

# Adapter system for measuring instruments with G1 hygienic connection

## Model 910.61 process adapter

WIKA data sheet AC 09.20



### Applications

- Food, beverage and pharmaceutical industry
- Cosmetics industry

### Special features

- Large selection of different process adapters for connection to the G1 hygienic connection
- Measuring instrument and process adapter can be combined by the user

### Description

The WIKA process adapter system has been specifically developed to meet the requirements of the food, beverage and pharmaceutical industries. The adapter system consists of the measuring instrument with G1 hygienic connection and matching process adapter.

The flexible, modular system allows connection to a wide range of aseptic process connections (e.g. clamp, threaded, VARIVENT® or NEUMO®).

All parts are made of stainless steel 1.4435 (316L); UNS S31603

The O-ring for sealing the process (optional) is supplied with a 3.1 material certificate per EN 10204. It is available in either EPDM or FKM and is listed as FDA, USP class VI, as well as 3-A 18-03.

The WIKA adapter system meets the high requirements of sterile processes.

Measuring instrument and process adapter are easily connected and disconnected using a spanner.



**Fig. top: Model S-11 pressure transmitter with G1 hygienic connection**

**Fig. centre: VARIVENT® process adapter**

**Fig. bottom: Clamp process adapter**

### Customer benefit

- Stock cost reduction
- Immediate availability of measuring instruments with different process connections
- Avoidance of long production downtimes

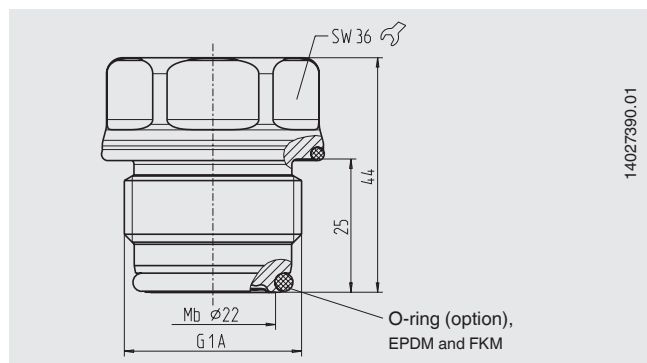
## Overview of the components

### Pressure measuring instruments with G1 hygienic connection

- Pressure transmitter model S-11, see data sheet PE 81.02 and pressure transmitter model F-21, see data sheet PE 81.19
- Process pressure transmitter model IPT-11, see data sheet PE 86.11



### Dimensions of the G1 hygienic connection in mm



### O-ring for sealing (option)

Dimensions: 21.82 x 3.53 mm

Material	Colour	Temperature range	Conformity to	Order no.
EPDM 70	black	-40 ... +145 °C	FDA 21 CFR 177.2600, USP XXV Class VI and 3-A (18-03) Sanitary Standards class 2 (max. 8 % milk fat)	14004173
FKM 75	black	-15 ... +200 °C	FDA 21 CFR 177.2600, USP XXIII class VI and 3-A (18-03) Sanitary Standards class 1	14004174

### Model 910.61 process adapter

- Clamp
- VARIVENT®
- DRD
- Thread per DIN 11851
- DIN 11864
- NEUMO BioControl®
- Weld-in connection (for welding to tanks)

Overview and dimensions of all process adapters, see page 4 ff.



## Pressure sensor Models S-11, F-21 (G1 hygienic connection)

### Version

Pressure transmitter for general applications, model S-11 (see data sheet PE 81.02) or model F-21 with field case (see data sheet PE 81.19) with flush diaphragm, G1 hygienic connection and integrated cooling element



## Process transmitter Model IPT-11 (G1 hygienic connection)

### Version

Process pressure transmitter, model IPT-11, in intrinsically safe version to ATEX (see data sheet PE 86.11) with flush diaphragm, G1 hygienic connection and integrated cooling element, case from electropolished stainless steel with display



# Overview of all model 910.61 process adapters

## Material

Stainless steel 1.4435 (316L); UNS S31603

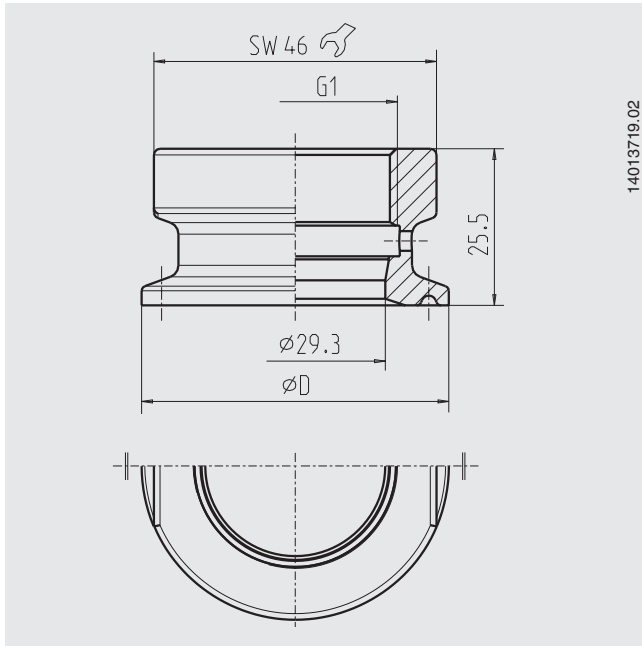
## Surface roughness of wetted parts

Ra < 0.4 µm

3-A compliant process connection	Size	Nominal pressure
Clamp connection per DIN 32676 for pipes per DIN 11866 row C or ASME BPE, DN 1 1/2"	DN 33.7, 42.4, 48.3, 60.3	PN 40
Clamp connection per DIN 32676 for pipes per DIN 11866 row C or ASME BPE	DN 1 1/2", 2", 2 1/2"	PN 40
Clamp connection for pipes per BS4825 part 3 and O.D. tube	DN 1 1/2", 2", 2 1/2"	PN 40
Clamp connection per ISO 2852 for pipes per ISO 2037 and BS4528 part 1	DN 33.7 - DN 51	PN 40
Clamp connection per DIN 32676 for pipes per DIN 11850	DN 32, 40, 50	PN 40
Thread per DIN 11851 with grooved union nut	DN 32, 40, 50	PN 25/40
Thread per IDF standard with grooved union nut	DN 1 1/2", 2"	PN 40
VARIVENT® form F (EHEDG)	Ø 50 mm	PN 25
VARIVENT® form N (EHEDG)	Ø 68 mm	PN 25
DRD	Ø 65 mm	PN 40
NEUMO BioControl®	Size 50, 65, 80	PN 16
Aseptic threaded connection DIN 11864-1 form A BS & GS (EHEDG)	DN 32, 40, 50	PN 25/40
Aseptic flange connection DIN 11864-2 form A NF & BF (EHEDG)	DN 32, 40, 50	PN 25/40
Aseptic clamp connection DIN 11864-3 form A BKS & NKS (EHEDG)	DN 32, 40, 50	PN 25/40
Weld-in connection (for welding to tanks)	Ø 50 mm	PN 40

Process connection	Size	Nominal pressure
Thread per SMS standard with grooved union nut	DN 1 1/2", 2"	PN 40
Thread per APV-RJT standard with union nut	DN 1 1/2", 2"	PN 40

## Clamp connection process adapter



Type of process connection: Clamp connection per DIN 32676

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

DN	For pipe	PN <sup>1)</sup>	Dimensions in mm	Order no.
	Outer Ø x wall thickness		D	
33.7	33.7 x 2	40	50.5	14024493
42.4	42.4 x 2	40	64	14024574
48.3	48.3 x 2	40	64	14024575
60.3	60.3 x 2	40	77.5	14024587

Type of process connection: Clamp connection per DIN 32676

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

DN	For pipe	PN <sup>1)</sup>	Dimensions in mm	Order no.
	Outer Ø x wall thickness		D	
1 1/2"	38.1 x 1.65	40	50.5	14024494
2"	50.8 x 1.65	40	64	14024576
2 1/2"	50.8 x 1.65	40	77.5	14024588

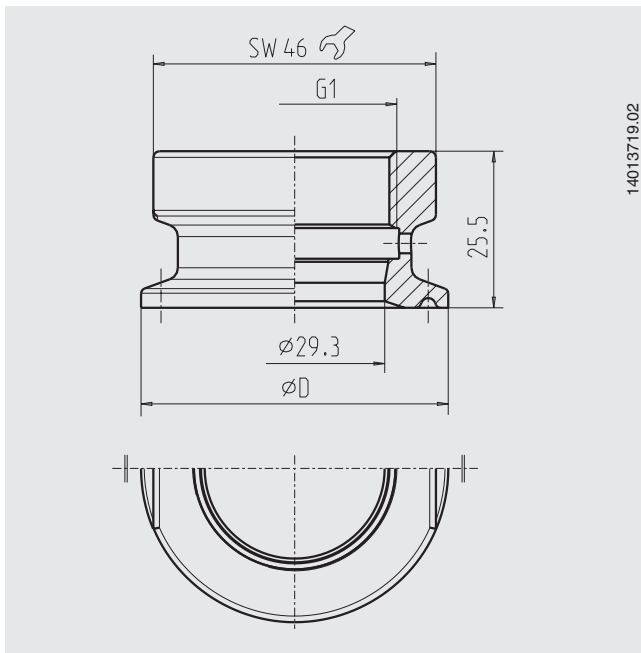
Type of process connection: Clamp connection per DIN 32676

Pipe standard: Pipes per BS4825 part 3 and O.D. tube

DN	For pipe	PN <sup>1)</sup>	Dimensions in mm	Order no.
	Outer Ø x wall thickness		D	
1 1/2"	38.1 x 1.6	40	50.5	14024552
2"	50.8 x 1.6	40	64	14024577
2 1/2"	50.8 x 1.6	40	77.5	14024590

1) For maximum pressure range consider pressure rating of clamp.

## Clamp connection process adapter



Type of process connection: Clamp connection per ISO 2852  
Pipe standard: Pipes per ISO 2037 and BS4528 part 1

DN	For pipe Outer Ø x wall thickness	PN <sup>1)</sup>	Dimensions in mm		Order no.
			D		
33.7	33.7 x 1.2	40	50.5		14024558
38	38 x 1.2	40	50.5		14024566
40	40 x 1.2	40	64		14024582
51	51 x 1.2	40	64		14024586
63.5	63.5 x 1.6	40	77.5		14024591

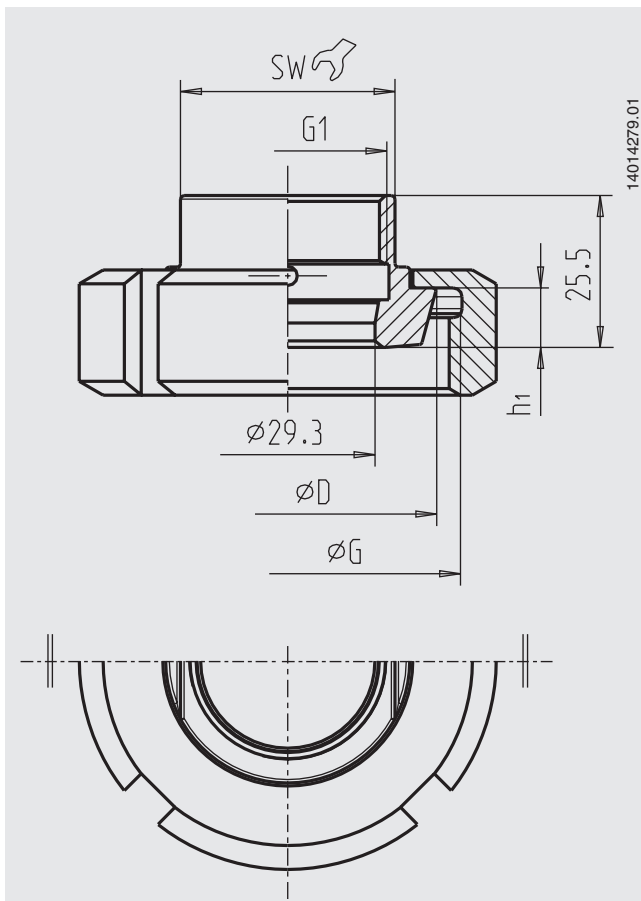
Type of process connection: Clamp connection per  
DIN 32676

Pipe standard: Pipes per DIN 11850

DN	For pipe Outer Ø x wall thickness	PN <sup>1)</sup>	Dimensions in mm		Order no.
			D		
32	34 x 1	40	50.5		14024555
40	40 x 1	40	50.5		14024572
50	52 x 1	40	64		14024584

<sup>1)</sup> For maximum pressure range consider pressure rating of clamp.

## Threaded connection process adapter



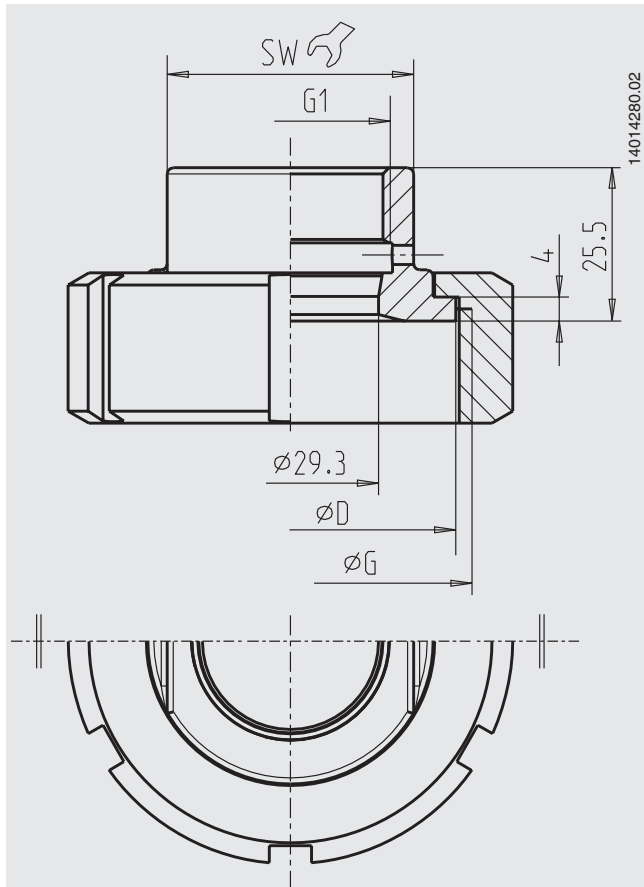
Type of process connection: Thread per DIN 11851 with  
grooved union nut

DN	For pipe Outer Ø x wall thickness	PN <sup>1)</sup>	Dimensions in mm				Order no.
			D	G	h <sub>1</sub>	SW	
32	35 x 1.5	40	50	Rd58x1/6	10	36	14024465
40	41 x 1.5	40	56	Rd65x1/6	10	41	14024477
50	53 x 1.5	25	68.5	Rd78x1/6	11	55	14024487

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

3-A compliant only in combination with profile sealing from SKS Komponenten BV or Kieselmann GmbH.

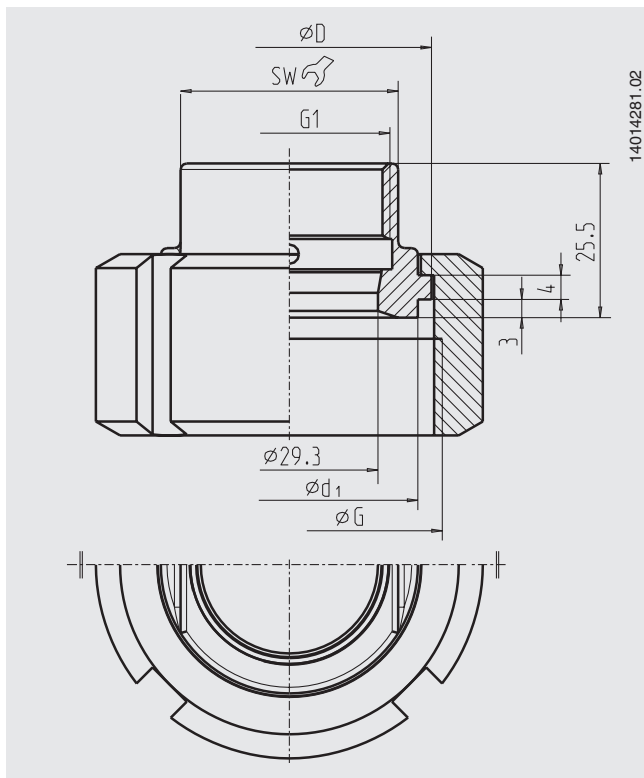
## Threaded connection process adapter



Type of process connection: Thread per SMS standard with grooved union nut

DN	For pipe Outer Ø x wall thickness	PN <sup>1)</sup>	Dimensions in mm			Order no.
			D	G	SW	
1 1/2"	38 x 1.2	40	55	Rd60x1/6	41	14024488
2"	51 x 1.2	40	65	Rd70x1/6	46	14024489

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



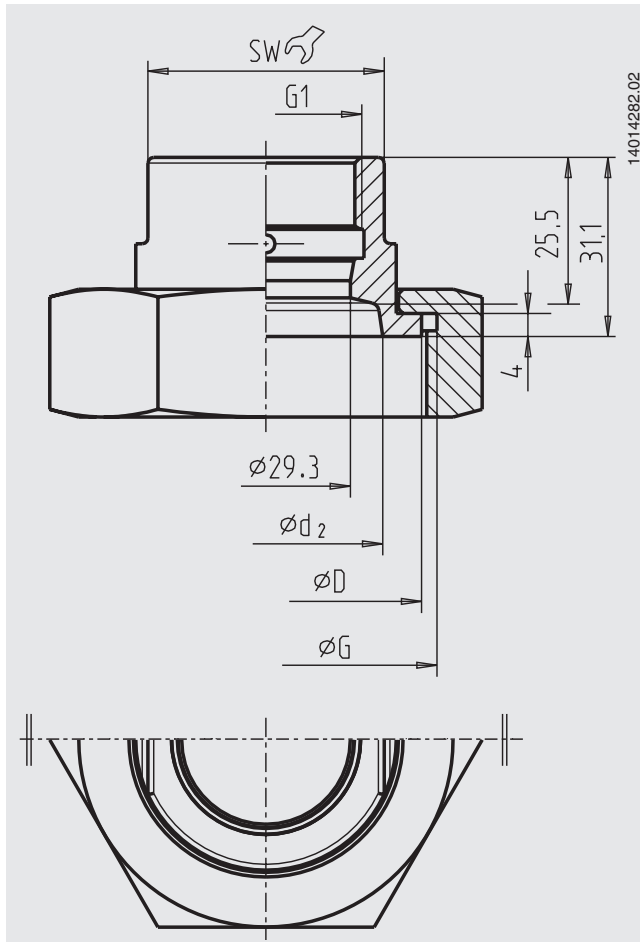
Type of process connection: Thread per IDF standard with grooved union nut

DN	For pipe Outer Ø x wall thick- ness	PN <sup>1)</sup>	Dimensions in mm				Order no.
			d <sub>1</sub>	G	D	SW	
1 1/2"	38.6 x 1.5	40	42.5	1 1/2" IDF	47	36	14024592
2"	51.6 x 1.5	40	56	2" IDF	60.5	46	14024593

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

3-A compliant only in combination with a sealing with support ring per ISO 2853

## Threaded connection process adapter



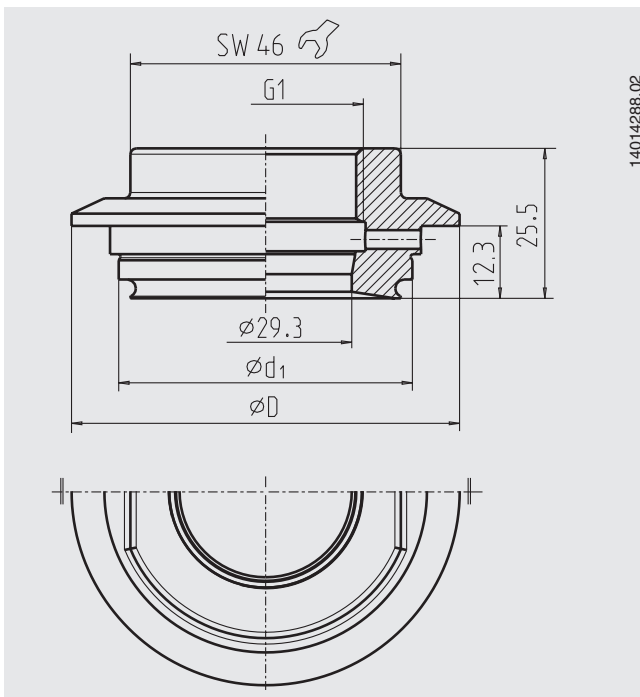
Type of process connection: Thread per APV-RJT standard with grooved union nut

DN	For pipe Outer $\varnothing$ x wall thick- ness	PN <sup>1)</sup>	Dimensions in mm			
			$d_2$	D	G	SW
1 1/2"	38.1 x 1.6	40	40.5	54	2 5/16 x 8"	41
2"	50.8 x 1.6	40	53.2	66.7	2 7/8 x 6"	46

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

DN	Order no.
1 1/2"	14024490
2"	14024492

## VARIVENT® process adapter



Type of process connection: VARIVENT® form F and VARIVENT® form N

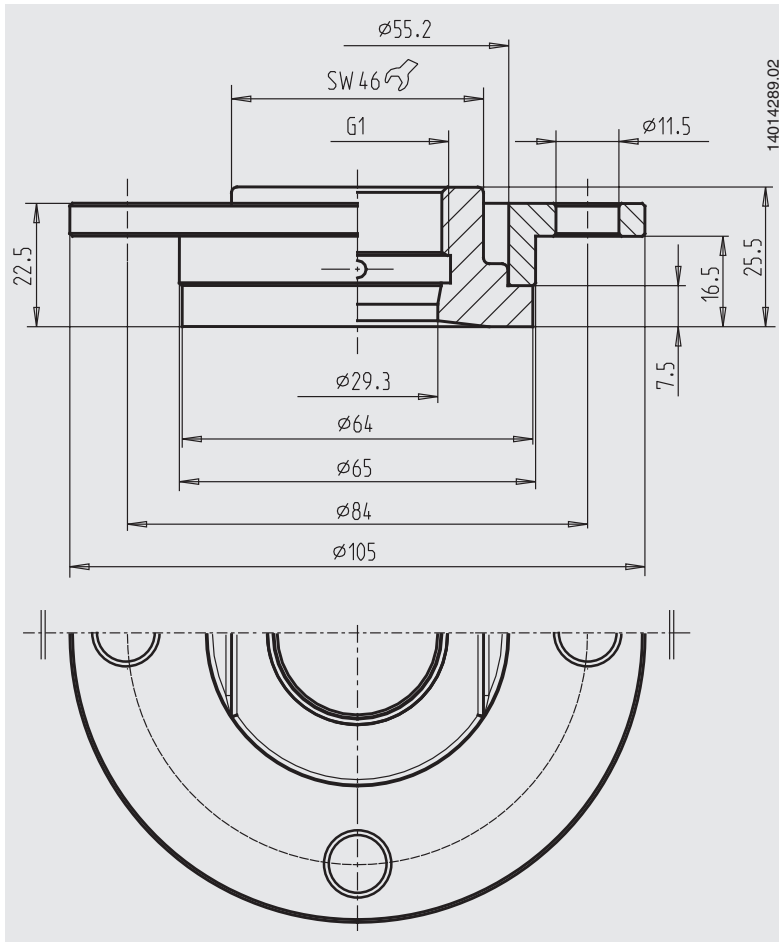
- Form F (mounting  $\varnothing$  50 mm, clamp  $\varnothing$  66 mm) for VARINLINE® access unit DN 25 and 1"
- Form N (mounting  $\varnothing$  68 mm, clamp  $\varnothing$  84 mm) for VARINLINE® access unit DN 40 - DN 125 and 1 1/2" - 4"

Access unit connection	PN <sup>1)</sup>	Dimensions in mm		Order no.
		$d_1$	D	
Form F	25	50	66	14024594
Form N	25	68	84	14024596

1) Consider pressure rating of VARINLINE® access unit.

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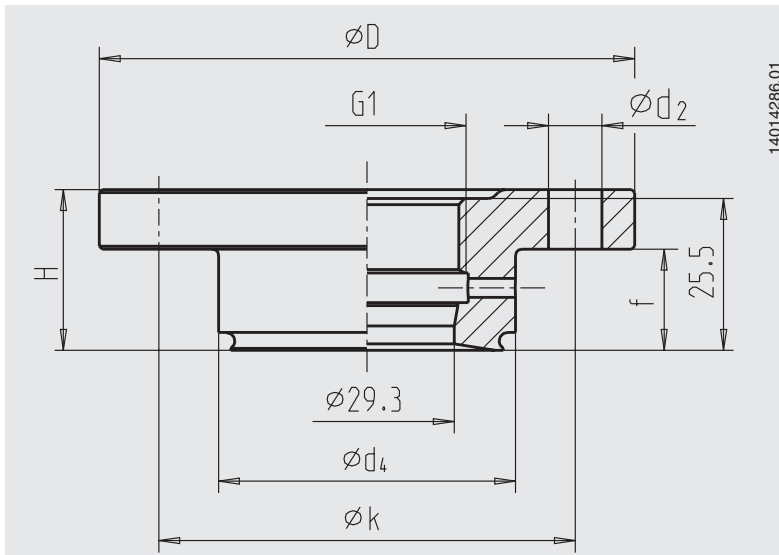
## DRD process adapter



Type of process connection: DRD connection  
(for welding flange)

Connection	PN	Order no.
DRD	40	14024670

## NEUMO BioControl® process adapter



Type of process connection:  
NEUMO BioControl® connection

Size	PN 1)	Dimensions in mm					
		d <sub>4</sub>	k	f	H	d <sub>2</sub>	D
Size 50	16	50	70	17	27	4 x 9	90
Size 65	16	68	95	17	27	4 x 9	120
Size 80	16	87.5	115	25	37	4 x 11	140

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

Size	Order no.
Size 50	14024633
Size 65	14024634
Size 80	14024635

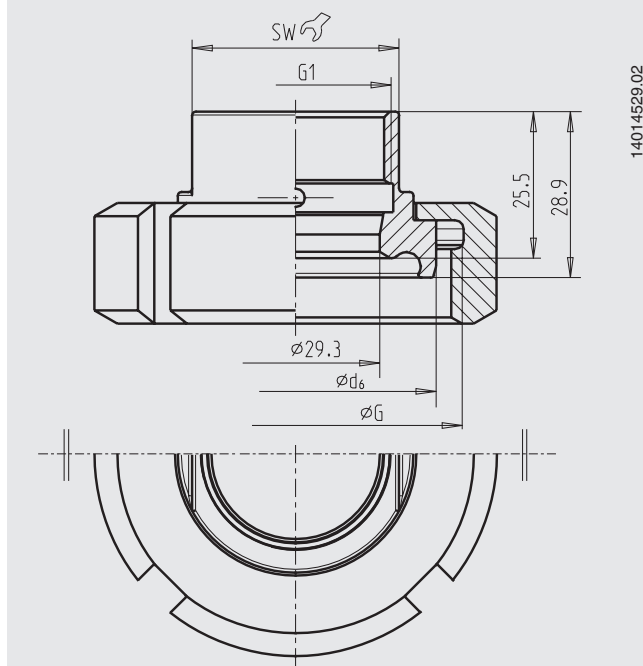


## Threaded connection process adapter

Type of process connection: Aseptic threaded connection DIN 11864-1 form A (EHEDG), liner with union nut or threaded coupling with male thread

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

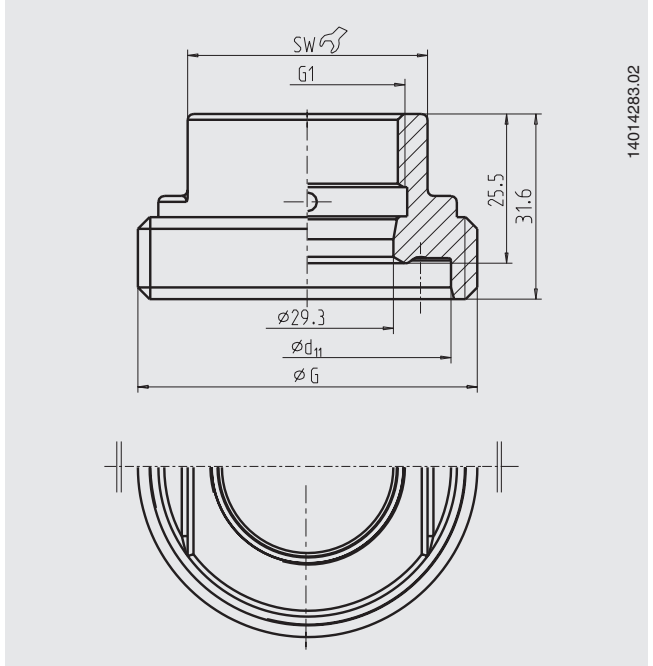
DIN 11864-1 form A BS (liner with union nut)



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DN	For pipe Outer $\varnothing$ x wall thickness	PN <sup>1)</sup>	Dimensions in mm			Order no.
			$d_6$	G	SW	
32	35 x 1.5	40	48.9	Rd58x1/6	36	14024636
40	41 x 1.5	40	54.9	Rd65x1/6	41	14024638
50	53 x 1.5	25	66.9	Rd78x1/6	55	14024641

DIN 11864-1 form A GS (threaded coupling with male thread)



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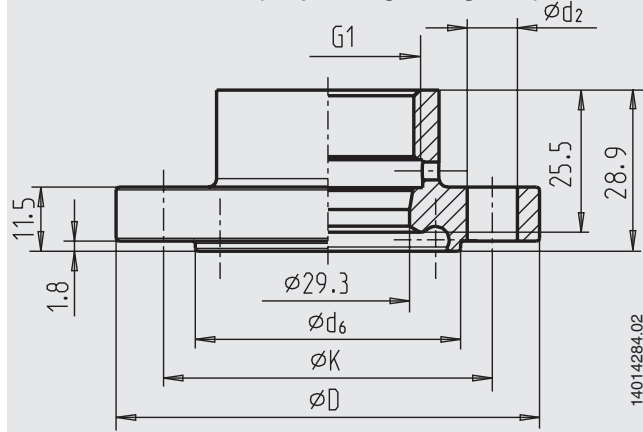
DN	For pipe Outer $\varnothing$ x wall thickness	PN <sup>1)</sup>	Dimensions in mm			Order no.
			$d_{11}$	G	SW	
32	35 x 1.5	40	49	Rd58x1/6	41	14024637
40	41 x 1.5	40	55	Rd65x1/6	50	14024639
50	53 x 1.5	25	67	Rd78x1/6	60	14024643

## Flange connection process adapter

Type of process connection: Aseptic threaded connection DIN 11864-2 form A (EHEDG), aseptic flange with groove or notch

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

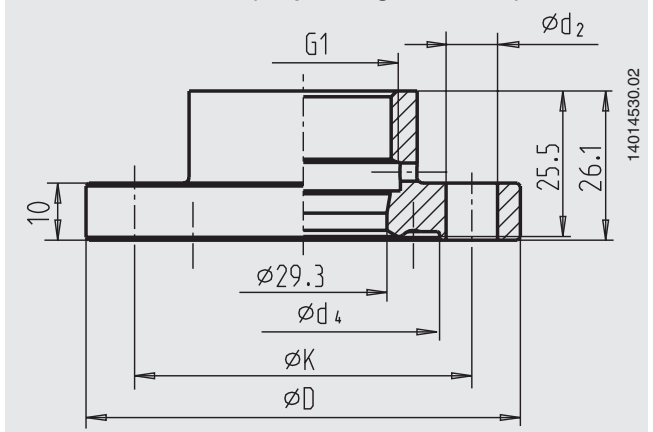
DIN 11864-2 form A NF (aseptic flange with groove)



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DN	For pipe Outer $\varnothing$ x wall thickness	PN <sup>1)</sup>	Dimensions in mm				Order no.
			$d_6$	$d_2$	D	K	
32	35 x 1.5	40	47.6	4 x $\varnothing$ 9	76	59	14024654
40	41 x 1.5	40	53.6	4 x $\varnothing$ 9	82	65	14024657
50	53 x 1.5	25	65.6	4 x $\varnothing$ 9	94	77	14024660

DIN 11864-1 form A BF (aseptic flange with notch)



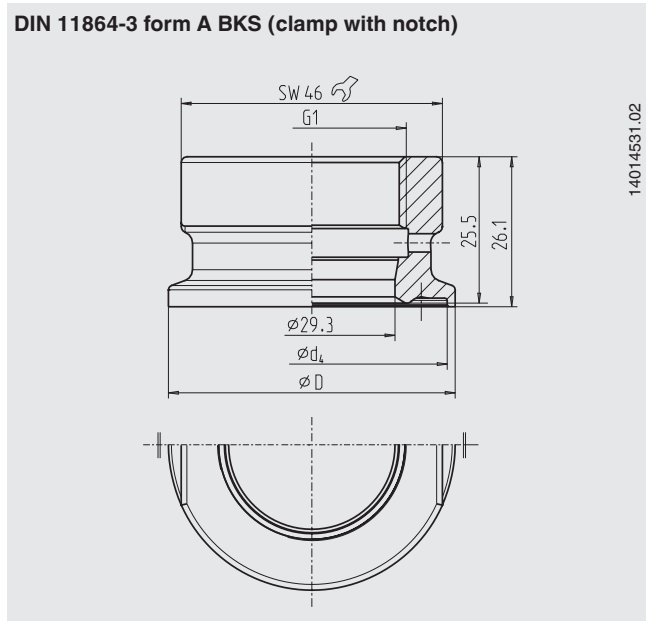
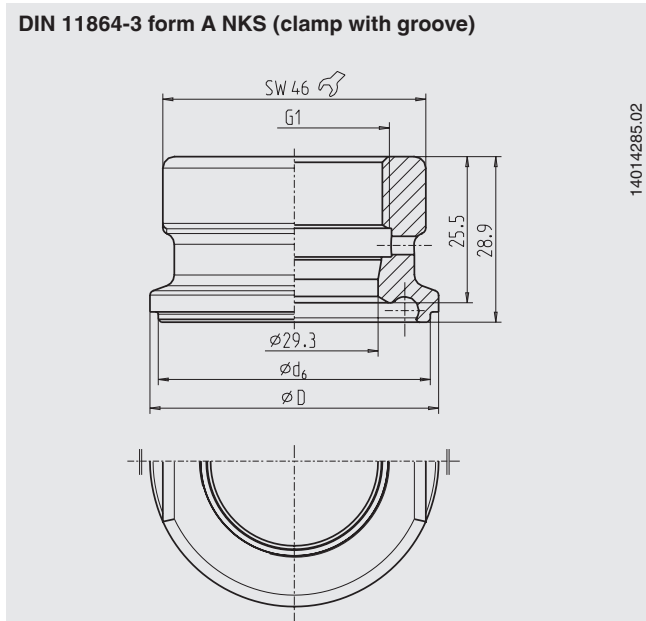
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DN	For pipe Outer $\varnothing$ x wall thickness	PN <sup>1)</sup>	Dimensions in mm				Order no.
			$d_4$	$d_2$	D	K	
32	35 x 1.5	40	47.7	4 x $\varnothing$ 9	76	59	14024645
40	41 x 1.5	40	53.7	4 x $\varnothing$ 9	82	65	14024655
50	53 x 1.5	25	65.7	4 x $\varnothing$ 9	94	77	14024659

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

## Clamp connection process adapter

Type of process connection: Aseptic threaded connection DIN 11864-3 form A (EHEDG), clamp with groove or notch  
Pipe standard: Pipes per DIN 11866 row A or DIN 11850 row 2



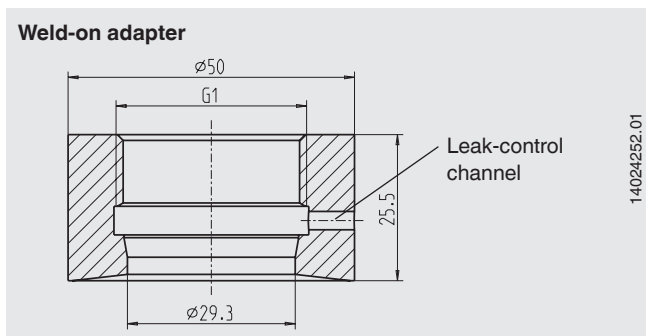
DN	For pipe		Dimensions in mm		Order no.
	Outer $\varnothing$ x wall thickness	PN <sup>1)</sup>	$d_6$	D	
32	35 x 1.5	40	47.6	50.5	14024663
40	41 x 1.5	40	53.6	64	14024666
50	53 x 1.5	25	65.6	77.5	14024668

DN	For pipe		Dimensions in mm		Order no.
	Outer $\varnothing$ x wall thickness	PN <sup>1)</sup>	$d_4$	D	
32	35 x 1.5	40	47.7	50.5	14024661
40	41 x 1.5	40	53.7	64	14024665
50	53 x 1.5	25	65.7	77.5	14024667

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

## Weld-in connection process adapter

Type of process connection: Weld-in connection with or without leak-control channel, diameter 50 mm



Version	PN	Order no.
Weld-in connection with leak-control channel	40	14070974
Weld-in connection without leak-control channel	40	14070973

For the case where a leakage occurs at the measuring instrument, the measuring instrument must be expertly separated from the process. Before recommissioning, it must be ensured that there are no residual media on the thread. For the correct removal of the media, cleaning utensils and cleaning agents suitable for the corresponding sterile process should be used. Before remounting the measuring instrument, it must be ensured, through a visual inspection, that following cleaning and rinsing no dirt particles can be found on the threads. Before recommissioning the sterile measuring point, a new seal must be inserted.

## Ordering information

To order the described product the order number is sufficient.

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