



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Technical Information

Weld-in adapter and Flanges

Level and Pressure



Application

The weld-in adapters and the flanges 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 of the weld-in adapters according to international hygiene regulations
- A variety of seals for application in diverse processes
- Flanges are specified according to both flange standards DIN/EN

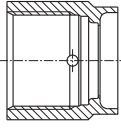
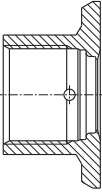
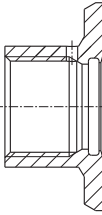
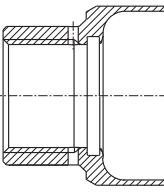
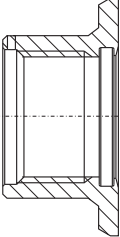
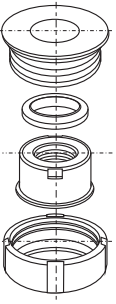
Table of contents

Weld-in adapter - overview level	4	PN63	28
Weld-in adapter and accessories - level	6	PN100	29
G ¾", d=29 without flange	6	ASME flanges (ASME B16.5-2009)	30
G ¾", d=50 with flange	6	Class 150	30
G ¾", d=55 with flange for flush-mounted installation	7	Class 300	31
G 1", d=53 without flange for pipe-mounting	7	Class 600	31
G 1", d=60 with flange for flush-mounted installation with sealing surface	8	Class 900	32
G 1" sensor can be positioned	8	Class 1500	32
RD 52 sensor can be positioned	9	JIS flanges (B 2220)	33
UNI D85 universal process connection	9	10 K	33
UNI D65 universal process connection	10	20 K	33
M24 D65 universal process connection	10	63 K	34
DRD DN50 (65 mm (2.56 in)) for flush-mounted installation of devices with DRD-flange	11	Adapter flange FAU70	35
Weld-in adapter - overview pressure	12	FAU70E Version with metrical thread	35
Weld-in adapter and accessories - pressure	14	FAU70A Version with conical thread	35
UNI D85 universal process connection	14	Slip-on flange FAU80	36
UNI D65 universal process connection	14	FAU80 Version slip-on flange	36
UNI 6" D85 universal process connection	15	Screw in flange FAX50	37
DRD DN50 (65 mm (2.56 in)) for flush-mounted installation of devices with DRD-Flange	15	FAX50 universal flange	
G 1½" flush-mounted	16	DIN - ASME - JIS	37
G 1", d=60 with flange for flush-mounted installation with sealing surface	16	G ¾", NPT ¾"	37
G ½" flush-mounted	17	G 1", NPT 1"	37
G 1" flush-mounted with metallic sealing taper	17	G 1½", NPT 1½"	38
Welding hints	18	G 2", NPT 2"	38
Preparation	18	Pressure-temperature dependencies	40
Weld-in dummy	18	EN flanges	40
Welding procedure	19	ASME flanges	40
Install measuring device	19	JIS flanges	40
Pressure resistance	20	Flange - Overview	21
Suitable for hygienic processes	20	Specifications	21
Flange - Overview	21	Versions	21
Specifications	21	Flange Norm DIN EN 1092-1	21
Versions	21	Height of raised face	22
Flange Norm DIN EN 1092-1	21	Mechanical Construction	23
Height of raised face	22	DIN flanges (DIN 2527)	23
Mechanical Construction	23	PN10	23
DIN flanges (DIN 2527)	23	PN16	24
PN10	23	PN25	24
PN16	24	PN40	25
PN25	24	PN64	25
PN40	25	PN100	26
PN64	25	EN flanges (DIN EN 1092-1)	27
PN100	26	PN16	27
EN flanges (DIN EN 1092-1)	27	PN25	27
PN16	27	PN40	28
PN25	27		
PN40	28		

Weld-in adapter - overview level

Note!

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

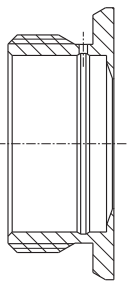
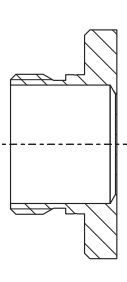
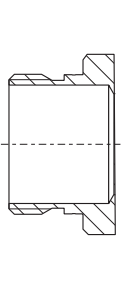
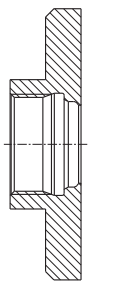

							
	a0008246	a0008251	a0008256	a0011924	a0011924	a0008253	
	G ¾", d=29 without flange	G ¾", d=50 with flange	G ¾", d=55 with flange	G 1", d=53 without flange	G 1", d=60 with flange	G 1" adjustable	
Material	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	
Roughness µm (µin) process side	1.5 (59.1)	0.8 (31.5)	0.8 (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	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	-
Liquipoint							
FTW33	620	PC/PD	PA/PB	-	PG/PH	PE/PF	-
Liquiphant T/M							
FTL20	020	1	1	-	7	7	7
FTL260		-	-	-	0	0	-
FTL20H		GDJ	GDJ	-	GEJ	GEJ	GEJ
FTL330x		-	-	-	G	G	G
FTL50		-	-	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 (continued)

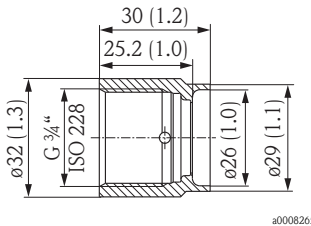
		 a0008252	 a0008245	 A0017639	 a0008552	 a0008254
		RD52	Uni D85	Uni D65	M24 D65	DRD DN50 65 mm (2.56 in) (weld-in flange)
Material		316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435)	316L (1.4435) 304 (1.4301)
Roughness μm (μin) process side		0.8 (31.5)	0.76 (29.9)	0.76 (29.9)	0.8 (31.5)	0.76 (29.9)
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	–	–
Liquipoint						
FTW33	620	–	–	–	PM/PN	–
Liquiphant T/M						
FTL20H	020	UPJ	–	–	–	–
FTL330x		F	–	–	–	–
FTL5xH		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.

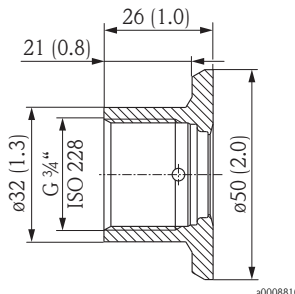
2) AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2.

Weld-in adapter and accessories - level

G 3/4", d=29 without flange

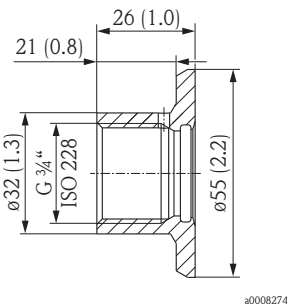
Dimensions mm (in)	Version	Order number
 <ul style="list-style-type: none"> max. 25 bar (362 psi) / max. 150 °C (302 °F) max. 40 bar (580 psi) / max. 100 °C (212 °F) 	<ul style="list-style-type: none"> AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Roughness (process side): Ra 1.5 µm (59.1 µin) 	52028295
	Silicone O-ring, Ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: VMQ75, FDA	52021717 (5 pieces)
	<ul style="list-style-type: none"> For this version a simple replacement of the seal is possible. 	
	FDA approved materials according to 21 CFR Part 175-178	
	Alternative seals	Order number
Ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM, FDA	MVT2L1934 (5 pieces)	
Ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: Viton, FDA	MVT2L1942 (5 pieces)	
Ø 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)	52027421	
<ul style="list-style-type: none"> The seal with pressure ring enables easy exchange of defective sealing rings. 		

G 3/4", d=50 with flange

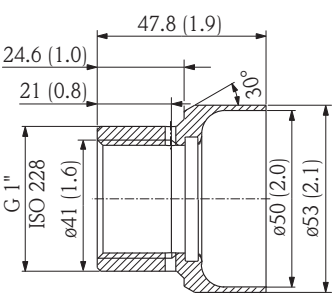
Dimensions mm (in)	Version	Order number
 <ul style="list-style-type: none"> max. 25 bar (362 psi) / max. 150 °C (302 °F) max. 40 bar (580 psi) / max. 100 °C (212 °F) 	<ul style="list-style-type: none"> AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Roughness (process side): Ra 0.8 µm (31.5 µin) 	52018765
	Silicone O-ring Ø 14.9 x 2.7 mm (0.59 x 0.11 in) Material: VMQ75, FDA	52021717 (5 pieces)
	<ul style="list-style-type: none"> For this version a simple replacement of the seal is possible. 	
	FDA approved materials according to 21 CFR Part 175-178 Certificate: EHEDG, 3A	
	Alternative seals	Order number
Ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: EPDM, FDA	MVT2L1934 (5 pieces)	
Ø 15.08 x 2.62 mm (0.59 x 0.10 in) Material: Viton, FDA	MVT2L1942 (5 pieces)	
Ø 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)	52027421	
<ul style="list-style-type: none"> The seal with pressure ring enables easy exchange of defective sealing rings. 		

Level (continued)

G ¾", d=55
with flange for flush-mounted
installation

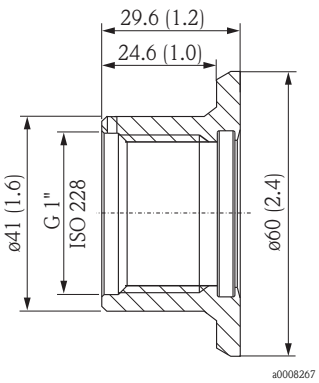
Dimensions mm (in)	Version	Order number
 <p> <ul style="list-style-type: none"> max. 25 bar (362 psi) / max. 150 °C (302 °F) max. 40 bar (580 psi) / max. 100 °C (212 °F) </p>	<ul style="list-style-type: none"> AISI 316L (1.4435) Roughness (process side): Ra 0.8 µm (31.5 µin) 	52001052
	<ul style="list-style-type: none"> 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, Ø 21.89 x 2.62 mm (0.86 x 0.10 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 Ø 21.89 x 2.62 mm (0.86 x 0.10 in)	Order number
	Material: EPDM-70, FDA, USP Class VI	71140670 (3 pieces)
	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)	

G 1", d=53
without flange for
pipe-mounting

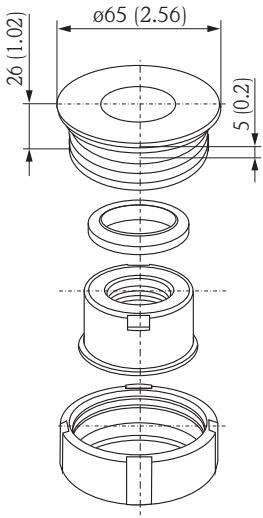
Dimensions mm (in)	Version	Order number
 <p> <ul style="list-style-type: none"> max. 25 bar (362 psi) / max. 150 °C (302 °F) max. 40 bar (580 psi) / max. 100 °C (212 °F) </p>	<ul style="list-style-type: none"> AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Roughness (process side): Ra 0.8 µm (31.5 µin) 	71093129
	Silicone O-ring, Ø 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 Ø 28.17 x 3.53 mm (1.11 x 0.14 in)	Order number
	Material: EPDM-70, FDA, USP Class VI	71140668 (3 pieces)
	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)

Level (continued)

**G 1", d=60
with flange
for flush-mounted installation
with sealing surface**

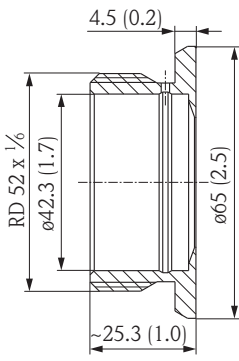
Dimensions mm (in)	Version	Order number	
 <ul style="list-style-type: none"> ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F) 	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin) 	52001051	
	<ul style="list-style-type: none"> ■ 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, Ø 28.17 x 3.53 mm (1.11 x 0.14 in) Material: VMO70, 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 Ø 28.17 x 3.53 mm (1.11 x 0.14 in)	Order number	
	Material: EPDM-70, FDA, USP Class VI	71140668 (3 pieces)	
	Material: Viton665, FDA	MVT2L0705 (5 pieces)	
	Werkstoff: Viton, FDA, USP Class VI, 3A	MVT2L1682	
	Material: Kalrez comp. 4079	MVT2L0567	
Material: Silicone, VMO23-70, FDA, USP Class VI	71086102 (3 pieces)		

**G 1"
sensor can be positioned**

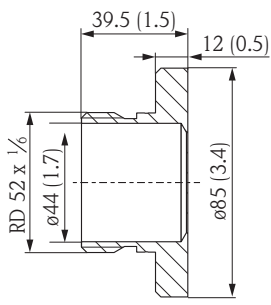
Dimensions mm (in)	Version	Order number	
 <ul style="list-style-type: none"> ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F) 	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin) 	52001221	
	<ul style="list-style-type: none"> ■ 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, VMO60, FDA, USP Class VI	71075662 (5 pieces)	

Level (continued)

RD 52
sensor can be positioned

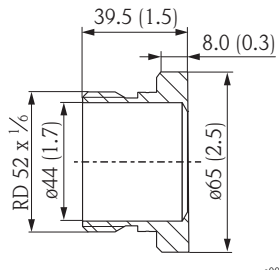
Dimensions mm (in)	Version	Order number
 <p>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</p> <p>■ max. 40 bar (580 psi) / max. 100 °C (212 °F)</p>	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin) 	52001047
	<ul style="list-style-type: none"> ■ 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 <ul style="list-style-type: none"> ■ 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

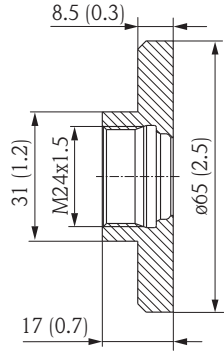
Dimensions mm (in)	Version	Order number
 <p>■ max. 16 bar (232 psi) / max. 150 °C (302 °F)</p>	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) Ø 85 mm (3.35 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin) 	52006262
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Ø 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-70C, 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

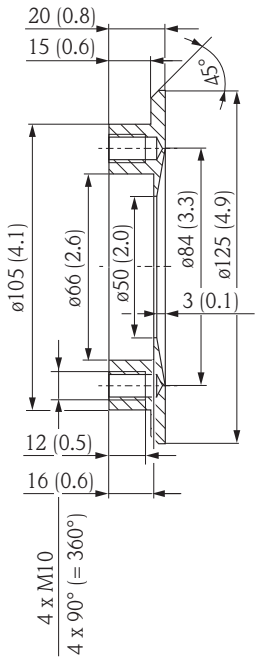
Dimensions mm (in)	Version	Order number
 <p>■ max. 16 bar (232 psi) / max. 150 °C (302 °F)</p>	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) Ø 65 mm (2.56 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin) 	214880-0002
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Ø 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-70C, 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

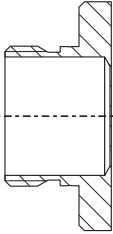
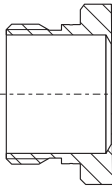
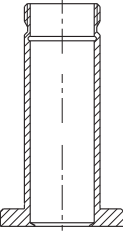

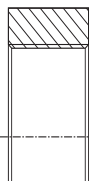
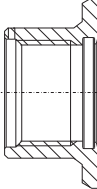
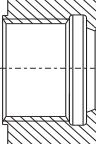
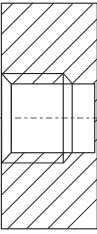
Dimensions (mm)	Version	Order number
 <p>■ max. 25 bar (362 psi) / max. 150 °C (302 °F)</p>	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) Ø 65 mm (2.56 in) ■ Roughness (process side): Ra 0.8 µm (31.5 µin) 	71041381
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Ø 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**

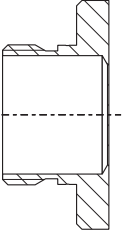
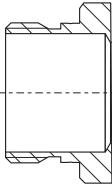
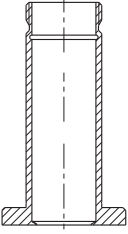

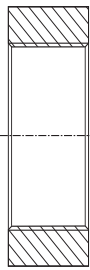
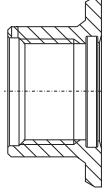
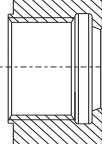
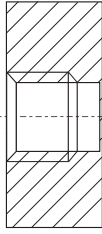
Dimensions mm (in)	Version	Order number
 <p>a0008263</p> <ul style="list-style-type: none"> ■ max. 25 bar (362 psi) / max. 150 °C (302 °F) ■ max. 40 bar (580 psi) / max. 100 °C (212 °F) 	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.76 µm (29.9 µin) 	52002041
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ■ Roughness (process side): Ra 0.76 µm (29.9 µin) 	52011899
	<ul style="list-style-type: none"> ■ 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

									
	a0008245	A0017639	a0012014	a0008254	a0008247	a0008248	a0008249	a0008250	
	Uni D85	Uni D65	Uni 6" D85	DRD DN50 65 mm (2.56 in) (weld-in flange)	G 1 1/2" flush- mounted	G 1" d=60 with flange	G 1" flush- mounted (sealing taper)	G 1/2" 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	UNJ/UPJ	UNJ/UPJ	-	TIJ	GVJ	-	-	-
PMP51		-	-	-	TIJ	GVJ	GZJ	GXJ	GOJ
PMP55		UPJ	UPJ	-	TIJ	GVJ	-	-	-
PMC51	620	Q2/Q3	QT/QU	-	QP/QR	QJ/QK	-	-	-
PMP51		-	-	-	QP/QR	QJ/QK	-	QE/QF	QA/QB
PMP55		-	-	-	QP/QR	QJ/QK	-	-	-

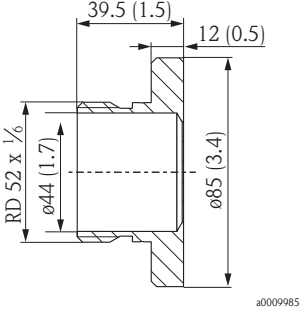
1) AD2000: The material 316L (in contact with process) corresponds to AD2000 – W0/W2.

Overview pressure
(continued)

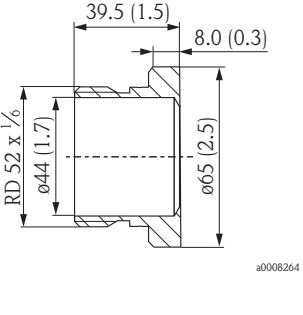
									
		a0008245	A0017639	a0012014	a0008254	a0008247	a0008248	a0008249	a0008250
		Uni D85	Uni D65	Uni 6" D85	DRD DN50 65 mm (2.56 in) (weld-in flange)	G 1½" flush- mounted	G 1" d=60 with flange	G 1" flush- mounted (sealing taper)	G ½" flush- mounted
Device	Feature	Version							
Cerabar S									
PMC71	070	-	-	-	TK	1G/1H/1J	-	-	-
PMP71		-	-	-	-	1G/1H	-	-	-
PMP75		00	00	-	TK	1G/1H	-	-	-
Deltapilot M									
FMB50	110	UNJ/UPJ	UNJ/UPJ	UOJ/UQJ	TIJ	GGJ/GGC	-	-	-
FMB51		-	-	-	-	GGJ/GGC	-	-	-
FMB52		-	-	-	-	GGJ/GGC	-	-	-
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	00/01	00/01	57/58	TK	1G/1H	-	-	-
Deltabar S									
FMD78	080	-	-	-	TK	-	-	-	-

Weld-in adapter and accessories - pressure

UNI D85
universal process connection

Dimensions mm (in)	Version	Order number
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) Ø 85 mm (3.35 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin) 	52006262
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Ø 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-70C, 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 (in)	Version	Order number
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) Ø 65 mm (2.56 in) ■ Roughness (process side): Ra 0.76 µm (29.9 µin) 	214880-0002
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Ø 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-70C, 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

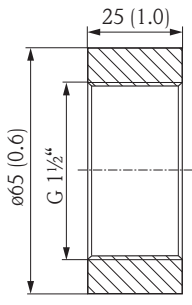
Dimensions mm (in)	Version	Order number
	<ul style="list-style-type: none"> AISI 316L (1.4435) ϕ 85 mm (3.35 in) Roughness (process side): Ra 0.76 μm (29.9 μin) 	71114160
	<ul style="list-style-type: none"> AISI 316L (1.4435) with inspection certificate EN10204-3.1 material ϕ 85 mm (3.35 in) Roughness (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-70C, 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

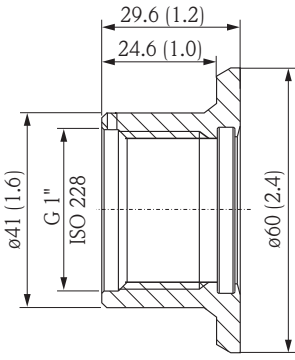
Dimensions mm (in)	Version	Order number
	<ul style="list-style-type: none"> AISI 316L (1.4435) Roughness (process side): Ra 0.76 μm (29.9 μin) 	52002041
	<ul style="list-style-type: none"> AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Roughness (process side): Ra 0.76 μm (29.9 μin) 	52011899
	<ul style="list-style-type: none"> 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)

G 1½" flush-mounted

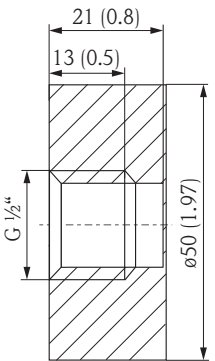
Dimensions mm (in)	Version	Order number
	<ul style="list-style-type: none"> AISI 316L (1.4435) Roughness (process side): Ra 0.8 µm (31.5 µin) 	52024469
	<ul style="list-style-type: none"> AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Roughness (process side): Ra 0.8 µm (31.5 µin) 	52024470
	Pressure sensor dummy for welding the welding boss	52024471

G 1", d=60 with flange for flush-mounted installation with sealing surface

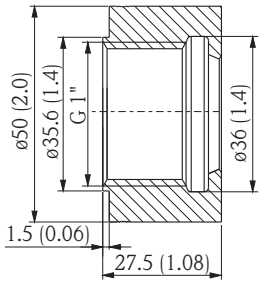
Dimensions mm (in)	Version	Order number
	<ul style="list-style-type: none"> AISI 316L (1.4435) Roughness (process side): Ra 0.8 µm (31.5 µin) 	52001051
	<ul style="list-style-type: none"> AISI 316L (1.4435) with inspection certificate EN10204-3.1 material Roughness (process side): Ra 0.8 µm (31.5 µin) 	52011896
	Silicone O-ring, Ø 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 Ø 28.17 x 3.53 mm (1.11 x 0.14 in)	Order number
	Material: EPDM-70, FDA, USP Class VI	71140668 (3 pieces)
	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)

G 1/2" flush-mounted

Dimensions mm (in)	Version	Order number
	<ul style="list-style-type: none"> ■ AISI 316L (1.4435) ■ Roughness (process side): Ra 0.8 µm (31.5 µin) 	52002643
	<ul style="list-style-type: none"> ■ 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

G 1" flush-mounted
with metallic sealing taper

Dimensions mm (in)	Version	Order number
	<ul style="list-style-type: none"> ■ AISI 316L (1.4404) ■ Roughness (process side): Ra 0.8 µm (31.5 µin) 	52005087
	<ul style="list-style-type: none"> ■ 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:

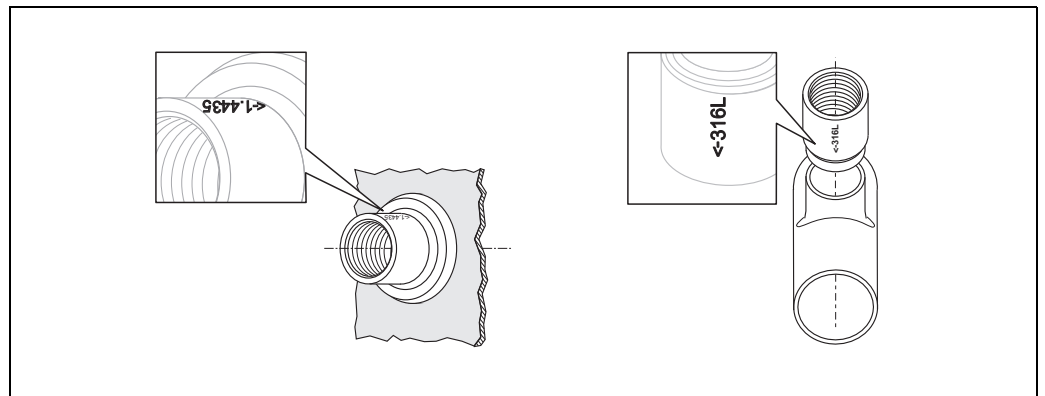
- The maximum pressure resistance of a sensor is limited. Therefore, the welding must be performed very carefully if a weld-in adapter is applied for screwing-in a pressure measuring cell.
- In order to avoid deformations of the weld-in adapter during the welding it is essential to use the correct weld-in 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!

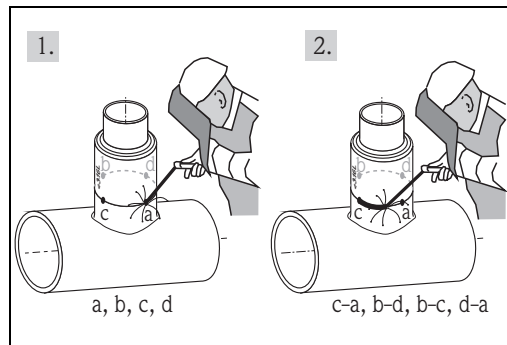
During the welding, the adapter should be protected against deformations by the weld-in dummy or by other means of cooling according to usual welding practice (e.g. water cooling).

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 immediately recognized through escaping medium.

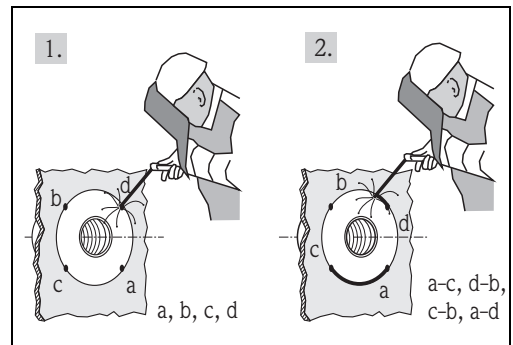
Welding procedure

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.

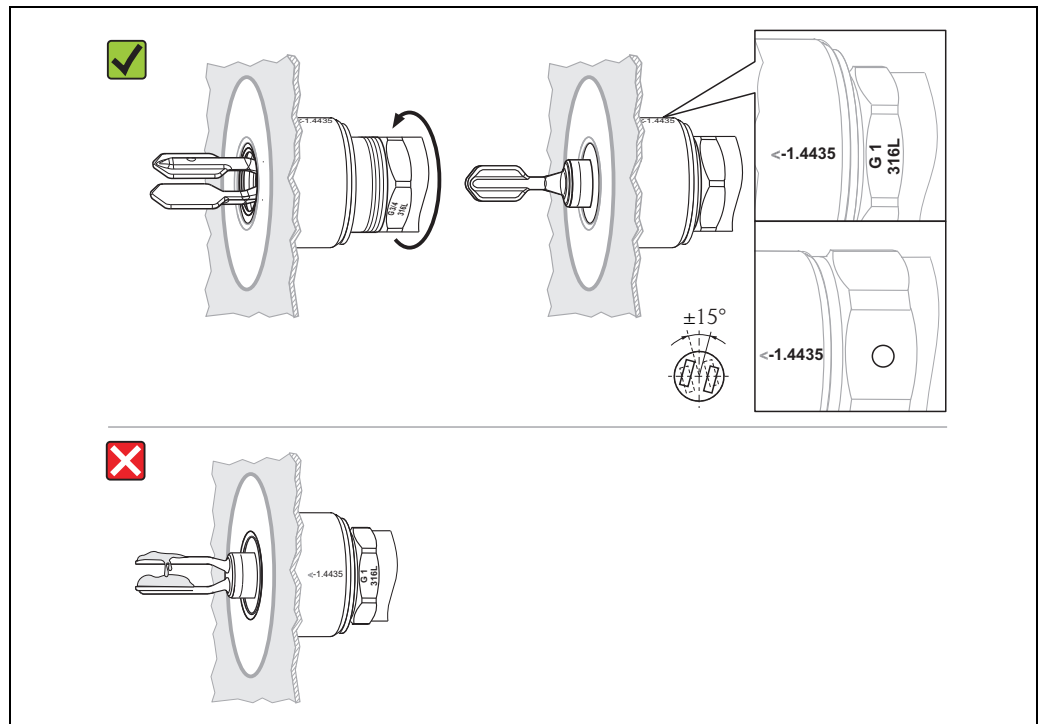
Install measuring device

Example (Level)

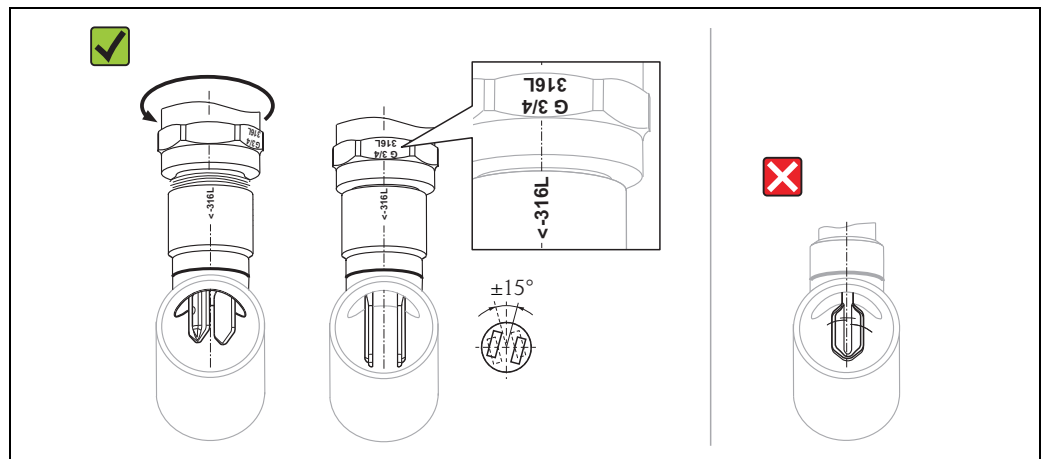
Note!

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.



Note!

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

Flange - Overview

Specifications

The material of the flanges delivered is AISI 316L with the material number 1.4404 or 1.4435. With regard to their stability-temperature property, the materials 1.4404 and 1.4435 are grouped in DIN EN 1092-1 table 18 under 13E0 and in JIS B2220:2004 table 5 under 023b. The ASME flanges are dual rated flanges (316/316L) and grouped in table 2-2.2 according to ASME B16.5-2009.

Note!

Values in inches are converted to values in millimeters using the factor 2.54.

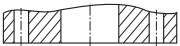





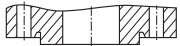

The mm values are rounded off to the nearest 0 or 5 in the ASME standard.

Versions

DIN flanges	EN flanges	ASME flanges	JIS flanges
German National Standards Institute	European Standards	America Society of Mechanical Engineers	Japanese Industrial Standard
DIN 2527	DIN EN 1092-1:2002-06 and 2007	ASME B16.5-2009	B2220:2004

Flange Norm DIN EN 1092-1

Endress+Hauser usually delivers only flanges with flat face. This type of flange has hardly changed. Thus, a comparison is done only for this sealing surfaces. Due to the change of the designation of the sealing surface mistakes may occur occasionally. The roughness (Rz) of the old raised face form C and the new one B1 have an overlapping between 40 to 50 μm . In this roughness window both standards are fulfilled. Therefore, at Endress+Hauser the flanges are specified according to both flange standards. This double marking makes it clear that both standards are met.

Flange	Sealing Surface	DIN 2526 ¹⁾		DIN EN 1092-1		
		Form	Rz (μm)	Form	Rz (μm)	Ra (μm)
without raised face		A B	- 40 - 160	A ²⁾	12.5 - 50	3.2 - 12.5
with raised face		C	40 - 160	B1 ³⁾	12.5 - 50	3.2 - 12.5
		D	40	B2	3.2 - 12.5	0.8 - 3.2
		E	16			
tongue		F		C		
groove		N	-	D	3.2 - 12.5	0.8 - 3.2
projection		V 13		E		
recess		R 13	-	F	12.5 - 50	3.2 - 12.5
projection		V 14		H		
recess		R 14	for O-rings	G	3.2 - 12.5	3.2 - 12.5

1) contained in DIN 2527

2) typically of PN2.5 bis PN40

3) typically of PN63

- Flange to the old DIN standard are compatible to the new DIN EN 1092-1.
- Change in pressure rating: old DIN standards PN64 → DIN EN 1092-1 PN63.

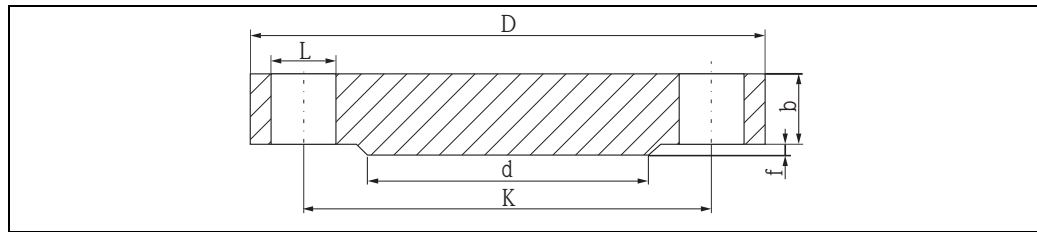
Height of raised face

Dimensions in mm (in).

Standard	Flange	Height of raised face f	Tolerance
DIN EN 1092-1:2002-06	all types	2 (0.08)	0 -1 (-0.04)
DIN EN 1092-1:2007	≤ DN 32	2 (0.08)	0 -1 (-0.04)
	> DN 32 up to DN 250	3 (0.12)	0 -2 (-0.08)
	> DN 250 up to DN 500	4 (0.16)	0 -3 (-0.12)
	> DN 500	5 (0.19)	0 -4 (-0.16)
ASME B16.5-2009	≤ Class 300	1.6 (0.06)	±0.75 (±0.03)
	≥ Class 600	6.4 (0.25)	±0.5 (±0.02)
JIS B2220:2004	< DN 20	1.5 (0.06) 0	-
	> DN 20 up to DN 50	2 (0.08) 0	
	> DN 50	3 (0.12) 0	

Mechanical Construction

DIN flanges (DIN 2527)



(Raised face DIN 2526 form C)

- L* Diameter of holes
- d* Raised face diameter
- K* Diameter of hole circle
- D* Flange diameter
- b* Total flange thickness
- f* Raised face height (general 2 mm (0.08 in))

PN10

In following tables, the dimensions are indicated in mm (in) unless otherwise noted.

DN	D	b	K	d	L	approx. kg (lbs)
25	115 (4.53)	16 (0.63)	85 (3.35)	68 (2.68)	4xØ14 (0.55)	1.23 (2.71)
32	140 (5.51)	16 (0.63)	100 (3.94)	78 (3.07)	4xØ18 (0.71)	1.80 (3.97)
40	150 (5.91)	16 (0.63)	110 (4.33)	88 (3.46)	4xØ18 (0.71)	2.09 (4.61)
50	165 (6.50)	18 (0.71)	125 (4.92)	102 (4.02)	4xØ18 (0.71)	2.88 (6.35)
65	185 (7.28)	18 (0.71)	145 (5.71)	122 (4.80)	4xØ18 (0.71)	3.70 (8.16)
80	200 (7.87)	20 (0.79)	160 (6.30)	138 (5.43)	8xØ18 (0.71)	4.83 (10.65)
100	220 (8.66)	20 (0.79)	180 (7.09)	158 (6.22)	8xØ18 (0.71)	5.75 (12.68)
125	250 (9.84)	22 (0.87)	210 (8.27)	188 (7.40)	8xØ18 (0.71)	8.59 (18.94)
150	285 (11.2)	22 (0.87)	240 (9.45)	212 (8.35)	8xØ22 (0.87)	10.6 (23.37)
175	315 (12.4)	24 (0.94)	270 (10.6)	242 (9.53)	8xØ22 (0.87)	14.3 (31.53)
200	340 (13.4)	24 (0.94)	295 (11.6)	268 (10.6)	8xØ22 (0.87)	16.9 (37.26)
250	395 (15.6)	26 (1.02)	350 (13.8)	320 (12.6)	12xØ22 (0.87)	24.7 (54.46)
300	445 (17.5)	26 (1.02)	400 (15.7)	370 (14.6)	12xØ22 (0.87)	31.9 (70.34)

PN16

DN	D	b	K	d	L	approx. kg (lbs)
25	115 (4.53)	16 (0.63)	85 (3.35)	68 (2.68)	4xØ14 (0.55)	1.23 (2.71)
32	140 (5.51)	16 (0.63)	100 (3.94)	78 (3.07)	4xØ18 (0.71)	1.80 (3.97)
40	150 (5.91)	16 (0.63)	110 (4.33)	88 (3.46)	4xØ18 (0.71)	2.09 (4.61)
50	165 (6.50)	18 (0.71)	125 (4.92)	102 (4.02)	4xØ18 (0.71)	2.88 (6.35)
65	185 (7.28)	18 (0.71)	145 (5.71)	122 (4.80)	4xØ18 (0.71)	3.70 (8.16)
80	200 (7.87)	20 (0.79)	160 (6.30)	138 (5.43)	8xØ18 (0.71)	4.83 (10.65)
100	220 (8.66)	20 (0.79)	180 (7.09)	158 (6.22)	8xØ18 (0.71)	5.75 (12.68)
125	250 (9.84)	22 (0.87)	210 (8.27)	188 (7.40)	8xØ18 (0.71)	8.59 (18.94)
150	285 (11.2)	22 (0.87)	240 (9.45)	212 (8.35)	8xØ22 (0.87)	10.6 (23.37)
175	315 (12.4)	24 (0.94)	270 (10.6)	242 (9.53)	8xØ22 (0.87)	14.3 (31.53)
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)	25.6 (56.45)
300	460 (18.1)	28 (1.10)	410 (16.1)	378 (14.9)	12xØ26 (1.02)	36.1 (79.60)

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)	1.38 (3.04)
32	140 (5.51)	18 (0.71)	100 (3.94)	78 (3.07)	4xØ18 (0.71)	2.03 (4.48)
40	150 (5.91)	18 (0.71)	110 (4.33)	88 (3.46)	4xØ18 (0.71)	2.35 (5.18)
50	165 (6.50)	20 (0.79)	125 (4.92)	102 (4.02)	4xØ18 (0.71)	3.20 (7.06)
65	185 (7.28)	22 (0.87)	145 (5.71)	122 (4.80)	8xØ18 (0.71)	4.33 (9.55)
80	200 (7.87)	24 (0.94)	160 (6.30)	138 (5.43)	8xØ18 (0.71)	5.94 (13.1)
100	235 (9.25)	24 (0.94)	190 (7.48)	162 (6.38)	8xØ22 (0.87)	7.64 (16.85)
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)	14.7 (32.41)
175	330 (13.0)	28 (1.10)	280 (11.0)	248 (9.76)	12xØ26 (1.02)	17.6 (38.81)
200	360 (14.2)	30 (1.18)	310 (12.2)	278 (10.9)	12xØ26 (1.02)	22.7 (50.05)
250	425 (16.7)	32 (1.26)	370 (14.6)	335 (13.2)	12xØ30 (1.18)	34.2 (75.41)
300	485 (19.1)	34 (1.34)	430 (17.0)	395 (15.6)	16xØ30 (1.18)	47.3 (104.3)

PN40

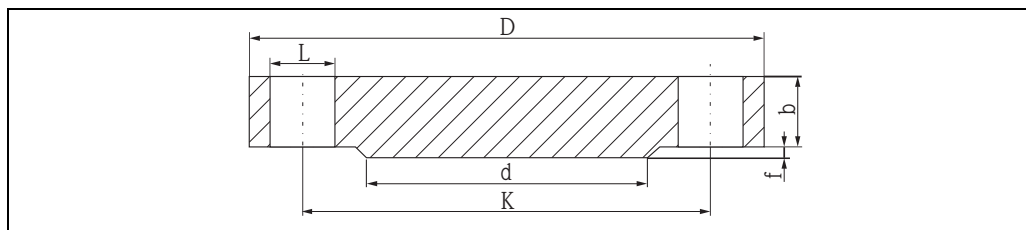
DN	D	b	K	d	L	approx. kg (lbs)
25	115 (4.53)	18 (0.71)	85 (3.35)	68 (2.68)	4xØ14 (0.55)	1.38 (3.04)
32	140 (5.51)	18 (0.71)	100 (3.94)	78 (3.07)	4xØ18 (0.71)	2.03 (4.48)
40	150 (5.91)	18 (0.71)	110 (4.33)	88 (3.46)	4xØ18 (0.71)	2.35 (5.18)
50	165 (6.50)	20 (0.79)	125 (4.92)	102 (4.02)	4xØ18 (0.71)	3.20 (7.06)
65	185 (7.28)	22 (0.87)	145 (5.71)	122 (4.80)	8xØ18 (0.71)	4.33 (9.55)
80	200 (7.87)	24 (0.94)	160 (6.30)	138 (5.43)	8xØ18 (0.71)	5.94 (13.1)
100	235 (9.25)	24 (0.94)	190 (7.48)	162 (6.38)	8xØ22 (0.87)	7.64 (16.85)
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)	14.7 (32.41)
175	350 (13.8)	32 (1.26)	295 (11.6)	260 (10.2)	12xØ30 (1.18)	22.4 (49.39)
200	375 (14.8)	34 (1.34)	320 (12.6)	285 (11.2)	12xØ30 (1.18)	27.6 (60.86)
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)	64.3 (141.8)

PN64

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)	2.65 (5.84)
32	155 (6.10)	24 (0.94)	110 (4.33)	78 (3.07)	4xØ22 (0.87)	3.24 (7.14)
40	170 (6.69)	26 (1.02)	125 (4.92)	88 (3.46)	4xØ22 (0.87)	4.09 (9.02)
50	180 (7.09)	26 (1.02)	135 (5.31)	102 (4.02)	4xØ22 (0.87)	4.51 (9.94)
65	205 (8.07)	26 (1.02)	160 (6.30)	122 (4.80)	8xØ22 (0.87)	5.71 (12.59)
80	215 (8.46)	28 (1.10)	170 (6.69)	138 (5.43)	8xØ22 (0.87)	6.92 (15.26)
100	250 (9.84)	30 (1.18)	200 (7.87)	162 (6.38)	8xØ26 (1.02)	10.1 (22.27)
125	295 (11.6)	34 (1.34)	240 (9.45)	188 (7.40)	8xØ30 (1.18)	16.0 (35.28)
150	345 (13.6)	36 (1.42)	280 (11.0)	218 (8.58)	8xØ33 (1.30)	23.5 (51.82)
175	375 (14.8)	40 (1.57)	310 (12.2)	260 (10.2)	12xØ33 (1.30)	30.8 (67.91)
200	415 (16.3)	42 (1.65)	345 (13.6)	285 (11.2)	12xØ36 (1.42)	39.7 (87.54)
250	470 (18.5)	46 (1.81)	400 (15.7)	345 (13.6)	12xØ36 (1.42)	57.4 (126.6)
300	530 (20.9)	52 (2.05)	460 (18.1)	410 (16.1)	16xØ36 (1.42)	81.0 (178.6)

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)	2.65 (5.84)
32	155 (6.10)	24 (0.94)	110 (4.33)	78 (3.07)	4xØ22 (0.87)	3.24 (7.14)
40	170 (6.69)	26 (1.02)	125 (4.92)	88 (3.46)	4xØ22 (0.87)	4.09 (9.02)
50	195 (7.68)	28 (1.10)	145 (5.71)	102 (4.02)	4xØ26 (1.02)	5.84 (12.88)
65	220 (8.66)	30 (1.18)	170 (6.69)	122 (4.80)	8xØ26 (1.02)	8.03 (17.71)
80	230 (9.06)	32 (1.26)	180 (7.09)	138 (5.43)	8xØ26 (1.02)	9.43 (20.79)
100	265 (10.4)	36 (1.42)	210 (8.27)	162 (6.38)	8xØ30 (1.18)	14.3 (31.53)
125	315 (12.4)	40 (1.57)	250 (9.84)	188 (7.40)	8xØ33 (1.30)	22.6 (49.83)
150	355 (14.0)	44 (1.73)	290 (11.4)	218 (8.58)	12xØ33 (1.30)	31.8 (70.12)
175	385 (15.2)	48 (1.89)	320 (12.6)	260 (10.2)	12xØ33 (1.30)	41.3 (91.07)
200	430 (16.9)	52 (2.05)	360 (14.2)	285 (11.2)	12xØ36 (1.42)	56.1 (123.7)
250	505 (19.9)	60 (2.36)	430 (16.9)	345 (13.6)	12xØ39 (1.54)	89.6 (197.6)
300	585 (23.0)	68 (2.68)	500 (19.7)	410 (16.1)	16xØ42 (1.65)	119 (262.4)

**EN flanges
(DIN EN 1092-1)**


L00-flangxxx-06-xx-07-xx-002

(Raised face B1)

L Diameter of holes*d* Raised face diameter*K* Diameter of hole circle*D* Flange diameter*b* Total flange thickness*f* Raised face height (general 2 mm (0.08 in))
PN16

In following tables, the dimensions are indicated in mm (in) unless otherwise noted.

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)

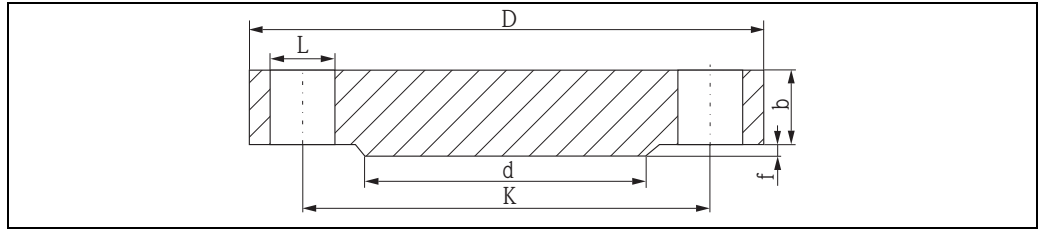
PN63

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 B16.5-2009)**



100-Flangexxx-06-xx-07-xx-003

(Raised face RF)

- L* Diameter of holes
- d* Raised face diameter
- K* Diameter of hole circle
- 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)

Note!

Surface finish of the gasket faces Ra 3.2 to 6.3 µm (126 to 248 µin).

Class 150

In following tables, the dimensions are indicated in mm (in) unless otherwise noted.

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

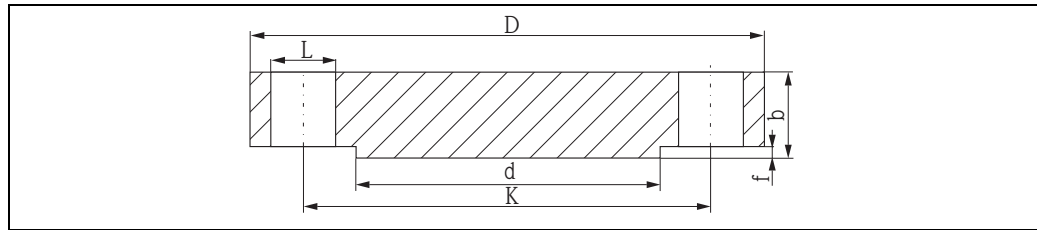
NPS (Nominal pipe size)	D	b	K	d	L	approx. kg (lbs)
1"	124.0 (4.88)	17.5 (0.69)	88.9 (3.50)	50.8 (2.00)	4xØ19.1 (0.75)	1.60 (3.53)
1¼"	133.4 (5.25)	20.6 (0.81)	98.6 (3.88)	63.5 (2.50)	4xØ19.1 (0.75)	2.23 (4.92)
1½"	155.4 (6.12)	22.4 (0.88)	114.3 (4.50)	73.2 (2.88)	4xØ22.4 (0.88)	3.25 (7.17)
2"	165.1 (6.50)	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 (13.0)	44.5 (1.75)	266.7 (10.5)	185.7 (7.31)	8xØ28.4 (1.12)	29.4 (64.83)
6"	355.6 (14.0)	47.8 (1.88)	292.1 (11.5)	215.9 (8.50)	12xØ28.4 (1.12)	36.1 (79.6)
8"	419.1 (16.5)	55.6 (2.19)	349.3 (13.8)	269.7 (10.6)	12xØ31.8 (1.25)	58.9 (129.9)
10"	508.0 (20.0)	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)**


100-flangexxx-06-xx-07-xx-001

(Raised face RF)

L Diameter of holes*d* Raised face diameter*K* Diameter of hole circle*D* Flange diameter*b* Total flange thickness*f* Raised face height (general 2 mm (0.08 in))

Note!

Surface finish of the gasket faces Ra 3.2 to 6.3 μm (126 to 248 μin).**10 K**

In following tables, the dimensions are indicated in mm (in) unless otherwise noted.

DN	D	b	K	d	L
25	125 (4.92)	14 (0.55)	90 (3.54)	67 (2.64)	4x \varnothing 19 (0.75)
32	135 (5.31)	16 (0.63)	100 (3.94)	76 (2.99)	4x \varnothing 19 (0.75)
40	140 (5.51)	16 (0.63)	105 (4.13)	81 (3.19)	4x \varnothing 19 (0.75)
50	155 (6.10)	16 (0.63)	120 (4.72)	96 (3.78)	4x \varnothing 19 (0.75)
65	175 (6.89)	18 (0.71)	140 (5.51)	116 (4.57)	4x \varnothing 19 (0.75)
80	185 (7.28)	18 (0.71)	150 (5.91)	126 (4.96)	8x \varnothing 19 (0.75)
100	210 (8.27)	18 (0.71)	175 (6.89)	151 (5.94)	8x \varnothing 19 (0.75)
125	250 (9.84)	20 (0.79)	210 (8.27)	182 (7.17)	8x \varnothing 23 (0.91)
150	280 (11.0)	22 (0.87)	240 (9.45)	212 (8.35)	8x \varnothing 23 (0.91)
200	330 (13.0)	22 (0.87)	290 (11.4)	262 (10.3)	12x \varnothing 23 (0.91)
250	400 (15.7)	24 (0.94)	355 (14.0)	324 (12.8)	12x \varnothing 25 (0.98)
300	445 (17.5)	24 (0.94)	400 (15.7)	368 (14.5)	16x \varnothing 25 (0.98)

20 K

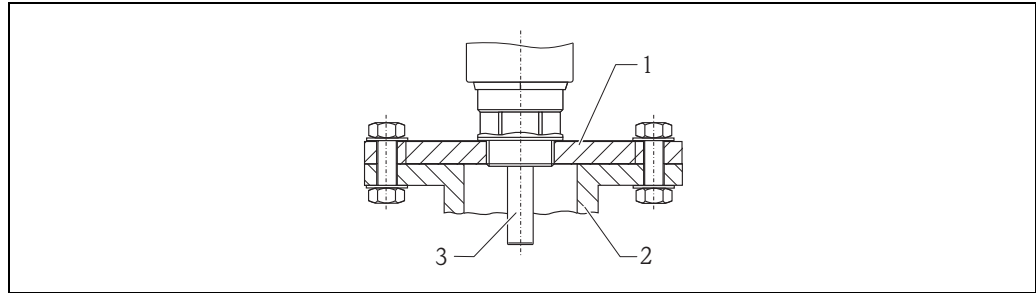
DN	D	b	K	d	L
25	125 (4.92)	16 (0.63)	90 (3.54)	67 (2.64)	4x \varnothing 19 (0.75)
32	135 (5.31)	18 (0.71)	100 (3.94)	76 (2.99)	4x \varnothing 19 (0.75)
40	140 (5.51)	18 (0.71)	105 (4.13)	81 (3.19)	4x \varnothing 19 (0.75)
50	155 (6.10)	18 (0.71)	120 (4.72)	96 (3.78)	8x \varnothing 19 (0.75)
65	175 (6.89)	20 (0.79)	140 (5.51)	116 (4.57)	8x \varnothing 19 (0.75)
80	200 (7.87)	22 (0.87)	160 (6.30)	132 (5.20)	8x \varnothing 23 (0.91)
100	225 (8.86)	24 (0.94)	185 (7.28)	160 (6.30)	8x \varnothing 23 (0.91)
125	270 (10.6)	26 (1.02)	225 (8.86)	195 (7.68)	8x \varnothing 25 (0.98)
150	305 (12.0)	28 (1.10)	260 (10.2)	230 (9.06)	12x \varnothing 25 (0.98)
200	350 (13.8)	30 (1.18)	305 (12.0)	275 (10.8)	12x \varnothing 25 (0.98)
250	430 (16.9)	34 (1.34)	380 (15.0)	345 (13.6)	12x \varnothing 27 (1.06)
300	480 (18.9)	36 (1.42)	430 (16.9)	395 (15.6)	16x \varnothing 27 (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)

Adapter flange FAU70

An adapter flange makes it possible to use devices with a threaded connection.



L00-flangexxx-00-00-00-xx-001

- 1 Adapter flange
- 2 Nozzle
- 3 Probe

FAU70E Version with metrical thread

Order information

010	Process Connection
12	DN 50 PN16 A, flange EN 1092-1 (DIN 2527 B)
14	DN 80 PN16 A, flange EN 1092-1 (DIN 2527 B)
15	DN 100 PN16 A, flange EN 1092-1 (DIN 2527 B)
99	Special version, to be specified
020	Sensor Connection
3	Thread ISO228 G1-1/2
4	Thread ISO228 G2
99	Special version, to be specified
030	Flange Material
2	316L
3	Steel
7	Polypropylene
99	Special version, to be specified

The versions entered make up the order code:

	010	020	030
FAU70E -			

FAU70A Version with conical thread

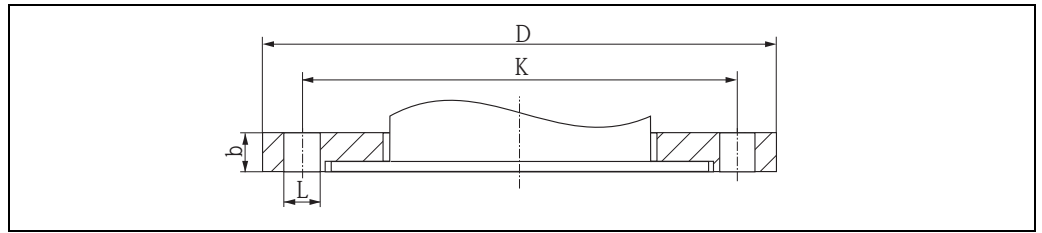
010	Process Connection
22	2" 150 lbs FF, flange ANSI B16.5
24	3" 150 lbs FF, flange ANSI B16.5
25	4" 150 lbs FF, flange ANSI B16.5
99	Special version, to be specified
020	Sensor Connection
5	Thread NPT1-1/2
6	Thread NPT2
99	Special version, to be specified
030	Flange Material
2	316L
3	Steel
7	Polypropylene
99	Special version, to be specified

The versions entered make up the order code:

	010	020	030
FAU70A -			

Slip-on flange FAU80

The sensors (FDU91F, FDU80F, FDU81F) can be flush mounted using a FAU80 slip-on flange. Flanges in polypropylene (PP) should only be used with pressures up to 1.5 bar_{abs} (22 psi) flanges in 316L also above.



L00-flange.xxx-xx-00-00-xx-000

Details to dimension "Mechanical Construction" → 22

FAU80 Version slip-on flange

Order 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 EN1092-1 (DIN2527 B)
CH	DN 100	PN16 A, flange EN1092-1 (DIN2527 B)
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	

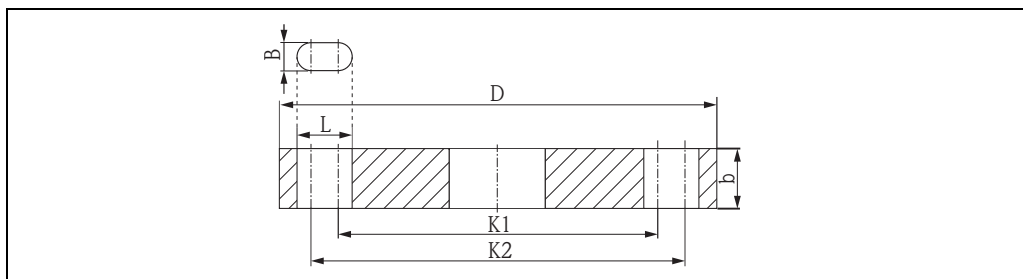
The versions entered make up the order code:

	010	020
FAU80 -		

Screw in flange FAX50

The screw in flange is an universal flange. On the basis of dimensions min./max. it can be used for all three standards (DIN - ASME - JIS).

FAX50 universal flange DIN - ASME - JIS



L00-flangexxx-xx-00-00-xx-000

- L* Diameter of holes
K1, K2 Diameter of hole circle
D Flange diameter
b Total flange thickness
B Slotted hole (width)

G ¾", NPT ¾"

In following tables, the dimensions are indicated in mm (in) unless otherwise noted.

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 und JIS!

Exception G 1"

NPS (Nominal pipe size)	D	b	L	K1	K2	approx. kg (lbs)		
						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)

Order information FAX50

015 Material:	
BR1	DN50 PN10/16 A, steel flange EN1092-1
BS1	DN80 PN10/16 A, steel flange EN1092-1
BT1	DN100 PN10/16 A, steel flange EN1092-1
JF1	2" 150lbs FF, steel flange ANSI B16.5
JG1	3" 150lbs FF, steel flange ANSI B16.5
JH1	4" 150lbs FF, steel flange ANSI B16.5
JK2	8" 150lbs FF, PP max 3 bar abs/44 psia flange ANSI B16.5
XIF	UNI flange 2"/DN50/50, PVDF max 4 bar abs/58 psia, suitable for 2" 150 lbs/DN50 PN16/10K 50
XIG	UNI flange 2"/DN50/50, PP max 4 bar abs/58 psia, suitable for 2" 150 lbs/DN50 PN16/10K 50
XIJ	UNI flange 2"/DN50/50, 316L max 4 bar abs/58 psia, suitable for 2" 150 lbs/DN50 PN16/10K 50
XJF	UNI flange 3"/DN80/80, PVDF max 4 bar abs/58 psia, suitable for 3" 150 lbs/DN80 PN16/10K 80
XJG	UNI flange 3"/DN80/80, PP max 4 bar abs/58 psia, suitable for 3" 150 lbs/DN80 PN16/10K 80
XJJ	UNI flange 3"/DN80/80, 316L max 4 bar abs/58 psia, suitable for 3" 150 lbs/DN80 PN16/10K 80
XKF	UNI flange 4"/DN100/100, PVDF max 4 bar abs/58 psia, suitable for 4" 150 lbs/DN100 PN16/10K 100
XKG	UNI flange 4"/DN100/100, PP max 4 bar abs/58 psia, suitable for 4" 150 lbs/DN100 PN16/10K 100
XKJ	UNI flange 4"/DN100/100, 316L max 4 bar abs/58 psia, suitable for 4" 150 lbs/DN100 PN16/10K 100
XLF	UNI flange 6"/DN150/150, PVDF max 4 bar abs/58 psia, suitable for 6" 150 lbs/DN150 PN16/10K 150
XLG	UNI flange 6"/DN150/150, PP max 4 bar abs/58 psia, suitable for 6" 150 lbs/DN150 PN16/10K 150
XLJ	UNI flange 6"/DN150/150, 316L max 4 bar abs/58 psia, suitable for 6" 150 lbs/DN150 PN16/10K 150
XMG	UNI flange DN200/200, PP max 4 bar abs/58 psia, suitable for DN200 PN16/10K 200
XNG	UNI flange DN250/250, PP max 4 bar abs/58 psia, suitable for DN250 PN16/10K 250
YYY	Special version

020 Sensor Connection:	
A	Thread ISO228 G3/4
B	Thread ISO228 G1
C	Thread ISO228 G1-1/2
D	Thread ISO228 G2
E	Thread ANSI NPT3/4
F	Thread ANSI NPT1
G	Thread ANSI NPT1-1/2
H	Thread ANSI NPT2
Y	Special version

The versions entered make up the order code:

	15	20
FAX50 -		

Pressure-temperature dependencies

EN flanges¹⁾

Temperature range	Nominal pressure (data in bar (psi))				
	PN16	PN25	PN40	PN63	PN100
-10 °C ... +50 °C (+14 °F ... +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 (data in bar (psi))				
	Class 150	Class 300	Class 600	Class 900	Class 1500
-29 °C ... +38 °C (-20 °F ... +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 (data in bar (psi))			
	10 K	20 K		
	for all flanges	to DN 125	from DN 150 up 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 1.4435 and 1.4404 are grouped in DIN EN 1092-1 table 18 under 13E0 and in JIS B2220:2004 table 5 under 023b. The ASME flanges are dual rated flanges (316/316L) and grouped in table 2-2.2 according to ASME B16.5-2009.

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