

[The selection is detailed on page 6](#)



H35

Extended Cartridge Welded Type

Product application

Chemical processing industry
 Petrochemical industry
 Suitable for corrosive, high
 viscosity, crystalline or high
 temperature pressure media
 Suitable for thick-walled or isolated
 containers and pipes
 High pressure application

Functional characteristics

A pluggable extension diaphragm
 with a wavy diaphragm seat is
 welded to the sandwich flange
 All standard sizes and nominal
 diameters are available
 All liquid receiving parts can be
 made of special materials

Product description

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

The diaphragm separates the measuring instrument from the measured medium. The pressure is transmitted to the measuring instrument through the filling fluid inside the diaphragm seal system.

We can provide diaphragm seals and system filling fluids in different designs and materials to meet different customer application requirements.

The type H35 diaphragm seal with blind flange connection is available for all standard flange connections. Thanks to its special extensional design, the diaphragm seal is suitable for use in thick-walled or isolated pipes or containers.

Diaphragm seals and measuring instruments can be assembled directly or, for high pressure applications, via cooling elements or flexible capillaries.

In terms of material selection, a variety of solutions are provided, and the extension of the sealing diaphragm, the liquid receiving parts can be made of the same or different materials.

The diaphragm and extension can also be applied for additional coating.



Technical parameter

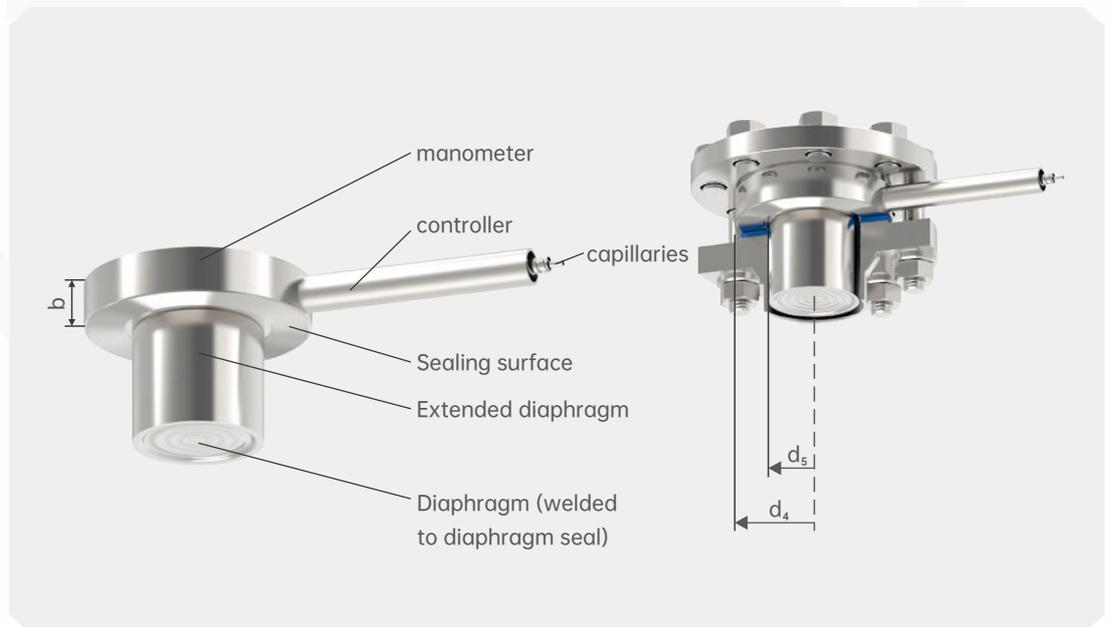
Model H35	Standard	Selectable
Cleanliness of liquid receiving parts	No oil and no fat treatment, according to ASTM G93-03 level F and ISO 15001(< 1,000 mg/m ²)	No oil and no fat treatment, according to ASTM G93-03 level D and ISO 15001 (< 220 mg/m ²) No oil and no fat treatment, according to ASTM G93-03 level C and ISO 15001 (< 66 mg/m ²)
Origin of raw materials for liquid parts	Internation	European Union, Switzerland, United States
Extension length tolerance: ±2,5 mm [±0,098 in])	50 mm [1.968 in]	100 mm [3.937 in] 150 mm [5.905 in] 200 mm [7.874 in]
How the instrument is connected	Axial adapter	-
Installation mode	Direct connection	capillaries
		Cooling tower
Designed according to NACE standards	-	MR0175
		MR0103
Vacuum service	Basic requirement	Quality service
		Premium service
Meter mounting bracket (capillary option only)	-	Model H according to DIN 16281, 100mm, aluminum, black
		Type H according to DIN 16281, 100mm, stainless steel
		Pipe bracket mounting for Ø20... 80 mm pipe, steel

case

Diaphragm model H35 with capillary

legend

- d_s Extend the diaphragm diameter
- d_4 Diameter of sealing surface
- b Diaphragm seal thickness



Process connection, flange type

Standard	Flange size	Sealing surface	
		Standard	selectable
According to DIN EN 1092-1	DN50	Type B1	A-shape B2 form C-shaped (tenon) D-shape E-shape F-shape
	DN80		
	DN100		
	DN125		
Comply with ASME B16.5 standard	2"	RF 125 ... 250 AA	RFSF Whole plane Small tenon face Small convex surface Small groove surface Miniature concave Large tenon face Large convex surface Large groove surface Large concave RJF Grooves
	3"		
	4"		
	5"		
According to DIN EN 1092-1	DN25	Type B	A-shape (full plane) C-shaped (tenon) D-shape E-shape (convex) F-shaped (concave)
	DN40		
	DN50		
	DN65		
	DN80		
	DN100		
	DN125		

Combination of materials

Diaphragm seals the upper	Liquid connection unit	Maximum permissible process temperature (°C/°F) ¹⁾
Stainless steel 1.4404 (316L)	Stainless Steel 1.4404/1.4435 (316L), standard version	400/752
	Stainless steel 1.4539 (904L)	
	Stainless steel 1.4541 (321)	
	Stainless steel 1.4571 (316Ti)	
	ECTFE coating	150/302
	PFA (Perfluoroalkoxy) spray (FDA standard)	260/500
	PFA (perfluoroalkoxy) coating (Anti-static)	
	gild	400/752
	Ceramic coating	
	hastelloy C22 (2.4602)	260/500
	hastelloy C276 (2.4819)	400/752
	Inconel 600 (2.4816)	
	Inconel 625 (2.4856)	
	Incoloy 825 (2.4858)	

Combination of materials

Diaphragm seals the upper cavity	Liquid connection unit	Maximum allowable process temperature (°C/°F) ¹⁾
Stainless steel 1.4404 (316L)	Incoloy 825 (2.4858)	400/752
	Monel alloy 400 (2.4360)	
	nickel 200 (2.4060, 2.4066)	260/500
	Titanium grade 2(3.7035)	150/302
	Titanium Grade 11 (3.7225)	
	Tantalum	
Stainless steel 1.4435 (316L)	Stainless steel1.4435 (316L)	400/752
Stainless steel 1.4539 (904L)	Stainless steel 1.4539 (904L)	
Stainless steel 1.4541 (321)	Stainless steel 1.4541 (321)	300/572
Stainless steel 1.4571 (316Ti)	Stainless steel 1.4571 (316Ti)	
Duplex steel 2205 (1.4462)	Duplex steel 2205 (1.4462)	
Super Duplex Steel (1.4410)	Super Duplex Steel (1.4410)	
Hastelloy C22 (2.4602)	Hastelloy C22 (2.4602)	400/752
Hastelloy C276 (2.4819)	Hastelloy C276 (2.4819)	
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)	
Titanium, Grade 2 (3.7035)	Titanium Grade 2 (3.7035)	
Titanium, grade 7 (3.7235)	Titanium Grade 11 (3.7225)	

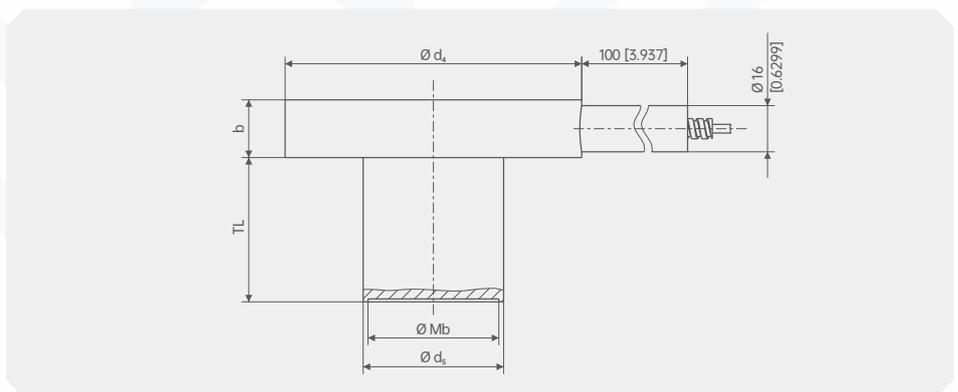
1) Process temperature limits for diaphragm sealing systems depend on the connection type, system filling fluid, and measuring instrument

Size mm [in]

Flange connection, consistent Standard DIN EN 1092-1, B1 form

emote

- Mb Effective diameter of the diaphragm
- TL Extend the diaphragm length
- b Thickness of diaphragm seal
- d₄ Diameter of sealing surface
- d₅ Extend the diaphragm diameter



DN	PN	Size mm [in]			
		Mb	b	d ₄	d ₅
50	10/100	45 [1,772]	20 [7,787]	102 [4,016]	48,3 [1,902]
80		72 [2,835]		138 [5,433]	76 [2,992]
100		89 [3,504]		158 [6,22]	94 [3,701]
125		124 [4,882]		188 [7,402]	125 [4,921]

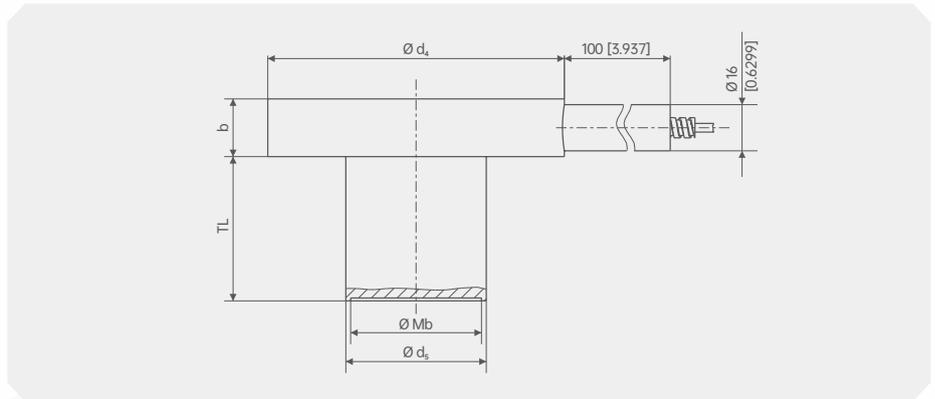


Size mm [in]

Flange connection, consistent ASME B 16.5 standard, RF 125... 250 AA

emote

- Mb Effective diameter of the diaphragm
- TL Extend the diaphragm length
- b Thickness of diaphragm seal
- d₄ Diameter of sealing surface
- d₅ Extend the diaphragm diameter

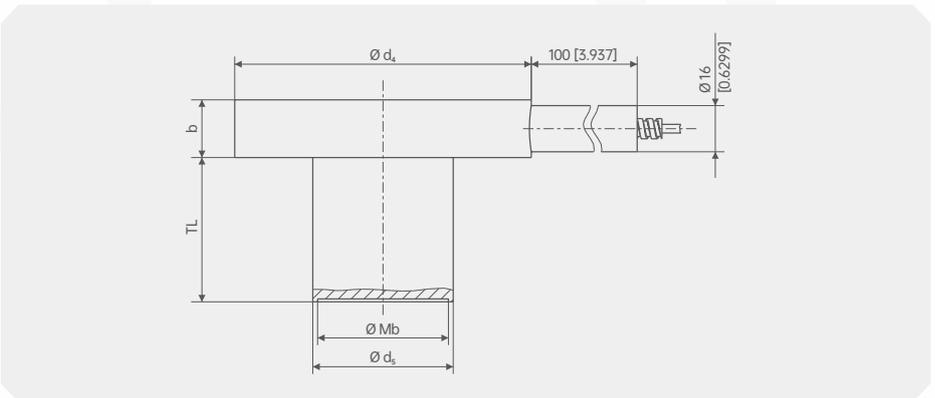


DN	PN	Size mm [in]			
		Mb	b	d ₄	d ₅
2"	150...600	45 [1,772]	20 [7,787]	100 [3,937]	48,3 [1,902]
3"		72 [2,835]		134 [5,276]	76 [2,992]
4"	150...300	89 [3,504]	20 [7,787]	158 [6,22]	94 [3,701]
5"		124 [4,882]		186 [7,323]	125 [4,921]

Flange connection, consistent GOST 33259 standard, Type B

emote

- Mb Effective diameter of the diaphragm
- TL Extend the diaphragm length
- b Thickness of diaphragm seal
- d₄ Diameter of sealing surface
- d₅ Extend the diaphragm diameter



DN	PN	Size mm [in]			
		Mb	b	d ₄	d ₅
50	10/250	40 [1,575]	20 [7,787]	102 [4,016]	44 [1,732]
80		60 [2,362]		133 [5,236]	74 [2,913]
100		72 [2,835]		158 [6,22]	91 [3,583]
125		90 [3,543]		184 [7,244]	111 [4,37]

H35-Selection composition

 Selection example **H35** **H** **P** **Y** **A**
 1 2 3 4

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
	T	DN65
	U	DN80
	V	DN100
	T ()	Other connection specifications
3.Material	X	Carbon steel
	Y	304SS
	S	316L
	T ()	Other materials

Instructions:

It indicates that the H29 diaphragm seal is connected to the instrument with the specification of G1/2, and the field connection specification is DN25, the material is 304 stainless steel, and the extended cartridge length is 50mm.

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;