

In-Line-Type Chemical Seals with integrated Temperature Measurement

For Food, Biochemical and Pharmaceutical Industry

Chemical Seals

Male Thread • Model 983.18
Clamp Fitting • Model 983.22

Service intended

For direct, fast installation and removal in pipelines for flowing, pure and highly viscous media. More especially in the food, luxury goods, biochemical and pharmaceutical industry, as well as for filling plants and paint and varnish processes. For all applications where measuring points without dead space are required.

Design

Pressure and temperature measurement combined in one measuring location. Contamination is avoided through the fully round version with no corners or intrusion and optimal transition to the pressure media line. The temperature sensor is located at the interior walls of the in-line type chemical seal. Measuring point cleaning is quick and no residue is left. The design also allows for use with a pigging system.

Process connection

Model 983.18: male thread DIN 11 887,
DN 15, 25, 40, 50, 65, 80, 100
Model 983.22: clamp fitting DIN 32 676 DN 25, 40, 50, 65, 80, 100 or
Tri-Clamp 1", 1 1/2", 2", 2 1/2", 3", 3 1/2", 4" pipe size

Pressure rating

PN 40 (25) maximum

Temperature areas

Operating temperature ambient see data sheet pressure gauge or pressure transmitter
possible measuring ranges: -40 ... +150 °C

Sensor limiting error

- Class A to DIN EN 60 751 (only with 3 wire or 4 wire method of connection)
- Class B to DIN EN 60 751
- A DIN B at 0 °C

Temperature transmitter

Optional installation of analogue or digital transmitters completes the range of applications.

- analogue, fixed measuring ranges:
Model T20 to data sheet TE 20.01
- analogue, measuring range selectable with soldered bridges:
Model T21 to data sheet TE 21.01
- analogue, process industry series:
Model T31 to data sheet TE 31.01
- digital, Model T12 to data sheet TE 12.01
- digital, with HART® Protocol: Model T32 to data sheet TE 32.01

Standard features

Process connection

Stainless steel 1.4435, Nominal value see drawings and tables
Model 983.18: male thread DIN 11 887
Model 983.22: clamp fitting

Wetted parts

Stainless steel 1.4435

Location of connection

Pressure gauge: on top
Temperature sensor with and without transmitter: in front
(see examples picture 1 and 2)



picture 1: model 983.22 with pressure gauge NS 63 and temperature sensor with Lemo-connector as well



picture 2: model 983.22 with pressure transmitter model 891.13.500 and temperature sensor with transmitter and connection head as well

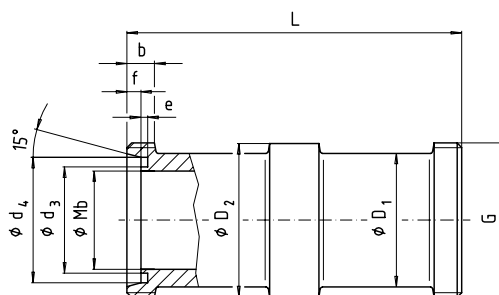
Optional extras

- Process connection other Nominal Sizes and connections as:
thread or flange DIN 11 864, SMS (model 983.19), IDF (Model 983.20), APV-RJT (Model 983.21), Clamp ISO 2852, other sterile connections
Standard: thread on both sides (with asymmetrical connections: give location of thread or thread joint)
- Special materials (solid metal only) available upon inquiry
- Other location of connection
- Higher accuracy on inquiry
- Temperature measuring only (model 982.XX, temperature sensor mounts directly with and without transmitter)
- Pressure measuring only (model 981.XX, pressure gauge or transmitter mounts directly, data sheet CS 98.04)

Dimensions

Standard version

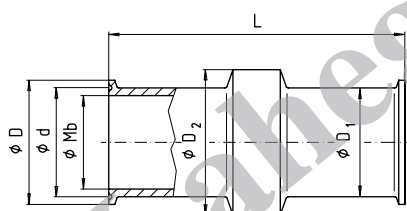
Model 983.18 with male thread DIN 11 887



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DN [mm]	PN [bar]	Dimensions [mm]									
		G	L	d ₃	d ₄	b	f	e	D ₁	D ₂	Mb ¹⁾
15	40	Rd 34 x 1/6	104	18	25.8	12	4	3	28	34	16
25	40	Rd 52 x 1/6	128	30	39.8	14	7	3.5	38	52	26
40	40	Rd 65 x 1/6	160	42	51.8	14	7	3.5	55	65	38
50	25	Rd 78 x 1/6	170	54	63.8	14	7	3.5	68	78	50
65	25	Rd 95 x 1/6	182	71	80.8	16	8	3.5	85	95	66
80	25	Rd 110 x 1/4	182	85	94.8	20	8	3.5	100	110	81
100	25	Rd 130 x 1/4	182	104	113.8	20	10	4	120	130	100

Model 983.22 with clamp fitting



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DIN 32 676

DN [mm]	PN [bar]	Dimensions [mm]					
		L	D	d	D ₁	D ₂	Mb ¹⁾
25	40	114	50	43.5	36	50	26
40	40	146	50.5	43.5	43	55	38
50	40	156	64	56.5	56	64	50
65	25	156	91	83.5	82	91	66
80	25	156	106	97	94	106	81
100	25	156	119	110	108	119	100

Tri-Clamp

DN	PN [bar]	Dimensions [mm]					
		L	D	d	D ₁	D ₂	Mb ¹⁾
1"	40	96	50	43.5	36	50	15
1"	40	114	50	43.5	36	50	25.4
1 1/2"	40	146	50.5	43.5	43	55	38
2"	40	156	64	56.5	56	64	48
2 1/2"	25	156	77.5	70.5	68	77.5	60
3"	25	156	91	83.5	82	91	73
3 1/2"	25	156	106	97	94	106	85
4"	25	156	119	110	108	119	97.6

1) WIKA standard diameter, other diameters and nominal sizes on inquiry

Ordering information

Specify:

Model / DN / Size of connection / PN process line / Filling liquid / Pressure instrument desired / Temperature sensor or transmitter / Kind and location of connection / Process conditions as per questionnaire / Optional extras required

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



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