Level | Pressure | Flow | Temperature | Liquid Analysis | Registration | Systems Components | Services | Solutions

Technical Information

Weld-in adapter

Level and Pressure

Application
The weld-in adapters are used to connect level or pressure sensors to a vessel or a pipe.

Your benefits

- High-quality, corrosion resistant materials for use in aggressive media
- Versions without crevices and dead space according to international hygiene regulations
- A variety of seals for application in diverse processes

TI426F/00/EN/01.10
71108168

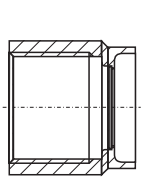
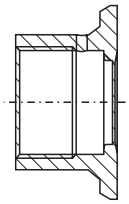
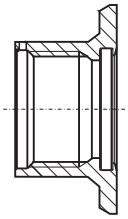
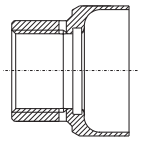
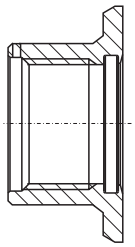
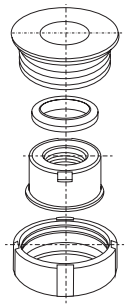
Endress+Hauser
People for Process Automation

Table of contents

Weld-in adapter - overview level

Note!
All dimensions are indicated in mm (in) unless otherwise noted.

Level measuring devices

	 a0008246	 a0008251	 a0008256	 a0011924	 a0008248	 a0008253
	G¾, d=29 without flange	**G¾, d=50 with flange**	**G¾, d=55 with flange**	**G1, d=53 without flange**	**G1, d=60 with flange**	**G1 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)	0.8 (31.5)	0.8 (31.5)	0.8 (31.5)	0.8 (31.5)
Without inspection certificate EN10204-3.1 material	–	–	52001052	–	52001051 [1]	52001221 [2]
With inspection certificate EN10204-3.1 material [3]	52028295	52018765	52011897	71093129 [1]	52011896 [1]	52011898 [2]
Seal (5 pieces) (One seal is included in scope of delivery.)	Silicone O-ring 52021717	Silicone O-ring 52021717	Silicone O-ring 52014473	Silicone O-ring 52014472	Silicone O-ring 52014472	Silicone profile gasket 52014424
Weld-in dummy	–	–	MVT2L0692	MVT2L0691	MVT2L0691	M40167

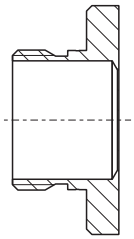
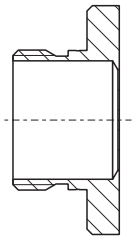
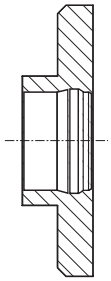
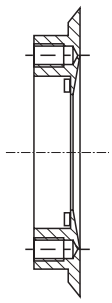
Device	**Feature**	**Version**					
Liquicap M							
FMI51	050		GQJ		GWJ	GWJ	
FMI52					GWJ	GWJ	
FTI51			GQJ		GWJ	GWJ	
FTI52					GWJ	GWJ	
Liquiphant T							
FTL20	020	1	1			7	7
FTL260						0	0
FTL20H		GDJ	GDJ			GEJ	GEJ
FTL330x						G	G
Liquiphant M							
FTL50	020			GQ2	GW2	GW2	GW2
FTL5x					GW2	GW2	GW2
FTL50H				GQ2	GW2	GW2	GW2
FTL5xH					GW2	GW2	GW2

1) Replace the weld-in adapter with order number 917969-1000.

2) Replace the weld-in adapter with order number 215159-0000.

3) AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2.

Level measuring devices (continued)

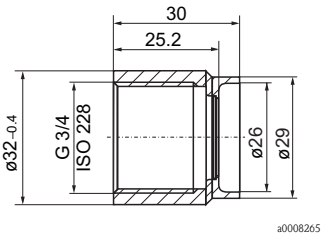
		 a0008252	 a0008245	 a0008245	 a0008552	 a0008254
		RD52	**Uni D85**	**Uni D65**	**M24 D65**	**DRD DN50 (65 mm/2.56 in) (weld-in flange)**
Material		316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435) 304 (1.4301)
Roughness µm (µin) process side		0.8 (31.5)	0.76 (29.9)	0.76 (29.9)	0.8 (31.5)	0.76 (29.9)
Without inspection certificate EN10204-3.1 material		52001047 [1]	52006262	214880-0002	71041381	52002041/ 916743-0000
With inspection certificate EN10204-3.1 material [2]		52006909 [1]	52010173	52010174	71041383	52011899/ –
Seal (5 pieces) (One seal is included in scope of delivery.)		Silicone profile gasket 52014424	Silicone profile gasket 52023572	Silicone profile gasket 52023572	–	PTFE flat seal 52024228
Weld-in dummy		M40167	71114210	71114210	–	71114209
Device	**Feature**	**Version**				
Liquicap M						
FMI5x	050		UPJ	UPJ		
FTI5x			UPJ	UPJ		
Liquiphant T						
FTL20H	020	UPJ				
FTL330x		F				
Liquiphant M						
FTL5xH	020	EE2				PE2
Levelflex M						
FMP41C	030		UPK/UQK	UPK/UQK		
FMP43	040				U1J	
Levelflex						
FMP53	100				U1J	

1) Replace the weld-in adapter with order number 942329-0001.

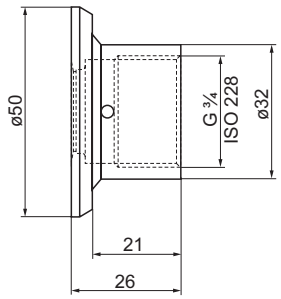
2) AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2.

Weld-in adapter and accessories - level

G¾, d=29 without flange

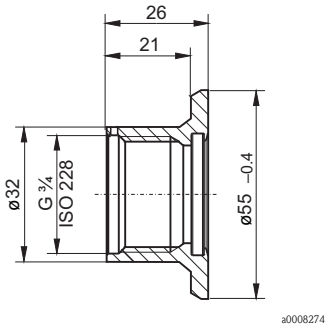
Dimensions (mm)	Version	Order number
 a0008265	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 1.5 µm (59.1 µin)	52028295
	Silicone O-ring, ∅ 14.9 x 2.7 mm (0.59 x 0.11 in) Material: VMQ75, FDA ■ For this version a simple replacement of the seal is possible.	52021717 (5 pieces)
■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	FDA approved materials according to 21 CFR Part 175-178 Certificate: EHEDG, 3A	
	Alternative seals	**Order number**
	∅ 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM, FDA	MVT2L1934 (5 pieces)
	∅ 15.08 x 2.62 mm (0.59 x 0.10 in) Material: Viton, FDA	MVT2L1942 (5 pieces)
	∅ 14.9 x 2.7mm (0.59 x 0.11 in) Material: Silicone, VMQ80, 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

G¾, d=50 with flange

Dimensions (mm)	Version	Order number
 a0008810	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52018765
	Silicone O-ring ∅ 14.9 x 2.7 mm (0.59 x 0.10 in) Material: VMQ75, FDA ■ For this version a simple replacement of the seal is possible.	52021717 (5 pieces)
■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	FDA approved materials according to 21 CFR Part 175-178 Certificate: EHEDG, 3A	
	Alternative seals	**Order number**
	∅ 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM, FDA	MVT2L1934 (5 pieces)
	∅ 15.08 x 2.62 mm (0.59 x 0.10 in) Material: Viton, FDA	MVT2L1942 (5 pieces)
	∅ 14.9 x 2.7 mm (0.59 x 0.11 in) Material: Silicone, VMQ80, 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

Level (continued)

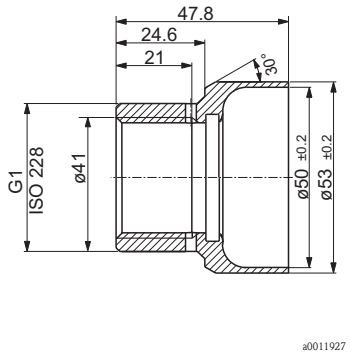
G¾, d=55 with flange for flush-mounted installation

Dimensions (mm)	Version	Order number
	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52001052
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52011897
	Silicone O-ring, ∅ 21.89 x 2.62 mm (0.86 x 0.1 in) Material: VMQ70, FDA	52014473 (5 pieces)
	Sensor dummy for welding the welding boss	MVT2L0692
	FDA approved materials according to 21 CFR Part 177.1550/2600 Certificate: EHEDG, 3A	
	Alternative seals ∅ 21.89 x 2.62 mm (0.86 x 0.10 in)	**Order number**
	Material: EPDM, FDA	MVT2L1148
	Material: Kalrez Comp. 2035	MVT2L0666
	Material: Viton	MVT2L0655
	Material: Viton/FEP-FEK 75 Shore	MVT2L1748
	Material: Silicone, VMQ23-70, FDA, USP Class VI	71086100 (3 pieces)

■ max. 25 bar (362 psi) / max. 150 °C (302 °F)

■ max. 40 bar (580 psi) / max. 100 °C (212 °F)

G1, d=53 without flange for pipe-mounting

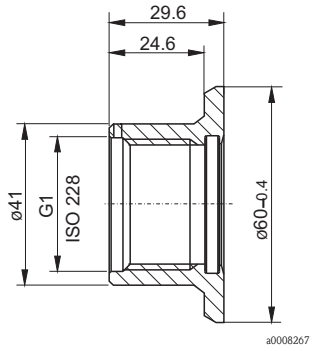
Dimensions (mm)	Version	Order number
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	71093129
	Silicone O-ring, ∅ 28.17 x 3.53 mm (1.11 x 0.14 in) Material: VMQ70, FDA	52014472 (5 pieces)
	Sensor dummy for welding the welding boss	MVT2L0691
	FDA approved materials according to 21 CFR Part 177.1550/2600 Certificate: EHEDG, 3A	
	Alternative seals ∅ 28.17 x 3.53 mm (1.11 x 0.14 in)	**Order number**
	Material: EPDM70, FDA	MVT2L0920
	Material: Viton665, FDA	MVT2L0705 (5 pieces)
	Material: Viton, FDA, USP Class VI, 3A	MVT2L1682
	Material: Kalrez comp. 4079	MVT2L0567
	Material: Silicone, VMQ23-70, FDA, USP Class VI	71086102 (3 pieces)

■ max. 25 bar (362 psi) / max. 150 °C (302 °F)

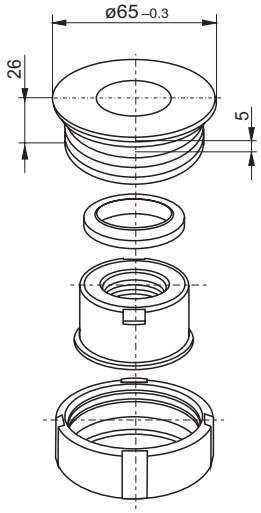
■ max. 40 bar (580 psi) / max. 100 °C (212 °F)

Level (continued)

G1, d=60
with flange
for flush-mounted installation
with sealing surface

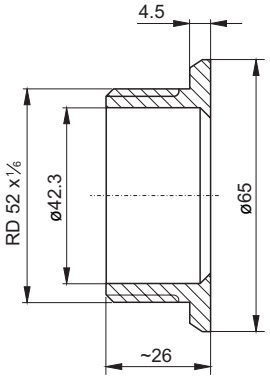
Dimensions (mm)	Version	Order number
 ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52001051
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52011896
	Silicone O-ring, ∅ 28.17 x 3.53 mm (1.11 x 0.14 in) Material: VMQ70, FDA	52014472 (5 pieces)
	Sensor dummy for welding the welding boss	MVT2L0691
	FDA approved materials according to 21 CFR Part 177.1550/2600 Certificate: EHEDG, 3A	
	Alternative seals ∅ 28.17 x 3.53 mm (1.11 x 0.14 in)	**Order number**
	Material: EPDM70, FDA	MVT2L0920
	Material: Viton665, FDA	MVT2L0705 (5 pieces)
	Werkstoff: Viton, FDA, USP Class VI, 3A	MVT2L1682
	Material: Kalrez comp. 4079	MVT2L0567
	Material: Silicone, VMQ23-70, FDA, USP Class VI	71086102 (3 pieces)

G1
sensor can be positioned

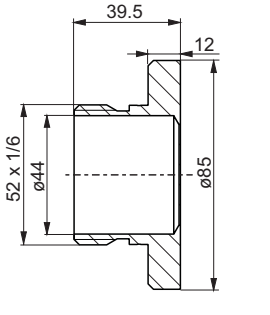
Dimensions (mm)	Version	Order number
 ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52001221
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52011898
	Silicone profile gasket 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in) Material: SI-60, FDA	52014424 (5 pieces)
	Sensor dummy for welding the welding boss	M40167
	FDA approved materials according to 21 CFR Part 177.1550/2600 Certificate: EHEDG, 3A	
	Alternative seals 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)	**Order number**
	Material: EPDM-60, FDA	52012805
	Material: Silicone, VMQ60, FDA, USP Class VI	71075662 (5 pieces)

Level (continued)

RD52
sensor can be positioned

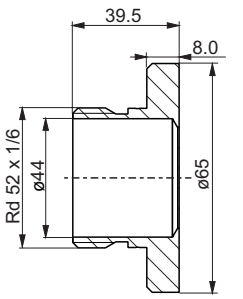
Dimensions (mm)	Version	Order number
 a0008271 ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52001047
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52006909
	Silicone profile gasket 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in) Material: SI-60, FDA ■ For this version a simple replacement of the seal is possible.	52014424 (5 pieces)
	Sensor dummy for welding the welding boss	M40167
	FDA approved materials according to 21 CFR Part 177.1550/2600	
	Alternative seals 29 x 36 x 3.7 mm (1.14 x 1.42 x 0.15 in)	**Order number**
	Material: EPDM-60, FDA	52012805
	Material: Silicone, VMQ60, FDA, USP Class VI	71075662 (5 pieces)

UNI D85
universal process connection

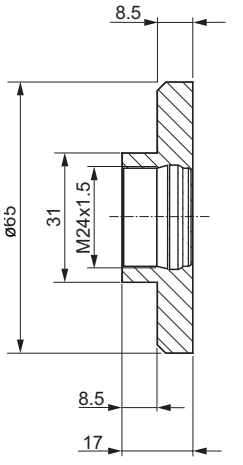
Dimensions (mm)	Version	Order number
 a0009985 ■ max. 16 bar (232 psi) / max. 150 °C (302 °F)	■ AISI 316L (1.4435) ∅ 85 mm (3.35 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52006262
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ∅ 85 mm (3.35 in) ■ Roughness (process side): Ra 0,76 µm (29.9 µin)	52010173
	Silicone profile gasket 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in) Material: SI-60, FDA, USP Class VI, 3A	52023572 (5 pieces)
	Sensor dummy for welding the welding boss	71114210
	FDA approved materials according to 21 CFR Part 177.1550/2600 Certificate: EHEDG, 3A	
	Alternative seals 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	**Order number**
	Profile gasket Material: EPDM-70, FDA, USP Class VI	71100719 (5 pieces)

Level (continued)

UNI D65
universal process connection

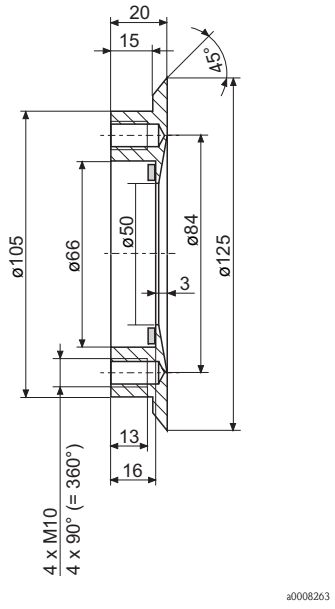
Dimensions (mm)	Version	Order number
 a0008264 ■ max. 16 bar (232 psi) / max. 150 °C (302 °F)	■ AISI 316L (1.4435) ∅ 65 mm (2.56 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	214880-0002
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ∅ 65 mm (2.56 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52010174
	Silicone profile gasket 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in) Material: SI-60, FDA, USP Class VI, 3A	52023572 (5 pieces)
	Sensor dummy for welding the welding boss	71114210
	FDA approved materials according to 21 CFR Part 177.1550/2600 Certificate: EHEDG, 3A	
	Alternative seals 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	**Order number**
	Profile gasket Material: EPDM-70, FDA, USP Class VI	71100719 (5 pieces)

M24 D65
universal process connection

Dimensions (mm)	Version	Order number
 a0008551 ■ max. 25 bar (362 psi) / max. 150 °C (302 °F)	■ AISI 316L (1.4435) ∅ 65 mm (2.56 in) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	71041381
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ∅ 65 mm (2.56 in) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	71041383

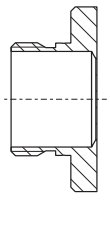
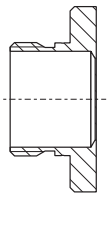
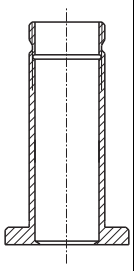
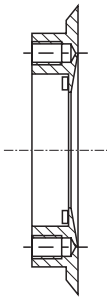
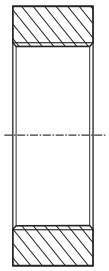
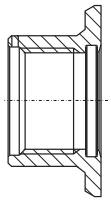
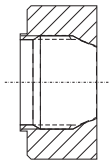
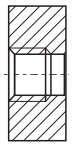
Level (continued)

DRD DN50
(65 mm (2.56 in))
for flush-mounted installation of devices with DRD-flange

Dimensions (mm)	Version	Order number
 ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F)	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52002041
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52011899
	■ AISI 304 (1.4301) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	916743-0000
	Flat seal 50 x 65 x 1 mm (1.97 x 2.56 x 0.04 in) Material: PTFE, FDA	52024228 (5 pieces)
	Pressure sensor dummy for welding the welding boss	71114209
	FDA approved materials according to 21 CFR Part 177.1550/2600	

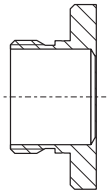
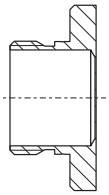
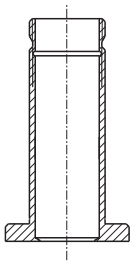
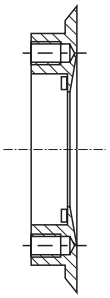
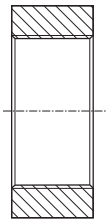
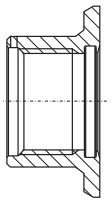
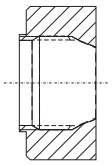
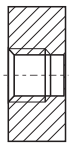
Weld-in adapter – overview pressure

Pressure measuring devices

		 a0008245	 a0008245	 a0012014	 a0008254	 a0008247	 a0008248	 a0008249	 a0008250
		Uni D85	**Uni D65**	**Uni 6" D85**	**DRD DN50 (65 mm/ 2.56 in) (weld-in flange)**	**G1½ flush-mounted**	**G1 d=60 with flange**	**G1 flush-mounted (sealing taper)**	**G½ flush-mounted**
Material		316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435) 304 (1.4301)	316L (1.4435)	316L (1.4435)	316L (1.4404)	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)	0.8 (31.5)	0.8 (31.5)	0.8 (31.5)
Without inspection certificate EN10204-3.1 Material		52006262	214880-0002	71114160	52002041/ 916743-0000	52024469	52001051	52005087	52002643
With inspection certificate EN10204-3.1 Material [1]		52010173	52010174	71114171	52011899/ –	52024470	52011896	52010171	52010172
Seal (5 pieces) (One seal is included in scope of delivery.)		Silicone profile gasket 52023572	Silicone profile gasket 52023572	Silicone profile gasket 52023572	PTFE flat seal 52024228	–	Silicone O-ring 52014472	–	–
Weld-in dummy		71114210	71114210	71114211	71114209	52024471	MVT2L0691	52005272	52005082
Device	**Feature**	**Version**							
Cerabar T									
PMP135	020						N	M	
Ceraphant T									
PTP35	070						BB	BA	
Cerabar M									
PMC45	070	HA	HA		KL	AG			
PMP41									1D
PMP45								CD	
PMP46					KL				
PMP48						AG			
PMC51	110				TIJ	GVJ			
PMP51						GVJ	GZJ	GXJ	GOJ
PMP55					TIJ				
PMC51	620	Q2/Q3	QT/QU		QP/QR	QJ/QK			
PMP51					QP/QR	QJ/QK		QE/QF	QA/QB
PMP55					QP/QR	QJ/QK			QA/QB

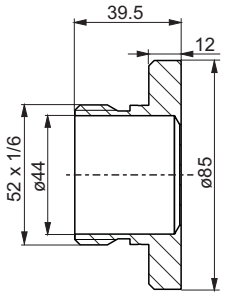
1) AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2.

Pressure measuring devices (continued)

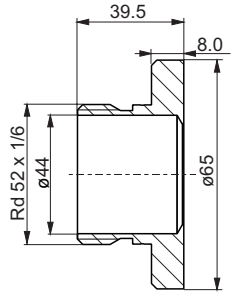
		 a0008245	 a0008245	 a0012014	 a0008254	 a0008247	 a0008248	 a0008249	 a0008250
		Uni D85	**Uni D65**	**Uni 6" D85**	**DRD DN50 (65 mm (2.56 in)) (weld-in flange)**	**G1½ flush-mounted**	**G1 d=60 with flange**	**G1 flush-mounted (sealing taper)**	**G½ flush-mounted**
Device	**Feature**	**Versions**							
Cerabar S									
PMC71	070				TK	1G/1H/1J			
PMP71						1G/1H			
PMP75					TK	1G/1H/1J			
Deltapilot M									
FMB50	620	Q2/Q3	QT/QU	Q5/Q6	QP/QR	QJ/QK			
FMB51						QJ/QK			
FMB52						QJ/QK			
Deltapilot S									
DB51	030					10/11			
DB52						10/11			
FMB70	070	00	00	57	TK	1G/1H			
Deltabar S									
FMD78	080				TK				

Weld-in adapter and accessories - pressure

UNI D85
universal process connection

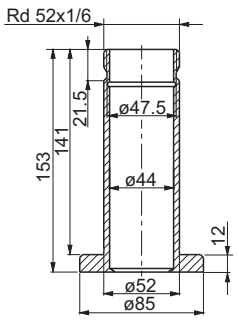
Dimensions (mm)	Version	Order number
 a0009985	■ AISI 316L (1.4435) ∅ 85 mm (3.35 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52006262
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ∅ 85 mm (3.35 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52010173
	Silicone profile gasket 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in) Material: SI-60, FDA, USP Class VI, 3A	52023572 (5 pieces)
	Pressure sensor dummy for welding the welding boss	71114210
	FDA approved materials according to 21 CFR Part 177.2600 Certificate: EHEDG, 3A	
	Alternative seals 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	**Order number**
	Profile gasket Material: EPDM-70, FDA, USP Class VI	71100719 (5 pieces)

UNI D65
universal process connection

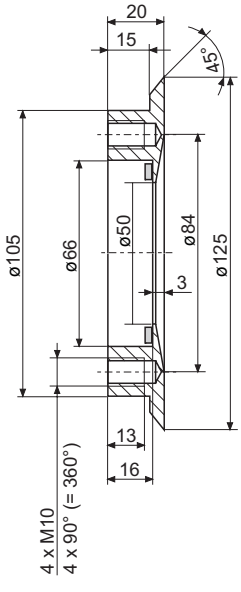
Dimensions (mm)	Version	Order number
 a0008264	■ AISI 316L (1.4435) ∅ 65 mm (2.56 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	214880-0002
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ∅ 65 mm (2.56 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52010174
	Silicone profile gasket 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in) Material: SI-60, FDA, USP Class VI, 3A	52023572 (5 pieces)
	Pressure sensor dummy for welding the welding boss	71114210
	FDA approved materials according to 21 CFR Part 177.2600 Certificate: EHEDG, 3A	
	Alternative seals 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	**Order number**
	Profile gasket Material: EPDM-70, FDA, USP Class VI	71100719 (5 pieces)

Pressure (continued)

UNI 6" D85
universal process connection

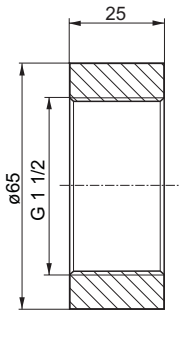
Dimensions (mm)	Version	Order number
 a0010030	■ AISI 316L (1.4435) ∅ 85 mm (3.35 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	71114160
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ∅ 85 mm (3.35 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	71114171
	Silicone profile gasket, 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in) Material: SI-60, FDA, USP Class VI, 3A	52023572 (5 pieces)
	Pressure sensor dummy for welding the welding boss	71114211
	FDA approved materials according to 21 CFR Part 177.2600	
	Alternative seals 34 x 41.5 x 6.4 mm (1.34 x 1.63 x 0.25 in)	**Order number**
	Profile gasket Material: EPDM-70, FDA, USP Class VI	71100719 (5 pieces)

DRD DN50
(65 mm (2.56 in))
for flush-mounted installation of devices with DRD-Flange

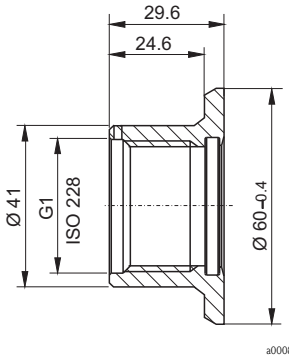
Dimensions (mm)	Version	Order number
 a0008263	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52002041
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.76 µm (29.9 µin)	52011899
	■ AISI 304 (1.4301) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	916743-0000
	Flat seal 50 x 65 x 1 mm (1.97 x 2.56 x 0.04 in) Material: PTFE, FDA	52024228 (5 pieces)
	Pressure sensor dummy for welding the welding boss	71114209
	FDA approved materials according to 21 CFR Part 177.1550	

Pressure (continued)

G1½
flush-mounted

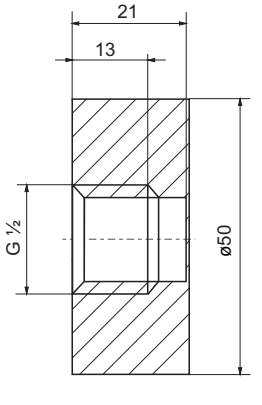
Dimensions (mm)	Version	Order number
	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52024469
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52024470
	Pressure sensor dummy for welding the welding boss	52024471

G1, d=60 with flange
for flush-mounted installation
with sealing surface

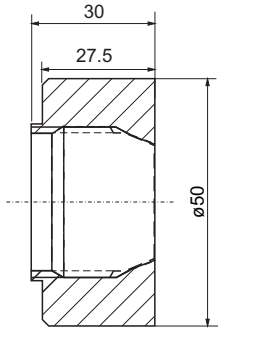
Dimensions (mm)	Version	Order number
	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52001051
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52011896
	Silicone O-ring, ∅ 28.17 x 3.53 mm (1.11 x 0.14 in) Material: VMQ70, FDA	52014472 (5 pieces)
	Pressure sensor dummy for welding the welding boss	MVT2L0691
	FDA approved materials according to 21 CFR Part 177.2600 Certificate: EHEDG, 3A	
	Alternative seals ∅ 28.17 x 3.53 mm (1.11 x 0.14 in)	**Order number**
	Material: EPDM70, FDA	MVT2L0920
	Material: Viton665, FDA	MVT2L0705 (5 pieces)
	Material: Viton, FDA, USP Class VI, 3A	MVT2L1682
	Material: Kalrez comp. 4079	MVT2L0567
	Material: Silicone, VMQ23-70, FDA, USP Class VI	71086102 (3 pieces)

Pressure (continued)

G½ flush-mounted

Dimensions (mm)	Version	Order number
	■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52002643
	■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52010172
	Pressure sensor dummy for welding the welding boss	52005082

G1 flush-mounted with metallic sealing taper

Dimensions (mm)	Version	Order number
	■ AISI 316L (1.4404) ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52005087
	■ AISI 316L (1.4404) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.8 µm (31.5 µin)	52010171
	Pressure sensor dummy for welding the welding boss	52005272

Welding hints

Preparation

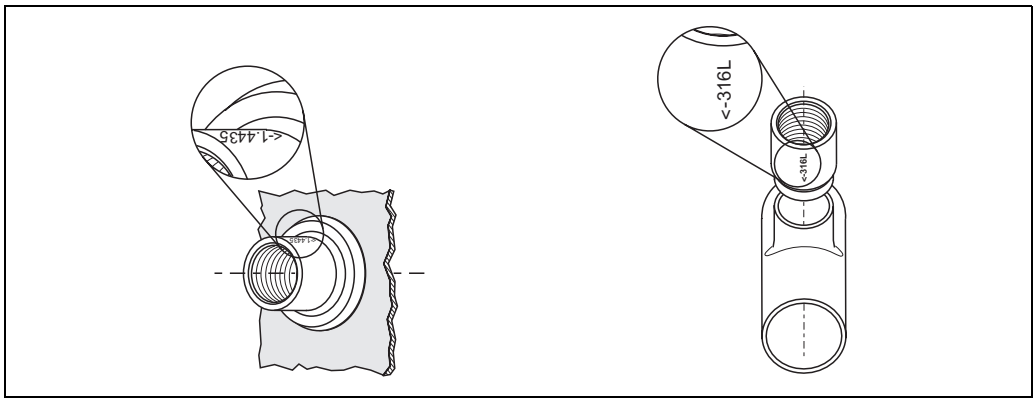
Drill a hole with the outer diameter of the welding adapter at the required position into the wall of the vessel or pipe (max. tolerance: +0.2 mm).

Note!
Before mounting a weld-in adapter for a pressure measuring device, please note the following:
- The maximum pressure resistance of a sensor is limited. Therefore, the welding must be performed very carefully if a weld-in adapter is applied for screwing-in a pressure measuring cell.
- In order to avoid deformations of the weld-in adapter during the welding it is essential to use the correct weld-in dummy for heat dissipation. Otherwise the tightness and pressure resistance can not be guaranteed after screwing in the sensor. The weld-in dummy prevents deformation of the weld-in adapter, which could cause leaks after the mounting of the sensor.

Caution!
Absolute care must be taken when welding stainless steel. The applied workpieces and tools must be rust-free. Also, no normal steel parts may be present in the vicinity.

Weld-in dummy

Slide the weld-in adapter with weld-in dummy into the hole and align it in a way as to ensure that the sensor will be positioned correctly; see "Install measuring device".

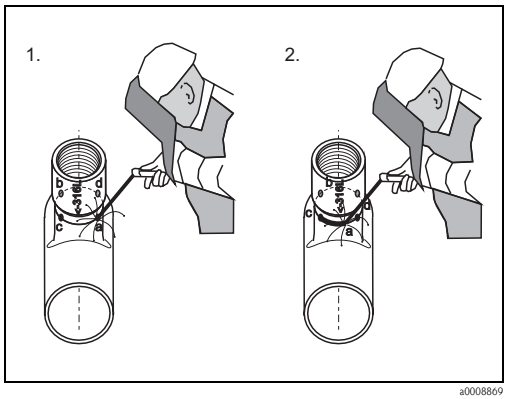


Note!
During the welding, the adapter should be protected against deformations by the weld-in dummy or by other means of cooling according to usual welding practice (e.g. water cooling).
With a suitable seal the weld-in dummy can also be used to flush-plug the process when starting-up the plant. Before doing so, make sure that the material of the dummy fits the process. If the weld-in adapter has a leakage hole, make sure that it is aligned downwards in such a way as to ensure that attrition or disintegration due to chemicals are immeadiately recognized through escaping medium.

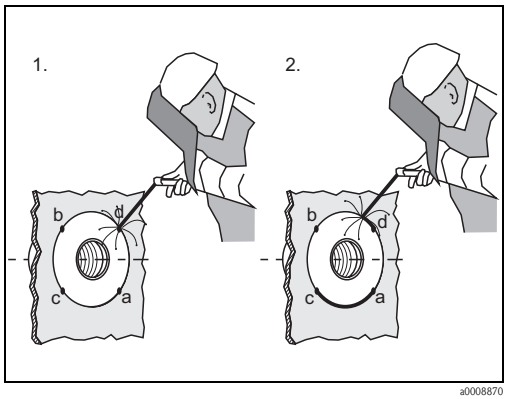
Welding procedure

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

- Pin the weld-in adapter with four or six welding spots to the vessel or tube (see the figures).



Welding of pipes



Welding of vessels

- Weld the segments between the spots in order to avoid deformations and leakages. After welding a segment always weld the opposite segment.
- After welding two segments stop the welding procedure until the workpiece is cooled down.
- Let the weld-in adapter cool down after the welding and remove the weld-in dummy.

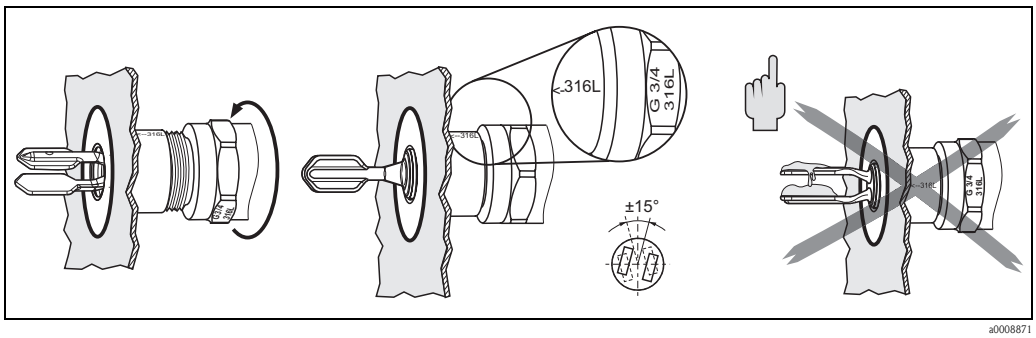
Note!
To obtain the desired surface roughness, the range of the welding seam must be polished.

Install measuring device

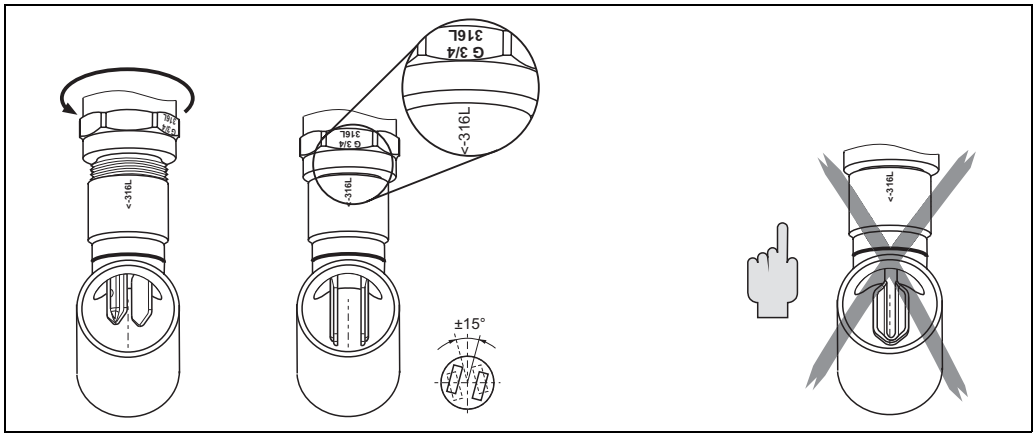
Level

Note!
When mounting a level measuring device (e.g. Liquiphant), observe the following:

- Align the fork according to the the mark in order to prevent later deposits.



- When mounted into pipes, the fork must be aligned in the direction of the flow according to the mark.



Pressure

Note!
When mounting a pressure sensor, observe the following:

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

Caution!
Do not touch or damage the diaphragm!

- Screw the pressure sensor firmly at the hexagonal nut. The threaded connection must be fastened fingertight. It is recommended to secure the threaded connection 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 the quality of the welding are crucial for pressure resistance. The complete length of the thread has to be used in order to ensure maximum pressure resistance.

Suitable for hygienic processes

Depending of device versions meet the requirements of 3A sanitary standard no. 74. Endress+Hauser confirms this compliance by affixing the 3A symbol.

CERTIFIED ENGINEERING & DESIGN GROUP EUROPEAN HYGIENIC EHEDG
TYPE EL
June 2004

3A®
74-

Note!
For the hygienic design accordingly 3A, EHEDG, ASME BPE is the use of appropriate fittings for pipings and gaskets should be noted.

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