

# Flanged Process Connection, Diaphragm Seals Cell-Type (Sandwich) Seals Model 990.28

WIKA Data Sheet DS 99.28

## Applications

- Chemical process industry
- Petrochemical industry
- Suitable for corrosive, highly viscous, crystallising or hot pressure media
- High pressure applications

## Special Features

- Sandwich flange (cell) with a flush welded diaphragm with contoured diaphragm bed
- Available for all standard dimensions and nominal diameters
- With special materials all wetted parts of the selected material



**Diaphragm Seal, Flanged Process Connection, Cell-Type (Sandwich) Model 990.28 with Capillary**

## Description

### Process connection

Flanges DN 40, 50, 80, 100, 125 following EN 1092-1, sealing face form B1 or NPS 1½", 2", 3", 4", 5" per ASME B 16.5, RF 125 ... 250 AA

For the mounting an additional blind flange is required (not included in the scope of delivery)

### Pressure rating

See table (reverse side)

### Suitable pressure ranges

25 mbar and up, depending on diaphragm size and process conditions

### Material of wetted parts

Stainless steel 316L

### Instrument connection

Material stainless steel 316L, adaptor G ½ female per EN 837-1, welded to capillary

### Capillary extension

Radial entry capillary of stainless steel 1.4571, welded to body,

armoured, armour material stainless steel 1.4301

Standard extensions: 1, 1.6, 2.5, 4, 5, 6, 7, 8 m

Minimum curve radius: 30 mm

## Optional extras

### Process connection

- Sealing faces per EN 1092-1, form B2 or per ASME B 16.5, RF 125 AA, 500AA, RFSF; EN 1092-1 groove and tongue; projection and recess; ASME B 16.5 snap ring groove form RJF (limited for special materials, please inquire)
- Flame arrester approved for Zone 0

### Instrument connection

- Adaptor with optional welding or pipe thread nipple

### Material of wetted parts

- Stainless steel 1.4435, 1.4541, 1.4571, 1.4462, Monel 400, Hastelloy C276, Inconel 600, Incoloy 825, tantalum max. 400 °C
- Hastelloy B2, C4, C22 and nickel max. 260 °C (max. 400 °C on inquiry)
- Platinum, titanium, zircon max. 150 °C (max. 400 °C on inquiry)
- Silver foil max. 150 °C
- Stainless steel 316L with gold plating approx. 25 micron
- PTFE foil max. 260 °C ≤ 100 bar
- PFA coating max. 260 °C
- ECTFE (Halar®) coating max. 150 °C

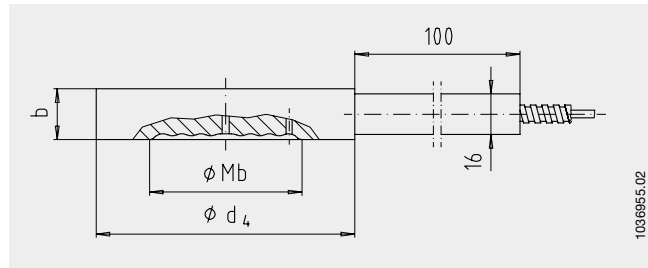
### Capillary extension

- Custom extension lengths between 1 and 15 m
- Soft polyethylene or PTFE armour

### Flushing ring

- Stainless steel 316L, for flange DN 40 ... 125 per EN resp. NPS 1½" ... 5" per ASME (see data sheet AC 91.05)

## Dimensions in mm



### Flange connection following EN 1092-1, form B1

DN in mm	PN in bar	Dimensions in mm			Weight in kg
		Mb	d <sub>4</sub>	b	
40	16 ... 100	40	88	20	0.90
50	16 ... 100	59	102	20	1.30
80	16 ... 100	89	138	20	2.30
100	16 ... 100	89	159	20	3.10
125	16 ... 100	124	188	22	4.80

PN 16 ... 400 following DIN 2501et seqq.  
Higher pressure ratings PN on inquiry  
Mb = effective diameter of diaphragm

### Flange connection per ASME B 16.5, raised face

NPS	Class	Dimensions in mm			Weight in kg
		Mb	d <sub>4</sub>	b	
1½"	150 ... 2500	40	73	20	0.70
2"	150 ... 2500	59	100	20	1.25
3"	150 ... 2500	89	134	20	2.25
4"	150 ... 2500	89	158	20	3.10
5"	150 ... 2500	124	186	22	4.70

Mb = effective diameter of diaphragm

## Ordering information

Model / Process connection (standard, nominal size, pressure rating, sealing face) / Material of wetted parts / Instrument connection: directly combined or capillary extension, capillary length / Fill fluid / Pressure gauge model / Process conditions: application, process temperature max. and min., ambient temperature max. and min.

Modifications may take place and materials specified may be replaced by others without prior notice.  
Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.



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