

Main Features

- Pressure range from 500 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 or gauge pressure transmitters

Applications

- Oil & Gas / Chemical
- Energy

Technical Data

Measurement ranges	Gauge or differential pressure: 500 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 SW1/4" OD10 or OD3/8"
Maximum pressure	Depending on class, temperature and material (see table page 2)

CE conformity

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

Material

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 58 mm
Internal sealing joint	Ring joint R24 316L <i>The ring joint is also supplied in case of delivery of the chemical seal alone without the process flange.</i>
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
Filling liquid	LRS9: -40 ... 400 °C (high temperature oil) Other liquids on request

Options

Material	Forged stainless steel 1.4541 (321), 1.4539 (904L), 1.4412 (Duplex), 1.4410 (super duplex) Hastelloy C276, Monel 400, Carbon steel ASTM SA-350 LF2. Ask Baumer
Diaphragm coating	Gold, 15 µm thickness
Capillary	<ul style="list-style-type: none"> • Capillary with low-temperature controlled electric heat tracing • Reduce influence of environmental temperature • Improve response time for long capillary <ul style="list-style-type: none"> - Decrease in effects of outside temperature : <ul style="list-style-type: none"> 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 D944 chemical seal can be delivered in 3 parts unassembled <ul style="list-style-type: none"> - the upper part (chemical seal coupled with the transmitter) - the RTJ joint - the process flange with the bolting and the valves (according to versions)

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	27	R 14
25 1"	1500	101.6	M24	7/8" UNC	4	30	R 16
40 1"1/2	1500	123.8	M27	1" UNC	4	32	R 20
50 2"	1500	165.1	M24	7/8" UNC	8	28	R 24

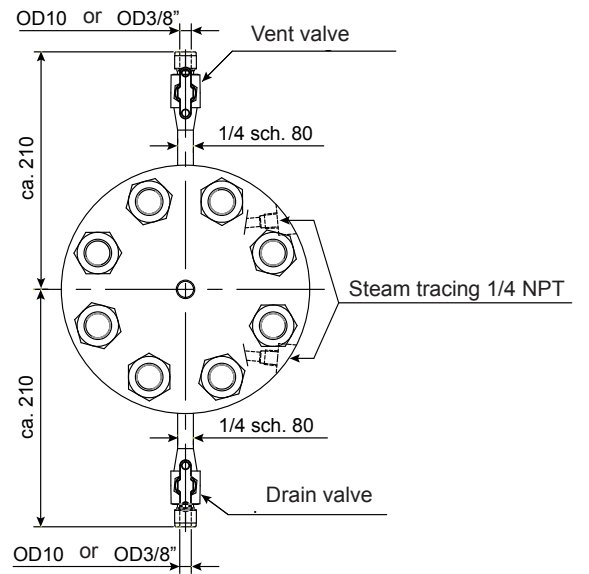
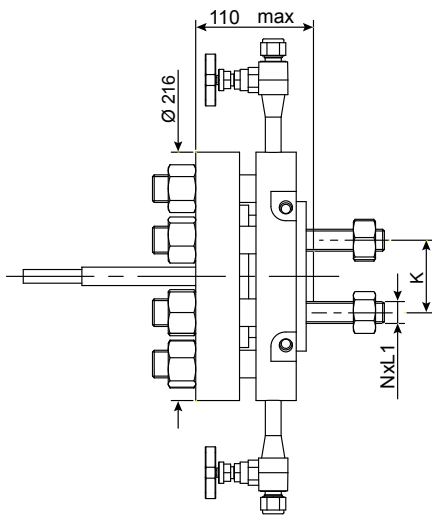
⁽¹⁾ Number of the RTJ groove in case of RTJ flange on process side. Gasket not supplied.

Max pressure (bar) / Temperature / Material

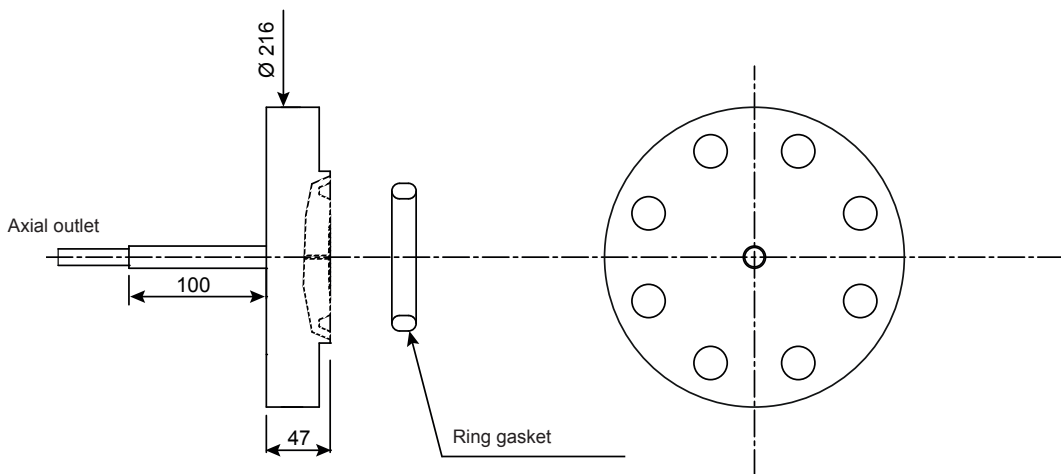
Material	Class	Temperature								
		-40...+20°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4404 / EN 10222-5	1500#	228	217	199	182	164	152	142	136	130
1.4541 / EN 10222-5	1500#	240	229	211	200	188	176	163	156	150
1.4539 / EN 10272	1500#	240	229	211	200	188	176	163	156	150
1.4462 / EN 10222-5	1500#	240	229	211	200	188	176	-	-	-
1.4410 / EN 10222-5	1500#	240	229	211	200	188	176	-	-	-
Hastelloy N10276 according to ASME SB-564	1500	240	229	211	200	188	176	163	156	150
ASME SA-350 gr.LF2	1500#	240	229	211	200	188	176	163	156	150
Monel 400 N04440 according to ASME SB-564	1500#	206	201	180	170	165	163	163	163	161

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

Dimensions (mm)



Chemical seal without the process flange



Ordering details D944

D944 - M 0			
Model	Flanged chemical seals	D944	
Upper part material	Forged NACE compliant 1.4404 st. steel	M	
Capillary type	Direct mounting	1	
	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	Axial outlet	0	
Capillary length	Without capillary / direct mounting	0	
	1.5 m	E	
	3 m	3	
	4.5 m	F	
	6 m	6	
	9 m	9	
	12 m	D	
	15 m	G	
Connection on measuring instrument side⁽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 SIEMENS SITRANS (D)	7	
	For SIEMENS SITRANS (G)	8	
	For YOKOGAWA EJX110 (low volumes) capsules M, H, V (D)	F	
	For YOKOGAWA EJX 430 (low volumes) (G)	V	
	For YOKOGAWA EJX 110 (standard flanges) capsules M, H, V (G)	P	
	For YOKOGAWA EJX 310/430 (standard flanges) (A) (G)	Q	
	For YOKOGAWA EJX 440 (standard flanges) (G)	W	
	For YOKOGAWA EJX 130A	Y	
Filling liquids	LRS9 high temperature oil	9	
Diaphragm material	St. steel 316L (1.4435)	2	
	Hastelloy C276 (2.4819)	6	
Diaphragm coating	No coating	0	
	Diaphragm with 15 µm thick GOLD coating	7	
Process flange standard⁽³⁾	Without flange	0	
	ANSI B16-5	2	
	EN 1759-1 flange	6	
		0	Vent valve⁽³⁾
		1	1 SW1/4" OD10 valve
		9	1 SW1/4" OD3/8" valve
		0	Drain valve⁽³⁾
		1	1 SW1/4" OD10 valve
		9	1 SW1/4" OD3/8" valve
		0	Heat tracing circuit⁽²⁾
		1	With
		0	Bolts⁽³⁾
		M	Without flange
		A	ISO (metric) ⁽¹⁾
			ASME (UNC)
		0	Process flange face finish⁽³⁾
			Standard finish
		0	Process flange face type⁽³⁾
		R	Without flange
		Q	Raised face (RF)
			Ring joint face (RTJ)
		0	DN / NPS⁽³⁾
		3	Without flange
		4	NPS 3/4" (DN20)
		6	NPS 1" (DN25)
		7	NPS 1 1/2" (DN40)
			NPS 2" (DN50)
		0	PN / Class⁽¹⁾
		5	Without flange
			Class 1500
		0	Process flange material⁽³⁾
		M	Without flange
			Forged NACE compliant
			1.4404 st. steel

⁽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: D944-MD03F967.000000000