The selection is detailed on page 6

H12
Flange Joint Type

Product application

Suitable for corrosive and high temperature medium measurement

Chemical and petrochemical industries

The oil and gas industry

Functional characteristics

Flange with built-in welded diaphragm

Mount to measuring instruments for low and differential pressures

Optional flush hole

Product description

The diaphragm seal protects the pressure measuring instrument from all kinds of media. In a diaphragm sealing system, a diaphragm sealing diaphragm separates the measuring instrument from the measured medium. The filling fluid inside the diaphragm seal system hydraulically conducts the pressure to the measuring instrument.

Diaphragm seals and system fillers are available in different designs and materials to meet customer application requirements.

The Model H12 built-in diaphragm allows for a lower range and is suitable for small process connection applications.

When the temperature changes, the diameter of the diaphragm creates a low deviation at the measuring instrument, which can be cleaned by selecting the wash hole and the process connection side of the wash flange.

The diaphragm seal and measuring instrument can be assembled directly or via cooling elements or flexible capillaries.

The upper chamber and diaphragm of the sealing diaphragm can be made of the same or different materials. Diaphragms and sealing surfaces are also available for spraying.

✆ 400-860-9760

For more product information, please visit www.ludwig-schneider.com.cn

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Technical parameter

Model H12	Standard	Selectable
Cleanliness of liquid receiving parts	No oil and no fat treatment, according to ASTMG93-03 grade F standard andISO15001(< 1,000 mg/m²)	No oil and no fat treatment according to ASTMG93-03 grade D and ISO15001(<220 mg/m2)
Origin of raw materials for liquid parts	internation	European Union, Switzerland, United States
Sealing gasket	FPM (max.200°C)[392°F]	Metal C gasket (up to 400°C)[752°F]
	PTFE (max.260 °C)[500 °F]	
Flushing hole connection	-	Single flush hole connection(G1/4,G1/8,1/4NPT, 1/8NPT)
		Double flush hole connection(G1/4,G1/8, 1/4NPT,1/8NPT)
		Flush hole plug
How the instrument is connected	Axial adapter	Weld through G1/2,G1/4, 1/2NPT or 1/4 NPT (internal thread) axial adapters
Installation mode	Direct connection	capillaries
		Cooling tower
Cage section	Stainless steel	-
Designed according to NACE standards	-	MR0175
		MR0103
Vacuum service	Basic requirement	Advanced requirement
		Maximum requirement
Meter mounting bracket (for capillary connections only)	-	Model H meets DIN16281 standard,100mm, aluminum, black
		Type H meets DIN16281 standard,100mm, stainless steel
		Pipe bracket mounting for Ø20... 80 mm pipe, steel

case

Pressure strap model H12 with diaphragm seal

Legend

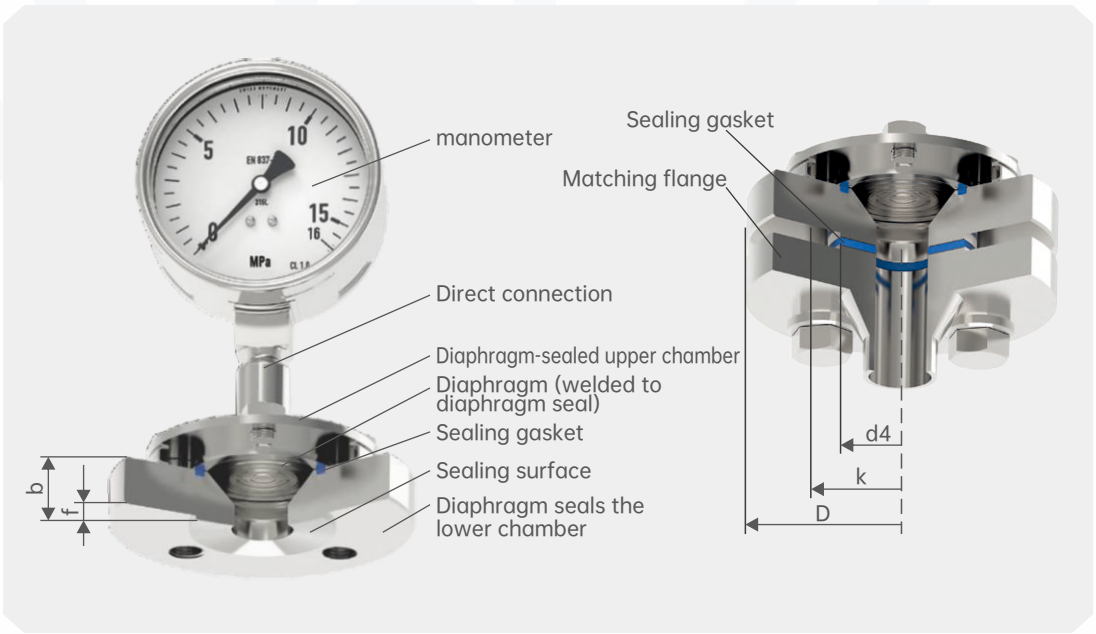
D Outer diameter of diaphragm seal

d4 Diameter of sealing surface

k Mounting bolt hole diameter

b Flange thickness

f Thickness of sealing surface



Process connection, flange type

Standard	Nominal width	Sealing surface	
		Standard	Options
According to DIN EN 1092-1	DN 15	B1 type	Type B2
	DN 20		Groove and tenon surfaces
	DN 25		Concavo-convex surface
	DN 40		
Comply with ASME B16.5 standard	1/2"	RF 125 ...250 AA	RF125 ... 500 AA
	3/4"		RFSF
	1"		Full-plane FF
	1 1/2"		RJF rings are connected

Combination of materials

Diaphragm seals the upper cavity	Liquid connection unit		Process temperature limit(℃/℉)[2]
	Diaphragm seals the lower chamber[1]	Diaphragm	
Stainless Steel 1.4404 (316L)	Stainless Steel 1.4404 (316L)	Stainless Steel 1.4404 (316L)	400/752
	Stainless Steel 1.4539 (904L)	Stainless Steel 1.4539 (904L)	
	Stainless Steel 1.4541 (321)	Stainless Steel 1.4541 (321)	
	Stainless Steel 1.4571 (316Ti)	Stainless Steel 1.4571 (316Ti)	
	ECTFE coating	ECTFE coating	150/302
	PFA (Perfluoroalkoxy) spray (FDA standard)	PFA (Perfluoroalkoxy) spray (FDA standard)	260/500
	PFA (perfluoroalkoxy) coating (Anti-static)	PFA (perfluoroalkoxy) coating (Anti-static)	
	Stainless Steel 1.4404 (316L)	gild	400/752
	Stainless Steel 1.4404 (316L)	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 Alloy 400 (2.4360)	Monel Alloy 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 2 (3.7035)	Titanium, Grade 2 (3.7035)	
	Titanium, Grade 7 (3.7235)	Titanium, Grade 7 (3.7235)	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)	
Stainless Steel 1.4541 (321)	Stainless Steel 1.4541 (321)	Stainless Steel 1.4541 (321)	
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 (1.4410)	Super Duplex Steel (1.4410)	

Combination of materials

Diaphragm seals the upper cavity	Liquid connection unit		Process temperature limit(℃/℉)[2]
	Diaphragm seals the lower chamber[1]	Diaphragm	
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 (2.4558)	Incoloy 825 (2.4558)	
Monel Alloy 400 (2.4360)	Monel Alloy 400 (2.4360)	Monel Alloy 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 (3.7235)	

1) A maximum of two flushing holes can be selected for the lower chamber of the diaphragm seal.
2) The process temperature limit of the diaphragm sealing system is subject to the connection mode, the system filling fluid and the limit of the measuring instrument.

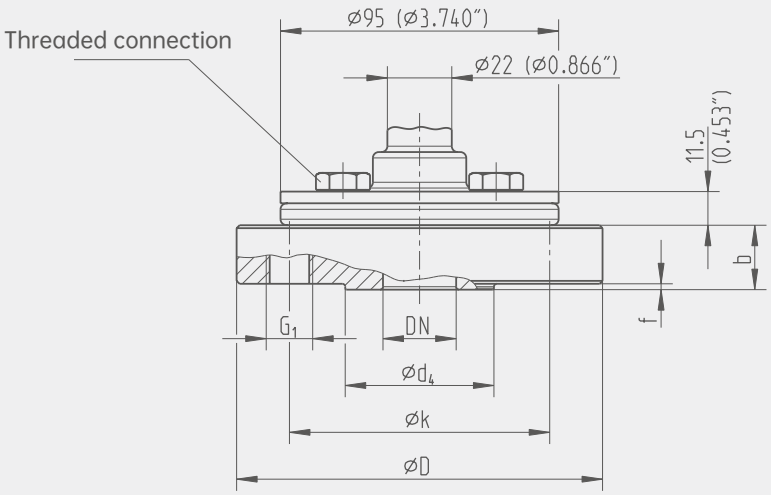
Size mm [in]

Threaded connection

4x Up to 10MPa
8x Up to 25MPa
8x With metal seal

emote

Mb Effective diameter of the diaphragm
D The outer diameter of the diaphragm
b Flange thickness
d4 Diameter of sealing surface
f Height of sealing surface
G1 Index circle diameter of threaded hole
x Bolt quantity



Flange connection according to DIN EN 1092-1 (sealing surface: Type B1)

DN	PN	Size mm [in]						G_1	weight kg[lbs]
		Mb	D	b	d_4	f	k		
15	10/40	52[2,047]	95[3.74]	28[1.102]	45[1.772]	2[0.079]	65[2.559]	M12	1.6[3.5]
	63/100		105[4.134]	25[0.984]			75[2.953]	M12	2.0[4.4]
	160							M12	2.1[4.6]
	250		130.[5.118]	26[1.024]			90[3.543]	M16	3.2[7]
20	10/40		105[4.134]	25[0.984]	58[2.283]		75[2.953]	M12	1.9[4.2]
25	10/40		115[4.528]	22[0.866]	68[2.677]		85[3.346]	M12	2.1[4.6]
	63/100		140[5.512]	24[0.945]			100[3.937]	M16	3.2[7]
	160			28[1.102]				M16	3.6[8]
	250		150[5.905]				105[4.134]	M20	4.0[8.8]

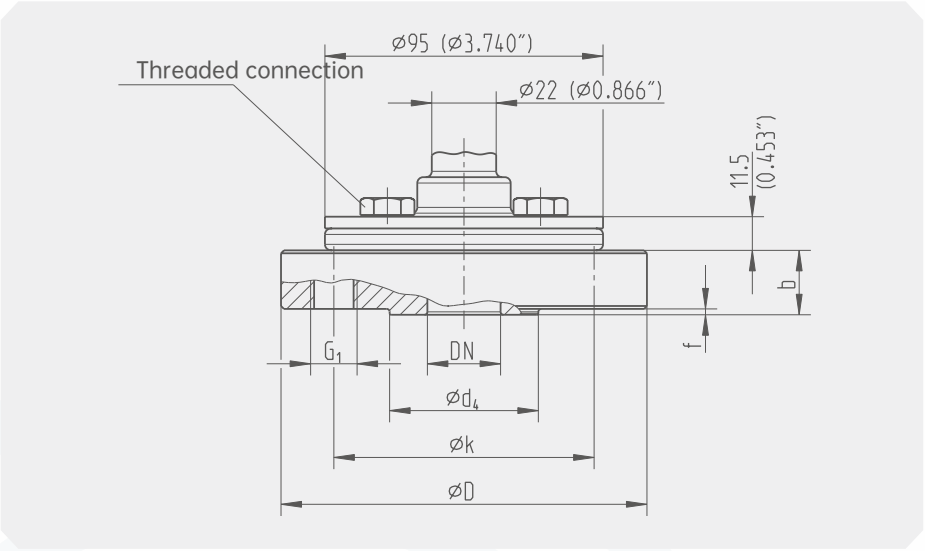
Size mm [in]

Threaded connection

4x Up to 10MPa

8x Up to 25MPa

8x With metal seal



emote

Mb Effective diameter of the diaphragm

D The outer diameter of the diaphragm

b Flange thickness

d4 Diameter of sealing surface

f Height of sealing surface

G1 Index circle diameter of threaded hole

x Bolt quantity

Flange connection, according to ASME B16.5 standard (sealing surface: RF 125... 250 AA)

DN	PN	Size mm [in]						G_1	weight kg[lbs]
		Mb	D	b	d_4	f	k		
1/2"	150	52[2,047]	95[3.74]	28[1.102]	34.9[1.374]	2[0.079]	60.3[2.374]	M12	1.6[3.5]
	300						66.7[2.626]		
	600			32[1.26]		7[0.276]			1.8[4]
	1500		120[4.724]	40[1.575]			82.6[3.252]	M20	3.6[8]
3/4"	150		100[3.937]	28[1.102]	42.9[1.689]	2[0.079]	69.9[2.752]	M12	1.7[3.7]
	300		115[4.528]	25[0.984]			82.6[3.252]	M16	1.9[4.2]
	600			25[0.894]		7[0.079]			2.2[4.8]
	1500		130[5.118]	32.4[1.276]			88.9[3.5]	M20	3.3[7.3]
1"	150		110[4.331]	22[0.866]	50.8[2]	2[0.079]	79.4[3.13]	M12	1.6[3.5]
	300		125[4.921]				88.9[3.5]	M16	2.0[4.4]
	600			24.5[0.965]		7[0.276]			2.3[5]
	1500		150[5.905]	36[1.417]			101.6[4]	M20	4.8[10.5]

H12-Selection composition

Selection example H12 H / P / S
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		DN15
	O		DN20
	P		DN25
	Q		DN32
	R		DN40
	S		DN50
	Z		DN65
	U		DN80
	V		DN100
	T( )		Other connection specifications
3.Material	S		304SS
	L		316L
	T( )		Other materials

Instructions:

It indicates that the H12 diaphragm seal is connected to the instrument with the specification of G1/2, and the field connection specification is DN25, and the material is 304 stainless steel.

Product Certification

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

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