

# Diaphragm seal with sterile connection

## Aseptic connection per DIN 11864

### Model 990.51

WIKA data sheet DS 99.51



for further approvals  
see page 4

## Applications

- Sanitary applications
- Food and beverage production
- Pharmaceutical industry, biotechnology industry, production of active ingredients
- Production of aseptic basic materials in the chemical industry

## Special features

- Quick cleaning, without residue
- Suitable for SIP and CIP
- EHEDG-certified and 3-A-compliant
- Certified hygienic design



Diaphragm seal with sterile connection, model 990.51

## Description

Diaphragm seals are used for the protection of pressure measuring instruments in applications with difficult media. In diaphragm seal systems, the diaphragm of the diaphragm seal effects the separation of the instrument and the medium. The pressure is transmitted to the measuring instrument via the system fill fluid which is inside the diaphragm seal system.

For the implementation of demanding customer applications, there is a wide variety of designs, materials and system fill fluids available.

For further technical information on diaphragm seals and diaphragm seal systems see IN 00.06 "Application, operating principle, designs".

Aseptic connections in accordance with DIN 11864 meet a very high hygienic standard. The dead-space free sealing is ensured through a metallic stop and self-centring.

Even with changing medium temperatures, the connection is maintenance-free and does not need to be checked. The diaphragm seal systems can withstand the cleaning vapour temperatures occurring in the SIP processes and thus ensure a sterile connection between the medium to be measured and the diaphragm seal.

Mounting of the diaphragm seal and measuring instrument is made via direct mounting as standard or optionally via a cooling element or a flexible capillary.

For the material selection WIKA offers a variety of solutions, in which the upper body and the diaphragm are made of identical materials. Stainless steel 1.4435 (316L) is used as standard material, other special materials are available on request.

## Specifications

Model 990.51	Standard	Option
<b>Pressure range <sup>1)</sup></b>		
Threaded connection per DIN 11864-1	<ul style="list-style-type: none"> <li>■ 0 ... 0.6 bar to 0 ... 40 bar [0 ... 8.7 psi to 0 ... 580 psi] (to DN 40)</li> <li>■ 0 ... 0.6 bar to 0 ... 25 bar [0 ... 8.7 psi to 0 ... 363 psi] (from DN 50)</li> </ul>	
Flange connection per DIN 11864-2	<ul style="list-style-type: none"> <li>■ 0 ... 0.6 bar to 0 ... 25 bar [0 ... 8.7 psi to 0 ... 363 psi] (to DN 40)</li> <li>■ 0 ... 0.6 bar to 0 ... 16 bar [0 ... 8.7 psi to 0 ... 232 psi] (from DN 50)</li> </ul>	
Clamp connection per DIN 11864-3 <sup>2)</sup>	<ul style="list-style-type: none"> <li>■ 0 ... 0.6 bar to 0 ... 40 bar [0 ... 8.7 psi to 0 ... 580 psi] (to DN 40)</li> <li>■ 0 ... 0.6 bar to 0 ... 25 bar [0 ... 8.7 psi to 0 ... 363 psi] (to DN 65)</li> <li>■ 0 ... 0.6 bar to 0 ... 16 bar [0 ... 8.7 psi to 0 ... 232 psi] (from DN 80)</li> </ul>	
	Or all other equivalent vacuum or combined pressure and vacuum ranges	
<b>Level of cleanliness of wetted parts</b>	<ul style="list-style-type: none"> <li>■ Oil and grease free per ASTM G93-03 level F WIKA standard (&lt; 1,000 mg/m<sup>2</sup>)</li> </ul>	<ul style="list-style-type: none"> <li>■ Oil and grease free per ASTM G93-03 level D and ISO 15001 (&lt; 220 mg/m<sup>2</sup>)</li> <li>■ Oil and grease free per ASTM G93-03 level C and ISO 15001 (&lt; 66 mg/m<sup>2</sup>)</li> </ul>
<b>Origin of wetted parts</b>	<ul style="list-style-type: none"> <li>■ International</li> </ul>	<ul style="list-style-type: none"> <li>■ EU, CH, USA</li> </ul>
<b>Surface roughness of wetted parts</b>	Ra ≤ 0.76 µm [30 µin] per ASME BPE SF3 (except for weld seam)	Ra ≤ 0.38 µm [15 µin] per ASME BPE SF4, only with electropolished surface (except for weld seam)
<b>Connection to the measuring instrument</b>	Axial gauge adapter	Axial gauge adapter with: <ul style="list-style-type: none"> <li>■ G ½ female thread</li> <li>■ G ¼ female thread</li> <li>■ ½ NPT female thread</li> <li>■ ¼ NPT female thread</li> </ul>
<b>Type of mounting</b>	Direct mounting	<ul style="list-style-type: none"> <li>■ Capillary</li> <li>■ Cooling element</li> </ul>
<b>Vacuum service (see IN 00.25)</b>	Basic service	<ul style="list-style-type: none"> <li>■ Premium service</li> <li>■ Advanced service</li> </ul>
<b>Process connection</b>	For pipes per DIN 11866 row A and row B (or DIN 11850 and DIN EN ISO 1127) See overview of aseptic connections per DIN 11864 form A on page 3 See dimensions from page 5 Others on request	
<b>Marking of the diaphragm seal</b>	Per valid 3-A standard	
<b>Instrument mounting bracket (only for capillary option)</b>	<ul style="list-style-type: none"> <li>■ Form H per DIN 16281, 100 mm, aluminium, black</li> <li>■ Form H per DIN 16281, 100 mm, stainless steel</li> <li>■ Bracket for pipe mounting, for pipe Ø 20 ... 80 mm [0.787 ... 3.146 in], steel (see data sheet AC 09.07)</li> </ul>	

1) The maximum pressure range depends on the selection of the process connection. See PN nominal pressure in the tables from page 5.

2) Higher nominal pressures on request (for maximum pressure range consider pressure rating of clamp closure)

## Material combinations

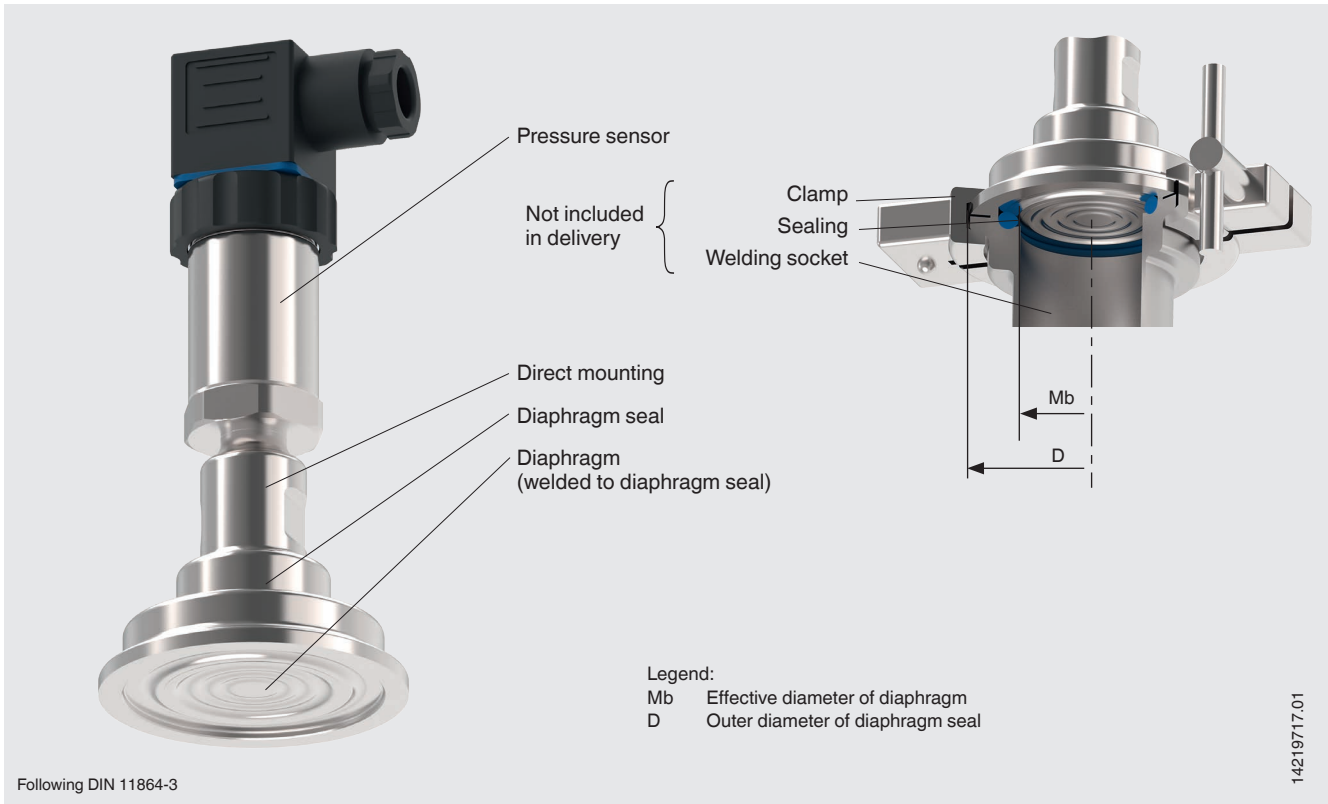
Upper body of diaphragm seal	Wetted parts <sup>3)</sup>
<b>Stainless steel 1.4435 (316L)</b>	Stainless steel 1.4435 (316L)
<b>Stainless steel 1.4435 (316L), electropolished <sup>4)</sup></b>	Stainless steel 1.4435 (316L), electropolished <sup>4)</sup>
<b>Stainless steel 1.4539 (904L)</b>	Stainless steel 1.4539 (904L)
<b>Hastelloy C22 (2.4602)</b>	Hastelloy C22 (2.4602)
<b>Hastelloy C276 (2.4819)</b>	Hastelloy C276 (2.4819)

3) Marking of the parts with the material code guarantees 100 % material traceability

4) Only in connection with a surface roughness of Ra ≤ 0.38 µm for the wetted parts

Further material combinations and process temperatures on request





Installation example, model 990.51 directly mounted to S-20 pressure sensor



Aseptic connections per DIN 11864 form A

Type of process connection	Version	
Threaded pipe connection following DIN 11864-1	Liner with union nut	
	Threaded coupling	
Flange connection following DIN 11864-2	Flange with notch	
	Flange with groove	
Clamp connection following DIN 11864-3	Clamp with notch	
	Clamp with groove	

## Approvals

Logo	Description	Country
	<b>EU declaration of conformity</b> Pressure equipment directive	European Union
	<b>EAC (option)</b> Pressure equipment directive	Eurasian Economic Community
	<b>3-A</b> Sanitary Standard	USA
	<b>EHEDG</b> Hygienic Equipment Design	European Union
-	<b>CRN</b> Safety (e.g. electr. safety, overpressure, ...)	Canada
-	<b>MTSCHS (option)</b> Permission for commissioning	Kazakhstan

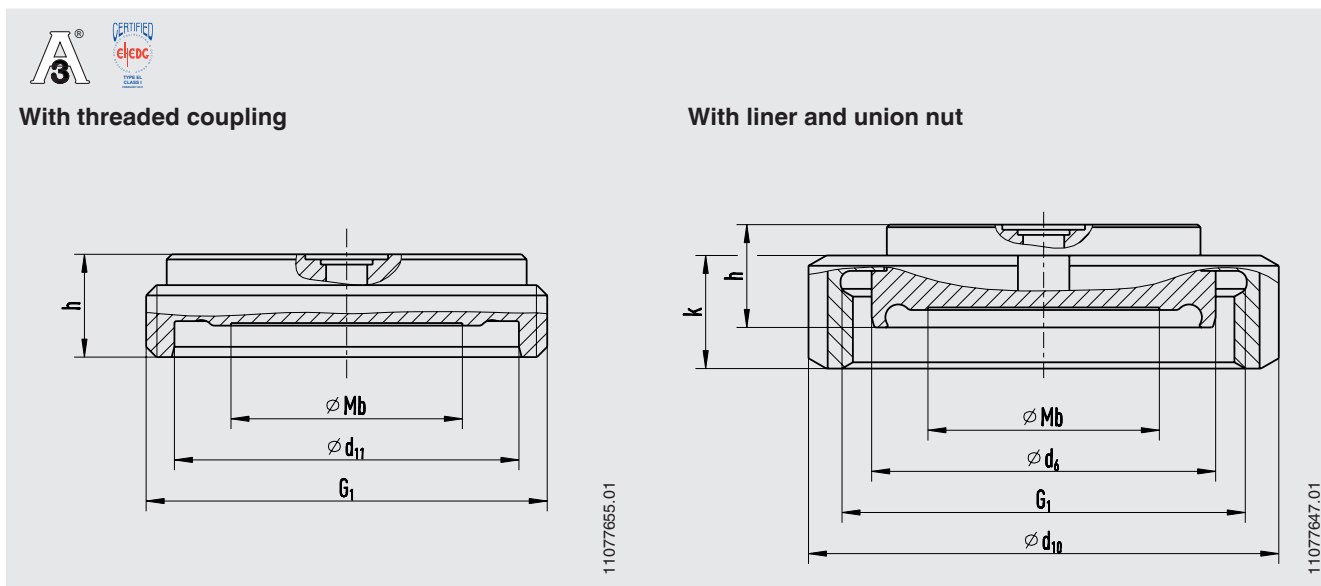
## Certificates (option)

- 2.2 test report per EN 10204
  - State-of-the-art manufacturing, material proof, indication accuracy for diaphragm seal systems
  - FDA conformity of the system fill fluid
  - 3-A conformity of the diaphragm seal, based on a third party verification
  - Manufacturer's declaration for food contact materials per regulation (EC) no. 1935/2004
- 3.1 inspection certificate per EN 10204
  - Material proof, wetted metal parts
  - Indication accuracy for diaphragm seal systems
- Manufacturer's declaration for food contact materials per regulation (EC) no. 1935/2004
- Others on request

Approvals, certificates and manufacturer's declarations, see website

## Dimensions in mm [in]

### Aseptic threaded pipe connection DIN 11864-1



#### Type of process connection: Aseptic threaded pipe connection per DIN 11864-1 form A

Pipe standard: Pipes per DIN 11866 row A or DIN 11850 row 2

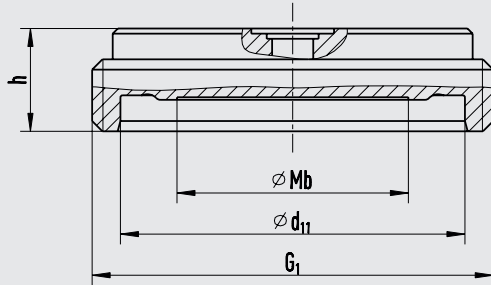
DN	For pipe	PN <sup>1)</sup>	Dimensions in mm [in]							
	Outer Ø x wall thickness in mm [in]		Mb	d <sub>6</sub>	d <sub>11</sub>	G <sub>1</sub>	h	d <sub>10</sub>	k	Aseptic O-ring
25	29 x 1.5 [1.142 x 0.071]	40	22 [0.866]	42.9 [1.689]	43 [1.693]	RD 52 x 1/6 [2.047 x 1/6]	20 [0.787]	63 [2.48]	21 [0.827]	28 x 3.5 [1.102 x 0.1378]
32	35 x 1.5 [1.378 x 0.071]	40	25 [0.984]	48.9 [1.925]	49 [1.929]	RD 58 x 1/6 [2.283 x 1/6]	20 [0.787]	70 [2.756]	21 [0.827]	34 x 5 [1.339 x 0.197]
40	41 x 1.5 [1.614 x 0.071]	40	35 [1.378]	54.9 [2.161]	55 [2.165]	RD 65 x 1/6 [2.559 x 1/6]	20 [0.787]	78 [3.071]	21 [0.827]	40 x 5 [1.575 x 0.197]
50	53 x 1.5 [2.087 x 0.071]	25	45 [1.772]	66.9 [2.634]	67 [2.638]	RD 78 x 1/6 [3.071 x 1/6]	20 [0.787]	92 [3.622]	22 [0.866]	52 x 5 [2.047 x 0.197]
65	70 x 2 [2.756 x 0.078]	25	60 [2.362]	84.9 [3.343]	85 [3.346]	RD 95 x 1/6 [3.74 x 1/6]	20 [0.787]	112 [4.409]	25 [0.984]	68 x 5 [2.677 x 0.197]
80	85 x 2 [3.346 x 0.078]	25	72 [2.835]	98.9 [3.894]	99 [3.898]	RD 110 x 1/4 [4.331 x 1/4]	20 [0.787]	127 [5] [5.000]	29 [1.142]	83 x 5 [3.268 x 0.197]
100	104 x 2 [4.094 x 0.078]	25	90 [3.543]	118.9 [4.681]	119 [4.685]	RD 130 x 1/4 [5.118 x 1/4]	20 [0.787]	148 [5.827]	31 [1.22]	102 x 5 [4.016 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

## Aseptic threaded pipe connection DIN 11864-1

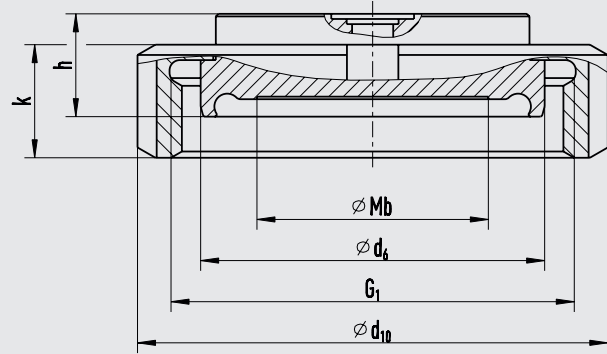


With threaded coupling



11077655.01

With liner and union nut



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### Type of process connection: Aseptic threaded pipe connection per DIN 11864-1 form A

Pipe standard: Pipes per DIN 11866 row B or DIN ISO 1127 row 1

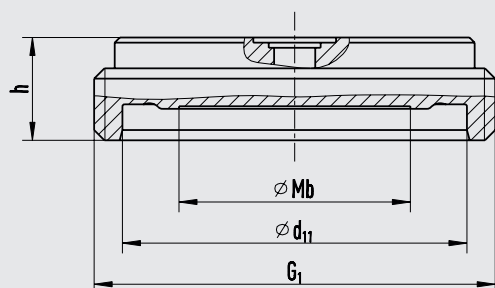
DN	For pipe Outer Ø x wall thick- ness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]							
			Mb	d <sub>6</sub>	d <sub>11</sub>	G <sub>1</sub>	h	d <sub>10</sub>	k	Aseptic O-ring
26.9	26.9 x 1.6 [1.059 x 0.063]	40	22 [0.866]	42.9 [1.689]	43 [1.693]	RD 52 x 1/6 [2.047 x 1/6]	20 [0.787]	63 [2.48]	21 [0.827]	26 x 3.5 [1.024 x 0.1378]
33.7	33.7 x 2 [1.327 x 0.078]	40	25 [0.984]	48.9 [1.925]	49 [1.929]	RD 58 x 1/6 [2.283 x 1/6]	20 [0.787]	70 [2.756]	21 [0.827]	32 x 5 [1.26 x 0.197]
42.4	42.4 x 2 [1.669 x 0.078]	25	35 [1.378]	54.9 [2.161]	55 [2.165]	RD 65 x 1/6 [2.559 x 1/6]	20 [0.787]	78 [3.071]	21 [0.827]	40.5 x 5 [1.594 x 0.197]
48.3	48.3 x 2 [1.902 x 0.078]	25	45 [1.772]	66.9 [2.634]	67 [2.638]	RD 78 x 1/6 [3.071 x 1/6]	20 [0.787]	92 [3.622]	22 [0.866]	46.5 x 5 [1.831 x 0.197]
60.3	60.3 x 2 [2.374 x 0.078]	25	60 [2.362]	84.9 [3.343]	85 [3.346]	RD 95 x 1/6 [3.74 x 1/6]	20 [0.787]	112 [4.409]	25 [0.984]	58.5 x 5 [1.831 x 0.197]
76.1	76.1 x 2 [2.996 x 0.078]	25	72 [2.835]	98.9 [3.894]	99 [3.898]	RD 110 x 1/4 [4.331 x 1/4]	20 [0.787]	127 [5]	29 [1.142]	73.5 x 5 [2.894 x 0.197]
88.9	88.9 x 2.3 [3.5 x 0.091]	25	90 [3.543]	118.9 [4.681]	119 [4.685]	RD 130 x 1/4 [5.118 x 1/4]	20 [0.787]	148 [5.827]	31 [1.22]	86.5 x 5 [3.406 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

## Aseptic threaded pipe connection DIN 11864-1

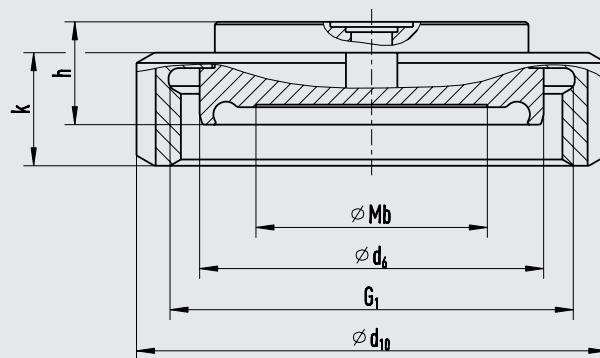


With threaded coupling



11077655.01

With liner and union nut



11077647.01

### Type of process connection: Aseptic threaded pipe connection per DIN 11864-1 form A

Pipe standard: Pipes per DIN 11866 row C or ASME BPE 1997

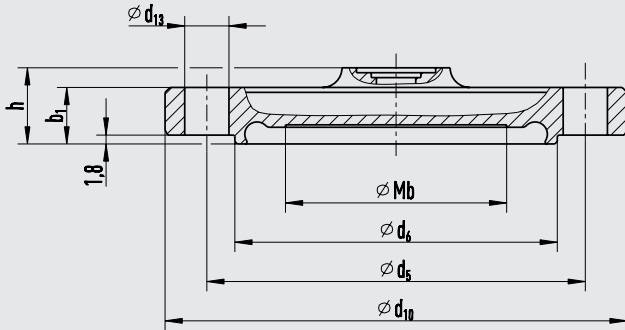
DN	For pipe Outer Ø x wall thick- ness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]							
			Mb	d <sub>6</sub>	d <sub>11</sub>	G <sub>1</sub>	h	d <sub>10</sub>	k	Aseptic O-ring
1"	25.4 x 1.65 [1.831 x 0.065]	40	22 [0.866]	42.9 [1.689]	43 [1.693]	RD 52 x 1/6 [2.047 x 1/6]	20 [0.787]	63 [2.48]	21 [0.827]	24 x 3,5 [0.945 x 0.1378]
1 1/2"	42.4 x 1.65 [1.669 x 0.065]	40	32 [1.26]	54.9 [2.161]	55 [2.165]	RD 65 x 1/6 [2.559 x 1/6]	20 [0.787]	78 [3.071]	21 [0.827]	37 x 5 [1.457 x 0.197]
2"	48.3 x 1.65 [1.902 x 0.065]	25	45 [1.772]	66.9 [2.634]	67 [2.638]	RD 78 x 1/6 [3.071 x 1/6]	20 [0.787]	92 [3.622]	22 [0.866]	50 x 5 [1.969 x 0.197]
2 1/2"	60.3 x 1.65 [2.374 x 0.065]	25	52 [2.047]	84.9 [3.343]	85 [3.346]	RD 95 x 1/6 [3.74 x 1/6]	20 [0.787]	112 [4.409]	25 [0.984]	62 x 5 [2.441 x 0.197]
3"	76.1 x 1.65 [2.996 x 0.065]	25	60 [2.362]	98.9 [3.894]	99 [3.898]	RD 110 x 1/4 [4.331 x 1/4]	20 [0.787]	127 [5]	29 [1.142]	75 x 5 [2.953 x 0.197]
4"	88.9 x 2.11 [3.5 x 0.083]	25	90 [3.543]	118.9 [4.681]	119 [4.685]	RD 130 x 1/4 [5.118 x 1/4]	20 [0.787]	148 [5.827]	31 [1.22]	100 x 5 [3.937 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

## Aseptic flange connection DIN 11864-2

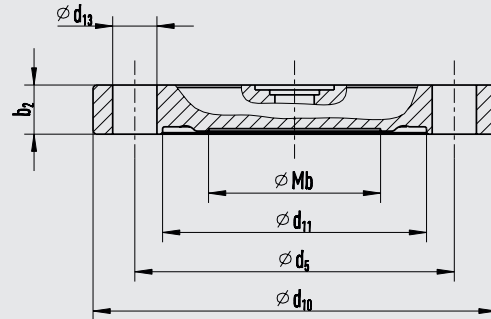


With flange with groove



11077680.01

With flange with notch



11077698.01

### Type of process connection: Aseptic flange connection per DIN 11864-2 form A

Pipe standard: Pipes per DIN 11866 row A or DIN 11850 row 2

DN	For pipe Outer $\varnothing$ x wall thick- ness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]									
			Mb	$d_6$	$d_{11}$	$d_5$	$d_{10}$	h	$b_1$	$b_2$	$d_{13}$	Aseptic O-ring
25	29 x 1.5 [1.142 x 0.071]	25	22 [0.866]	38.3 [1.508]	38.4 [1.512]	53 [2.087]	70 [2.756]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	28 x 3.5 [1.102 x 0.1378]
32	35 x 1.5 [1.378 x 0.071]	25	25 [0.984]	47.6 [1.878]	47.7 [1.878]	59 [2.323]	76 [2.992]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	34 x 5 [1.339 x 0.197]
40	41 x 1.5 [1.614 x 0.071]	25	35 [1.378]	53.6 [2.11]	53.7 [2.114]	65 [2.559]	82 [3.228]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	40 x 5 [1.575 x 0.197]
50	53 x 1.5 [2.087 x 0.071]	16	45 [1.772]	65.6 [2.583]	65.7 [2.587]	77 [3.032]	94 [3.7]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	52 x 5 [2.047 x 0.197]
65	70 x 2 [2.756 x 0.078]	16	60 [2.362]	81.6 [3.213]	81.7 [3.217]	95 [3.74]	113 [4.449]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	8 x $\varnothing$ 9 [0.354]	68 x 5 [2.677 x 0.197]
80	85 x 2 [3.346 x 0.078]	16	72 [2.835]	97.6 [3.843]	97.7 [3.846]	112 [4.409]	133 [5.236]	17.5 [0.689]	13.5 [0.531]	12 [0.472]	8 x $\varnothing$ 11 [0.433]	83 x 5 [3.268 x 0.197]
100	104 x 2 [4.094 x 0.078]	16	90 [3.543]	116.6 [4.591]	116.7 [4.594]	137 [5.394]	159 [6.2598]	19.5 [0.768]	15.5 [0.61]	14 [0.551]	8 x $\varnothing$ 11 [0.433]	102 x 5 [4.016 x 0.197]

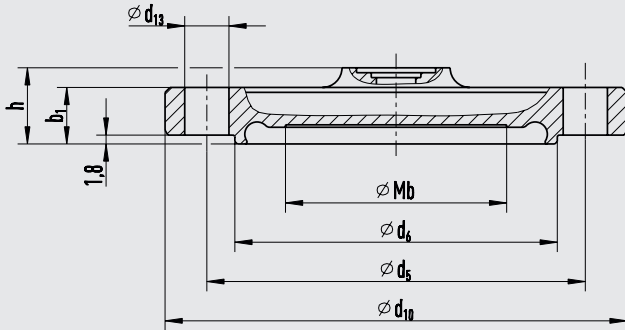
1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.



## Aseptic flange connection DIN 11864-2

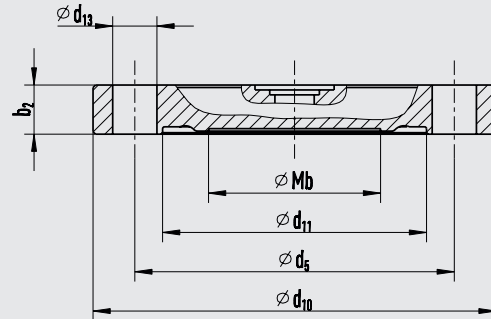


With flange with groove



11077680.01

With flange with notch



11077698.01

### Type of process connection: Aseptic flange connection per DIN 11864-2 form A

Pipe standard: Pipes per DIN 11866 row B or DIN ISO 1127 row 1

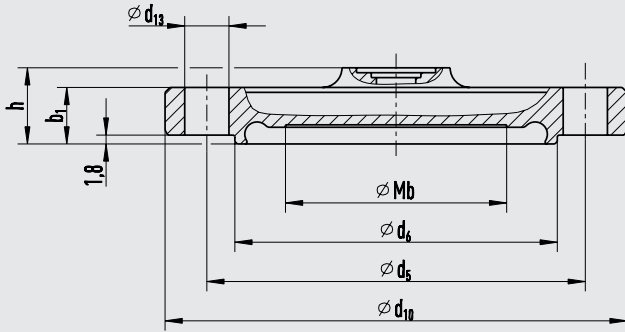
DN	For pipe Outer $\varnothing$ x wall thick- ness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]									
			Mb	$d_6$	$d_{11}$	$d_5$	$d_{10}$	h	$b_1$	$b_2$	$d_{13}$	Aseptic O-ring
26.9	26.9 x 1.6 [1.059 x 0.063]	25	22 [0.866]	36 [1.417]	36.1 [1.421]	52 [2.047]	69 [2.717]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	26 x 3.5 [1.024 x 0.1378]
33.7	33.7 x 2 [1.327 x 0.078]	25	25 [0.984]	45.3 [1.783]	45.4 [1.787]	57 [2.244]	74 [2.913]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	32 x 5 [1.2598 x 0.197]
42.4	42.4 x 2 [1.669 x 0.078]	16	35 [1.378]	54 [2.126]	54.1 [2.1299]	65 [2.559]	82 [3.228]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	40.5 x 5 [1.594 x 0.197]
48.3	48.3 x 2 [1.902 x 0.078]	16	40 [1.575]	59.9 [2.358]	60 [2.362]	71 [2.795]	88 [3.465]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	46.5 x 5 [1.831 x 0.197]
60.3	60.3 x 2 [2.374 x 0.078]	16	52 [2.047]	71.9 [2.831]	72 [2.835]	85 [3.346]	103 [4.055]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	8 x $\varnothing$ 9 [0.354]	58.5 x 5 [1.831 x 0.197]
76.1	76.1 x 2 [2.996 x 0.078]	16	60 [2.362]	88.1 [3.469]	88.1 [3.469]	104 [4.094]	125 [4.921]	17.5 [0.689]	13.5 [0.531]	12 [0.472]	8 x $\varnothing$ 11 [0.433]	73.5 x 5 [2.894 x 0.197]
88.9	88.9 x 2.3 [3.5 x 0.091]	16	72 [2.835]	100.9 [3.972]	101 [3.976]	116 [4.567]	137 [5.394]	17.5 [0.689]	13.5 [0.531]	12 [0.472]	8 x $\varnothing$ 11 [0.433]	86.5 x 5 [3.406 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

## Aseptic flange connection DIN 11864-2

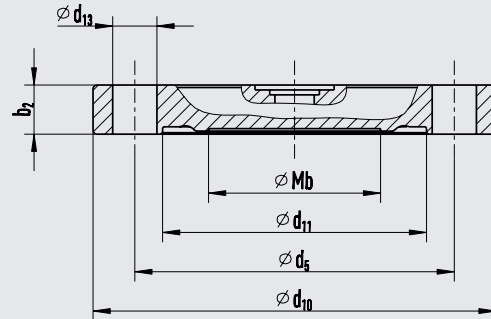


With flange with groove



11077680.01

With flange with notch



11077698.01

### Type of process connection: Aseptic flange connection per DIN 11864-2 form A

Pipe standard: Pipes per DIN 11866 row C or ASME BPE 1997

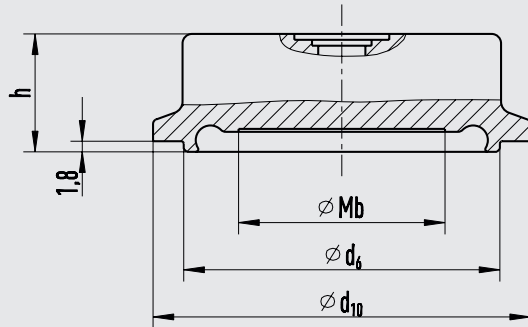
DN	For pipe Outer $\varnothing$ x wall thick- ness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]									Aseptic O-ring
			Mb	d <sub>6</sub>	d <sub>11</sub>	G <sub>1</sub>	d <sub>10</sub>	h	b <sub>1</sub>	b <sub>2</sub>	d <sub>13</sub>	
1"	25.4 x 1.65 [1.831 x 0.065]	25	22 [0.866]	34.3 [1.354]	34.4 [1.354]	49 [1.929]	66 [2.598]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	24 x 3.5 [0.945 x 0.1378]
1 1/2"	42.4 x 1.65 [1.669 x 0.065]	25	32 [1.26]	50.4 [1.984]	50.4 [1.984]	62 [2.44]	79 [3.11]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	37 x 5 [1.457 x 0.197]
2"	48.3 x 1.65 [1.902 x 0.065]	16	45 [1.772]	63 [2.48]	63 [2.48]	75 [2.953]	92 [3.622]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	50 x 5 [1.969 x 0.197]
2 1/2"	60.3 x 1.65 [2.374 x 0.065]	16	52 [2.047]	75.8 [2.984]	75.9 [2.988]	89 [3.504]	107 [4.213]	15.5 [0.61]	11.5 [0.071]	10 [0.394]	4 x $\varnothing$ 9 [0.354]	62 x 5 [2.441 x 0.197]
3"	76.1 x 1.65 [2.996 x 0.065]	16	60 [2.362]	89.5 [3.524]	89.6 [3.528]	104 [4.094]	125 [4.921]	17.5 [0.689]	13.5 [0.531]	12 [0.472]	8 x $\varnothing$ 11 [0.433]	75 x 5 [2.953 x 0.197]
4"	88.9 x 2.11 [3.5 x 0.083]	16	90 [3.543]	114.2 [4.496]	114.3 [4.5]	135 [5.315]	157 [6.181]	19.5 [0.768]	15.5 [0.61]	14 [0.551]	8 x $\varnothing$ 11 [0.433]	100 x 5 [3.937 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

## Aseptic clamp connection DIN 11864-3

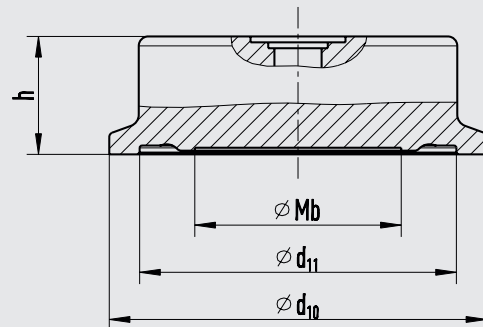


With clamp with groove



11077701.01

With clamp with notch



11077710.01

### Type of process connection: Aseptic clamp connection DIN 11864-3 form A

Pipe standard: Pipes per DIN 11866 row A or DIN 11850 row 2

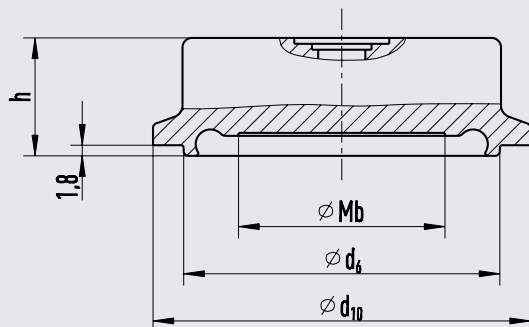
DN	For pipe Outer $\varnothing$ x wall thick- ness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]					Aseptic O-ring
			Mb	$d_6$	$d_{11}$	h	$d_{10}$	
25	29 x 1.5 [1.142 x 0.071]	40	22 [0.866]	38.3 [1.508]	38.4 [1.512]	20 [0.787]	50.5 [1.988]	28 x 3.5 [1.102 x 0.1378]
32	35 x 1.5 [1.378 x 0.071]	40	25 [0.984]	47.6 [1.878]	47.7 [1.878]	20 [0.787]	50.5 [1.988]	34 x 5 [1.339 x 0.197]
40	41 x 1.5 [1.614 x 0.071]	40	35 [1.378]	53.6 [2.11]	53.7 [2.114]	20 [0.787]	64 [2.5197]	40 x 5 [1.575 x 0.197]
50	53 x 1.5 [2.087 x 0.071]	25	45 [1.772]	65.6 [2.583]	65.7 [2.587]	20 [0.787]	77.5 [3.051]	52 x 5 [2.047 x 0.197]
65	70 x 2 [2.756 x 0.078]	25	60 [2.362]	81.6 [3.213]	81.7 [3.217]	20 [0.787]	91 [3.583]	68 x 5 [2.677 x 0.197]
80	85 x 2 [3.346 x 0.078]	16	72 [2.835]	97.6 [3.843]	97.7 [3.846]	20 [0.787]	106 [4.173]	83 x 5 [3.268 x 0.197]
100	104 x 2 [4.094 x 0.078]	16	90 [3.543]	116.6 [4.591]	116.7 [4.594]	20 [0.787]	130 [5.118]	102 x 5 [4.016 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

# Aseptic clamp connection DIN 11864-3

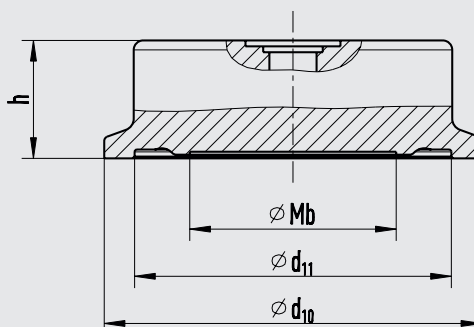


With clamp with groove



11077701.01

With clamp with notch



11077710.01

## Type of process connection: Aseptic clamp connection DIN 11864-3 form A

Pipe standard: Pipes per DIN 11866 row B or DIN ISO 1127 row 1

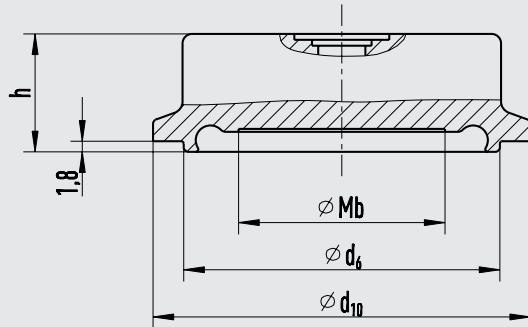
DN	For pipe Outer Ø x wall thickness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]					Aseptic O-ring
			Mb	d <sub>6</sub>	d <sub>11</sub>	h	d <sub>10</sub>	
26.9	26.9 x 1.6 [1.059 x 0.063]	40	22 [0.866]	36.0 [1.417]	36.1 [1.421]	20 [0.787]	50.5 [1.988]	26 x 3.5 [1.024 x 0.1378]
33.7	33.7 x 2 [1.327 x 0.078]	40	25 [0.984]	45.3 [1.783]	45.3 [1.783]	20 [0.787]	50.5 [1.988]	32 x 5 [1.2598 x 0.197]
42.4	42.4 x 2 [1.669 x 0.078]	25	35 [1.378]	54.0 [2.126]	54.1 [2.1299]	20 [0.787]	64 [2.5197]	40.5 x 5 [1.594 x 0.197]
48.3	48.3 x 2 [1.902 x 0.078]	25	40 [1.575]	59.9 [2.358]	60 [2.362]	20 [0.787]	64 [2.5197]	46.5 x 5 [1.831 x 0.197]
60.3	60.3 x 2 [2.374 x 0.078]	25	52 [2.047]	71.9 [2.831]	72.0 [2.835]	20 [0.787]	91 [3.583]	58.5 x 5 [2.303 x 0.197]
76.1	76.1 x 2 [2.996 x 0.078]	16	60 [2.362]	88.1 [3.469]	88.2 [3.472]	20 [0.787]	106 [4.173]	73.5 x 5 [2.894 x 0.197]
88.9	88.9 x 2 [3.5 x 0.078]	16	72 [2.835]	100.9 [3.972]	101 [3.976]	25 [0.984]	119 [4.685]	86.5 x 5 [3.406 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

## Aseptic clamp connection DIN 11864-3

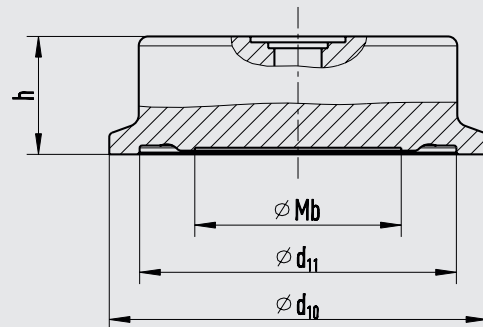


With clamp with groove



11077701.01

With clamp with notch



11077710.01

### Type of process connection: Aseptic clamp connection DIN 11864-3 form A

Pipe standard: Pipes per DIN 11866 row C or ASME BPE 1997

DN	For pipe Outer Ø x wall thick- ness in mm [in]	PN <sup>1)</sup>	Dimensions in mm [in]					Aseptic O-ring
			Mb	d <sub>6</sub>	d <sub>11</sub>	h	d <sub>10</sub>	
1"	25.4 x 1.65 [1.831 x 0.065]	40	22 [0.866]	34.3 [1.35]	34.4 [1.354]	20 [0.787]	50.5 [1.988]	24 x 3.5 [0.945 x 0.1378]
1 ½"	42.4 x 1.65 [1.669 x 0.065]	40	32 [1.26]	50.4 [1.984]	50.5 [1.988]	20 [0.787]	64 [2.5197]	37 x 5 [1.457 x 0.197]
2"	48.3 x 1.65 [1.902 x 0.065]	25	45 [1.772]	63 [2.48]	63 [2.48]	20 [0.787]	77.5 [3.051]	50 x 5 [1.969 x 0.197]
2 ½"	60.3 x 1.65 [2.374 x 0.065]	25	52 [2.047]	75.8 [2.984]	75.9 [2.988]	20 [0.787]	91 [3.583]	62 x 5 [2.441 x 0.197]
3"	76.1 x 1.65 [2.996 x 0.065]	16	60 [2.362]	89.5 [3.524]	89.6 [3.528]	20 [0.787]	106 [4.173]	75 x 5 [2.953 x 0.197]
4"	88.9 x 2.11 [3.5 x 0.083]	16	90 [3.543]	114.2 [4.496]	114.3 [4.5]	25 [0.984]	130 [5.118]	100 x 5 [3.937 x 0.197]

1) Permissible pressure in bar; these pressures may only be applied when using suitable sealing materials up to a temperature of -10 ... +140 °C.

## Ordering information

Diaphragm seal:

Diaphragm seal model / Process connection (type and specification of process connection) / Material (base body, diaphragm) / Surface roughness of wetted parts / Connection to the measuring instrument / Level of cleanliness of wetted parts / Origin of wetted parts / Certificates

Diaphragm seal system:

Diaphragm seal model / Process connection (type of process connection, pipe standard, pipe dimension) / Material (base body, diaphragm) / Surface roughness of wetted parts / Sealing / Measuring instrument (data sheet) / Mounting (direct mounting, cooling element, capillary) / min. and max. process temperature / min. and max. ambient temperature / Vacuum service / System fill fluid / Certificates / Height difference / Level of cleanliness of wetted parts / Origin of wetted parts / Instrument mounting bracket

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