Baumer
Passion for Sensors

D914
Flanged chemical seals

Main Features

- Pressure range from 10 mbar to 250 bar
- Flange class 1500
- DN20 to DN50
- Temperature -40 °C ... +400 °C
- Stainless steel 1.4404 NACE
- Pressure, level or flow measurement
- Mounted on differential, absolute or gauge pressure transmitters

Applications

- Oil & Gas / Chemical
- Energy

Technical Data

Measurement ranges	Gauge or differential pressure: 10 mbar min. Absolute pressure: 50 mbar min.
Temperature	-40 °C ... +400 °C
Filling liquids	Suitable for high temperature
Capillary	1.5 to 15 m
Process flange	Class 1500 as per EN1759-1 or ANSI B16-5 NPS 3/4" to NPS 2" / DN 20 to DN50 Raised face (B/RF) or ring joint face (J/RTJ) Integrated steam tracing circuit in U: 1/4 NPT inlet/outlet, Ø 8 mm drilling Bolts ISO (metric) or ASME (UNC) **Drain/vent valve** Needle valve SW¼" OD10 or OD3/8"
Maximum pressure	Depending on class, temperature and material (see table page 2)

CE conformity

PED 2014/68/EU ATEX 2014/34/EU	Category III Ex II 2 GD c (the associated transmitter must comply with the ATEX zone where it is used)

Material

Counter-flange	Carbon Stainless steel BF48N
Upper part	Forged Stainless steel 1.4404 EN 10222-5 Compliant with NACE MR 0103 or MR 0175
Diaphragm	Stainless steel (1.4435) or Hastelloy C276 (2.4819) Active diameter 95 mm
Internal sealing joint	Ring Joint R35 316L *The ring joint is also supplied in case of delivery of the cell type seal alone without the process flange neither the counter flange.*
Capillary	Length 1.5 - 3 - 4.5 - 6 - 9 - 12 and 15 meters Stainless steel capillary tube and protection white plastic outer sheath UL94V0
Process flange	Forged stainless steel 1.4404 EN 10222-5 Compliant with NACE MR 0103 or MR 0175
Bolting	Process and chemical seal sides ASTM A193 B7M/A194 2HM/A194 Grade 7
Filling liquid	LRS8: 0...300 °C (for vacuum and absolute pressure) LRS9: -40...400 °C (high temperature oil) Other liquids on request

Options

- 0393 mounting on high pressure side (HP) [1)]
- 0385 mounting on low pressure side (LP) [1)]

[1)] *Only for differential transmitters with:*
- only 1 seal mounted
- 2 different seals mounted on LP and HP side

Material	Diaphragm seal and process flange in stainless steel 1.4541 EN 10222-5 compliant with NACE MR 0103 or MR 0175. Ask Baumer
Diaphragm coating	Gold, 15 µm thickness
Capillary	• Capillary with low-temperature controlled electric heat tracing • Improve response time for long capillary • Decrease in effects of outside temperature: at -40 °C capillary tube temperature over +30 °C at +40 °C capillary tube temperature below +60 °C • Approx. Ø 25 mm heat insulation • Sealed outer sheath
Unassembled chemical seal	Option 1940. The D914 chemical seal can be delivered in 4 parts unassembled - the counter flange - the chemical seal - the RTJ joint - the process flange with the bolting and the valves (according to versions)

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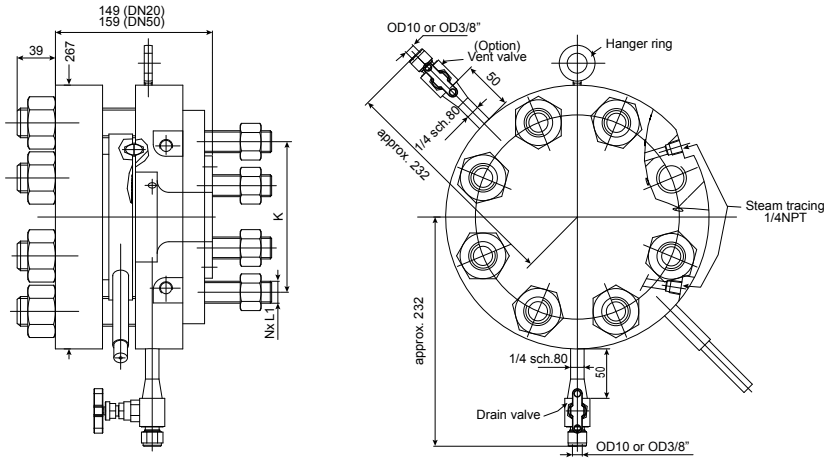
Dimensions (mm)



Flange dimensions (mm)

DN	Class	Ø K	ØL1 ISO	ØL1 ASME	N	Weight kg	N° GRTJ(1)
20 3/4"	1500	88.9	M20	3/4" UNC	4	58	R 14
25 1"	1500	101.6	M24	7/8" UNC	4	62	R 16
40 1"1/2	1500	123.8	M27	1" UNC	4	63	R 20
50 2"	1500	165.1	M24	7/8" UNC	8	65	R 24

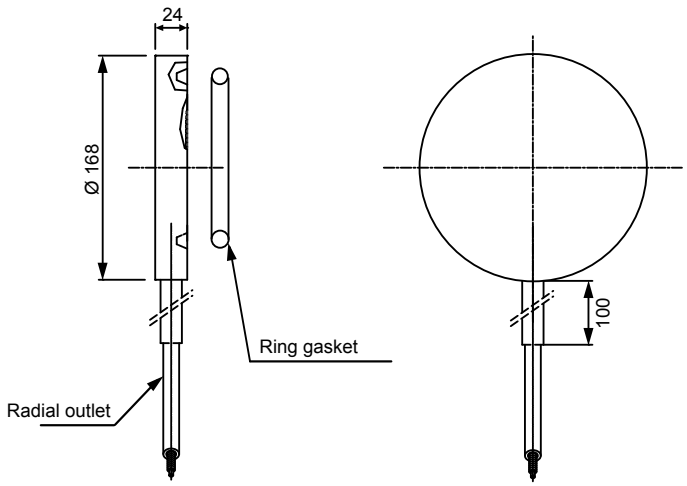
(1) Number of the RTJ groove in case of RTJ flange on process side. Gasket not supplied

Max pressure (bar) / Temperature / Material / Class 1500

Material	Class	Temperature								
		-40...+20 °C	50 °C	100 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400 °C
1.4404 / EN 10222-5	1500#	228	217	199	182	164	152	142	136	130
1.4541 / EN 10222-5	1500#	240	229	211	200	188	176	163	150	150

The maximum working pressure can be limited by the characteristics of the piping customer side (standard and class of the flange, material, gasket...)

Chemical seal without the process flange



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Ordering details D914

D914	–	M		1	.						.										

Model
Flanged chemical seals: D914
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Top housing material
Forged NACE compliant 1.4404 st. steel: M

Capillary type
St. steel tube and protection: A
St. steel tube and protection and white plastic ATEX sheath: D
St. steel tube and reinforced protection: F
St. steel tube and protection, heat-insulated: M
St. steel tube and protection, traced/heat-insulated: P

Outlet position
Side outlet: 1
.

Capillary length
1.5 m: E
3 m: 3
4.5 m: F
6 m: 6
9 m: 9
12 m: D
15 m: G

Instrument connection [2]
For ABB 265 DR (D): H
For ABB 265 GR - 265 VS (G): J
For Honeywell STD 820/830/720/730 (D): A
For Honeywell STG 740/770 (G): D
For Honeywell STG 84x/87x/88x (G): E
For Honeywell STA 840/740 (A): G
For SIEMENS SITRANS (D): 7
For SIEMENS SITRANS (G): 8
For YOKOGAWA EJX110 (low volumes) capsules M, H, V (D): F
For YOKOGAWA EJX430 (low volumes) (G): V
For YOKOGAWA EJX110 (standard flanges) capsules M, H, V (D): P
For YOKOGAWA EJX 310/430 (standard flanges) (A) (G): Q
For YOKOGAWA EJX 440 (standard flanges) (G): W
For YOKOGAWA EJX 130A (D): Y

Filling liquids
LRS8 vacuum oil: 8
LRS9 high temperature oil: 9

Diaphragm material
St. steel 316L (1.4435): 2
Hastelloy C276 (2.4819): 6
St. steel 316L (1.4435) (P< 25 mbar): C
Hastelloy C276 (2.4819) (P < 25 mbar): D

Diaphragm coating
No coating: 0
Gold 15 µm: 7
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Process flange standard [3]
Without flange: 0
ANSI B16-5: 2
EN 1759-1 flange: 6

Vent valve [3]
None: 0
1 SW1/4" OD10 valve: 1
1 SW1/4" OD3/8" valve: 9

Drain valve [3]
None: 0
1 SW1/4" OD10 valve: 1
1 SW1/4" OD3/8" valve: 9

Heat tracing circuit [3]
None: 0
With: 1

Bolts [3]
Without flange: 0
ISO (metric) [1]: M
ASME (UNC): A

Process flange face finish [3]
Standard finish: 0

Process flange face type [3]
Without flange: 0
Raised face (RF): R
Ring joint face (RTJ): Q

DN / NPS [3]
Without flange: 0
NPS 3/4" (DN20): 3
NPS 1" (DN25): 4
NPS 1"1/2 (DN40): 6
NPS 2" (DN50): 7

PN / Class [1]
Without flange: 0
Class 1500: 5

Process flange material [3]
Without flange: 0
Forged NACE compliant 1.4404 st. steel: M

[1] Except flanges ANSI B16-5
[2] Type of transmitter: D=Differential / G=Gauge / A=Absolute
[3] To codify chemical seal delivered without the process flange, select codes 0. Ex: D914–MD13F967.0000000000