

Diaphragm seal with threaded connection

Plastic version

Model 990.31

WIKA data sheet DS 99.02



for further approvals
see page 5

Applications

- For aggressive, corrosive or environmentally hazardous media
- Plant construction for chemical products
- Electroplating
- Wastewater treatment

Special features

- All-plastic version



Diaphragm seal with threaded connection, model 990.31

Description

Diaphragm seals are used for the protection of pressure measuring instruments in applications with difficult media. In diaphragm seal systems, the diaphragm of the diaphragm seal effects the separation of the instrument and the medium. The pressure is transmitted to the measuring instrument via the system fill fluid which is inside the diaphragm seal system.

For the implementation of demanding customer applications, there are a wide variety of designs, materials and system fill fluids available.

For further technical information on diaphragm seals and diaphragm seal systems see IN 00.06 "Application, operating principle, designs".

The model 990.31 diaphragm seal with threaded connection in a plastic version is suitable for versatile application areas in the water supply and wastewater treatment industries.

Mounting of the diaphragm seal to the measuring instrument may be made via a direct connection or a flexible capillary.

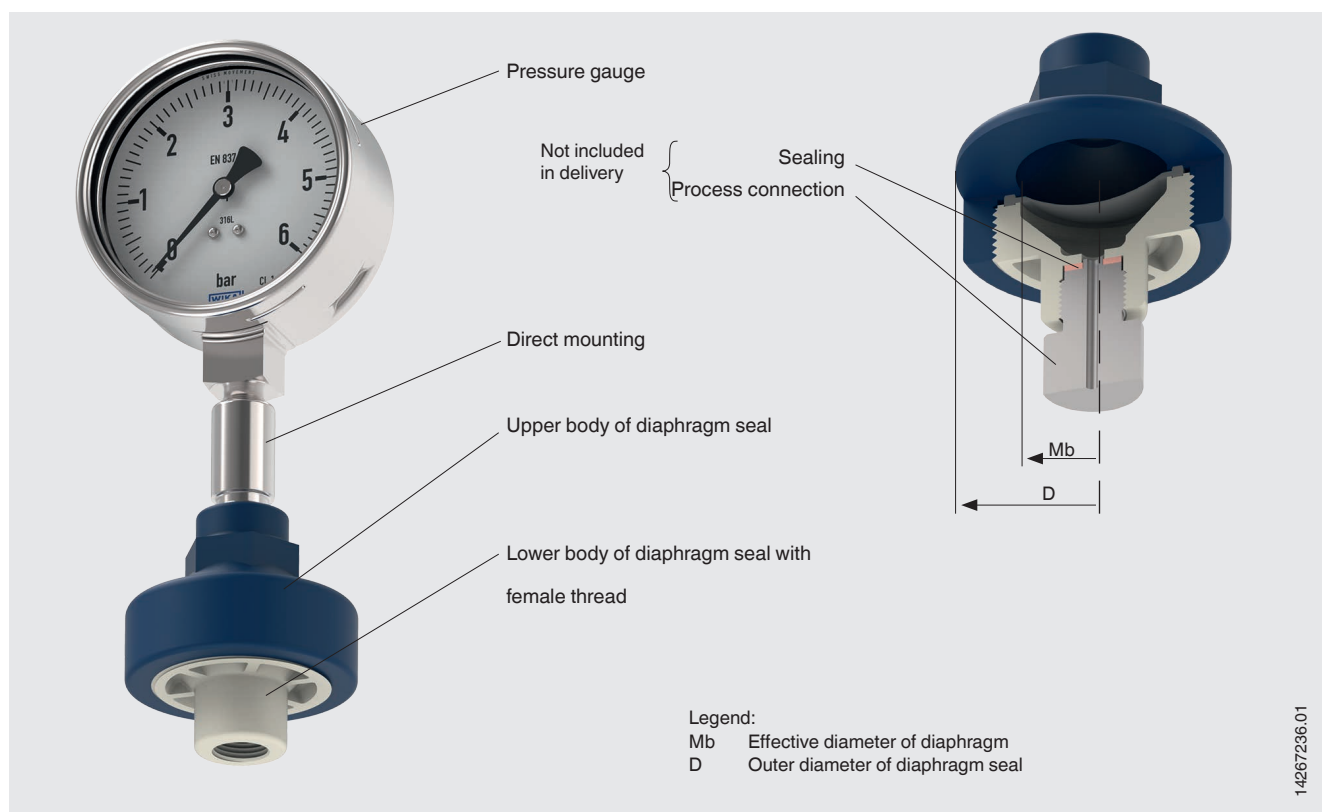
The WIKA model 990.31 diaphragm seal is used successfully in chemical plant construction, electroplating and wastewater treatment applications.

Specifications

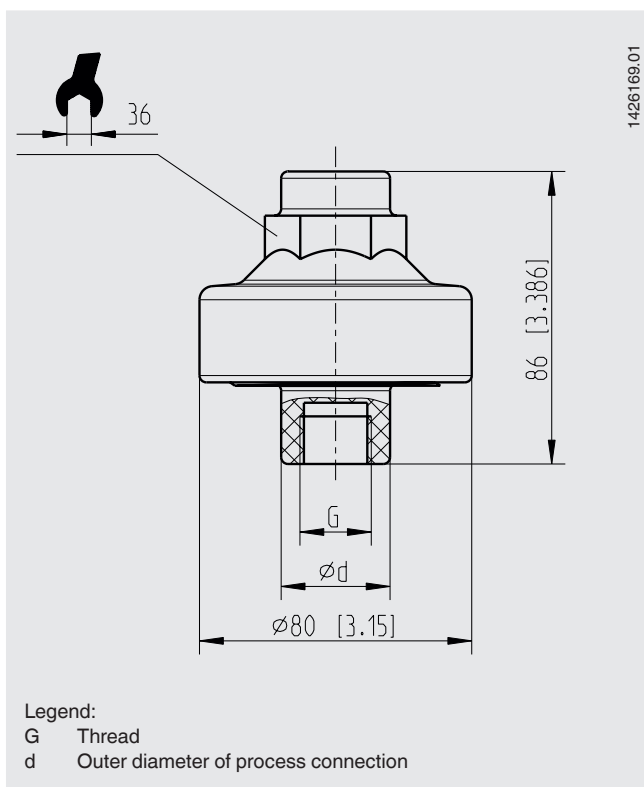
Model 990.31	Standard	Option
Pressure range	0 ... 1 bar to 0 ... 10 bar [0 ... 14.5 psi to 0 ... 145 psi]	
Operating pressure and process temperature	see pressure-temperature diagrams from page 4	
Origin of wetted parts	EU	-
Connection to the measuring instrument	■ G 1/4 female ■ G 1/2 female	■ 1/4 NPT female ■ 1/2 NPT female
Process connection	■ G 1/4 female ■ G 1/2 female	■ 1/4 NPT female ■ 1/2 NPT female
Type of mounting	Direct mounting	Capillary
Instrument mounting bracket (only for capillary option)	-	■ Form H per DIN 16281, 100 mm, aluminium, black ■ Form H per DIN 16281, 100 mm, stainless steel ■ Bracket for pipe mounting, for pipe outer Ø 20 ... 80 mm, steel (see data sheet AC 09.07)

Mounting position as required, preferably measuring instrument on top

Installation example: Model 990.31 diaphragm seal with internal thread and mounted pressure gauge



Dimensions in mm [in]



G	DN ¹⁾	d
G ¼	20 [0.787]	25 [0.984]
G ½	25 [0.984]	32 [1.260]
¼ NPT	20 [0.787]	25 [0.984]
½ NPT	25 [0.984]	32 [1.260]

1) DN = Nominal pipe diameter of process connection

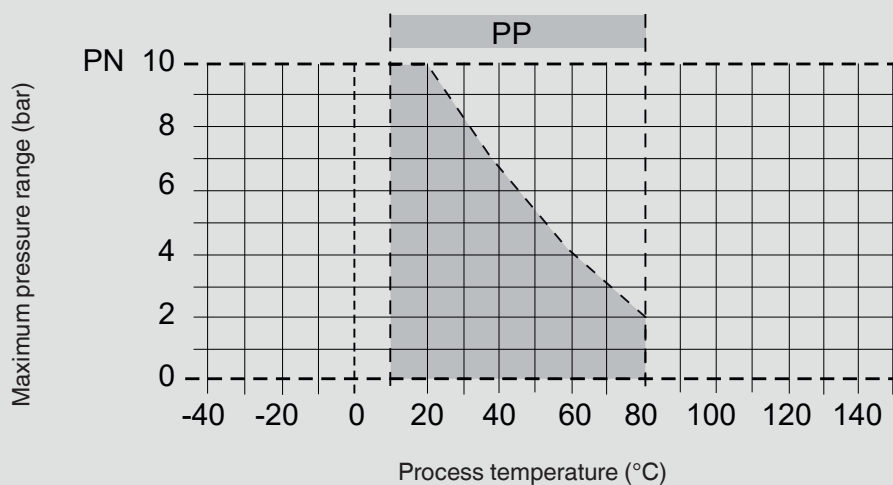
Materials

Upper body of diaphragm seal	Wetted parts	
	Lower body of diaphragm seal	Diaphragm with sealing
PP (polypropylene), glass-fibre reinforced, blue RAL 5022	PVC-U (polyvinyl chloride without plasticiser), grey RAL 7011	EPDM, media side with PTFE foil
	PP (polypropylene), grey RAL 7032	
	PVDF (polyvinylidene fluoride), opaque, yellowish-white	

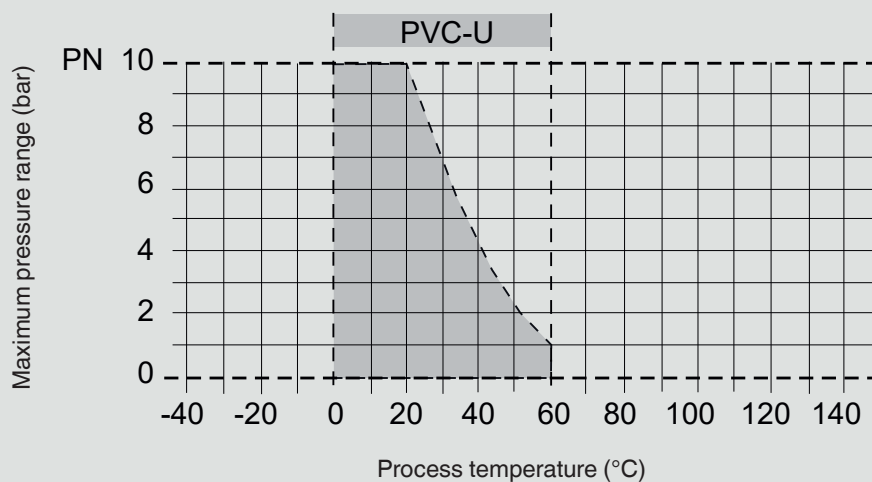
Pressure-temperature diagrams

For ambient temperatures from 10 ... 40 °C

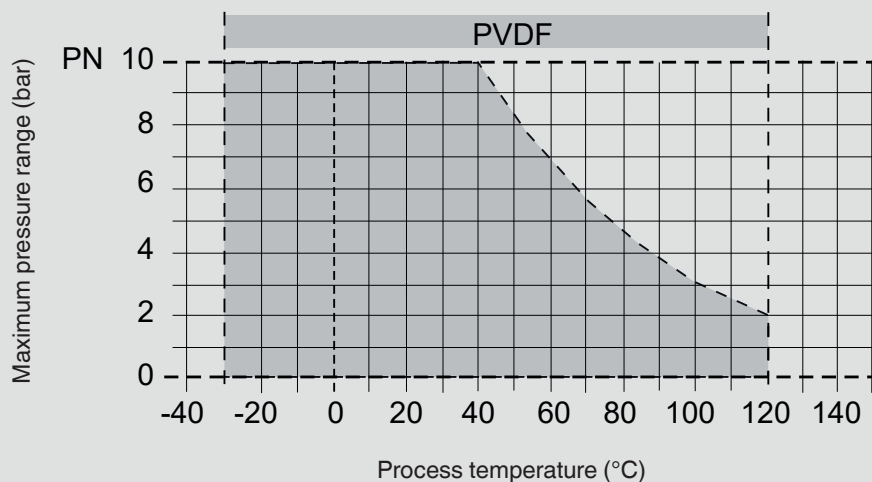
PP (polypropylene)




PVC-U (polyvinyl chloride without plasticiser)



PVDF (polyvinylidene fluoride)



Approvals

Logo	Description	Country
	EAC (option) Pressure equipment directive	Eurasian Economic Community
-	CRN Safety (e.g. electr. safety, overpressure, ...)	Canada
-	MTSCHS (option) Permission for commissioning	Kazakhstan

Certificates (option)

- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy for diaphragm seal systems)
- 3.1 inspection certificate per EN 10204 (e.g. material proof for wetted metal parts, indication accuracy for diaphragm seal systems)

Approvals and certificates, see website

Ordering information

Diaphragm seal:

Diaphragm seal model / Process connection (process connection standard, thread, nominal pressure rating) / Material (upper body, lower body) / Connection to the measuring instrument / Certificates

Diaphragm seal system:

Diaphragm seal model / Process connection (process connection standard, thread, nominal pressure rating) / Material (upper body, lower body) / Pressure measuring instrument model (per data sheet) / Mounting (direct mounting, capillary) / min. and max. process temperature / min. and max. ambient temperature / System fill fluid / Certificates / Height difference / Instrument mounting bracket

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