

## Diaphragm type chemical seal

### Welded version

**Process connection: female thread  
or male thread**



### 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.

Due to different process connection types over a thread welded chemical seals are preferably suitable for the attachment to gauges or pressure sensors.

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 ...1 bar to 0 ... 600 / 1000 bar.

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

When the permissible rated pressure is exceeded, a specially designed diaphragm prevents damage to the chemical seal.

### Features

- o Different threaded connection possibilities
- o For media up to 400°C
- o Overload protection by diaphragm bed
- o Upper part and lower part are welded together
- o Special materials for extreme service requirements
- o Mountable on instrumentation and control equipment

### Pressure ranges

0 ... 0.6 bar to 0 ... 600 / 1000 bar

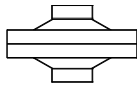

### Rated pressure

max. PN 160 / 600 / 1000

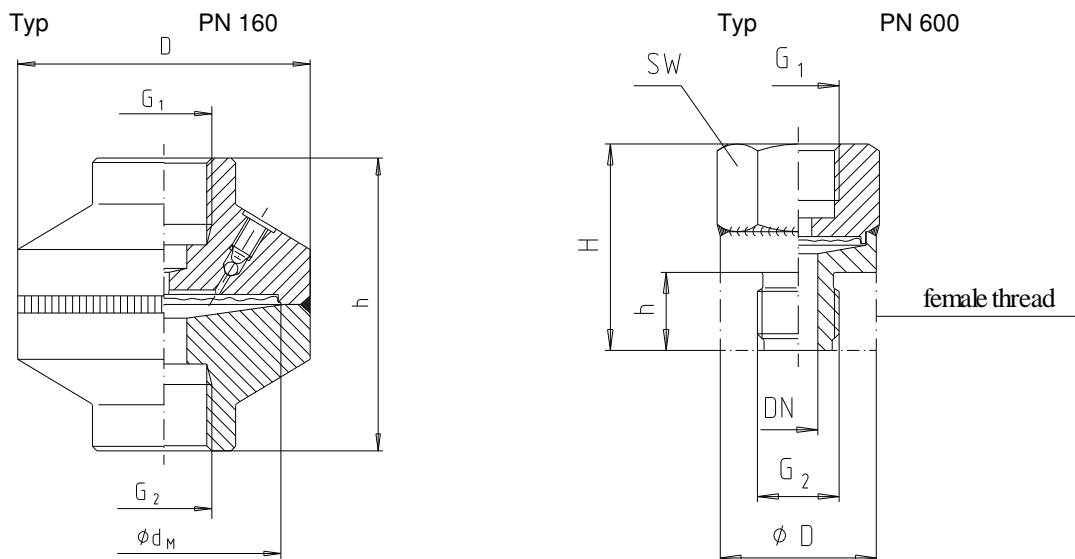
### Applications

Plant and apparatus construction,  
Process engineering,  
Chemical industries

Technical data

Models	P3026		Options
Symbol			
Nominal size	PN 160	PN 600 / 1000	
Ranges	0 ... 0.6 to 0 ... 160 bar	0 ... 16 bar to 0 ... 600 / 1000 bar	
Process connection (Lower body)	G 1/2 female thread	G 1/2 B	Others on request
Material	Stainless steel 1.4571	Stainless steel 1.4571	
Instrument connection (Upper body)	G 1/2 female thread	G 1/2 female thread	Others on request
Material	Stainless steel	Stainless steel	
Diaphragm material	Stainless steel 1.4571 internal welded with upper body		Others on request
Diaphragm $\phi$	52 mm	32 mm	
Filling liquid	Available in consideration of process conditions		
Operating temperature	Tmax. 400°C		

Dimensions (mm)



Instrument connection: Thread	PN [bar] max.	ødM [mm]	Dimensions [mm]			
			D	h	G 1	G 2
G 1/2	160	52	64	64	G 1/2	G 1/2

Instrument connection Thread	PN [bar] max.	ødM [mm]	Dimensions [mm]						
			D	h	G1	DN	H	SW	G2
G 1/2 A	600 1000	32 22	40	20	G 1/2	10	53	36	G 1/2 A

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. 15m) 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.

Ordering details

Model/ Process connection (Size/Norm) Material (wetted parts) /Thread/Filling liquid/ Installation to pressure gauge/Operating conditions according to special questionnair.