

Diaphragm type chemical seal

Model Sandwich

Process connection: flange to DIN 2501
or flange to ANSI B 16.5
with and without tube



Description

Chemical seals are used when media can falsify the pressure measurements due to high temperature, high viscosity (media in paste form) or their propensity to crystallise.

Chemical seals transmit the process pressure to the measuring instrument, with the diaphragm forming a hermetic seal between the medium and measuring instrument. With various process connection systems the chemical seal "**Sandwich with tube**" is especially available for flush installation at heavily insulated vessels.

The medium wetted parts of these chemical seals are manufactured in stainless steel as standard. In connection with a Bourdon tube pressure gauge or an transducer, they are suitable for pressure ranges from 0 .. 25 mbar to 0..400 bar.

The parts in contact with the medium can be manufactured in special materials for particular service conditions.

Features

- o Various process connections
- o For media up to 400°C
- o Flush installation at heavily insulated vessels
- o Special materials für extreme service requirements
- o Mountable on instrumentation and control equipment

Pressure ranges

0 ... 25 mbar bis 0 ... 400 bar

Rated pressure



max. PN 40, PN 100 bzw. PN 400

Applications

Plant and apparatus construction;
Process engineering;
Chemical and petrochemical industries;

Model: P3020, P3021

Technical data

Models	P3020	P3021	Options
			
Rated pressure	PN 16...400 bzw. Class 150...2500	PN 16...100 bzw. Class 150...600	
Process connection	DIN 2501 or ANSI B 16.5 DN 50, 80, 100, 125 or DN 2", 3", 4", 5"		Others on request
Instrument connection with capillary Material	Gauge adaptor G 1/2" female thread to DIN 16 288, form Z with capillary welded at flange body stainless steel		1/2 NPT Others on request
Body Body with tube	Body welded with diaphragm	Body welded with tube	stainless steel 1.4404, 1.4435 1.4541, Titan and others
Material	stainless steel 1.4571	stainless steel 1.4571	
Tube length	--	50, 100, 150, 200 mm	Special length
Diaphragm	Stainless Steel 1.4571, welded with body	Stainless Steel 1.4571, welded with tube	Others on request
Sealing face	DIN 2526 form D or ANSI B16.5 RF		DIN 2526 form E, ANSI B16.5 RFSF and others
Capillary - Material - Standard length	Stainless steel, radial welded with body 1; 1,6; 2,5; 4; 6; 8; 10; 15 m; smallest bending radius 50 mm		Special length
Protection hose	Stainless steel		PE smooth
Mounting	Sealing to DIN 2690 or to ANSI B 16.5 not inclusive		

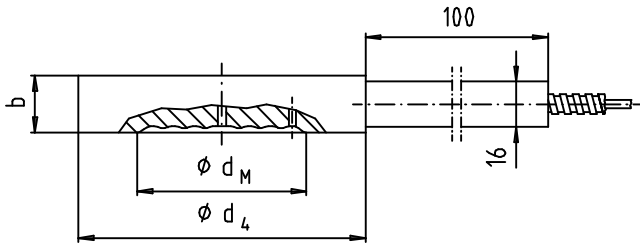
Important notes on the selection of chemical seals

The process pressure to be measured is applied to the measuring instrument by the chemical seal with the aid of a liquid. The chemical seal and measuring instrument can be connected together by capillary lines (length up to max. 15 m) for system related reasons and in order to prevent the exposure of measuring instruments to impermissibly high temperatures. The temperature drop between the instrumentation and control unit and the chemical seal can be several 100° C. Measuring errors resulting from temperature are therefore possible and may be of a magnitude several times the accuracy of the measuring instrument.

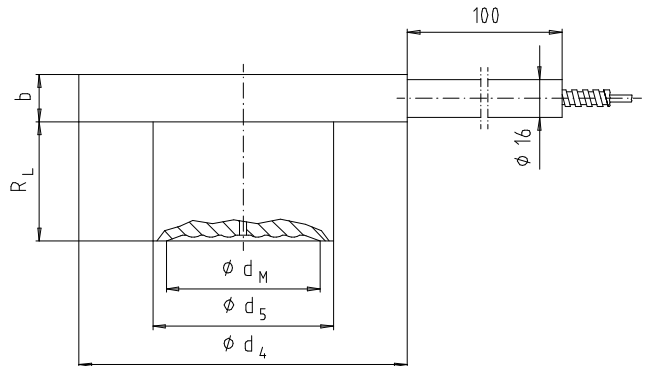
Matching of the chemical seal and pressure measuring instrument therefore requires expertise, and we shall be pleased to assist you.

Dimensions

Model P3020



Model P3021



Model P3020 Connection to DIN 2501

DN [mm]	PN [bar]	Maße [mm]			Gewicht [kg]
		d _M	d ₄	b	
50	16 ... 400	59	102	20	1,3
80	16 ... 400	89	138	20	2,3
100	16 ... 400	89	158	20	3,1
125	16 ... 400	124	188	22	4,8

Model P3021 Connection to DIN 2501

DN [mm]	PN [bar]	Maße [mm]					RL
		d _M	d ₄	b	d ₅	RL	
50	16 ... 100	47	102	20	48,3	50, 100, 150, 200	
80	16 ... 100	72	138	20	76	50, 100, 150, 200	
100	16 ... 40	89	158	20	94	50, 100, 150, 200	
125	16 ... 40	124	188	20	125	50, 100, 150, 200	

Model P3020 Connection to ANSI B 16.5

DN [in.]	Class	Maße [mm]			Gewicht [kg]
		d _M	d ₄	b	
2	150 ... 2500	59	100	20	1,25
3	150 ... 2500	89	134	20	2,25
4	150 ... 2500	89	158	20	3,1
5	150 ... 2500	124	186	22	4,7

Model P3021 Connection to ANSI B 16.5

DN [in.]	Class	Maße [mm]					RL
		d _M	d ₄	b	d ₅	RL	
2	150 ... 600	47	100	20	48,3	50, 100, 150, 200	
3	150 ... 600	72	134	20	76	50, 100, 150, 200	
4	150 ... 300	89	158	20	94	50, 100, 150, 200	
5	150 ... 300	124	186	20	125	50, 100, 150, 200	

Effective diaphragm $\varnothing = d_M$

Ordering details :

Model / process connection (Size / Norm) / Material (wetted parts) / Instrument connection / Filling liquid / Installation at pressure gauge / Process conditions as per questionnaire.