in)	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: $\varnothing 38.2 \times 43.6 \times 5.6 \text{ mm}$ (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: $\varnothing 36 \times 2.5 \text{ mm}$ (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

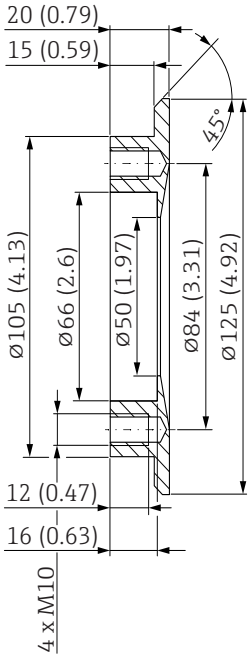
1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

UNI D65

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 16 bar (232 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	214880-0002 52010174
	Welding dummy for welding the weld-in adapter Material: Brass	71114210
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71580894
Seals		Order number
	Standard seal Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572 ¹⁾ (5 pieces)
	Alternative seal Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: Ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: Ø 36 x 2.5 mm (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

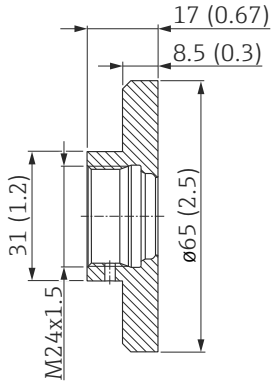
**DRD DN50 (65 mm (2.6 in))
for flush mounting of devices
with DRD flange**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	52002041 52011899
	Material: AISI 304 (1.4301) Roughness (process side): $R_a \leq 0.8 \mu\text{m}$ (31.5 μin)	916743-0000
	Welding dummy for welding the weld-in adapter Material: Brass	71114209
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71181450¹⁾
Seal, $\varnothing 50 \times 65 \times 1 \text{ mm}$ (1.97 x 2.56 x 0.04 in)		Order number
	Standard seal	
	Flat seal Material: PTFE Complies with FDA, EC1935	52024228²⁾ (5 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

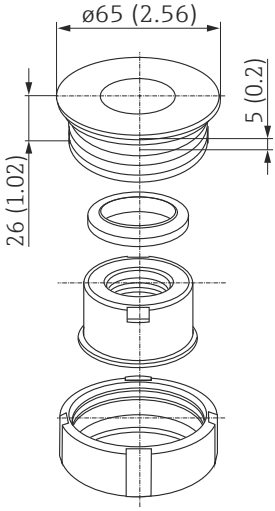
2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

M24 D65

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F) A0008551	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $Ra \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	71041381 71041383
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): $Ra \leq 0.76 \mu\text{m}$ (29.9 μin)	71171418¹⁾
Seal $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)		Order number
 A0021901	Standard seal	52024267²⁾ (5 pieces)
	O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	

- 1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.
- 2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

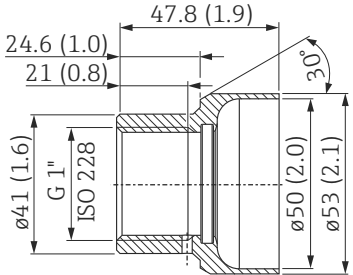
G1 sensor adjustable

Dimensions in mm (in)	Version	Order number
 A0008272 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.8 \mu\text{m}$ (31.5 μin) Certified according to CRN	52001221 52011898
	Welding dummy for welding the weld-in adapter Material: Brass	71181945 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71166366 ¹⁾
Seals, ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)		Order number
 A0021901	Standard seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, EC1935	52014424 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70	71168375 ¹⁾ (5 pieces)
	Material: VMQ 60 Complies with FDA, USP Class VI, EC1935	71075662 (5 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

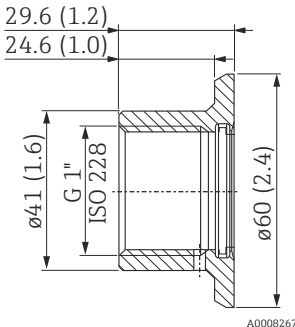
G 1, d=53 pipe-mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	71258358 71093129
	Welding dummy for welding the weld-in adapter Material: Brass	71166879 ¹⁾
	Blind plug for sealing the weld-in adapter - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71173810 71167291 ¹⁾
Seals, $\varnothing 28.17 \times 3.53 \text{ mm}$ (1.11 x 0.14 in)		Order number
	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014472 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 EHEDG certified	71140668 ²⁾ (3 pieces)
	Material: FKM 75	71182264 ¹⁾ (5 pieces)
	Material: FFKM Kalrez 4079	71166292 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935	71086102 (3 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

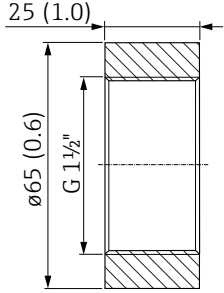
G 1, d=60 with flange for flush mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52001051 52011896
	Welding dummy for welding the weld-in adapter Material: Brass	71166879 ¹⁾
	Blind plug for sealing the weld-in adapter - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71173810 71167291 ¹⁾
Seals, ø 28.17 x 3.53 mm (1.11 x 0.14 in)		Order number
	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014472 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 EHEDG certified	71140668 ²⁾ (3 pieces)
	Material: FKM 75	71182264 ¹⁾ (5 pieces)
	Material: FFKM Kalrez 4079	71166292 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935	71086102 (3 pieces)

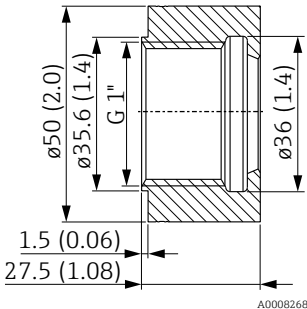
1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

G 1½ flush mount

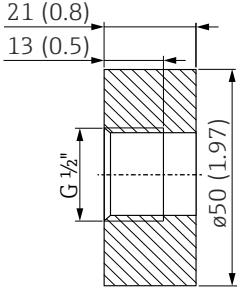
Dimensions in mm (in)	Version	Order number
	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)	52024469 52024470
	Welding dummy for welding the weld-in adapter Material: Brass	52024471

G 1 flush mount with metallic sealing taper

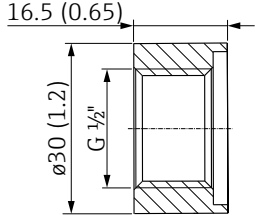
Dimensions in mm (in)	Version	Order number
 NOTICE Leaking connection Repeated screwing in of the process connection can cause damage to the weld-in adapter. The connection will not be leak-tight. ► Use sealing taper G 1 flush mount for screwing in only once.	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4404) Roughness (process side): $R_a \leq 0.8 \mu\text{m}$ (31.5 μin) Certified according to CRN	52005087 52010171
	Welding dummy for welding the weld-in adapter Material: Brass	52005272
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71171731 ¹⁾

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

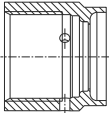
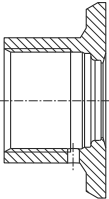
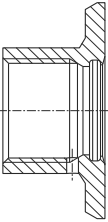
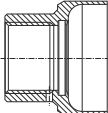
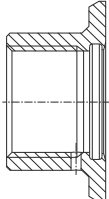
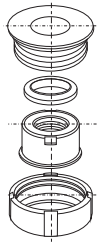
G ½ flush mount

Dimensions in mm (in)	Version	Order number
 Pressure resistance max. 100 bar (1500 psi)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.8 \mu\text{m}$ (31.5 μin)	52002643 52010172
	Welding dummy for welding the weld-in adapter Material: Brass	52005082

G ½ DIN3852

Dimensions in mm (in)	Version	Order number
 Pressure resistance Max. 100 bar (1500 psi)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4404) Roughness (process side): $R_a \leq 0.8 \mu\text{m}$ (31.5 μin)	71389241 71389243
	Welding dummy for welding the weld-in adapter Material: Brass	52005082

Weld-in adapter - Temperature overview

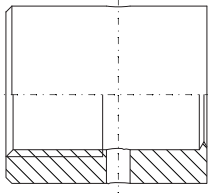
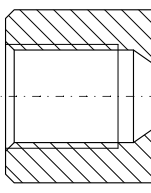
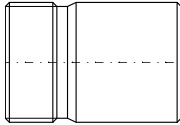
[Part 1] Weld-in adapter Temperature overview						
	A0008246	A0008251	A0008256	A0011924	A0008248	A0008253
	G ¾, d=29 pipe-mounting	G ¾, d=50 vessel- mounting	G ¾, d=55 with flange	G 1, d=53 pipe-mounting	G 1, d=60 with flange	G 1 adjustable
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)
Roughness µm (µin) process side	≤ 1.5 (59.1)	≤ 0.8 (31.5)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.8 (31.5)
Order number weld-in adapter	71258357	71258355	52001052	71258358	52001051	52001221
Order number weld-in adapter with inspection certificate ¹⁾	52028295	52018765	52011897	71093129	52011896	52011898
Order number replacement seal (5 pieces)	Silicone O-ring 52021717 ²⁾	Silicone O-ring 52021717 ²⁾	Silicone O-ring 52014473 ²⁾	Silicone O-ring 52014472 ²⁾	Silicone O-ring 52014472 ²⁾	Silicone profile gasket 52014424 ³⁾
Order number welding dummy	71174959	71174959	71168889	71166879	71166879	71181945
Order number blind plug	71167850	71167850	71177193	71173810	71173810	71166366
Order number blind plug with inspection certificate ¹⁾	–	–	71190074	71167291	71167291	71196853
Measuring instrument	Suitable for process connection Option ⁴⁾					
Compact thermometer						
TMR35	AC	AC	AB	AD	AD	AD
TM311	J1	J1	J2	J3	J3	J3
Hygienic thermometer						
TM371	J1	J1	J2	J3	J3	J3
TM372	J1	J1	J2	J3	J3	J3
TM411	J1	J1	J2	J3	J3	J3
Thermowell						
TT411	J1	J1	J2	J3	J3	J3

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

3) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

4) The option can be selected in the Product Configurator via the appropriate order feature.

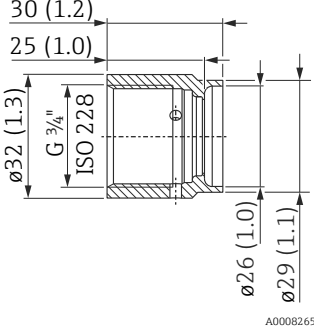
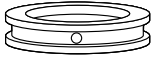
[Part 2] Weld-in adapter Temperature overview	 A0045815	 A0045834	 A0045836
	Weld-in adapter with sealing taper for G 1/2	Weld-in adapter with sealing taper for M12x1.5	G 1 1/4 for Ingold process connection
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)
Order number weld-in adapter	71424800	71405560	71531585
Order number replacement seal (5 pieces) ¹⁾	–	–	Silicone O-ring 60018911
Order number blind plug	60022519	60021194	–
Measuring instrument	Suitable for process connection Option²⁾		
Compact thermometer			
TMR31	–	–	–
TMR35	MB	–	–
TM311	H2	H1	–
Hygienic thermometer			
TM371	H2	H1	M1/M3
TM372	–	–	–
TM401	H2	H1	–
TM411	H2	H1	M1/M3
Thermowell			
TT411	H2	H1	M1/M3
Temperature switch			
TTR31	–	–	–
TTR35	MB	–	–
Flow switch			
DTT31	–	–	–
DTT35	MB	–	–

1) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

2) The option can be selected in the Product Configurator via the appropriate order feature.

Weld-in adapter and accessories - Temperature

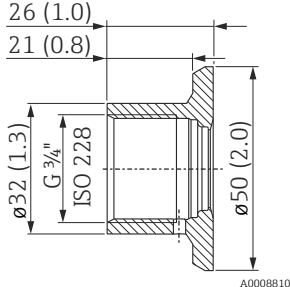
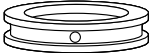
G 3/4, d=29 pipe-mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 1.5 µm (59.1 µin) Certified according to CRN	71258357 52028295
	Welding dummy for welding the weld-in adapter Material: Brass	71174959 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 3.2 µm (126 µin)	71167850 ¹⁾
Seals, pressure ring		Order number
	Standard seal	
	Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: VMQ 70 FDA-compliant	52021717 ²⁾ (5 pieces)
	The seal can be easily replaced with this version.	
	Alternative seals	
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71529759 ²⁾ (5 pieces)
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: FKM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71167890 ¹⁾ (5 pieces)
	ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: Silicone VMQ 80 Complies with FDA, USP Class VI	71086117 (3 pieces)
	Pressure ring Material: 316L (1.4435) The seal with pressure ring enables easy exchange of defective sealing rings.	52027421

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

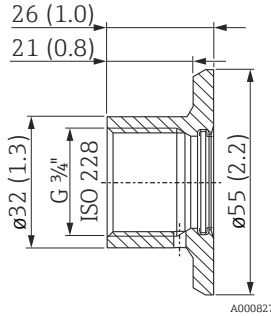
G ¾, d=50 vessel-mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.8 µm (31.5 µin) Certified according to CRN	71258355 52018765
	Welding dummy for welding the weld-in adapter Material: Brass	71174959 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 3.2 µm (126 µin)	71167850 ¹⁾
Seals, pressure ring		Order number
	Standard seal	
	Silicone O-ring, ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: VMQ 70 FDA-compliant The seal can be easily replaced with this version.	52021717 ²⁾ (5 pieces)
	Alternative seals	
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71529759 ²⁾ (5 pieces)
	ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: FKM Complies with FDA, USP Class VI, EC1935 EHEDG certified	71167890 ¹⁾ (5 pieces)
	Pressure ring Material: 316L (1.4435) The seal with pressure ring enables easy exchange of defective sealing rings.	71086117 (3 pieces)
		52027421

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

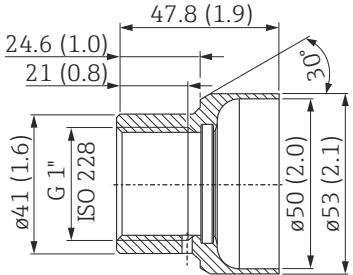
G 3/4, d=55 with flange for flush mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.8 µm (31.5 µin)	52001052 52011897
	Welding dummy for welding the weld-in adapter Material: Brass	71168889 ¹⁾
	Blind plug for sealing the weld-in adapter - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71177193 ¹⁾ 71190074 ¹⁾
Seals, ø 21.89 x 2.62 mm (0.86 x 0.10 in)		Order number
	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014473 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71140670 ²⁾ (3 pieces)
	Material: FFKM Kalrez 6221 Complies with FDA, USP Class VI	71167883 ¹⁾
	Material: FKM Complies with FDA, USP Class VI, EC1935	71172153 ¹⁾ (5 pieces)
	Material: FKM FEP coated Complies with FDA, USP Class VI, EC1935	71167747 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935, GB4806	71086100 (3 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

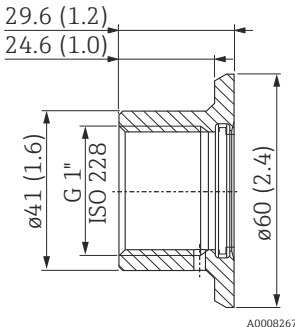
G 1, d=53 pipe-mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	71258358 71093129
	Welding dummy for welding the weld-in adapter Material: Brass	71166879 ¹⁾
	Blind plug for sealing the weld-in adapter - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71173810 71167291 ¹⁾
Seals, $\varnothing 28.17 \times 3.53 \text{ mm}$ (1.11 x 0.14 in)		Order number
	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014472 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 EHEDG certified	71140668 ²⁾ (3 pieces)
	Material: FKM 75	71182264 ¹⁾ (5 pieces)
	Material: FFKM Kalrez 4079	71166292 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935	71086102 (3 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

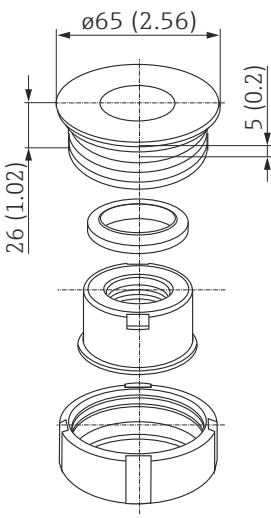
G 1, d=60 with flange for flush mounting

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52001051 52011896
	Welding dummy for welding the weld-in adapter Material: Brass	71166879 ¹⁾
	Blind plug for sealing the weld-in adapter - Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71173810 71167291 ¹⁾
Seals, ø 28.17 x 3.53 mm (1.11 x 0.14 in)		Order number
	Standard seal	
	Silicone O-ring Material: VMQ 70 Complies with FDA, EC1935, GB4806	52014472 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70 Complies with FDA, USP Class VI, EC1935 EHEDG certified	71140668 ²⁾ (3 pieces)
	Material: FKM 75	71182264 ¹⁾ (5 pieces)
	Material: FFKM Kalrez 4079	71166292 ¹⁾
	Material: Silicone VMQ 3-80 Complies with FDA, USP Class VI, EC1935	71086102 (3 pieces)

1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal, 1 x EPDM seal (EHEDG)

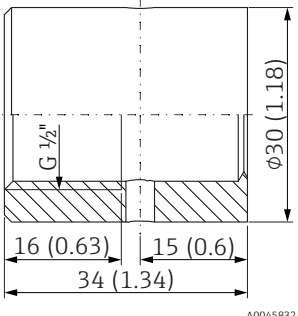
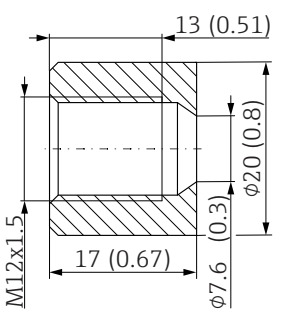
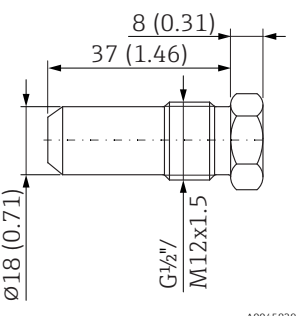
G1 sensor adjustable

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F) A0008272	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.8 \mu\text{m}$ (31.5 μin) Certified according to CRN	52001221 52011898
	Welding dummy for welding the weld-in adapter Material: Brass	71181945 ¹⁾
	Blind plug for sealing the weld-in adapter Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71166366 ¹⁾
Seals, Ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)		Order number
 A0021901	Standard seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, EC1935	52014424 ²⁾ (5 pieces)
	Alternative seals	
	Material: EPDM 70	71168375 ¹⁾ (5 pieces)
	Material: VMQ 60 Complies with FDA, USP Class VI, EC1935	71075662 (5 pieces)

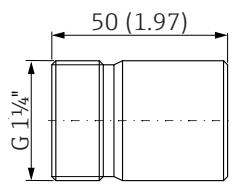
1) TSP modification number. Can only be ordered via FTSP, PTSP or NTSP.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal

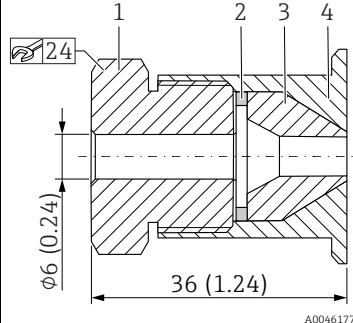
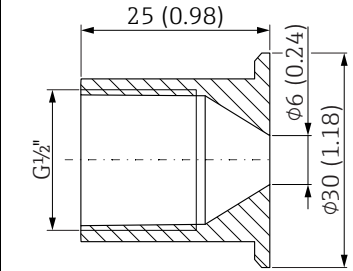
Weld-in adapter with sealing taper for G ½ or M12x1.5 thread

Dimensions in mm (in)	Version	Order number
 A0045832	Weld-in adapter for G ½ or M12x1.5 thread, metal sealing; conical Material: Parts in contact with the process AISI 316L (1.4435)	71424800 (G ½)
 A0045833		71405560 (M12x1.5)
Process pressure max. 16 bar (232 psi)		
 A0045839	Blind plug for G ½ or M12x1.5 conical metal-sealing weld-in adapter Material: AISI 316L (1.4435)	60022519 (G ½) In preparation (M12x1.5)

Weld-in adapter for Ingold process connection

Dimensions in mm (in)	Version	Order number
 A0045835	G 1¼ x 50 mm (1.97 in) Material: AISI 316L (1.4435)	71531585
Seal		Order number
 A0021901		
O-ring seal set		
Silicone O-ring FDA-compliant Maximum temperature: 230 °C (446 °F)		60018911

Weld-in adapter with sealing taper with/without pressure screw

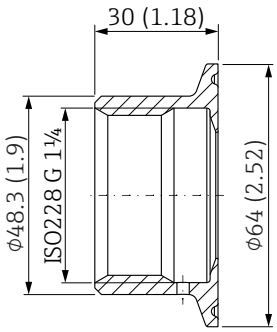
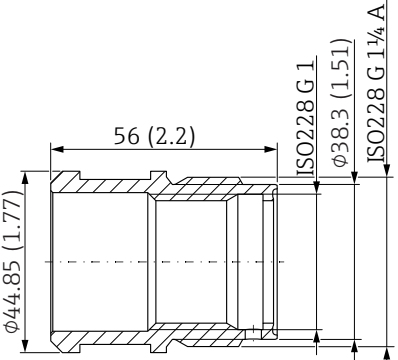
Dimensions in mm (in)	Version	Order number
 1 Pressure screw, 303/304 2 Washer, 303/304 3 Sealing taper, PEEK 4 Collar welding boss, 316L Process pressure ■ Max. 10 bar (145 psi) A0046177	Collar welding boss movable with sealing taper, washer and pressure screw G 1/2 Material of parts in contact with the process: 316L, PEEK	In preparation (with pressure screw)
 Process pressure ■ Max. 10 bar (145 psi) A0046175	Collar welding boss Material: Parts in contact with the process AISI 316L (1.4435)	51004752 (without pressure screw)

Nivector FTI26 hygienic process adapter



Pay attention to the temperature and pressure specifications for the seals and clips used at the customer site.

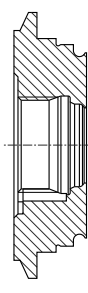
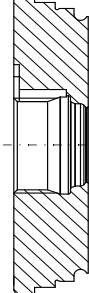
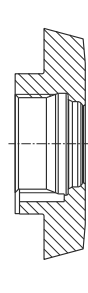
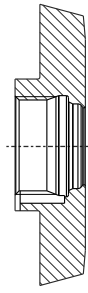
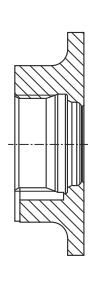
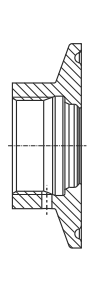
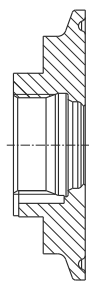
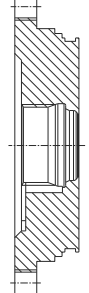
Process adapter G 1¼ Tri-Clamp 2" with threaded sleeve

Dimensions in mm (in)	Version	Order number
 Process adapter G 1¼ A0045642  Threaded sleeve A0045644 Pressure and temperature range of the adapter max. 6 bar (87 psi) / -20 °C to +80 °C (-4 °F to +176 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4404) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	– 71444431
	- Measuring instrument: Nivector FTI26 - Suitable for process connection¹⁾ - Option: WDJ - As "Accessory enclosed"¹⁾ - Option: RK	
Seal, ø 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)		Order number
 A0021901	Standard seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, USP Class VI, EC1935	71075662²⁾ (5 pieces)
	Alternative seal	
	Silicone profile gasket Material: VMQ 60 Complies with FDA, EC1935	52014424²⁾ (5 pieces)

1) The option can be selected in the Product Configurator via the appropriate order feature.

2) Already included in the scope of delivery for the weld-in adapter: 1 x standard seal.

Process adapter M24 - Level and pressure overview

Process adapter M24								
	A0023286	A0023419	A0023547	A0023418	A0023420	A0023423	A0023426	A0023422
	Varivent F DN25	Varivent N DN50/40	DIN11851 DN40	DIN11851 DN50	SMS 1½	Clamp 1½	Clamp 2	APV Inline
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)
Roughness µm (µin) process side	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)
Order number process adapter	52023996	52023997	52023999	52023998	52026997	52023994	52023995	52024000
Order number process adapter with inspection certificate ¹⁾	52024003	52024004	52024006	52024005	52026999	52024001	52024002	52024007
Order number replacement seal (5 pieces) ²⁾	EPDM 52024267	EPDM 52024267	EPDM 52024267	EPDM 52024267	EPDM 52024267	EPDM 52024267	EPDM 52024267	EPDM 52024267
Slotted nut	–	–	71258361	71258361	–	–	–	–
Measuring instrument	Suitable for process connection Option³⁾							
Liquipoint								
FTW23, FTW33	X2J	X2J	X2J	X2J	X2J	X2J	X2J	X2J
Liquitrend								
QMW43	X2J	X2J	X2J	X2J	X2J	X2J	X2J	X2J
Liquiphant								
FTL33	X2J	X2J	X2J	X2J	X2J	X2J	X2J	X2J
Ceraphant								
PTP33B	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J
Cerabar								
PMP23	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J	X2J/X3J
Liquipoint	As "Accessory enclosed" Option⁴⁾							
FTW23								
FTW33	RC/RD	RA/RB	–	RE/RF	RG/RH	RI/RJ	RK/RL	–
FTW33	RC/RD	RA/RB	–	RE/RF	RG/RH	–	–	–
Liquiphant								
FTL33	RC/RD	RA/RB	–	RE/RF	RG/RH	–	–	–

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) Already included in the scope of delivery for the process adapter: 1 x standard seal.

3) The option can be selected in the Product Configurator via the order feature "Process Connection".

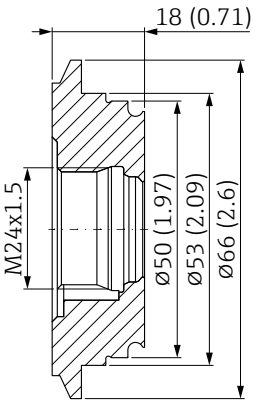
4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

Process adapter M24 - Level and pressure



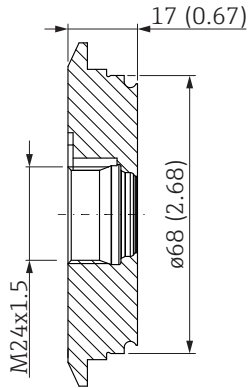
Pay attention to the temperature and pressure specifications for the seals and clips used at the customer site.

Varivent F DN25

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52023996 52024003
Seal ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Standard seal O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267 ¹⁾ (5 pieces)

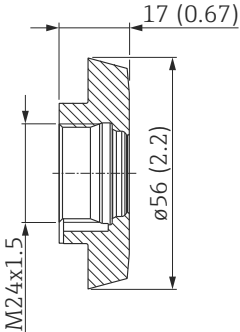
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

Varivent N DN50/40

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	52023997 52024004
Seal, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)		Order number
	Standard seal O-ring Material: EPDM 70 Material: FKM Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267¹⁾ (5 pieces)

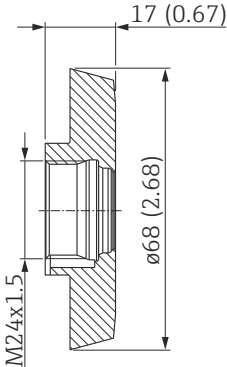
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

DIN11851 DN40

Dimensions in mm (in)	Version	Order number
 A0023548 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	52023999 52024006
Seal, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)		Order number
 A0021901	Standard seal O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267¹⁾ (5 pieces)

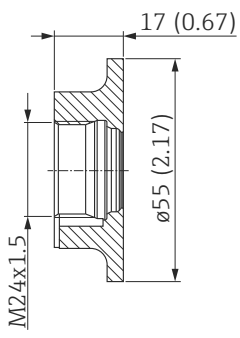
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

DIN11851 DN50

Dimensions in mm (in)	Version	Order number
 A0023273 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52023998 52024005
Seal, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
 A0021901	Standard seal O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267 ¹⁾ (5 pieces)

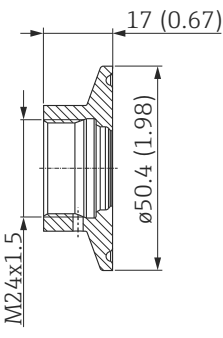
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

SMS 1½

Dimensions in mm (in)	Version	Order number
 A0023278 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52026997 52026999
Seal, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
 A0021901	Standard seal O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267¹⁾ (5 pieces)

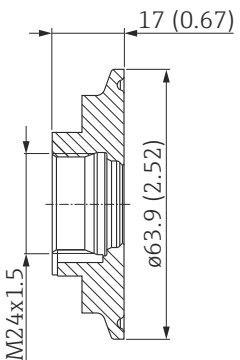
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

**Clamp 1½ (DIN 32676,
ISO 2852)**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52023994 52024001
Seal, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Standard seal O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267 ¹⁾ (5 pieces)

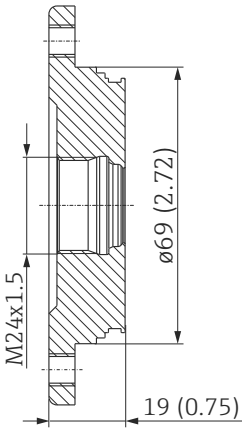
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

**Clamp 2 (DIN 32676,
ISO 2852)**

Dimensions in mm (in)	Version	Order number
 A0023281 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	52023995 52024002
Seal, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
 A0021901	Standard seal O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHDG certified	52024267¹⁾ (5 pieces)

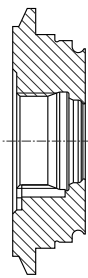
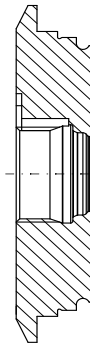
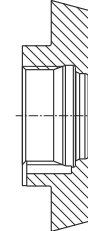
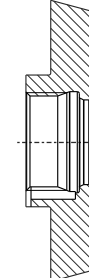
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

APV Inline

Dimensions in mm (in)	Version	Order number
 A0023421 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	52024000 52024007
Seal, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
 A0021901	Standard seal O-ring Material: EPDM 70 Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	52024267¹⁾ (5 pieces)

1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

Process adapter M24 - Micropilot Level overview

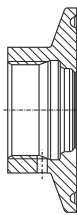
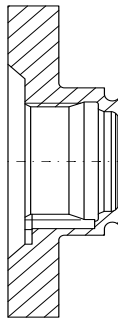
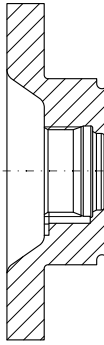
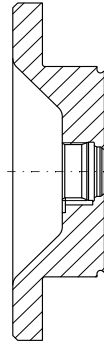
Part 1						
Only for Micropilot						
Process adapter M24						
						
	A0023286	A0023419	A0056482	A0023547	A0023418	A0023420
	Varivent F DN25	Varivent N DN50/40	DIN11851 DN32 with slotted nut	DIN11851 DN40 with slotted nut	DIN11851 DN50 with slotted nut	SMS 1½ with slotted nut
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)
Roughness µm (µin) process side	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)
Order number process adapter	71653517	71653534	71653550	71653556	71653559	71653562
Order number process adapter with inspection certificate ¹⁾	71653532	71653536	71653552	71653557	71653560	71653564
Order number EPDM replacement seal (5 pieces)	71653949	71653949	71653949	71653949	71653949	71653949
Order number FKM replacement seal (1 piece)	71337274	71337274	71337274	71337274	71337274	71337274
Order number FFKM replacement seal (1 piece) ²⁾	71567760	71567760	71567760	71567760	71567760	71567760
Measuring instrument	Suitable for process connection Option ³⁾					
Micropilot						
FMR43	X2J	X2J	X2J	X2J	X2J	X2J
FMR62	U2J	U2J	–	U2J	U2J	U2J
FMR63B	X2J	X2J	–	X2J	X2J	X2J
Measuring instrument	As "Accessory enclosed" Option ⁴⁾					
Micropilot						
FMR43	–	RB	RD	RE	RF	RI
FMR62, FMR63B	RC/RD	RA/RB	–	RE/RF	RG/RH	RI/RJ

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) FFKM O-ring applies to Micropilot FMR63B only.

3) The option can be selected in the Product Configurator via the order feature "Process connection".

4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

Part 2 Only for Micropilot Process adapter M24					
	A0023423 Clamp 1½	A0023426 Clamp 2	A0056484 NEUMO BioControl D25	A0056486 NEUMO BioControl D50	A0056488 NEUMO BioControl D80
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)
Roughness µm (µin) process side	≤ 0.76 (29.9)	≤ 0.76 (29.9)	-	-	-
Roughness µm (µin) process side electropolished	≤ 0.38 (15.0)	≤ 0.38 (15.0)	≤ 0.38 (15.0)	≤ 0.38 (15.0)	≤ 0.38 (15.0)
Order number process adapter	71653565	71653573	-	-	-
Order number process adapter with inspection certificate ¹⁾	71653568	71653575	-	-	-
Order number process adapter electropolished	71653570	71653577	-	-	-
Order number process adapter electropolished with inspection certificate ¹⁾	71653571	71653578	71653585	71653591	71653596
Order number EPDM replacement seal (5 pieces)	71653949	71653949	71653949	71653949	71653949
Order number FFKM replacement seal (1 piece) ²⁾	71567760	71567760	71567760	71567760	71567760
Measuring instrument	Suitable for process connection Option ³⁾				
Micropilot					
FMR43	X2J	X2J	X2J	X2J	X2J
FMR62	U2J	–	–	–	–
FMR63B	X2J	–	–	–	–
Measuring instrument	As "Accessory enclosed" Option ⁴⁾				
Micropilot					
FMR43	RL	RM	RR	RS	RT
FMR62, FMR63B	RK/RL	–	–	–	–

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

2) FFKM O-ring applies to Micropilot FMR63B only.

3) The option can be selected in the Product Configurator via the order feature "Process connection".

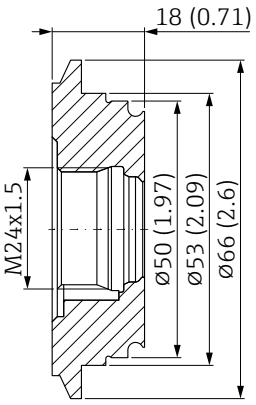
4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

Process adapter M24 - Micropilot Level



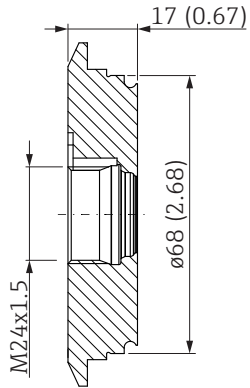
Pay attention to the temperature and pressure specifications for the seals and clips used at the customer site.

Varivent F DN25 - Only for Micropilot

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	71653517 71653532
Seal, O-rings $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71653949 (5 pieces) 71337274 71567760

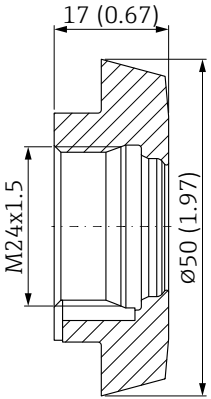
1) FFKM O-ring applies to Micropilot FMR63B only.

**Varivent N DN50/40 -
Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter - max. 25 bar (362 psi) / max. 150 °C (302 °F) - max. 40 bar (580 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	71653534 71653536
Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71653949 (5 pieces) 71337274 71567760

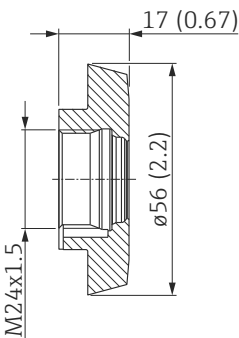
1) FFKM O-ring applies to Micropilot FMR63B only.

**DIN11851 DN32 with slotted
nut - Only for Micropilot**

Dimensions mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	71653550 71653552
Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71653949 (5 pieces) 71337274 71567760

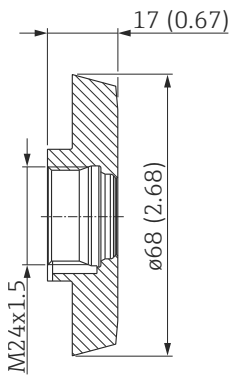
1) FFKM O-ring applies to Micropilot FMR63B only.

DIN11851 DN40 with slotted nut - Only for Micropilot

Dimensions mm (in)	Version	Order number
 A0023548 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	71653556 71653557
Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
 A0021901	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71653949 (5 pieces) 71337274 71567760

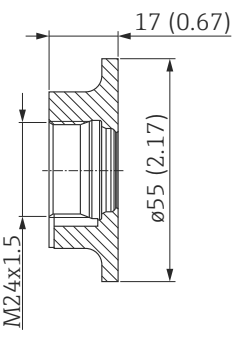
1) FFKM O-ring applies to Micropilot FMR63B only.

**DIN11851 DN50 with slotted
nut - Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 A0023273 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin) Certified according to CRN	71653559 71653560
Seal, O-rings, $\varnothing 15.54 \times 2.62 \text{ mm}$ (0.61 x 0.1 in)		Order number
 A0021901	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71653949 (5 pieces) 71337274 71567760

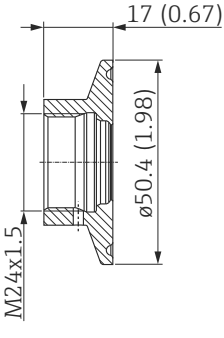
1) FFKM O-ring applies to Micropilot FMR63B only.

**SMS 1½ with slotted nut -
Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin) Certified according to CRN	71653562 71653564
Seal, O-rings, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935, GB4806 EHEDG certified	71653949 (5 pieces) 71337274 71567760

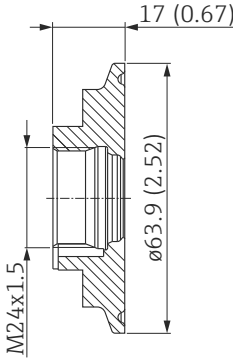
1) FFKM O-ring applies to Micropilot FMR63B only.

**Clamp 1½
(DIN 32676, ISO 2852)-
Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 A0023284 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material ■ Electropolished, without inspection certificate ■ Electropolished, with inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 (29.9) electropolished: Ra ≤ 0.38 µm (29.9 µin) Certified according to CRN	71653565 71653568 71653570 71653571
Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
 A0021901	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935 EHEDG certified	71653949 (5 pieces) 71337274 71567760

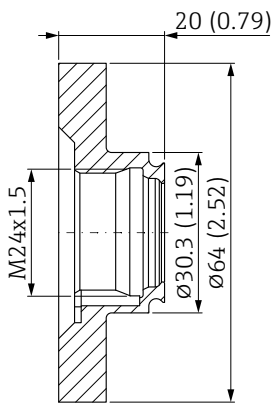
1) FFKM O-ring applies to Micropilot FMR63B only.

Clamp 2
(DIN 32676, ISO 2852)-
Only for Micropilot

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ Without inspection certificate ■ With inspection certificate EN10204-3.1 material ■ Electropolished, without inspection certificate ■ Electropolished, with inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76$ (29.9) electropolished: $R_a \leq 0.38 \mu\text{m}$ (29.9 μin) Certified according to CRN	71653573 71653575 71653577 71653578
Seal, O-rings, $\varnothing 15.54 \times 2.62$ mm (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935 EHEDG certified	71653949 (5 pieces) 71337274 71567760

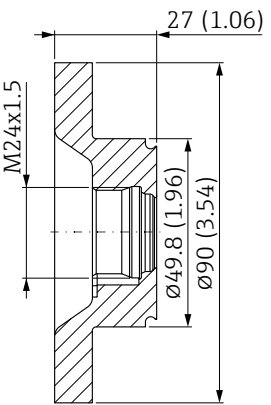
1) FFKM O-ring applies to Micropilot FMR63B only.

**NEUMO BioControl D25 -
Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	Electropolished, with inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): electropolished: $Ra \leq 0.38 \mu\text{m}$ (29.9 μin) Certified according to CRN	71653585
Seal, O-rings, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935 EHEDG certified	71653949 (5 pieces) 71337274 71567760

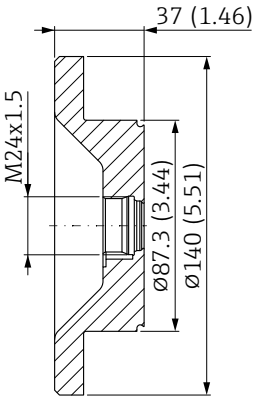
1) FFKM O-ring applies to Micropilot FMR63B only.

**NEUMO BioControl D50 -
Only for Micropilot**

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	Electropolished, with inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): electropolished: Ra ≤ 0.38 µm (29.9 µin) Certified according to CRN	71653591
Seal, O-rings, ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935 EHEDG certified	71653949 (5 pieces) 71337274 71567760

1) FFKM O-ring applies to Micropilot FMR63B only.

**NEUMO BioControl D80 -
Only for Micropilot**

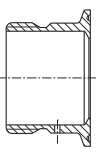
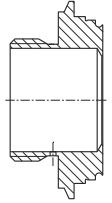
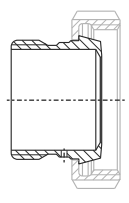
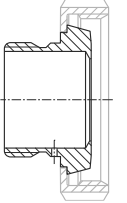
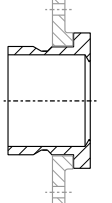
Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 25 bar (362 psi) / max. 150 °C (302 °F)	Electropolished, with inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): electropolished: $Ra \leq 0.38 \mu m$ (29.9 μin) Certified according to CRN	71653596
Seal, O-rings, Ø 15.54 x 2.62 mm (0.61 x 0.1 in)		Order number
	Material: EPDM 70 Material: FKM Material: FFKM¹⁾ Complies with FDA, USP Class VI, EC1935 EHEDG certified	71653949 (5 pieces) 71337274 71567760

1) FFKM O-ring applies to Micropilot FMR63B only.

Process adapter UNI - Pressure overview



The following adapters can be used to establish a connection between the customer's process connection and the Endress+Hauser measuring instrument with a universal adapter.

Process adapter UNI - Pressure overview					
	A0023532	A0023530	A0023413	A0023417	A0021898
	Clamp 2	Varivent N	DIN11851 DN40	DIN11851 DN50	DRD DN50
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)
Roughness μm (μin) process side	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)	≤ 0.76 (29.9)
Order number process adapter	71114176	71114177	71114172	71114173	71114174
Order number process adapter with inspection certificate ¹⁾	71114207	71114208	71114178	71114205	71114206
Order number replacement seal (5 pieces) ²⁾	Silicone profile gasket 52023572	Silicone profile gasket 52023572	Silicone profile gasket 52023572	Silicone profile gasket 52023572	Silicone profile gasket 52023572
Scope of delivery	–	–	Slotted nut	Slotted nut	DRD flange
Measuring instrument	Suitable for process connection Option ³⁾				
Cerabar					
PMP23	52J	52J	52J	52J	52J
PMC51	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ
PMP55	UPJ	UPJ	UPJ	UPJ	–
Deltapilot					
FMB50	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ
FMB70	00/01	00/01	00/01	00/01	00/01
Deltabar					
FMD71	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ	UNJ/UPJ
FMD78	00	00	00	00	00
	As "Accessory enclosed" Option ⁴⁾				
Cerabar					
PMC51	RD/R4	RF/R6	RA/R1	RB/R2	RC/R3
Deltapilot					
FMB50	RD/R4	RF/R6	RA/R1	RB/R2	RC/R3

1) Inspection certificate according to EN10204-3.1 Material; AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2/W10.

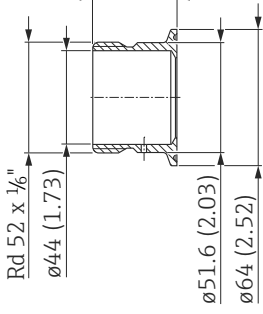
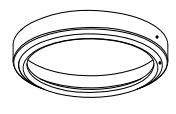
2) Already included in the scope of delivery for the process adapter: 1 x standard seal.

3) The option can be selected in the Product Configurator via the order feature "Process connection".

4) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

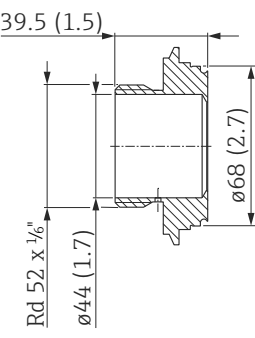
Process adapter UNI - Pressure

Clamp 2

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 10 bar (150 psi) / max. 100 °C (212 °F)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): $R_a \leq 0.76 \mu\text{m}$ (29.9 μin)	71114176 71114207
Seals, backup ring		Order number
	Standard seal Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572 ¹⁾ (5 pieces)
	Alternative seal Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: Ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: Ø 36 x 2.5 mm (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

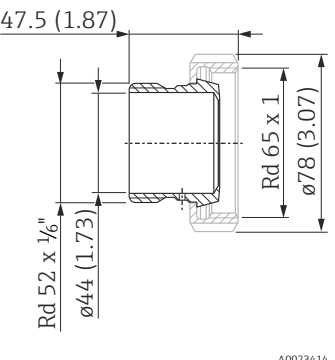
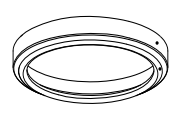
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

Varivent N

Dimensions in mm (in)	Version	Order number
 A0023526 Pressure and temperature range of the adapter max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71114177 71114208
Seals, backup ring		Order number
 A0021901	Standard seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572 ¹⁾ (5 pieces)
	Alternative seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
 A0042001	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI,	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: ø 36 x 2.5 mm (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

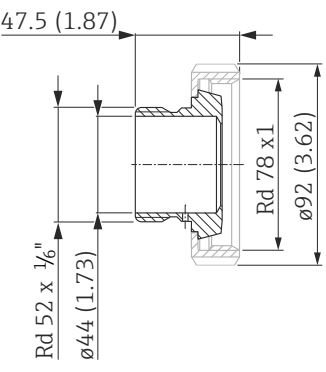
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

DIN11851 DN40

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71114172 71114178
	Material of slotted nut: Endress+Hauser supplies these slotted nuts in stainless steel AISI 304 (DIN/EN material number 1.4301) or in AISI 304L (DIN/EN material number 1.4307).	
Seals, backup ring		Order number
	Standard seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572 ¹⁾ (5 pieces)
	Alternative seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI,	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: ø 36 x 2.5 mm (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

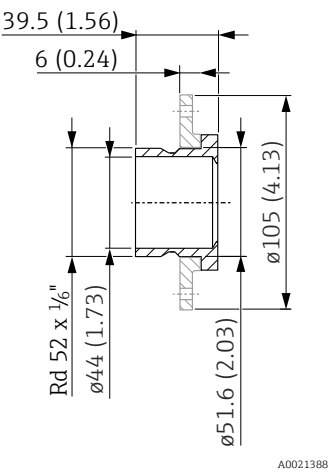
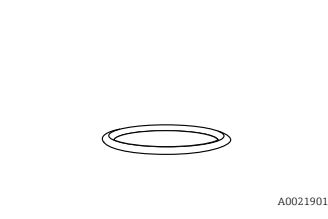
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

DIN11851 DN50

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71114173 71114205
	Material of slotted nut: Endress+Hauser supplies these slotted nuts in stainless steel AISI 304 (DIN/EN material number 1.4301) or in AISI 304L (DIN/EN material number 1.4307).	
Seals, backup ring		Order number
	Standard seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572¹⁾ (5 pieces)
	Alternative seal ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI	71100719 (5 pieces)
	O-ring with backup ring	
	With inspection certificate EN10204-3.1 material Backup ring: Dimensions: ø 38.2 x 43.6 x 5.6 mm (1.5 x 1.72 x 0.22 in) Material: AISI 316L (1.4404) O-ring: Dimensions: ø 36 x 2.5 mm (1.42 x 0.1 in) Material: EPDM 70 Shore A Complies with FDA, USP, Class VI EHEDG certified	71431380

1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

DRD DN50

Dimensions in mm (in)	Version	Order number
 Pressure and temperature range of the adapter max. 10 bar (150 psi) / max. 100 °C (212 °F) (max. 135 °C (275 °F) for 30 minutes)	- Without inspection certificate - With inspection certificate EN10204-3.1 material Material: AISI 316L (1.4435) Roughness (process side): Ra ≤ 0.76 µm (29.9 µin)	71114174 71114206
	Material of DRD flange: Endress+Hauser supplies this DRD flange in AISI 304 stainless steel (DIN/EN material number 1.4301).	
Seal, Ø 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)		Order number
	Standard seal	
	Silicone profile gasket Material: SI 60 Complies with FDA, USP Class VI, EC1935	52023572¹⁾ (5 pieces)
	Alternative seal	
	Profile gasket Material: EPDM 70 Complies with FDA, USP Class VI	71100719 (5 pieces)

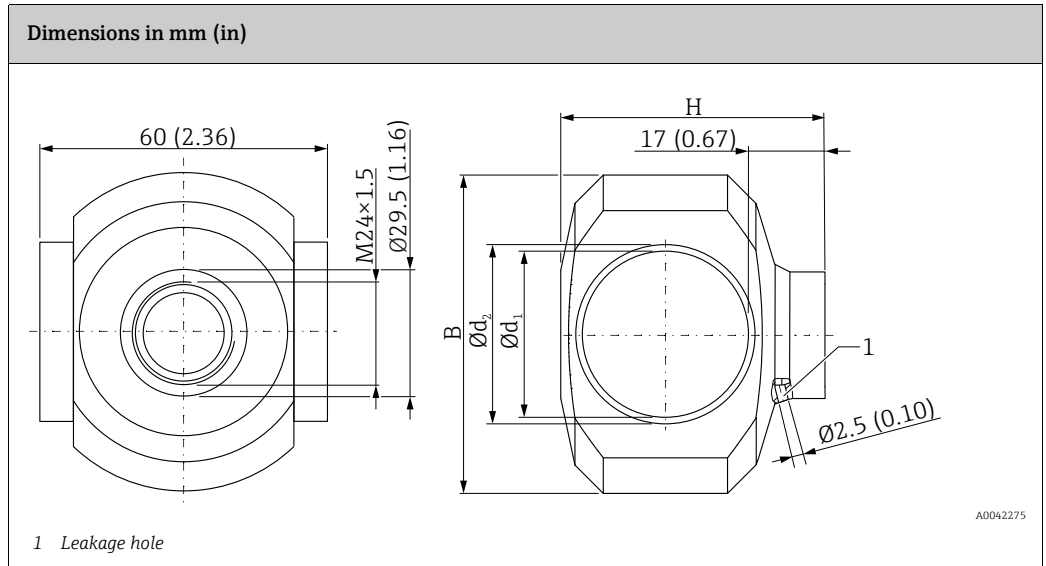
1) Already included in the scope of delivery for the process adapter: 1 x standard seal.

Flush mount pipe connections M24×1.5 - Level and pressure

General

- Material: AISI 316L (1.4404)
- Roughness: Ra wetted (inside) 0.76 µm (29.9 µin)/Ra outside: 1.6 µm (62.99 µin)
- Process temperature range: -40 to +130 °C (-40 to +266 °F)
For a maximum of 30 minutes: +130 to +150 °C (+266 to +302 °F), e.g. SIP cleaning

Pipe connection, weldable



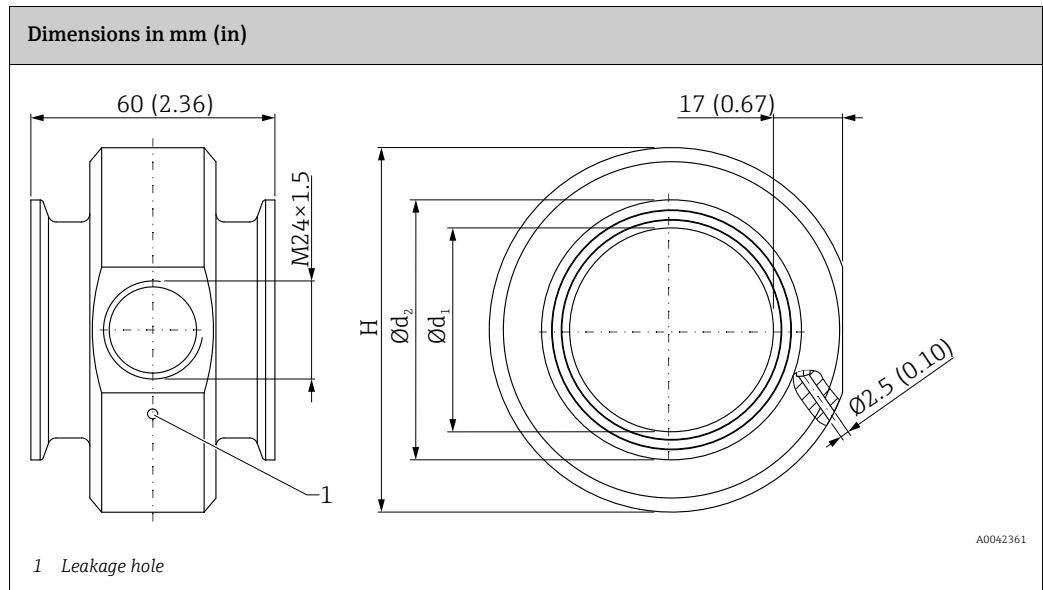
Nominal diameter	DN25	DN32	DN40	DN50
Order number	71477801	71477803	71477807	71477808
B	67 mm (2.64 in)	70 mm (2.56 in)	73 mm (2.87 in)	81 mm (3.19 in)
H	48 mm (1.89 in)	54 mm (2.13 in)	60 mm (2.36 in)	72 mm (2.83 in)
Ø d1	26 mm (1.02 in)	32 mm (1.26 in)	38 mm (1.50 in)	50 mm (2.00 in)
Ø d2	29 mm (1.14 in)	35 mm (1.34 in)	41 mm (1.61 in)	53 mm (2.09 in)
MWP for gases in fluid group 2 ^{1) 2)}	26 bar (377 psi)	26 bar (377 psi)	20 bar (290 psi)	20 bar (290 psi)
MWP for gases in fluid group 1 ^{1) 2)}	26 bar (377 psi)	26 bar (377 psi)	26 bar (377 psi)	26 bar (377 psi)
Measuring instrument	Pipe connection as "Accessory enclosed" Option ³⁾			
Liquipoint				
FTW23, FTW33	QS	QU	QW	QY
Liquitrend				
QMW43	QS	QU	QW	QY
Ceraphant				
PTP33B	QS	QU	QW	QY
Cerabar				
PMP23	QS	QU	QW	QY

1) The maximum working pressure depends on the temperature.

2) Specifications according to Pressure Equipment Directive, Rev. 01 pipe adapter, classification according to Pressure Equipment Directive (EU) 2014/68, Article 4, Paragraph 3.

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

Pipe connection, clamp connection



Nominal diameter	DN25	DN32	DN40	DN50
Order number	71477812	71477813	71477816	71477817
H	68 mm (2.68 in)	73 mm (2.87 in)	78.5 mm (3.09 in)	90 mm (3.54 in)
Ø d1	26 mm (1.02 in)	32 mm (1.26 in)	38 mm (1.50 in)	50 mm (2.00 in)
Ø d2	50 mm (2.00 in)	50 mm (2.00 in)	50 mm (2.00 in)	64 mm (2.50 in)
MWP for gases in fluid group 2 ^{1) 2)}	26 bar (377 psi)	26 bar (377 psi)	20 bar (290 psi)	20 bar (290 psi)
MWP for gases in fluid group 1 ¹⁾²⁾	26 bar (377 psi)	26 bar (377 psi)	26 bar (377 psi)	26 bar (377 psi)
Measuring instrument	Pipe connection as "Accessory enclosed" Option ³⁾			
Liquipoint				
FTW23, FTW33	QT	QV	QX	QZ
Liquitrend				
QMW43	QT	QV	QX	QZ
Ceraphant				
PTP33B	QT	QV	QX	QZ
Cerabar				
PMP23	QT	QV	QX	QZ

1) The maximum working pressure depends on the temperature.

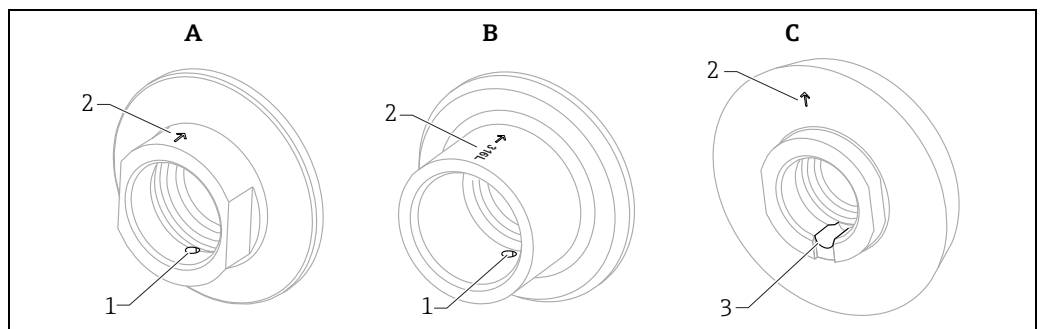
2) Specifications according to Pressure Equipment Directive, Rev. 01 pipe adapter, classification according to Pressure Equipment Directive (EU) 2014/68, Article 4, Paragraph 3.

3) The option can be selected in the Product Configurator via the order feature "Accessory enclosed".

Mounting and welding instructions

-  Welding stainless steel requires utmost care. The workpieces and tools used must be free of rust. Similarly, no standard steel may be processed in the immediate vicinity.
-  When welding, the adapters should be protected against warping with a welding dummy if possible or protected by another cooling system (e.g. water cooling) used according to standard welding practice.
The welding dummy can also be used with a suitable seal for flush sealing of the process when commissioning the system. Ensure material compatibility of the welding dummy.

Leakage hole or leakage port When using process adapters or weld-in adapters with a leakage hole or with a leakage port, ensure that the leakage hole or leakage port is facing downwards when installed horizontally. Leaks caused by escaping medium can thus be detected quickly.



- A Process adapter with leakage hole
 B Weld-in adapter with leakage hole
 C Process adapter with leakage port
 1 Leakage hole
 2 Marking, e.g. arrow and/or material specification, offset by 180° in relation to the hole or port
 3 Port

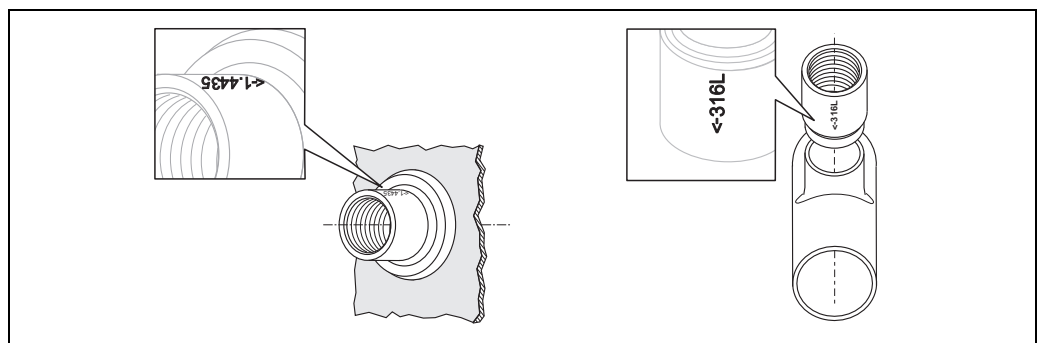
Information for pressure measuring instruments

Note the following before installing a weld-in adapter for pressure measuring instruments:

- The maximum pressure resistance of a sensor is restricted. Therefore, utmost care must be taken during welding when using a weld-in adapter to screw in a pressure measuring cell.
- To prevent the weld-in adapter from warping during the welding process, it is essential to use the correct welding dummy to dissipate the heat. Otherwise, the integrity and pressure resistance cannot be guaranteed when the pressure measuring cell is screwed in. The welding dummy prevents warping of the weld-in adapter and any resulting leakage after the sensor has been fitted.

Preparation

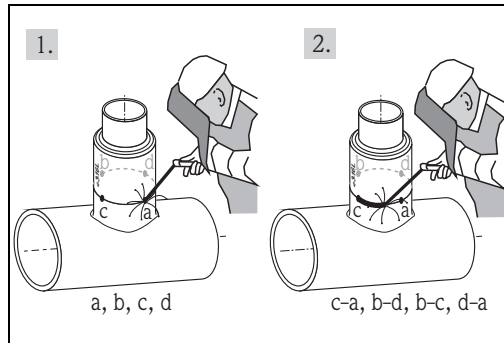
- Drill a hole in the vessel wall or piping
Hole size: Outer diameter of weld-in adapter (max. tolerance: +0.2 mm (0.01 in))
- Slide the weld-in adapter with welding dummy into the hole and align it in a way as to ensure that the sensor will be positioned correctly. See the "Mounting" section from → 83.



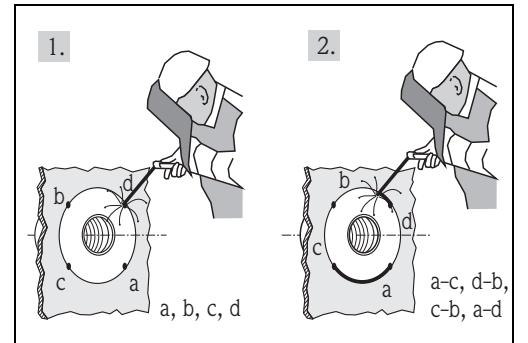
Welding procedure

It is recommended to partition the welding seam into several segments (according to common welding practice).

- Pin the weld-in adapter with four or six welding spots (see the figures).
- Weld the segments between the spots in order to avoid deformation and leakage. After welding one segment, always weld the opposite segment.
- After welding two segments, stop the welding procedure until the workpiece has cooled down.
- Let the weld-in adapter cool down after welding and remove the welding dummy.



Welding of pipes



Welding of vessels



To obtain the desired surface roughness, polish the welding seam area.

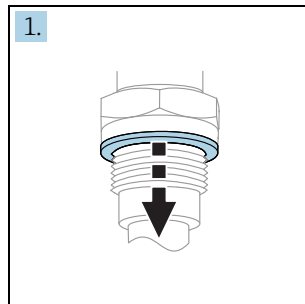
Before mounting

Instructions for Liquiphant

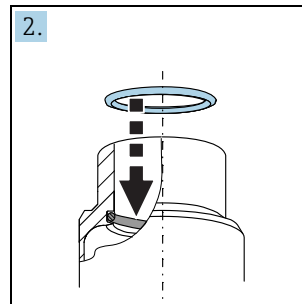
Some devices are supplied with a flat seal at the adapter.

- Remove the flat seal
- Use the O-ring supplied or the pressure ring with O-ring

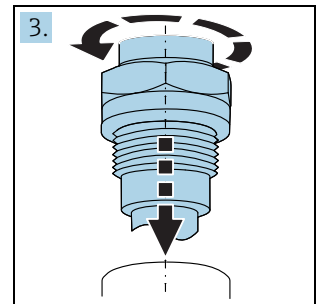
Scope of delivery: O-ring for G $\frac{3}{4}$ d=55, G 1 d=53, G 1 d=60



A0045682

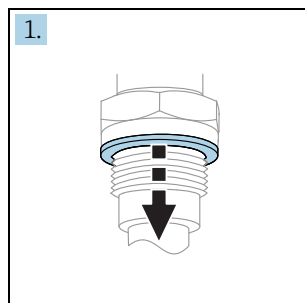


A0045683

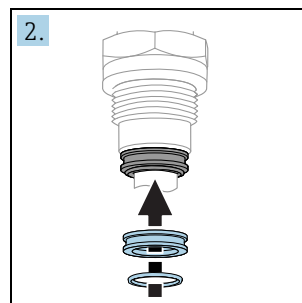


A0045684

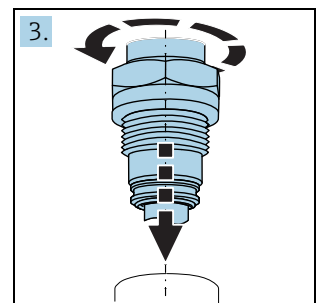
Scope of delivery: Pressure ring with O-ring for G $\frac{3}{4}$ d=50, G $\frac{3}{4}$ d=29



A0045682



A0045685



A0045686

Mounting

Instructions for level transmitters (e.g. Liquiphant)

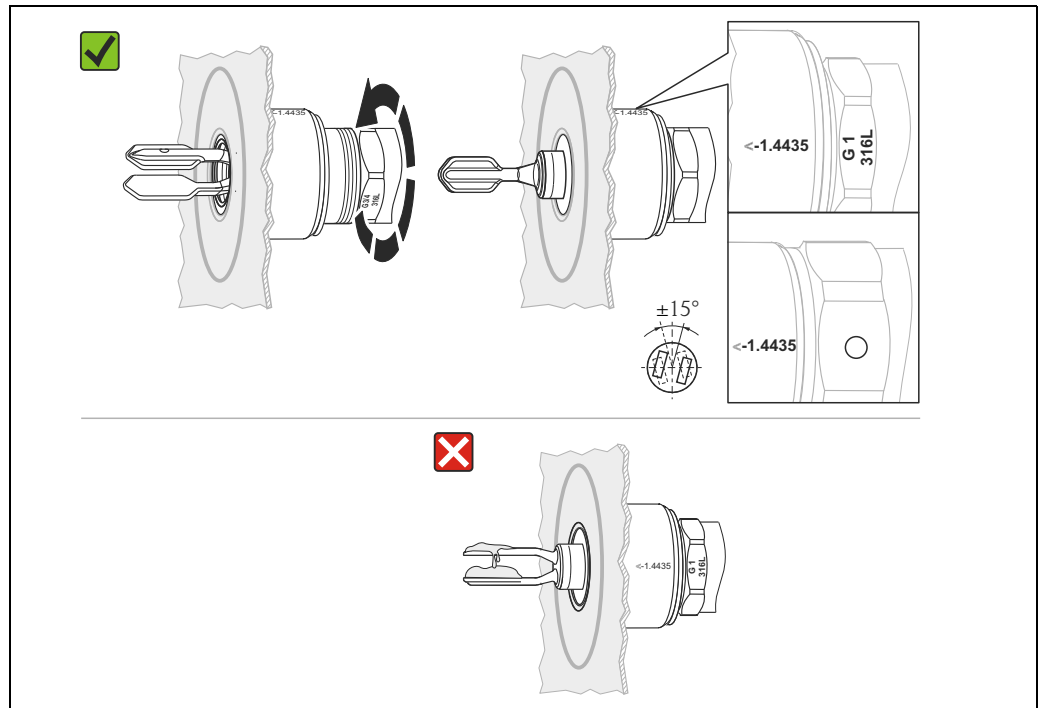
Align the vibrating fork using the marking:

The vibrating fork can be aligned using the marking in such a way that the medium drains off easily and buildup is avoided.

Markings on process connection: Material specification, thread designation, circle, line or double line.

Horizontal orientation in vessels:

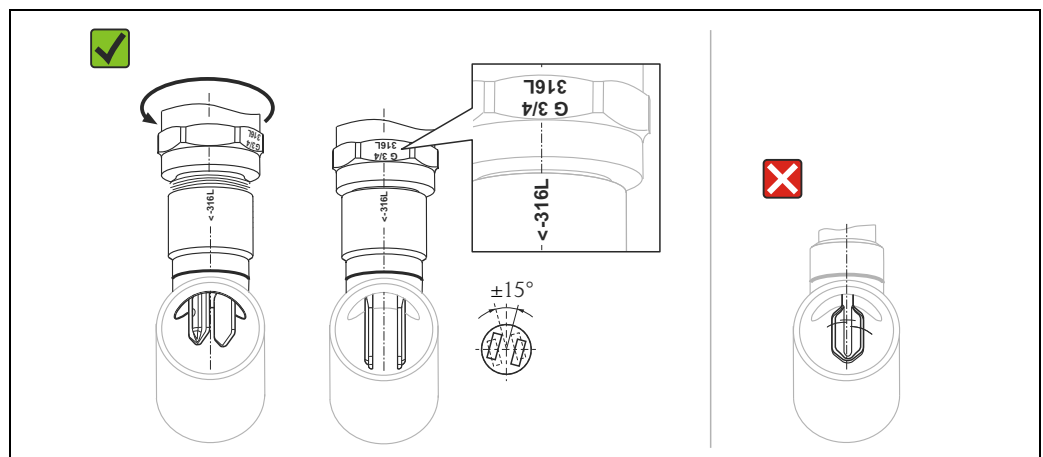
- the marking must be face up
- ensure that the leakage hole is pointing down. This allows leaks to be detected as quickly as possible, refer to "Leakage hole/leakage port" section → 81.



A0008871

Orientation in vessels

When mounted into pipes, the vibrating fork must be aligned in the direction of the flow according to the marking to minimize the contact surface of the medium on the sensor.



A0008872

Orientation in pipes

Instructions for pressure measuring cells

- Before mounting, all sealing surfaces at the weld-in adapter must be cleaned.
- Remove the protective cap from the pressure sensor.



Do not touch or damage the process membranes!

- Screw the pressure sensor firmly at the hexagonal nut. The threaded joint must be tightened by hand. It is recommended to secure the threaded joint with a torque of 60 Nm (± 20 Nm) to protect it against vibrations and other influences.

Pressure resistance

The material of the weld-in adapter and quality of the weld are critical for the pressure capability. The complete length of the thread has to be used in order to ensure maximum pressure resistance.

Flanges - Overview

Specifications

The flanges are supplied in stainless steel AISI 316L with material number 1.4404 or 1.4435. With regard to their stability-temperature property, the materials 1.4404 and 1.4435 are grouped together under 13E0 in DIN EN 1092-1 Tab.18 and under 023b in JIS B2220:Tab. 5. The ASME flanges are dual rated flanges (316/316L) and grouped together under Tab. 2-2.2 in ASME B16.5.



Values in inches are converted to values in millimeters using the factor 2.54. The mm values are rounded off to the nearest 0 or 5 in the ASME standard.

Versions

EN flanges	ASME flanges	JIS flanges
European Standard	America Society of Mechanical Engineers	Japanese Industrial Standard
DIN EN 1092-1	ASME B16.5	B2220

Flange standard DIN EN 1092-1

Endress+Hauser usually supplies flanges with a flat face. This type of flange has not changed much. Therefore, the comparison should be limited to the sealing surfaces only. As the sealing surface marking (Form) has changed, there is a risk of confusion. There are overlaps in the roughness (Rz) between the form C raised face and the new B1 in the range of 40 - 50 μm . Both standards are met within this roughness window. For this reason, Endress+Hauser flanges are labeled with both flange standards. This double marking makes it clear that both standards are met.

Flanges	Sealing surface	DIN EN 1092-1		
		Form	Rz (μm)	Ra (μm)
Without raised face		A	12.5 - 50	3.2 - 12.5
With raised face		B1 ¹⁾	12.5 - 50	3.2 - 12.5
		B2 ²⁾	3.2 - 12.5	0.8 - 3.2
Tongue		C	3.2 - 12.5	0.8 - 3.2
Groove		D		
Projection		E	12.5 - 50	3.2 - 12.5
Recess		F		
Projection		H	3.2 - 12.5	3.2 - 12.5
Recess		G		

1) Typically PN2.5 to PN40

2) Typically from PN63

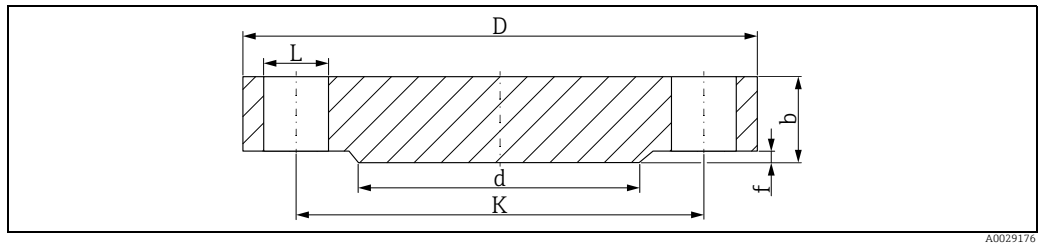
Height of raised face

Dimensions in mm (in)

Standard	Flanges	Height of raised face f	Tolerance
DIN EN 1092-1	≤ DN 32	2 (0.08)	0 -1 (-0.04)
	> DN 32 to DN 250	3 (0.12)	0 -2 (-0.08)
	> DN 250 to DN 500	4 (0.16)	0 -3 (-0.12)
	> DN 500	5 (0.19)	0 -4 (-0.16)
ASME B16.5	≤ Class 300	1.6 (0.06)	±0.75 (±0.03)
	≥ Class 600	6.4 (0.25)	±0.5 (±0.02)
JIS B2220	< DN 20	1.5 (0.06) 0	-
	> DN 20 to DN 50	2 (0.08) 0	
	> DN 50	3 (0.12) 0	

Mechanical construction

EN flanges (DIN EN 1092-1)



(Raised face B1)

- L* Hole diameter
d Diameter of raised face
K Pitch circle diameter
D Flange diameter
b Total flange thickness
f Raised face height (generally 2 mm (0.08 in))

PN16

The dimensions in the following tables are in mm (in), unless otherwise specified.

DN	D	b	K	d	L	approx. kg (lbs)
25	115 (4.53)	18 (0.71)	85 (3.35)	68 (2.68)	4xØ14 (0.55)	1.50 (3.31)
32	140 (5.51)	18 (0.71)	100 (3.94)	78 (3.07)	4xØ18 (0.71)	2.00 (4.41)
40	150 (5.91)	18 (0.71)	110 (4.33)	88 (3.46)	4xØ18 (0.71)	2.50 (5.51)
50	165 (6.50)	18 (0.71)	125 (4.92)	102 (4.02)	4xØ18 (0.71)	2.90 (6.39)
65	185 (7.28)	18 (0.71)	145 (5.71)	122 (4.80)	8xØ18 (0.71)	3.50 (7.72)
80	200 (7.87)	20 (0.79)	160 (6.30)	138 (5.43)	8xØ18 (0.71)	4.50 (9.92)
100	220 (8.66)	20 (0.79)	180 (7.09)	158 (6.22)	8xØ18 (0.71)	5.50 (12.13)
125	250 (9.84)	22 (0.87)	210 (8.27)	188 (7.40)	8xØ18 (0.71)	8.00 (17.64)
150	285 (11.2)	22 (0.87)	240 (9.45)	212 (8.35)	8xØ22 (0.87)	10.5 (23.15)
200	340 (13.4)	24 (0.94)	295 (11.6)	268 (10.6)	12xØ22 (0.87)	16.5 (36.38)
250	405 (15.9)	26 (1.02)	355 (14.0)	320 (12.6)	12xØ26 (1.02)	25.0 (55.13)
300	460 (18.1)	28 (1.10)	410 (16.1)	378 (14.9)	12xØ26 (1.02)	35.0 (77.18)

PN25

DN	D	b	K	d	L	approx. kg (lbs)
25	115 (4.53)	18 (0.71)	85 (3.35)	68 (2.68)	4xØ14 (0.55)	1.50 (3.31)
32	140 (5.51)	18 (0.71)	100 (3.94)	78 (3.07)	4xØ18 (0.71)	2.00 (4.41)
40	150 (5.91)	18 (0.71)	110 (4.33)	88 (3.46)	4xØ18 (0.71)	2.50 (5.51)
50	165 (6.50)	20 (0.79)	125 (4.92)	102 (4.02)	4xØ18 (0.71)	3.00 (6.62)
65	185 (7.28)	22 (0.87)	145 (5.71)	122 (4.80)	8xØ18 (0.71)	4.50 (9.92)
80	200 (7.87)	24 (0.94)	160 (6.30)	138 (5.43)	8xØ18 (0.71)	5.50 (12.13)
100	235 (9.25)	24 (0.94)	190 (7.48)	162 (6.38)	8xØ22 (0.87)	7.50 (16.54)
125	270 (10.6)	26 (1.02)	220 (8.66)	188 (7.40)	8xØ26 (1.02)	11.0 (24.26)
150	300 (11.8)	28 (1.10)	250 (9.84)	218 (8.58)	8xØ26 (1.02)	14.5 (31.97)
200	360 (14.2)	30 (1.18)	310 (12.2)	278 (10.9)	12xØ26 (1.02)	22.5 (49.61)
250	425 (16.7)	32 (1.26)	370 (14.6)	335 (13.2)	12xØ30 (1.18)	33.5 (73.9)
300	485 (19.1)	34 (1.34)	430 (16.9)	395 (15.6)	16xØ30 (1.18)	46.5 (102.5)

PN40

DN	D	b	K	d	L	approx. kg (lbs)
25	115 (4.53)	18 (0.71)	85 (3.35)	68 (2.68)	4xØ14 (0.55)	1.50 (3.31)
32	140 (5.51)	18 (0.71)	100 (3.94)	78 (3.07)	4xØ18 (0.71)	2.00 (4.41)
40	150 (5.91)	18 (0.71)	110 (4.33)	88 (3.46)	4xØ18 (0.71)	2.50 (5.51)
50	165 (6.50)	20 (0.79)	125 (4.92)	102 (4.02)	4xØ18 (0.71)	3.00 (6.62)
65	185 (7.28)	22 (0.87)	145 (5.71)	122 (4.80)	8xØ18 (0.71)	4.50 (9.92)
80	200 (7.87)	24 (0.94)	160 (6.30)	138 (5.43)	8xØ18 (0.71)	5.50 (12.13)
100	235 (9.25)	24 (0.94)	190 (7.48)	162 (6.38)	8xØ22 (0.87)	7.50 (16.54)
125	270 (10.6)	26 (1.02)	220 (8.66)	188 (7.40)	8xØ26 (1.02)	11.0 (24.26)
150	300 (11.8)	28 (1.10)	250 (9.84)	218 (8.58)	8xØ26 (1.02)	14.5 (31.97)
200	375 (14.8)	36 (1.42)	320 (12.6)	285 (11.2)	12xØ30 (1.18)	29.0 (63.95)
250	450 (17.7)	38 (1.50)	385 (15.2)	345 (13.6)	12xØ33 (1.30)	44.5 (98.12)
300	515 (20.3)	42 (1.65)	450 (17.7)	410 (16.1)	16xØ33 (1.30)	64.0 (141.1)

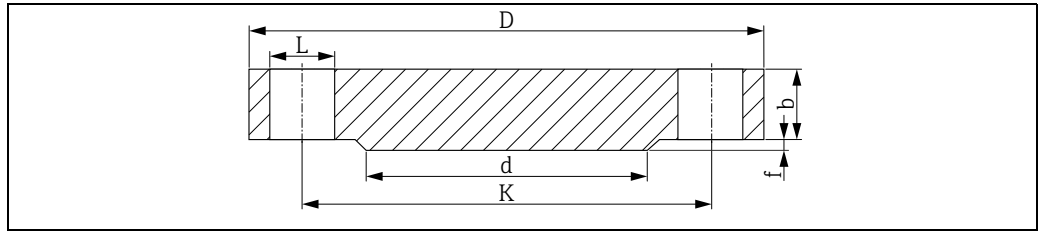
PN63

DN	D	b	K	d	L	approx. kg (lbs)
25	140 (5.51)	24 (0.94)	100 (3.94)	68 (2.68)	4xØ18 (0.71)	2.50 (5.51)
32	155 (6.10)	24 (0.94)	110 (4.33)	78 (3.07)	4xØ22 (0.87)	3.50 (7.72)
40	170 (6.69)	26 (1.02)	125 (4.92)	88 (3.46)	4xØ22 (0.87)	4.50 (9.92)
50	180 (7.09)	26 (1.02)	135 (5.31)	102 (4.02)	4xØ22 (0.87)	5.00 (11.03)
65	205 (8.07)	26 (1.02)	160 (6.30)	122 (4.80)	8xØ22 (0.87)	6.00 (13.23)
80	215 (8.46)	28 (1.10)	170 (6.69)	138 (5.43)	8xØ22 (0.87)	7.50 (16.54)
100	250 (9.84)	30 (1.18)	200 (7.87)	162 (6.38)	8xØ26 (1.02)	10.5 (23.15)
125	295 (11.6)	34 (1.34)	240 (9.45)	188 (7.40)	8xØ30 (1.18)	16.5 (36.38)
150	345 (13.6)	36 (1.42)	280 (11.0)	218 (8.58)	8xØ33 (1.30)	24.5 (54.02)
200	415 (16.3)	42 (1.65)	345 (13.6)	285 (11.2)	12xØ36 (1.42)	40.5 (89.3)
250	470 (18.5)	46 (1.81)	400 (15.7)	345 (13.6)	12xØ36 (1.42)	58.0 (127.9)
300	530 (20.9)	52 (2.05)	460 (18.1)	410 (16.1)	16xØ36 (1.42)	83.5 (184.1)

PN100

DN	D	b	K	d	L	approx. kg (lbs)
25	140 (5.51)	24 (0.94)	100 (3.94)	68 (2.68)	4xØ18 (0.71)	2.50 (5.51)
32	155 (6.10)	24 (0.94)	110 (4.33)	78 (3.07)	4xØ22 (0.87)	3.50 (7.72)
40	170 (6.69)	26 (1.02)	125 (4.92)	88 (3.46)	4xØ22 (0.87)	4.50 (9.92)
50	195 (7.68)	28 (1.10)	145 (5.71)	102 (4.02)	4xØ26 (1.02)	6.00 (13.23)
65	220 (8.66)	30 (1.18)	170 (6.69)	122 (4.80)	8xØ26 (1.02)	8.00 (17.64)
80	230 (9.06)	32 (1.26)	180 (7.09)	138 (5.43)	8xØ26 (1.02)	9.50 (20.95)
100	265 (10.4)	36 (1.42)	210 (8.27)	162 (6.38)	8xØ30 (1.18)	14.0 (30.87)
125	315 (12.4)	40 (1.57)	250 (9.84)	188 (7.40)	8xØ33 (1.30)	22.5 (49.61)
150	355 (14.0)	44 (1.73)	290 (11.4)	218 (8.58)	12xØ33 (1.30)	30.5 (67.25)
200	430 (16.9)	52 (2.05)	360 (14.2)	285 (11.2)	12xØ36 (1.42)	54.5 (120.2)
250	505 (19.9)	60 (2.36)	430 (16.9)	345 (13.6)	12xØ39 (1.54)	87.5 (192.9)
300	585 (23.0)	68 (2.68)	500 (19.7)	410 (16.1)	16xØ42 (1.65)	131.5 (289.9)

ASME flanges (ASME B16.5)



A0029175

(Raised face RF)

- L* Hole diameter
d Diameter of raised face
K Pitch circle diameter
D Flange diameter
b Total flange thickness
f Raised face height Class 150/300: 1.6 mm (0.06 in) or
 from Class 600: 6.4 mm (0.25 in)



The surface finish of the sealing surface is $Ra \leq 3.2 - 6.3 \mu\text{m}$ ($Ra \leq 126 - 248 \mu\text{in}$).

Class 150

The dimensions in the following tables are in mm (in), unless otherwise specified.

NPS (Nominal pipe size)	D	b	K	d	L	approx. kg (lbs)
1"	108.0 (4.25)	14.2 (0.56)	79.2 (3.12)	50.8 (2.00)	4xØ15.7 (0.62)	0.86 (1.9)
1¼"	117.3 (4.62)	15.7 (0.62)	88.9 (3.50)	63.5 (2.50)	4xØ15.7 (0.62)	1.17 (2.58)
1½"	127.0 (5.00)	17.5 (0.69)	98.6 (3.88)	73.2 (2.88)	4xØ15.7 (0.62)	1.53 (3.37)
2"	152.4 (6.00)	19.1 (0.75)	120.7 (4.75)	91.9 (3.62)	4xØ19.1 (0.75)	2.42 (5.34)
2½"	177.8 (7.00)	22.4 (0.88)	139.7 (5.50)	104.6 (4.12)	4xØ19.1 (0.75)	3.94 (8.69)
3"	190.5 (7.50)	23.9 (0.94)	152.4 (6.00)	127.0 (5.00)	4xØ19.1 (0.75)	4.93 (10.87)
3½"	215.9 (8.50)	23.9 (0.94)	177.8 (7.00)	139.7 (5.50)	8xØ19.1 (0.75)	6.17 (13.60)
4"	228.6 (9.00)	23.9 (0.94)	190.5 (7.50)	157.2 (6.19)	8xØ19.1 (0.75)	7.00 (15.44)
5"	254.0 (10.0)	23.9 (0.94)	215.9 (8.50)	185.7 (7.31)	8xØ22.4 (0.88)	8.63 (19.03)
6"	279.4 (11.0)	25.4 (1.00)	241.3 (9.50)	215.9 (8.50)	8xØ22.4 (0.88)	11.3 (24.92)
8"	342.9 (13.5)	28.4 (1.12)	298.5 (11.8)	269.7 (10.6)	8xØ22.4 (0.88)	19.6 (43.22)
10"	406.4 (16.0)	30.2 (1.19)	362.0 (14.3)	323.8 (12.7)	12xØ25.4 (1.00)	28.8 (63.50)

Class 300

NPS (Nominal pipe size)	D	b	K	d	L	approx. kg (lbs)
1"	124.0 (4.88)	17.5 (0.69)	88.9 (3.50)	50.8 (2.00)	4xØ19.1 (0.75)	1.39 (3.06)
1¼"	133.4 (5.25)	19.1 (0.75)	98.6 (3.88)	63.5 (2.50)	4xØ19.1 (0.75)	1.79 (3.95)
1½"	155.4 (6.12)	20.6 (0.81)	114.3 (4.50)	73.2 (2.88)	4xØ22.4 (0.88)	2.66 (5.87)
2"	165.1 (6.50)	22.4 (0.88)	127.0 (5.00)	91.9 (3.62)	8xØ19.1 (0.75)	3.18 (7.01)
2½"	190.5 (7.50)	25.4 (1.00)	149.4 (5.88)	104.6 (4.12)	8xØ22.4 (0.88)	4.85 (10.69)
3"	209.5 (8.25)	28.4 (1.12)	168.1 (6.62)	127.0 (5.00)	8xØ22.4 (0.88)	6.81 (15.02)
3½"	228.6 (9.00)	30.2 (1.19)	184.2 (7.25)	139.7 (5.50)	8xØ22.4 (0.88)	8.71 (19.21)
4"	254.0 (10.0)	31.8 (1.25)	200.2 (7.88)	157.2 (6.19)	8xØ22.4 (0.88)	11.5 (25.36)
5"	279.4 (11.0)	35.1 (1.38)	235.0 (9.25)	185.7 (7.31)	8xØ22.4 (0.88)	15.6 (34.4)
6"	317.5 (12.5)	36.6 (1.44)	269.7 (10.6)	215.9 (8.50)	12xØ22.4 (0.88)	20.9 (46.08)
8"	381.0 (15.0)	41.1 (1.62)	330.2 (13.0)	269.7 (10.6)	12xØ25.4 (1.00)	34.3 (75.63)
10"	444.5 (17.5)	47.8 (1.88)	387.4 (15.3)	323.8 (12.7)	16xØ28.4 (1.12)	53.3 (117.5)

Class 600

NPS (Nominal pipe size)	D	b	K	d	L	approx. kg (lbs)
1"	124.0 (4.88)	17.5 (0.69)	88.9 (3.50)	50.8 (2.00)	4xØ19.1 (0.75)	1.60 (3.53)
1¼"	133.4 (5.25)	20.6 (0.81)	98.6 (3.88)	63.5 (2.50)	4xØ19.1 (0.75)	2.23 (4.92)
1½"	155.4 (6.12)	22.4 (0.88)	114.3 (4.50)	73.2 (2.88)	4xØ22.4 (0.88)	3.25 (7.17)
2"	165.1 (6.50)	25.4 (1.00)	127.0 (5.00)	91.9 (3.62)	8xØ19.1 (0.75)	4.15 (9.15)
2½"	190.5 (7.50)	28.4 (1.12)	149.4 (5.88)	104.6 (4.12)	8xØ22.4 (0.88)	6.13 (13.52)
3"	209.5 (8.25)	31.8 (1.25)	168.1 (6.62)	127.0 (5.00)	8xØ22.4 (0.88)	8.44 (18.61)
3½"	228.6 (9.00)	35.1 (1.38)	184.2 (7.25)	139.7 (5.50)	8xØ25.4 (1.00)	11.0 (24.26)
4"	273.1 (10.8)	38.1 (1.50)	215.9 (8.50)	157.2 (6.19)	8xØ25.4 (1.00)	17.3 (38.15)
5"	330.2 (13.00)	44.5 (1.75)	266.7 (10.5)	185.7 (7.31)	8xØ28.4 (1.12)	29.4 (64.83)
6"	355.6 (14.00)	47.8 (1.88)	292.1 (11.5)	215.9 (8.50)	12xØ28.4 (1.12)	36.1 (79.6)
8"	419.1 (16.50)	55.6 (2.19)	349.3 (13.8)	269.7 (10.6)	12xØ31.8 (1.25)	58.9 (129.9)
10"	508.0 (20.00)	63.5 (2.50)	431.8 (17.0)	323.8 (12.7)	16xØ35.1 (1.38)	97.5 (214.9)

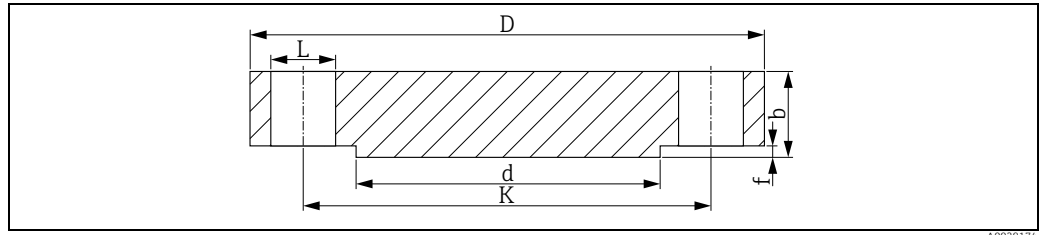
Class 900

NPS (Nominal pipe size)	D	b	K	d	L	approx. kg (lbs)
1"	149.4 (5.88)	28.4 (1.12)	101.6 (4.00)	50.8 (2.00)	4xØ25.4 (1.00)	3.57 (7.87)
1¼"	158.8 (6.25)	28.4 (1.12)	111.3 (4.38)	63.5 (2.50)	4xØ25.4 (1.00)	4.14 (9.13)
1½"	177.8 (7.00)	31.8 (1.25)	124.0 (4.88)	73.2 (2.88)	4xØ28.4 (1.12)	5.75 (12.68)
2"	215.9 (8.50)	38.1 (1.50)	165.1 (6.50)	91.9 (3.62)	8xØ25.4 (1.00)	10.1 (22.27)
2½"	244.4 (9.62)	41.1 (1.62)	190.5 (7.50)	104.6 (4.12)	8xØ28.4 (1.12)	14.0 (30.87)
3"	241.3 (9.50)	38.1 (1.50)	190.5 (7.50)	127.0 (5.00)	8xØ25.4 (1.00)	13.1 (28.89)
4"	292.1 (11.50)	44.5 (1.75)	235.0 (9.25)	157.2 (6.19)	8xØ31.8 (1.25)	26.9 (59.31)
5"	349.3 (13.8)	50.8 (2.00)	279.4 (11.0)	185.7 (7.31)	8xØ35.1 (1.38)	36.5 (80.48)
6"	381.0 (15.00)	55.6 (2.19)	317.5 (12.5)	215.9 (8.50)	12xØ31.8 (1.25)	47.4 (104.5)
8"	469.9 (18.50)	63.5 (2.50)	393.7 (15.5)	269.7 (10.6)	12xØ38.1 (1.50)	82.5 (181.9)
10"	546.1 (21.50)	69.9 (2.75)	469.9 (18.5)	323.8 (12.7)	16xØ38.1 (1.50)	122 (269.0)

Class 1500

NPS (Nominal pipe size)	D	b	K	d	L	approx. kg (lbs)
1"	149.4 (5.88)	28.4 (1.12)	101.6 (4.00)	50.8 (2.00)	4xØ25.4 (1.00)	3.57 (7.87)
1¼"	158.8 (6.25)	28.4 (1.12)	111.3 (4.38)	63.5 (2.50)	4xØ25.4 (1.00)	4.14 (9.13)
1½"	177.8 (7.00)	31.8 (1.25)	124.0 (4.88)	73.2 (2.88)	4xØ28.4 (1.12)	5.75 (12.68)
2"	215.9 (8.50)	38.1 (1.50)	165.1 (6.50)	91.9 (3.62)	8xØ25.4 (1.00)	10.1 (22.27)
2½"	244.4 (9.62)	41.1 (1.62)	190.5 (7.50)	104.6 (4.12)	8xØ28.4 (1.12)	14.0 (30.87)
3"	266.7 (10.50)	47.8 (1.88)	203.2 (8.00)	127.0 (5.00)	8xØ31.8 (1.25)	19.1 (42.12)
4"	311.2 (12.3)	53.8 (2.12)	241.3 (9.50)	157.2 (6.19)	8xØ35.1 (1.38)	29.9 (65.93)
5"	374.7 (14.8)	73.2 (2.88)	292.1 (11.5)	185.7 (7.31)	8xØ41.1 (1.62)	58.4 (128.8)
6"	393.7 (15.50)	82.6 (3.25)	317.5 (12.5)	215.9 (8.50)	12xØ38.1 (1.50)	71.8 (158.3)
8"	482.6 (19.00)	91.9 (3.62)	393.7 (15.5)	269.7 (10.6)	12xØ44.5 (1.75)	122 (269.0)
10"	584.2 (23.00)	108.0 (4.25)	482.6 (19.0)	323.8 (12.7)	12xØ50.8 (2.00)	210 (463.0)

JIS flanges (B 2220)



A0029174

(Raised face RF)

L Hole diameter

d Diameter of raised face

K Pitch circle diameter

D Flange diameter

b Total flange thickness

f Raised face height (generally 2 mm (0.08 in))

The surface finish of the sealing surface is $Ra \leq 3.2 - 6.3 \mu m$ ($Ra \leq 126 - 248 \mu in$).

10 K

The dimensions in the following tables are in mm (in), unless otherwise specified.

DN	D	b	K	d	L
25	125 (4.92)	14 (0.55)	90 (3.54)	67 (2.64)	4xØ19 (0.75)
32	135 (5.31)	16 (0.63)	100 (3.94)	76 (2.99)	4xØ19 (0.75)
40	140 (5.51)	16 (0.63)	105 (4.13)	81 (3.19)	4xØ19 (0.75)
50	155 (6.10)	16 (0.63)	120 (4.72)	96 (3.78)	4xØ19 (0.75)
65	175 (6.89)	18 (0.71)	140 (5.51)	116 (4.57)	4xØ19 (0.75)
80	185 (7.28)	18 (0.71)	150 (5.91)	126 (4.96)	8xØ19 (0.75)
100	210 (8.27)	18 (0.71)	175 (6.89)	151 (5.94)	8xØ19 (0.75)
125	250 (9.84)	20 (0.79)	210 (8.27)	182 (7.17)	8xØ23 (0.91)
150	280 (11.0)	22 (0.87)	240 (9.45)	212 (8.35)	8xØ23 (0.91)
200	330 (13.0)	22 (0.87)	290 (11.4)	262 (10.3)	12xØ23 (0.91)
250	400 (15.7)	24 (0.94)	355 (14.0)	324 (12.8)	12xØ25 (0.98)
300	445 (17.5)	24 (0.94)	400 (15.7)	368 (14.5)	16xØ25 (0.98)

20 K

DN	D	b	K	d	L
25	125 (4.92)	16 (0.63)	90 (3.54)	67 (2.64)	4xØ19 (0.75)
32	135 (5.31)	18 (0.71)	100 (3.94)	76 (2.99)	4xØ19 (0.75)
40	140 (5.51)	18 (0.71)	105 (4.13)	81 (3.19)	4xØ19 (0.75)
50	155 (6.10)	18 (0.71)	120 (4.72)	96 (3.78)	8xØ19 (0.75)
65	175 (6.89)	20 (0.79)	140 (5.51)	116 (4.57)	8xØ19 (0.75)
80	200 (7.87)	22 (0.87)	160 (6.30)	132 (5.20)	8xØ23 (0.91)
100	225 (8.86)	24 (0.94)	185 (7.28)	160 (6.30)	8xØ23 (0.91)
125	270 (10.6)	26 (1.02)	225 (8.86)	195 (7.68)	8xØ25 (0.98)
150	305 (12.0)	28 (1.10)	260 (10.2)	230 (9.06)	12xØ25 (0.98)
200	350 (13.8)	30 (1.18)	305 (12.0)	275 (10.8)	12xØ25 (0.98)
250	430 (16.9)	34 (1.34)	380 (15.0)	345 (13.6)	12xØ27 (1.06)
300	480 (18.9)	36 (1.42)	430 (16.9)	395 (15.6)	16xØ27 (1.06)

63 K

DN	D	b	K	d	L
25	140 (5.51)	27 (1.06)	100 (3.94)	70 (2.76)	4xØ23 (0.91)
32	150 (5.91)	30 (1.18)	110 (4.33)	80 (3.15)	4xØ23 (0.91)
40	175 (6.89)	32 (1.26)	130 (5.12)	90 (3.54)	4xØ25 (0.98)
50	185 (7.28)	34 (1.34)	145 (5.71)	105 (4.13)	8xØ23 (0.91)
65	220 (8.66)	38 (1.50)	175 (6.89)	130 (5.12)	8xØ25 (0.98)
80	230 (9.06)	40 (1.57)	185 (7.28)	140 (5.51)	8xØ25 (0.98)
100	270 (10.6)	44 (1.73)	220 (8.66)	165 (6.50)	8xØ27 (1.06)
125	325 (12.8)	50 (1.97)	265 (10.4)	200 (7.87)	8xØ33 (1.30)
150	365 (14.4)	54 (2.13)	305 (12.0)	240 (9.45)	12xØ33 (1.30)
200	425 (16.7)	60 (2.36)	360 (14.2)	290 (11.4)	12xØ33 (1.30)
250	500 (19.7)	68 (2.68)	430 (16.9)	355 (14.0)	12xØ39 (1.54)
300	560 (22.0)	77 (3.03)	485 (19.1)	410 (16.1)	16xØ39 (1.54)

Pressure-temperature dependency

EN flanges¹⁾

Temperature range	Nominal pressure bar (psi)				
	PN16	PN25	PN40	PN63	PN100
–10 °C to +50 °C (+14 °F to +122 °F)	16.0 (232)	25.0 (362)	40.0 (580)	63.0 (913)	100.0 (1450)
50 °C (122 °F)	15.5 (225)	24.3 (352)	38.9 (564)	61.3 (889)	97.3 (1411)
100 °C (212 °F)	15.1 (219)	23.6 (342)	37.9 (550)	59.7 (866)	94.7 (1373)
150 °C (302 °F)	13.7 (199)	21.5 (312)	34.4 (499)	54.3 (787)	86.1 (1248)
200 °C (392 °F)	12.7 (184)	19.8 (287)	31.8 (461)	50.1 (726)	79.5 (1153)
250 °C (482 °F)	11.9 (173)	18.6 (270)	29.9 (434)	47.1 (683)	74.7 (1083)
300 °C (572 °F)	11.0 (159)	17.2 (249)	27.6 (400)	43.5 (631)	69.0 (1000)
350 °C (662 °F)	10.5 (152)	16.5 (239)	26.4 (383)	41.7 (605)	66.1 (958)
400 °C (752 °F)	10.2 (148)	16.0 (232)	25.7 (373)	40.1 (580)	64.2 (931)

ASME flanges¹⁾

Temperature range	Nominal pressure bar (psi)				
	Class 150	Class 300	Class 600	Class 900	Class 1500
–29 °C to +38 °C (–20 °F to +100 °F)	19.0 (275)	49.6 (719)	99.3 (1440)	148.9 (2159)	248.2 (3599)
50 °C (122 °F)	18.4 (267)	48.1 (697)	96.2 (1395)	144.3 (2092)	240.6 (3489)
100 °C (212 °F)	16.2 (235)	42.2 (612)	84.4 (1224)	126.6 (1836)	211.0 (3059)
150 °C (302 °F)	14.8 (215)	38.5 (558)	77.0 (1116)	115.5 (1675)	192.5 (2791)
200 °C (392 °F)	13.7 (199)	35.7 (518)	71.3 (1034)	107.0 (1551)	178.3 (2588)
250 °C (482 °F)	12.1 (175)	33.4 (484)	66.8 (969)	100.1 (1451)	166.9 (2420)
300 °C (572 °F)	10.2 (148)	31.6 (458)	63.2 (916)	94.9 (1376)	158.1 (2292)
325 °C (617 °F)	9.3 (135)	30.9 (448)	61.8 (896)	92.7 (1344)	154.4 (2239)
350 °C (662 °F)	8.4 (122)	30.3 (439)	60.7 (880)	91.0 (1319)	151.6 (2189)
375 °C (707 °F)	7.4 (107)	29.9 (434)	59.8 (867)	89.6 (1299)	149.4 (2166)
400 °C (752 °F)	6.5 (94)	29.4 (426)	58.9 (854)	88.3 (1280)	147.2 (2134)

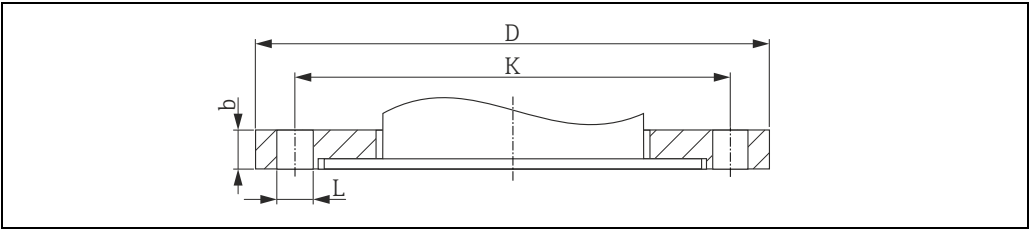
JIS flanges¹⁾

Temperature range	Nominal pressure bar (psi)			
	10 K	20 K		
	for all flanges	to DN 125	from DN 150 to DN 250	DN 300
up to 120 °C (248 °F)	14 (203.0)	34 (493.0)	20 (290.0)	20 (290.0)
220 °C (428 °F)	12 (174.0)	31 (449.5)	20 (290.0)	-
300 °C (572 °F)	10 (145.0)	29 (420.5)	19 (275.5)	-
350 °C (662 °F)	-	26 (377.0)	17 (246.5)	-
400 °C (752 °F)	-	23 (333.5)	17 (246.5)	-
425 °C (797 °F)	-	20 (290.0)	17 (246.5)	-

1) With regard to their stability-temperature property, the materials 1.4404 and 1.4435 are grouped together under 13E0 in DIN EN 1092-1 Tab.18 and under 023b in JIS B2220:Tab. 5. The ASME flanges are dual rated flanges (316/316L) and classified under Tab. 2-2.2 in ASME B16.5.

Slip-on flange FAU80

A slip-on flange can be flush mounted on a sensor (FDU91F, FDU80F, FDU81F). Flanges in polypropylene (PP) should only be used with pressures up to 1.5 bar_{abs} (22 psi), flanges in 316L also above.



Slip-on flange
D Flange diameter
K Pitch circle diameter
b Overall flange thickness
L Hole diameter

FAU80 version with slip-on flange

Ordering information

010	Process connection	
	AA	3" 150 lbs FF, flange ANSI B16.5
	AH	4" 150 lbs FF, flange ANSI B16.5
	CA	DN 80 PN16 A, flange EN 1092-1
	CH	DN 100 PN16 A, flange EN 1092-1
	KA	10K 80A FF, flange JIS B2220
	KH	10K 100A FF, flange JIS B2220
	YY	Special version, to be specified
020	Flange material	
	J	316L
	P	PPs, max. 1.5 bar abs
	Y	Special version, to be specified

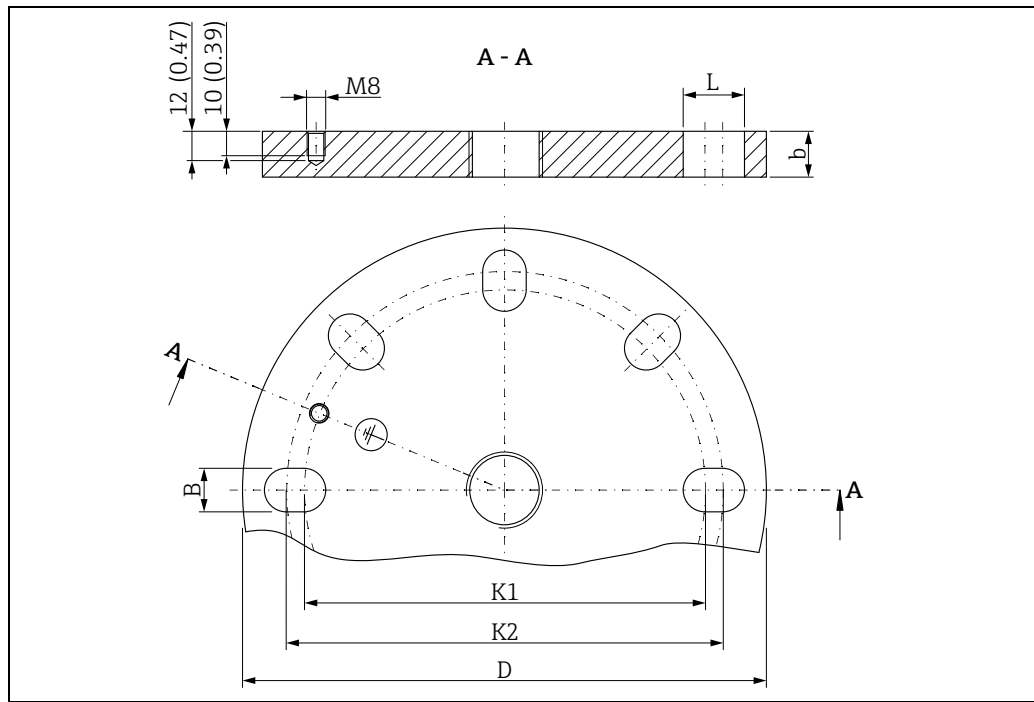
The options entered make up the order code:

	010	020
FAU80-		

FAX50 screw-in flange

The FAX50 screw-in flange is a universal flange which can be used for all three standards (DIN - ASME - JIS) owing to its min./max. dimensions.

FAX50 universal flange DIN - ASME - JIS



Dimensions in mm (in)

L Hole diameter
K1, K2 Pitch circle diameter
D Flange diameter
b Overall flange thickness
B Slotted hole (width)



M8 thread, 10 mm + 2 mm deep, centered between 2 holes
Is manufactured from steel or 316L for all FAX50 flanges and UNI flanges.

G 3/4, NPT 3/4

The dimensions in the following tables are in mm (in), unless otherwise specified.

DN	D	b	L	K1	K2	approx. kg (lbs)		
						PP	PVDF	316L
50	165 (6.50)	20 (0.79)	4xØ19 (0.75)	120 (4.72)	125 (4.92)	–	–	3.11 (6.86)
80	200 (7.87)		8xØ19 (0.75)	150 (5.91)	160 (6.30)	–	–	4.37 (9.64)
100	228.6 (9.0)		8xØ19 (0.75)	175 (6.89)	190.5 (7.5)	–	–	5.79 (12.77)

G 1, NPT 1

DN	D	b	L	K1	K2	approx. kg (lbs)		
						PP	PVDF	316L
80	200 (7.87)	20 (0.79)	8xØ19 (0.75)	150 (5.91)	160 (6.30)	0.50 (1.10)	0.97 (2.14)	4.34 (9.57)
100	228.6 (9.0)		8xØ19 (0.75)	175 (6.89)	190.5 (7.5)	0.66 (1.46)	1.29 (2.84)	5.75 (12.68)
150	285 (11.2)		8xØ23 (0.91)	240 (9.45)	241.3 (9.5)	1.09 (2.40)	2.12 (4.67)	9.44 (20.82)
200 ¹⁾	340 (13.4)		12xØ23 (0.91)	290 (11.4)	295 (11.6)	1.53 (3.37)	–	–
250	406.4 (16.0)		12xØ26 (1.02)	355 (14.0)	362 (14.3)	2.20 (4.85)	–	–

1) Only for DIN and JIS!

Exception: G 1

NPS (Nominal pipe size)	D	b	L	K1	K2	approx. kg (lbs)		
ASME						PP	PVDF	316L
8"	342.9 (13.5)	20 (0.79)	8xØ22.5 (0.89)	298.5 (11.8)	298.5 (11.8)	1.61 (3.55)	–	–

G 1½, NPT 1½

DN	D	b	L	K1	K2	approx. kg (lbs)		
						PP	PVDF	316L
50	165 (6.50)	20 (0.79)	4xØ19 (0.75)	120 (4.72)	125 (4.92)	0.34 (0.75)	0.67 (1.48)	2.97 (6.55)
80	200 (7.87)		8xØ19 (0.75)	150 (5.91)	160 (6.30)	0.49 (1.08)	0.95 (2.09)	4.24 (9.35)
100	228.6 (9.0)		8xØ19 (0.75)	175 (6.89)	190.5 (7.5)	0.65 (1.43)	1.27 (2.80)	5.65 (12.46)
150	285 (11.2)		8xØ23 (0.91)	240 (9.45)	241.3 (9.5)	1.08 (2.38)	2.09 (4.61)	9.34 (20.59)

G 2, NPT 2

DN	D	b	L	K1	K2	approx. kg (lbs)		
						PP	PVDF	316L
50	165 (6.50)	20 (0.79)	4xØ19 (0.75)	120 (4.72)	125 (4.92)	0.33 (0.73)	0.63 (1.39)	2.83 (6.24)
80	200 (7.87)		8xØ19 (0.75)	150 (5.91)	160 (6.30)	0.47 (1.04)	0.92 (2.03)	4.10 (9.04)
100	228.6 (9.0)		8xØ19 (0.75)	175 (6.89)	190.5 (7.5)	0.64 (1.41)	1.24 (2.73)	5.51 (12.15)
150	285 (11.2)		8xØ23 (0.91)	240 (9.45)	241.3 (9.5)	1.06 (2.34)	2.06 (4.54)	9.20 (20.29)



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