

The selection is detailed on page 5



H16 Threaded Type

Product application

Suitable for aggressive, high temperature, corrosive,

A medium harmful or toxic to the environment

Process industry

Functional characteristics

Threaded process connector for direct mounting

Built-in diaphragm, upper and lower diaphragm sealing components are bolted together

A variety of process connectors and materials are available

Product description

Diaphragm seals protect measuring instruments from corrosive, viscous, crystalline, corrosive, environmentally harmful or toxic media.

A diaphragm made of the appropriate material separates the measuring instrument from the measured medium. As a result, the measuring instrument can be used for the most difficult measurements as long as it is equipped with a proper diaphragm seal.

The filling liquid inside the system (the most suitable liquid can be selected for the specific application) can be hydraulically transmitted to the measuring instrument.

Diaphragm seals are available in different designs and materials to meet all application requirements. When selecting diaphragm seals, users need to pay attention to two important criteria: one is the type of process connector (flange, thread and sterile connector); The second is the basic manufacturing method.

Type H16 diaphragm seal with threaded connection design, very versatile. The lower chamber can be replaced without changes to the diaphragm sealing system (for example, when changing process connectors). The H16 can accommodate a larger pressure range (smaller diaphragm diameter).

The diaphragm seal and measuring instrument can be assembled directly (standard) or by cooling element or flexible capillary (optional). In terms of material selection, a variety of solutions are available, and the upper chamber, diaphragm and lower chamber of the diaphragm seal can be made of the same or different materials. The diaphragm and lower cavity can also be sprayed or coated.

Type H16 diaphragm seals are particularly suitable for aggressive or high temperature media and are mainly used in the process industry.



Technical parameter

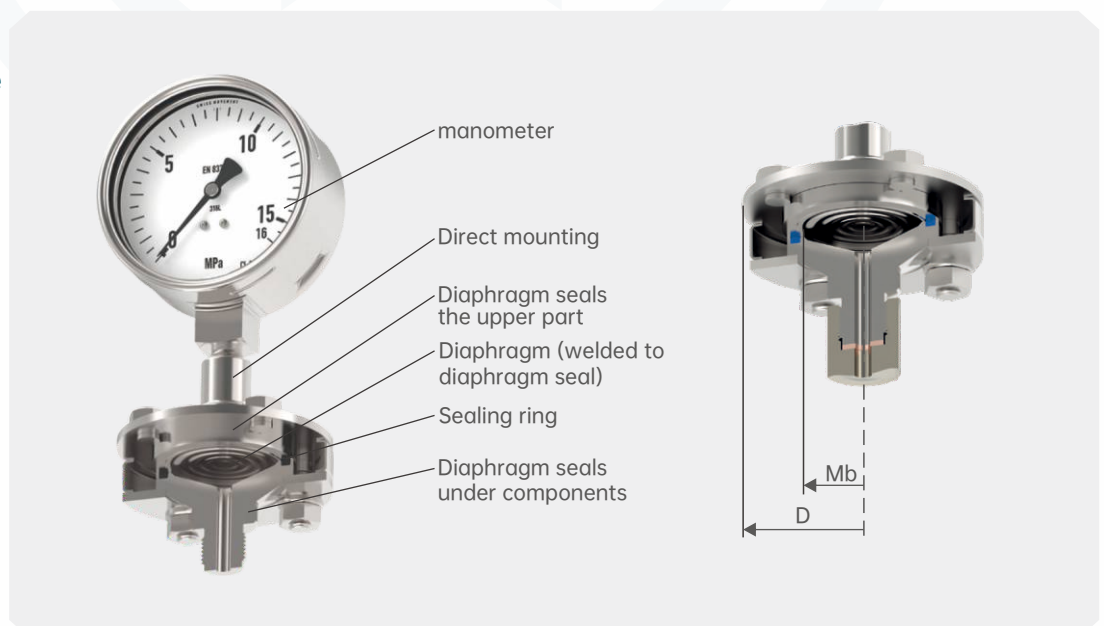
Model H16	Standard	Selectable
Pressure rating	PN25...250 or PN150...1500	
Pressure range	0 ... 0.6bar or 0 ... 250bar	
Diaphragm	Crni-stainless steel 316L, welded to upper cavity Effective diaphragm diameter Mb=52mm	Stainless steel 1.4571, 1.4435, 1.4539, 1.4541,1.4462
		Hastelloy B3, C4, C276, Monel 400, nickel, Inconel 600, tantalum, titanium
		The maximum heat resistant temperature of silver foil is 150°C
		The maximum heat resistance temperature of PTFE coating is 260°C≤100 bar
		The maximum heat resistance temperature of PFA coating is 260°C
		The maximum heat resistance temperature of ECTFE coating is 150°C
Sealing ring	FPM	TEE (special diaphragm is also standard) coating maximum heat resistance temperature 260°C
		Metal ring (1.4571 or Inconel) Maximum heat resistance temperature 400°C
Upper cavity material and instrument connection form	Crni-stainless steel 316L, G1/2 internal thread	Stainless Steel 1.4571,1.4541, titanium
		Capillary connection (welded to upper cavity)
		The cooling tower can be connected when the temperature is > 100°C
Material of lower cavity and instrument connection form	Crni-stainless steel 316L, G1/2B external thread	Special material coated coat
		1/2NPT internal thread
		G1/2B external thread
		1/2NPT external thread
		customizable
		The lower cavity has a cleaning hole
Clamping part	Retaining flange, hex bolt, electroplated steel up to 200°C	Reserved flange: Stainless steel 1.4571 (temperature > +250°C)
		Hex bolts and nuts: stainless steel, up to 260 ° C
		Steel, high temperature resistance, up to 400°C

Case

Diaphragm model H16 Mounting pressure gauge

Legend

- Mb Effective diaphragm diameter
 D Diaphragm seal outer diameter



Process connection

Standard	Male thread		Internal thread	
	Standard	selectable	Standard	Selectable
Conform to DIN ISO 228-1	G1/2A	G1/4A G3/8A G3/4A G 1 A G 1 ½ A	G1/2	G1/4 G3/8 G3/4 G 1
Conform to ASME B 1.20.1	1/2NPT	1/4NPT 3/8NPT 3/4NPT 1 NPT 1 ½ NPT	1/2NPT	1/4NPT 3/8NPT 3/4NPT 1 NPT
Conform to DIN 13-1	M20 x 1.5	-	M20 x 1.5	-
Conform to ISO 7-1	R 1/2	R1/4, R3/8, R3/4	-	-

Combination of materials

Diaphragm seals the upper cavity	Liquid connection unit		Maximum process temperature limit ¹⁾ (°C/°F)	
	Diaphragm seals the lower chamber	diaphragm		
Stainless steel 1.4404 (316L)	Stainless Steel 1.4404 (316L)	Stainless Steel 1.4404/1.4435 (316L), standard version	400/752	
	Stainless Steel 1.4539 (904L)	Stainless Steel 1.4539 (904L)		
	Stainless Steel 1.4541 (321)	Stainless Steel 1.4541 (321)	150/302	
	Stainless Steel 1.4571 (316Ti)	Stainless Steel 1.4571 (316Ti)		
	PTFE lining ²⁾	ECTFE coating		
	PTFE lining ²⁾	PFA (perfluoroalkoxy) coating, FDA		
	PTFE lining ²⁾	PFA (perfluoroalkoxy) coating, antistatic		
	-	gild		
	-	Ceramic coating		
	Hastelloy C22 (2.4602)	Hastelloy C22 (2.4602)		260/500
	Hastelloy C276 (2.4819)	Hastelloy C276 (2.4819)		400/752
	Inconel 600 (2.4816)	Inconel 600 (2.4816)		
	Inconel 625 (2.4856)	Inconel 625 (2.4856)		
	Incoloy 825 (2.4858)	Incoloy 825 (2.4858)		
	Monel 400 (2.4360)	Monel 400 (2.4360)		
	Nickel 200 (2.4060, 2.4066)	Nickel 200 (2.4060, 2.4066)	260/500	
Titanium Grade 2 (3.7035)	Titanium Grade 2 (3.7035)	150/302		
Titanium Grade 7 (3.7235)	Titanium Grade 11 (3.7225)			
Tantalum lining ²⁾	tantalum	300/572		
Stainless steel 1.4435 (316L)	Stainless Steel 1.4435 (316L)	Stainless Steel 1.4435 (316L)	400/752	
Stainless steel 1.4539 (904L)	Stainless Steel 1.4539 (904L)	Stainless Steel 1.4539 (904L)		

Combination of materials

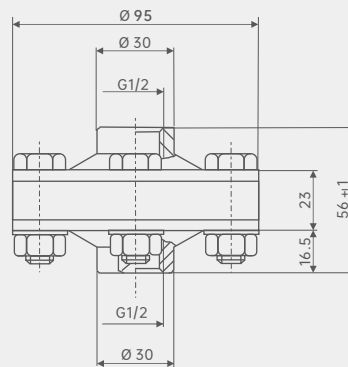
Diaphragm seals the upper cavity	Liquid connection unit		Maximum process temperature limit ¹⁾ (°C/°F)
	Diaphragm seals the lower chamber	diaphragm	
Stainless Steel 1.4541 (321)	Stainless Steel 1.4541 (321)	Stainless Steel 1.4541 (321)	400/752
Stainless Steel 1.4571 (316Ti)	Stainless Steel 1.4571 (316Ti)	Stainless Steel 1.4571 (316Ti)	
Duplex steel 2205 (1.4462)	Duplex steel 2205 (1.4462)	Duplex steel 2205 (1.4462)	300/572
Super Duplex Steel (1.4410)	Super Duplex Steel 2507 (1.4410)	Super Duplex Steel 2507 (1.4410)	
Hastelloy C22 (2.4602)	Hastelloy C22 (2.4602)	Hastelloy C22 (2.4602)	400/752
Hastelloy C276 (2.4819)	Hastelloy C276 (2.4819)	Hastelloy C276 (2.4819)	
Inconel 600 (2.4816)	Inconel 600 (2.4816)	Inconel 600 (2.4816)	
Inconel 625 (2.4856)	Inconel 625 (2.4856)	Inconel 625 (2.4856)	
Incoloy 825 (2.4558)	Incoloy 825 (2.4858)	Incoloy 825 (2.4858)	
Monel 400 (2.4360)	Monel 400 (2.4360)	Monel 400 (2.4360)	
Nickel 200 (2.4060, 2.4066)	Nickel 200 (2.4060, 2.4066)	Nickel 200 (2.4060, 2.4066)	
Titanium Grade 2 (3.7035)	Titanium Grade 2 (3.7035)	Titanium Grade 2 (3.7035)	
Titanium Grade 7 (3.7235)	Titanium Grade 7 (3.7235)	Titanium Grade 11 (3.7225)	

1) Process temperature limits for diaphragm sealing systems are limited by connection method, system filling fluid and measuring instrument

2) For G1/2 and M 20 x 1.5 (external thread), Max 0... 10MPa

Size mm [in]

Threaded connection



Rated pressure bar	Number of thread holes	weight kg
25	4	1.30
100	4	1.30
250	8	1.30

H16-Selection composition

Selection example **H16** H U Y

1 2 3

1.Meter connection specification	A	1 NPT
	B	1/2NPT
	C	1/4NPT
	D	M14*1.5
	E	M20*1.5
	F	M27*2
	G	G 1
	H	G1/2
	I	G1/4
	T ()	Other connection specifications
2.Field connection specification	N	1 NPT
	O	1/2NPT
	P	1/4NPT
	Q	M14*1.5
	R	M20*1.5
	S	M27*2
	T	G 1
	U	G1/2
	V	G1/4
		T ()
3.Material	X	Carbon steel
	Y	304SS
	S	316L
	T ()	Other materials

Instructions:

It indicates that the H16 diaphragm seal is connected to the instrument with the specification of G1/2, and the field connection specification is G1/2, and the material is 304 stainless steel.

Product Certification

Compliance and approval; Rodewieg pressure gauges meet key standards and certifications for process measurement technology; Thus guaranteeing the highest reliability in such Settings;