



Features

- Circular diaphragm of stainless steel, slightly grooved, welded by laser
- Volume optimized diaphragm base
- EHEDG certification per DIN 11864-1, aseptic connection
- Connection of measuring instrument:
 - directly welded
 - directly screwed
 - with temperature decoupler
 - with capillary

Options

- Material certificate acc. to DIN EN 10204-3.1
- Hygienic design with advanced surface quality
- Special materials upon request

Application area

- Food industry
- Pharmaceuticals
- Biotechnology

Application

Suitable for mounting to bourdon tube pressure gauges and pressure transmitters. The diaphragm seal for aseptic design is used mainly in the food and pharmaceutical industry, and in bioengineering for dead-zone free measuring. The inline diaphragm seal may be easily cleaned with a suitable silicon pipeline scraper (up to 60 shore hardness).

Technical Data

Process connections for pipes per DIN, ISO and Inch

Aseptic connections per
 · DIN 11864
 · Südmö
 · Guth

Further connection designs upon request

Diaphragm seal material

basic body:
 st. steel mat. no. 1.4435 (316L)
 measuring instrument connection:
 st. steel mat. no. 1.4301 (304)
 Gasket is not included.

Nominal pressure/nominal widths

see table

Separating diaphragm

standard material stainless steel. Further materials upon request

Measuring instrument connection

· directly welded/screwed
 · with temperature decoupler
 · with capillary
 see order code
 material stainless steel

Process temperature

dependent on measuring system, diaphragm seal filling liquid and installation.

Diaphragm seal filling liquid

see data sheet D5-003.
 Standard according to order code

Hygienic design

surface formation of wetted parts as per EHEDG guidelines
 ($R_a \leq 0.8 \mu\text{m}$)

Installation instructions

see operating instructions BTA-062

Weights

with measuring instrument connection G 1/2 see table

Dimensions

directly welded
Code: A400

directly screwed
Code: A300

temperature decoupler
Code: A100

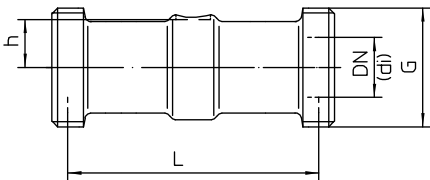
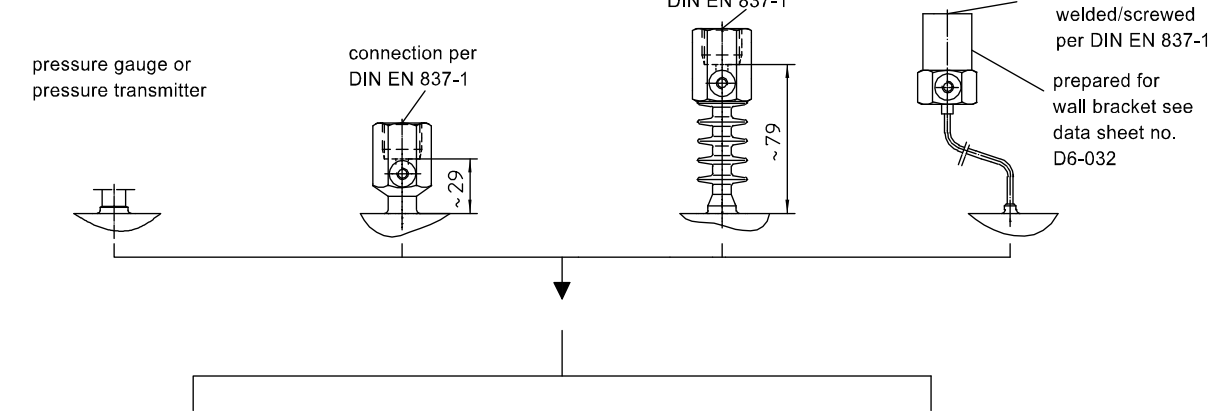
capillary
welded Code: B40../B50..
screwed Code: B20../B10..

pressure gauge or
pressure transmitter

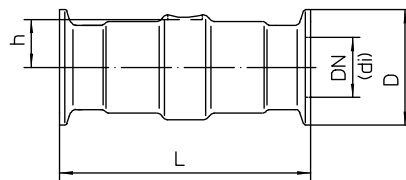
connection per
DIN EN 837-1

connection per
DIN EN 837-1

connection
welded/screwed
per DIN EN 837-1
prepared for
wall bracket see
data sheet no.
D6-032



connection thread (both sides)



clamp connection

Designs

aseptic connections per DIN 11864-1 type A

- round thread on both sides
- groove union nut upon request
- clamp connection on both sides per DIN 11864-3

aseptic connection per Südmö

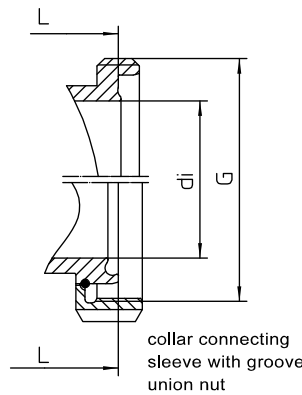
- round thread on both sides type series W500
- clamp connection on both sides type series W600

aseptic connection per Guth

- round thread on both sides
- clamp connection on both sides

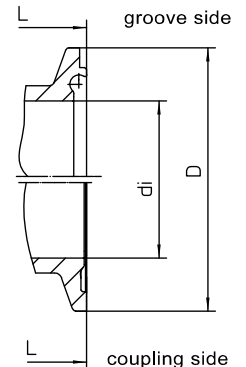


threaded coupling



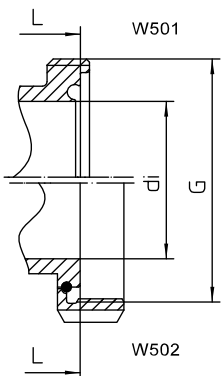
aseptic connection per
DIN 11864-1 type A

clamp connection

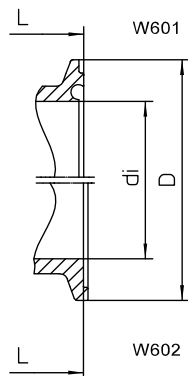


aseptic connection per
DIN 11864-3 type A

threaded coupling

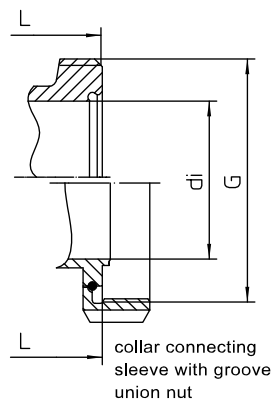


clamp connection



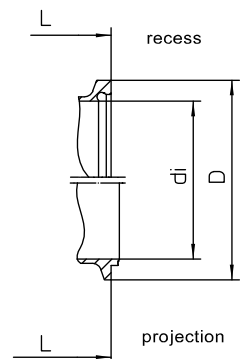
aseptic connections per Südmö

threaded coupling



aseptic connections per Guth

clamp connection



Inline diaphragm seals for pipes per DIN 11850 - pipe dimensions per DIN 11866 table 1 model A

Dimensions

						aseptic connections												
						connection per DIN 11864				Südmo				Guth				
nominal diameter	length	pipe inside diameter	standard connection	pressure gauge BH../BR..	temperature decoupler	nominal pressure round thread connection per DIN 11864-1 model A	nominal pressure clamp connection per DIN 11864-3 model A	nominal pressure round thread connection per Südmo W500D	nominal pressure clamp connection per Südmo W600D	nominal pressure round thread connection per Guth	nominal pressure clamp connection per Guth	weight approx.						
DN	L	di	h	h1	h2	PN	thread	PN	D	PN	thread	PN	D	PN	thread	PN	D	
	[mm]	[mm]	[mm]	[mm]	[mm]		G [Rd]		[mm]		G [Rd]		[mm]		G [Rd]		[mm]	[kg]
15	240	16	44	97	92	40	34x1/8		-		-		-		-		-	1.1
15	258	16	44	97	92	40	-				-		34		-		-	1.1
25	110	26	48.0	106.0	102.0	40	52x1/6"	40	50.5	25	52x1/6"	16	50.5	40	52x1/6"	16	50.5	0.9
32	110	32	53.0	111.0	107.0	40	58x1/6"	40	50.5	25	58x1/6"	16	50.5	40	58x1/6"	16	50.5	1.3
40	110	38	55.5	113.5	109.5	40	65x1/6"	40	64	25	65x1/6"	16	64.0	40	65x1/6"	16	64.0	1.4
50	110	50	61.0	119.0	115.0	25	78x1/6"	25	77.5	20	78x1/6"	16	77.5	25	78x1/6"	16	64.0	1.7
65	110	66	69.0	127.0	123.0	25	95x1/6"	25	91	20	95x1/6"	10	91.0	25	95x1/6"	16	91.0	2.1
80	60	81	75.5	133.5	129.5	25	110x1/4"	16	106	20	110x1/4"	10	106.0	16	110x1/4"	16	106.0	1.2
100	60	100	88.0	146.0	142.0	25	130x1/4"	16	130	20	130x1/4"	10	119.0	16	130x1/4"	16	119.0	1.3

Inline diaphragm seals for pipe per DIN EN ISO 1127 - pipe dimensions per DIN 11866 table 1 model B

Dimensions

						aseptic connections								
						connection per DIN 11864			Südmo			Guth		
nominal diameter	length	pipe inside diameter	standard connection	pressure gauge BH../BR..	temperature decoupler	nominal pressure round thread connection per DIN 11864-1 model A	nominal pressure clamp connection per DIN 11864-3 model A	nominal pressure round thread connection per Südmo W500J	nominal pressure clamp connection per Südmo W 600J	nominal pressure round thread connection per Guth	weight approx.			
DN/OD	L	di	h	h1	h2	PN	thread	D	PN	thread	D	PN	thread	
	[mm]	[mm]	[mm]	[mm]	[mm]		G [Rd]	[mm]		G [Rd]	[mm]		G [Rd]	[kg]
33.7	110	29.7	48.0	106.0	102.0	40	58x1/6"	50.5	16	52x1/6"	50.5	16	44x1/6"	0.9
42.4	110	38.4	53.0	111.0	107.0	25	65x1/6"	64	16	65x1/6"	64.0	16	58x1/6"	1.3
48.3	110	44.3	55.5	113.5	109.5	25	78x1/6"	64	16	65x1/6"	64.0	16	58x1/6"	1.4
60.3	110	56.3	61.0	119.0	115.0	25	95x1/6"	91	16	78x1/6"	77.5	16	78x1/6"	1.7

Inline diaphragm seals for pipes per ASME-BPE 1997 - pipe dimensions per DIN 11866 table 1 model C (suitable for pipes per BS 4825 Part 3 and O.D. Tube)

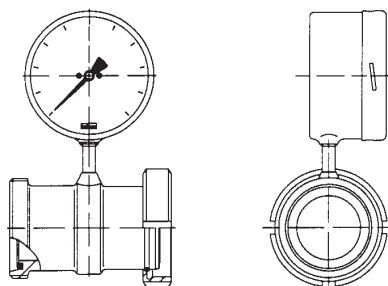
Dimensions

						aseptic connections												
						connection per DIN 11864				Südmo				Guth				
nominal diameter	length	pipe inside diameter	standard connection	pressure gauge BH../BR..	temperature decoupler	nominal pressure round thread connection per DIN 11864-1 model A	nominal pressure clamp connection per DIN 11864-3 model A	nominal pressure round thread connection per Südmo W500Z	nominal pressure clamp connection per Südmo W 600Z	nominal pressure round thread connection per Guth	nominal pressure clamp connection per Guth	weight approx.						
DN/OD	L	di	h	h1	h2	PN	thread	PN	D	PN	thread	PN	D	PN	thread	PN	D	
	[Zoll]	[mm]	[mm]	[mm]	[mm]		G [Rd]		[mm]		G [Rd]		[mm]		G [Rd]		[mm]	[kg]
1"	110	22.2	48.0	106.0	102.0	40	52x1/6"	40	50.5	25	44x1/6"	16	50.5	25	52x1/6"	16	50.5	0.9
1 1/2"	110	34.7	55.5	113.5	109.5	40	65x1/6"	40	64	25	58x1/6"	16	64.0	25	65x1/6"	16	50.5	1.3
2"	110	47.8	61.0	119.0	115.0	25	78x1/6"	25	77.5	20	78x1/6"	16	77.5	20	78x1/6"	16	64.0	1.4
2 1/2"	110	60.3	69.0	127.0	123.0	25	95x1/6"	25	91		-	16	91.0	20	95x1/6"	16	77.5	1.7

pipe dimensions within pipe tolerance

Fitting position

standard



Order Details - please give additional specifications for models not listed -**Inline diaphragm seal for food/pharmaceutical/biotechnology, aseptic design**

design	for pipes per DIN 11850, pipe dimensions per DIN 11866 table 1 model A		DF61 ..
nominal width DN	process connection	insertion length L	pipe inside-Ø di
	· DN 15	240 mm (DIN 11864)	16 mm
	· DN 15	258 mm (Südmo)	16 mm
	· DN 25	110 mm	26 mm
	· DN 32	110 mm	32 mm
	· DN 40	110 mm	38 mm
	· DN 50	110 mm	50 mm
	· DN 65	110 mm	66 mm
	· DN 80	60 mm	81 mm
· DN 100	60 mm	100 mm	
process connection	per DIN 11864-1, model A ³	· round thread on both sides (threaded coupling)	
	per DIN 11864-3, model A	· clamp connection on both sides (coupling side)	
	Südmo	· round thread on both sides (W501)	
		· clamp connection on both sides (W601)	
	Guth	· round thread on both sides (threaded coupling)	
		· clamp connection on both sides (recess)	
further aseptic connections upon request			S
design	for pipes per DIN EN ISO 1127, pipe dimensions per DIN 11866 table 1 model B		DF62 ..
nominal width DN/OD	process connection	insertion length L	pipe inside-Ø di
	· DN 33.7 (pipe 33.7 x 2.0)	110 mm	29.7 mm
	· DN 42.4 (pipe 42.4 x 2.0)	110 mm	38.4 mm
	· DN 48.3 (pipe 48.3 x 2.0)	110 mm	44.3 mm
	· DN 60.3 (pipe 60.3 x 2.0)	110 mm	56.3 mm
process connection	per DIN 11864-1, model A ³	· round thread on both sides (threaded coupling)	
	per DIN 11864-3, model A	· clamp connection on both sides (coupling side)	
	Südmo	· round thread on both sides (W501)	
		· clamp connection on both sides (W601)	
	Guth	· round thread on both sides (threaded coupling)	
		· clamp connection on both sides (recess)	
further aseptic connections upon request			S
design	for pipes per ASME-BPE 1997, pipe dimensions per DIN 11866 table 1 model C		DF63 ..
nominal width DN/OD	process connection	insertion length L	pipe inside-Ø di
	· 1"	110 mm	22.2 mm
	· 1 1/2"	110 mm	34.7 mm
	· 2"	110 mm	47.8 mm
	· 2 1/2"	110 mm	60.3 mm
process connection	per DIN 11864-1, model A ³	· round thread on both sides (threaded coupling)	
	per DIN 11864-3, model A	· clamp connection on both sides (coupling side)	
	Südmo	· round thread on both sides (W501)	
		· clamp connection on both sides (W601)	
	Guth	· round thread on both sides (threaded coupling)	
		· clamp connection on both sides (recess)	
further aseptic connections upon request			S
surface roughness	· standard		
	· hygienic version as per EHEDG guidelines		HY
connection of measuring instrument	· directly	· welded	A400 .
		· screwed G 1/2	A300 .
	· with temperature decoupler A100	· screwed G 1/2	A100 .
	· with capillary	· welded	B40 ..
		· screwed G 1/2	B20 ..
· with capillary and stainless steel protective tube	· welded	B50 ..	
	· screwed G 1/2	B10 ..	
material	· wetted parts stainless steel mat.-no. 1.4435 (316L)		7
system filling ¹	filling liquid	temperature range ²	
	· foodstuff oil FD1 (standard)	+10...+140 °C	L22
	· foodstuff oil FD1, pls specify temperature, max.	-40...+200 °C	L23
	· glycerine/water FGW	-20...+120 °C	L15

capillary length	
length m	order-code
1	11
1.6	12
2.5	13
4	14
5	21
6	15
7	23
8	16
10	17
others	9

additional features (to be indicated in case of need, only)

material certificate acc. to DIN EN 10204-3.1, wetted parts	W1020
diaphragm seal electropolished	W4035

Order code (example):

DF6140 S1001 A4007 L22

¹ Please check data sheet D5-003 for further information.

Please state temperature range to allow an accurate calculation of the system.

² max. temperature of liquid filling for abs. pressure > 1 bar³ in conn. with hygienic version (HY): corresponding to EHEDG guidelines