

DIAPHRAGM TYPE CHEMICAL SEAL

"Quick coupling"

Process connection

- union nut
- or thread neck acc. to DIN 11 851
- SMS-Norm
- or Clamp



Description

Chemical seals are used when media can falsify the pressure measurements due to high temperatures, high viscosity (media in paste form) or their pro-pensity 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.

Hygiene regulations, such as those in the pharmaceuticals or food and beverages industries, which require cleaning of measuring point so as to leave no residue and thus ensure a sterile process sequence, can be fulfilled by the use of a chemical seal in "Quick coupling" design.

The design ensures that the process connection can be easily and rapidly released and the pressure chamber easily cleaned.

The parts of these chemical seals in contact with the medium are manufactured in stainless steel as standard. In connection with a Bourdon tube pressure gauge or a transducer, they are suitable for pressure ranges from 0...0.6 bar up to 0...40 bar.

The medium wetted parts can be manufactured in special materials for particular service conditions.

The liquid used to transmit the process pressure to the measuring instrument is foodstuff compatible.

Features

- Various process connections
- Quick coupling
- Flush diaphragm at the front
- Foodstuffs compatible filling liquids
- Special materials for extreme service requirements

Pressure ranges

0 ... 0.6 bar up to 0 ... 40 bar


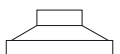
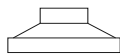


Rated pressure

max. PN 40

Applications

Pharmaceutical, food and beverage industries, plant and apparatus construction, process engineering

Technical details

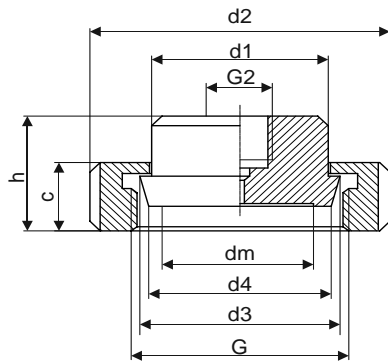
Types	1030	1012	Options	
Symbol			other DN, IDF, APV/RJT and other norm on request	
Process connection with union nut	DIN 11 851 DN25 DN32 DN40 DN50	SMS 1 1/2" 2"		
Types	1011	1013		
Symbol				
Process connection with thread neck	DIN 11 851 DN25 DN32 DN40 DN50	SMS 1 1/2" 2"		
Types	1018			
Symbol				
Process connection with clamp	Clamp 1" 1 1/2" 2" 2 1/2" 3"			
Instrument connection female thread DIN 16 288	G¼ at DN25 G½ at DN32 up to DN50 and 1 1/2" up to 3"			G¼, Capillary welded with body and gauge adapter for gauge mounting bracket completely stainless steel, cooling element (with direct mounting and temperature >100°C)
Upper body	Stainless steel 1.4571			1.4404, 1.4435, 1.4541, Monel
Diaphragm	Stainless steel 1.4571, welded with upper body		1.4404, 1.4435, 1.4541, Monel Nickel, Hastelloy B2, C4, C276	
Sealing ring	NBR (Perbunan) only type 1030 acc. to DIN 11 851		PTFE, only type 1030 acc. to DIN 11 851	
Filling liquid	Glycerine/water, FFL-Nr. 6		other, available in consideration of process conditions	
Working temperature	Tmin. -10°C; Tmax. 120°C		Tmin. -10°C; Tmax. 250°C	

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. The particular operating conditions can be taken into account in the manufacture of I & C device-chemical seal combinations.

Matching of the chemical seal and pressure measuring instrument therefore requires expertise, and we shall be pleased to assist you. We recommend you to request our special questionnaire on service conditions and order data.

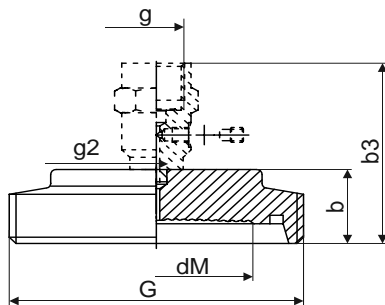
with union nut type 1030 and 1012



	DN	c	d1	d2	d3	d4	dm	h*	G	G2	Weight
DIN 11 851 BR 1030	25	21	34	63	44	38	28	-	Rd 52x1/6"	G½	0,5 kg
	32	21	40	70	50	45	34	-	Rd 58x1/6"	G½	0,7 kg
	40	21	48	78	56	50,5	38	-	Rd 65x1/6"	G½	0,7 kg
	50	22	60	92	68	63	48	-	Rd 78x1/6"	G½	1,1 kg
	65	25	79	116	86	-	52	-	Rd 95x1/6"	G½	2,0 kg
	80	30	92	127	100	-	63	-	Rd 110x1/6"	G½	2,5 kg
SMS-Norm BR 1012	1"	20		51	35,5	-	24	-	Rd 40x1/6"	G½	0,3 kg
	1 1/2"	25		74	55	-	34	-	Rd 60x1/6"	G½	0,6 kg
	2"	26		84	65	-	46	-	Rd 70x1/6"	G½	1,0 kg
	2 1/2"	30		100	73	-	52	-	Rd 78x1/6"	G½	1,3 kg

* Please contact us with inquiries!

with thread neck type 1011 and 1013, gauge connection G½



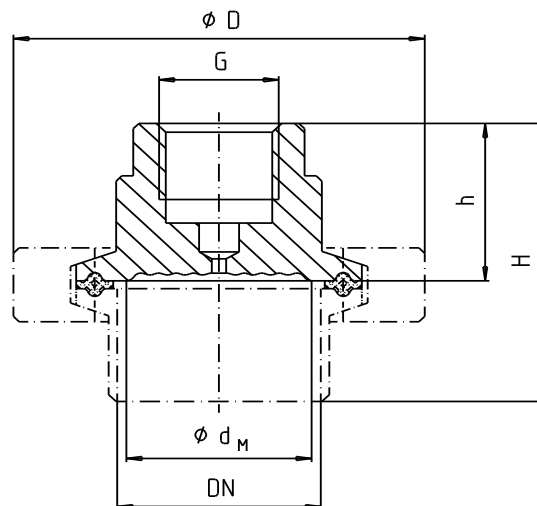
	DN	PN	b	b3	dM	d*	g	g2	G3	Weight	for tube inner Ø
DIN 11 851 BR 1011	20	40	20	63	21	23	G½	Ø8	Rd 44 x 1/6	0,28 kg	23 x 1,5
	25				26	28			Rd 52 x 1/6	0,31 kg	29 x 1,5
	32				32	34			Rd 58 x 1/6	0,35 kg	35 x 1,5
	40				38	40			Rd 65 x 1/6	0,42 kg	41 x 1,5
	50	25	30	73	48	50			Rd 78 x 1/6	0,55 kg	53 x 1,5
	65				60	62			Rd 95 x 1/6	1,08 kg	70 x 2
	80				72	75			Rd 110 x 1/4	1,53 kg	85 x 2
SMS-Norm BR 1013	1"	40	20	63	19	21	G½	Ø8	Rd 40-6	0,30 kg	22,6
	1 1/2"				32	34			Rd 60-6	0,51 kg	35,6
	2"				46	48			Rd 70-6	0,65 kg	48,6
	2 1/2"	25			56	58			Rd 85-6	0,89 kg	60,3
	3"				66	68			Rd 98-6	1,15 kg	72,9

1) Die in den Maßbildern strichpunktiereten Anschluss- Rohrverschraubungen sind auf Anfrage lieferbar.

Dimensional drawings

Dimensions in mm

**Clamp
Type 1018**



1) The dash dotted screwed connections in the dimensional drawings are available on request.

Clamp	DN 1)	PN	Dimensions (mm)				Weight (kg)
			dM	D	H ca.	G	
BR 1018	1"	40	25	50,5		G 1/2	0,55
	1 1/2"	40	34	50,5	58	G 1/2	0,60
	2"	40	40	75	58	G 1/2	0,75
	2 1/2"	25	52	82	65	G 1/2	0,95
	3"	25	72	104	65	G 1/2	1,30

dM - effective diaphragm

Ordering details:

- Type
- Process connection (size/norm)
- Material (wetted parts)
- Instrument connection
- Filling
- Installation at pressure gauge
- Process conditions