

Flanged Process Connection, Diaphragm Seals Model 990.12, Threaded Design

WIKA Data Sheet DS 99.31

Applications

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

Special Features

- Flanged process connection per EN/ASME DN 15, 20, 25 resp. NPS ½", ¾", 1"
- Design with internal diaphragm and diaphragm bed, upper and lower housing threaded
- Wide variety of special materials

Description

Pressure rating

PN 25 ... 250 resp. class 150 ... 1500

Suitable pressure ranges

0 ... 0.6 bar to 0 ... 250 bar

Upper housing (instrument connection)

Material stainless steel 316 L, G ½ female

Diaphragm

Material stainless steel 316 L, welded with upper housing
Effective diameter of diaphragm $M_b = 52$ mm

Sealing ring

FPM (Viton®) max. 200 °C

Lower housing (process connection)

Material stainless steel 316 L
Flanges DN 15, 20, 25 following EN 1092-1,
sealing face form B1
or NPS ½", ¾", 1" per ASME B 16.5, RF 125 ... 250 AA

Fastening parts

Retainer flange, hexagonal bolts and nuts:
galvanised steel max. 200 °C

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Diaphragm Seal, Flanged Process Connection, Threaded Design Model 990.12, with Pressure Gauge Model 232.50 NS 100

Optional extras

Upper housing (instrument connection)

- Stainless steel 1.4571, 1.4541, titanium
- Capillary extension (welded with upper housing)
- Cooling tower for directly mounted gauge when fluid temperature > 100 °C

Diaphragm

- Stainless steel 1.4571, 1.4435, 1.4539, 1.4541, 1.4462
- Hastelloy B3, C4, C276, Monel 400, Nickel, Inconel 600, Incoloy 825, tantalum, titanium, zirconium (upper housing titanium)
- Silver foil max. 150 °C
- PTFE foil max. 260 °C ≤ 100 bar
- PFA coating max. 260 °C
- ECTFE (Halar®) coating max. 150 °C

Optional extras, continued

Sealing ring

- PTFE (standard with special material diaphragm) for max. 260 °C
- Metal seal form C, stainless steel 1.4571 silver plated or Inconel silver plated for max. 400 °C

Lower housing (process connection)

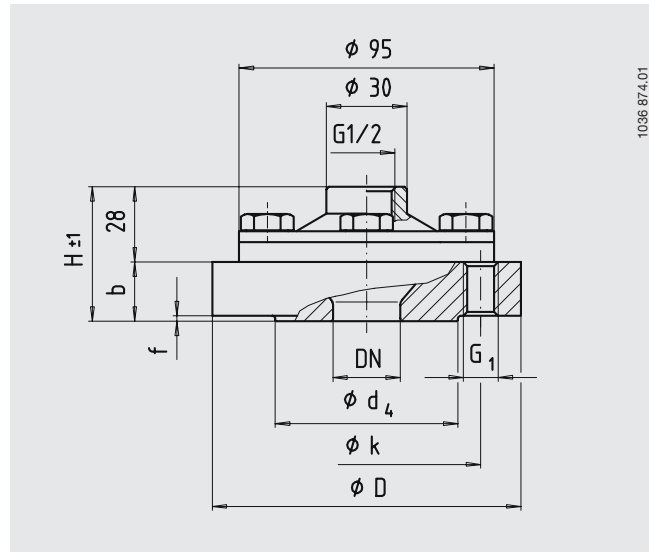
- Lining or coating of special material
- Other flanged process connections on inquiry
- Sealing faces per EN 1092-1, form B2 or per ASME B 16.5, RF 125 AA, 500AA, RFSF; EN 1092-1 groove and tongue; projection and recess; ASME B 16.5 snap ring groove form RJF (limited for special materials, please inquire)
- Flame arrester approved for Zone 0
- Flushing connection (not with coating)

Fastening parts

- Retainer flange and bolts in stainless steel, max. 260 °C
- Retainer flange in stainless steel and high tensile bolts alloy steel, max. 400 °C

Dimensions in mm

Flanged process connection, threaded design



Connection standard	DN	PN/Class 1)	Dimensions in mm						Weight in kg	
			D	k	d ₄	b	f	H		G ₁
Connection following EN 1092-1 form B1 / DIN 2501 form D	15	10/40	95	65	45	28	2	56	4 x M 12	1.6
	15	63/100	105	75	45	25	2	53	4 x M 12	2.0
	15	160	105	75	45	25	2	53	4 x M 12	2.1
	15	250	130	90	45	26	2	54	4 x M 16	3.2
	20	10/40	105	75	58	25	2	53	4 x M 12	1.9
	25	10/40	115	85	68	22	2	50	4 x M 12	2.1
	25	63/100	140	100	68	24	2	52	4 x M 16	3.2
	25	160	140	100	68	28	2	52	4 x M 16	3.6
Connection per ASME B 16.5 raised face	25	250	150	105	68	28	2	56	4 x M 20	4.0
	1/2"	150	95	60.5	35	28	2	56	4 x 1/2" UNC	1.6
	1/2"	300	95	66.5	35	28	2	56	4 x 1/2" UNC	1.6
	1/2"	600	95	66.5	35	32	7	60	4 x 1/2" UNC	1.8
	1/2"	1500	120	82.5	35	40	7	68	4 x 3/4" UNC	3.6
	3/4"	150	100	70	43	28	2	56	4 x 1/2" UNC	1.7
	3/4"	300	120	82.5	43	22	2	50	4 x 5/8" UNC	1.9
	3/4"	600	120	82.5	43	25	7	53	4 x 5/8" UNC	2.2
	3/4"	1500	130	89	43	32	7	60	4 x 3/4" UNC	3.3
	1"	150	110	79.5	51	22	2	50	4 x 1/2" UNC	1.6
	1"	300	125	89	51	22	2	50	4 x 5/8" UNC	2.0
	1"	600	125	89	51	24.5	7	52.5	4 x 5/8" UNC	2.3
1"	1500	150	101.5	51	36	7	64	4 x 7/8" UNC	4.8	

1) PN 10/40 respectively class 150 and 300 see also data sheet DS 99.27, for class 400 respectively 900 the dimensions of class 600 respectively 1500 are used.

Ordering information

Model / Process connection (standard, nominal size, pressure rating, sealing face) / Material of upper housing, diaphragm, lower housing, fastening parts and sealing ring / Instrument connection / Fill fluid / Pressure gauge model / Accessories and specials / 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.

