

The selection is detailed on page 5



H21

Threaded Flat Insert Diaphragm

Product application

Suitable for high pressure applications

Measure the pressure of high viscosity or crystalline media

Process industry

Painting line

Functional characteristics

Piston instead of diaphragm: suitable for extremely harsh conditions

Tape grinding medium

Suitable for pressures from 10bar to 600bar

Robust and reliable pressure measurement

Shock resistance, vibration resistance

Product description

For mounting to Bourdon tube gauges, pressure sensors or pressure switches. For rotating, polluting and abrasive suspensions under high pressure. Specially designed for wastewater exploration, sludge, concrete, stucco and mineral pressure measurement.

Diaphragm seals are used to protect pressure measuring instruments from dangerous media in applications. In a diaphragm seal system, the diaphragm separates the instrument from the medium. The pressure is transmitted to the measuring device through the filling fluid in the system.

Type H21 diaphragm seal with threaded joint box flush diaphragm, wide range of applications. Despite its compact form factor, the product can be used under high pressure. In addition, the diaphragm seal can be selected for hygienic design and optional protective cover.

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



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



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INSTRUMENT

Technical parameter

| Model H21 | Standard | Selectable |
|--|--|--|
| Allowable pressure | Depends on the process connection thread | Vacuum measuring range |
| Edition | Diaphragm seal with flush diaphragm | Flush diaphragm seal with sanitary connection |
| Cleanliness level of liquid connected components | No oil, no fat, in accordance with ASTM G93-03 standard F(<1,000 mg/m ²) | No oil, no fat, in accordance with ASTM G93-03 standard D and ISO 15001 standard (<220 mg/m ²) No oil, no fat, in accordance with ASTM G93-03 standard C and ISO 15001 standard (< 66 mg/m ²) |
| Origin of raw materials for liquid parts | Internation | European Union, Switzerland, United States |
| How the instrument is connected | Axial adapter | Through G1/2, G1/4, 1/2NPT or 1/4NPT (internal thread) axial adapters |
| Installation mode | Direct connection | capillaries |
| | | Cooling tower |
| Designed to comply with the NACE declaration | - | MR 0175 |
| | | MR 0103 |
| Vacuum service | Basic vacuum treatment | Advanced high temperature and high vacuum treatment |
| | | High temperature and high vacuum treatment |
| Meter mounting bracket (Capillary option only) | - | Model H, DIN 16281, 100mm, aluminum, black |
| | | Type H, DIN 16281, 100mm, stainless steel |
| | | Pipe bracket mounting for Ø20... 80 mm pipe, steel |

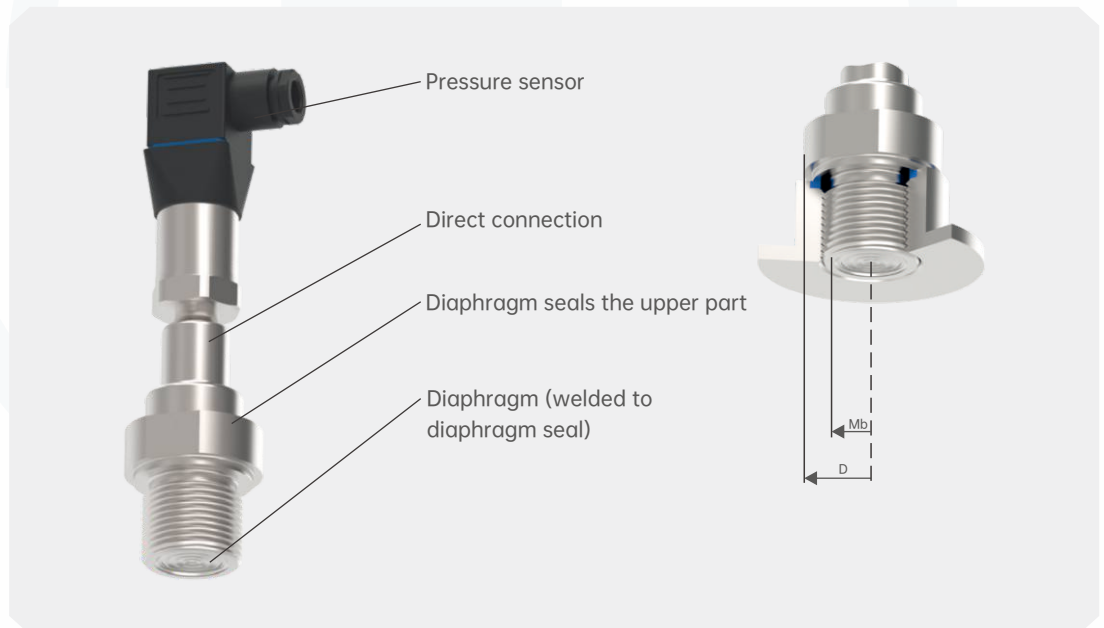
Case

Diaphragm seal with flush diaphragm Model H21

A pressure sensor has been installed

Legend

Mb Effective diaphragm diameter
D Diaphragm seal outer diameter



Process connection

| Standard | Male thread | |
|----------------------------------|-------------|--|
| | Standard | selectable |
| According to DIN 3852-2 | G 1/2 | G 3/4 G 1 G 1 1/2 G 2 |
| Comply with ASME B16.11 standard | 1/2 NPT | 3/4 NPT 1 NPT 1 1/2 NPT 2 NPT |

Combination of materials

| Liquid connection unit | | Process temperature limit ¹⁾ (°C/°F) |
|--------------------------------------|---|---|
| Diaphragm seals the upper part | Diaphragm | |
| Stainless Steel 1.4404/1.4435 (316L) | Stainless Steel 1.4404/1.4435 (316L) | 400/752 |
| Stainless Steel 1.4435 (316L) | Stainless Steel 1.4435 (316L) | |
| 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) | |
| Duplex steel 2205 (1.4462) | Duplex steel 2205 (1.4462) | 300/572 |
| Super Duplex Steel 2507 (1.4410) | Super Duplex Steel 2507 (1.4410) | |
| Hastelloy C22 (2.4602) | Hastelloy C22 (2.4602) | 400/752 |
| Hastelloy C276 (2.4819) | Hastelloy C276 (2.4819) | |
| Monel Alloy 400 (2.4360) | Monel Alloy 400 (2.4360) | |
| Titanium, Grade 2 (3.7035) | Titanium, Grade 2 (3.7035) | |
| Titanium, Grade 7 (3.7235) | Titanium, Grade 11 (3.7225) | 260/500 |
| Stainless Steel 1.4435 (316L) | Ceramic coating | |
| | PFA (perfluoroalkoxy) coating, FDA | |
| | PFA (perfluoroalkoxy) coating, antistatic | |
| | gild | 400/752 |



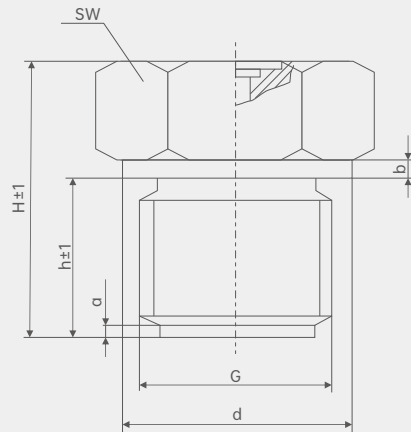
Size mm [in]

Nominal pressure PN 100
Male thread

Legend

G Screw thread

SW Wrench width



| Nominal pressure | Process connection | d | h | H | a | b | SW | Instrument connection | The minimum range (in bar) is the nominal size | | | |
|------------------|--------------------|----|----|------|---|-----|----|-----------------------|--|----|----|----|
| | | | | | | | | | 10 | 16 | 16 | 10 |
| PN 600 | G½B | 26 | 17 | 33.5 | 3 | 3 | 27 | weld | 10 | 16 | 16 | 10 |
| PN 600 | G¾B | 32 | 19 | 34 | 3 | 3 | 32 | weld | 10 | 16 | 16 | 10 |
| PN 600 | G1B | 39 | 21 | 36 | 3 | 3 | 41 | weld | 10 | 16 | 16 | 10 |
| PN 600 | G1½B | 55 | 25 | 48 | 3 | 3 | 55 | weld | 10 | 16 | 16 | 10 |
| PN 600 | G2B | 68 | 27 | 56 | 3 | 3.5 | 70 | weld | 10 | 16 | 16 | 10 |
| PN 600 | ½-14NPT | - | 20 | 33.5 | - | - | 27 | weld | 10 | 16 | 16 | 10 |
| PN 600 | ¾-14NPT | - | - | - | - | - | - | weld | 10 | 16 | 16 | 10 |
| PN 600 | 1-11½NPT | - | 24 | 36 | - | - | 41 | weld | 10 | 16 | 16 | 10 |
| PN 600 | 1½-11½NPT | - | 25 | 45 | - | - | 55 | weld | 10 | 16 | 16 | 10 |
| PN 600 | 2-11½NPT | - | 26 | 50 | - | - | 70 | weld | 10 | 16 | 16 | 10 |

H21-Selection composition

Selection example **H21** **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 () | Other connection specifications |
| 3.material | X | Carbon steel |
| | Y | 304SS |
| | Z | 316L |
| | T () | Other materials |

Instructions:

It indicates that the H21 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;