



Pressure Transducer Heavy Duty Compact Piezoresistive



measuring
•
monitoring
•
analysing



- Gauge or absolute pressure
- Internal diaphragm
- Measuring range:
-1...0 to 0...16 bar
- Temperature (medium):
max. 100 °C
- Accuracy class:
0.5 or 1.0
- Material: stainless steel
- Connection: G 1/4 male



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Model:
SEN-3247
SEN-3249
SEN-3272

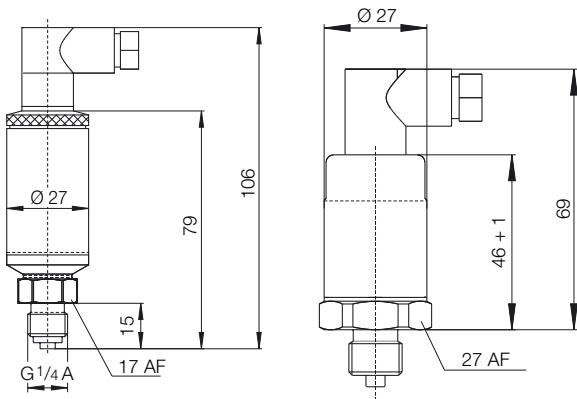


Description

Industrial Heavy Duty Compact pressure sensors are leaders among the pressure transducers. Compact, rugged with longterm stability, they are particularly suitable for applications in which the major requirements are small size, a G 1/4 pressure connection, light weight and the ability to withstand high mechanical loads. As a measuring element, a piezoresistive sensor is used. The material utilized renders these pressure sensors insensitive to chemically aggressive media.

Dimensions

SEN-3247..., SEN-3249... SEN-3272...



Areas of application

- Materials handling and lifting equipment
- Hydraulic systems
- Pneumatic systems
- General mechanical engineering

Technical Data

Technology: internal diaphragm
 Pressure: SEN-3249
 SEN-3272: gauge pressure
 SEN-3247: absolute pressure
 Housing: stainless steel 1.4301
 Mechanical connection: G 1/4 male DIN 16288
 Wetted parts: stainless steel 1.4571 and 1.4542
 Measuring principle: piezoresistive
 Max. temperature: storage: -40...+100 °C
 medium: -30...+100 °C
 ambient: -40...+85 °C
 Pressure limitation: ≤ 16 bar: 3.5 x range
 vacuum-tight
 Accuracy class: SEN-3247, SEN-3249: 0.5
 SEN-3272: 1.0
 Repeatability: ≤ ± 0.05 % (f.s.d.)
 Stability per year: ≤ ± 0.2 % (f.s.d.)
 under reference conditions
 Electrical connection: Right-angle plug, DIN 43 650 C
 Mini-Hirschmann plug
 G4a1MMT (model 3272)
 Power supply: 10...30 V_{DC}
 (14...30 V_{DC} for output 0 - 10 V)
 Output: 4 - 20 mA (2-wire), 0 - 10 V_{DC}
 Load (Ω): ≤ (U_B - 10 V) / 0.02 A (for 4 - 20 mA)
 > 10 kΩ for 0 - 10 V
 Response time: ≤ 1 ms (within 10 - 90 % of full scale)
 Adjustability: zero point and span to ± 5 %
 (not for SEN-3272)
 Temp. comp. range: 0...+80 °C
 Temperature drift: zero point and span ± 0.3 % / 10 K
 Protection: IP 65

Order Details Sensor (Example: SEN-3247 B146)

Measuring range	Order no. Absolute pressure class 0.5 4 - 20 mA	Order no. Gauge pressure class 0.5 4 - 20 mA	Order no. Gauge pressure class 0.5 0 - 10 V _{DC}	Order no. Gauge pressure class 1.0 4 - 20 mA	Order no. Gauge pressure class 1.0 0 - 10 V _{DC}
-1 to 0 bar	-	SEN-3249 C315	SEN-3249/1 C315	-	-
-0.6 to 0 bar	-	SEN-3249 C305	SEN-3249/1 C305	-	-
-0.4 to 0 bar	-	SEN-3249 C436	SEN-3249/1 C436	-	-
-0.25 to 0 bar	-	SEN-3249 C426	SEN-3249/1 C426	-	-
0 to 0.25 bar	SEN-3247 B146	SEN-3249 B146	SEN-3249/1 B146	SEN-3272 B146	SEN-3272/1 B146
0 to 0.4 bar	SEN-3247 B156	SEN-3249 B156	SEN-3249/1 B156	SEN-3272 B156	SEN-3272/1 B156
0 to 0.6 bar	SEN-3247 B015	SEN-3249 B015	SEN-3249/1 B015	SEN-3272 B015	SEN-3272/1 B015
0 to 1 bar	SEN-3247 B025	SEN-3249 B025	SEN-3249/1 B025	SEN-3272 B025	SEN-3272/1 B025
0 to 1.6 bar	SEN-3247 B035	SEN-3249 B035	SEN-3249/1 B035	SEN-3272 B035	SEN-3272/1 B035
0 to 2.5 bar	SEN-3247 B045	SEN-3249 B045	SEN-3249/1 B045	SEN-3272 B045	SEN-3272/1 B045
0 to 4 bar	SEN-3247 B055	SEN-3249 B055	SEN-3249/1 B055	SEN-3272 B055	SEN-3272/1 B055
0 to 6 bar	SEN-3247 B065	SEN-3249 B065	SEN-3249/1 B065	SEN-3272 B065	SEN-3272/1 B065
0 to 10 bar	SEN-3247 B075	SEN-3249 B075	SEN-3249/1 B075	SEN-3272 B075	SEN-3272/1 B075
0 to 16 bar	SEN-3247 B085	SEN-3249 B085	SEN-3249/1 B085	SEN-3272 B085	SEN-3272/1 B085
0 to 25 bar	SEN-3247 B095	SEN-3249 B095	SEN-3249/1 B095	SEN-3272 B095	SEN-3272/1 B095



Pressure Transducer Heavy Duty Industrial Piezoresistive



measuring
•
monitoring
•
analysing

Option:
Pluggable
Sandwich
Display
Model AUF



- Gauge pressure
- Internal diaphragm
- Measuring range:
-1...0 to 0...16 bar
- Temperature (medium):
max. 100 °C
- Accuracy class:
0.25 or 0.5
- Material:
stainless steel
- Connection: G 1/2 male



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Model:
SEN-3276
SEN-3277

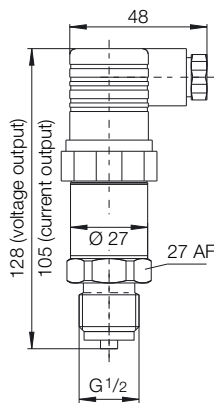


Description

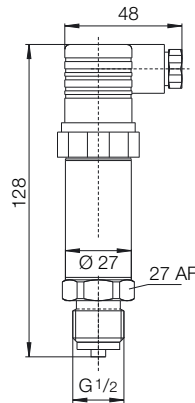
The Heavy Duty Industrial pressure transducers are the leaders among the pressure transducers. The thin-film technology of the sensor element fulfils the most demanding requirements. Case and wetted parts are stainless steel. Therefore they are extremely resistant against aggressive process fluids. The sensor is unaffected by shock or vibration. Two adjustment potentiometers permits the use of these pressure transducers in most difficult applications like measurement of the hydrostatic column.

Dimensions

SEN-3276...



SEN-3277...



Technical Data

Technology: internal diaphragm
 Pressure type: gauge pressure
 Housing: stainless steel 1.4301
 Connection: G 1/2 male acc. to DIN 16288
 Wetted parts: stainless steel 1.4571 and 1.4542
 Sensor element: piezoresistive
 Max. temperature: storage: -40...+100°C
 medium: -30...+100°C
 ambient: -20...+80°C
 Pressure limitation: ≤ 16 bar: 3.5 x range
 vacuum-tight
 Accuracy class: 0.25 or 0.5
 Repeatability: ≤ ±0.05 % (f.s.d.)
 Stability (annual): ≤ ±0.2 % (f.s.d.) under reference conditions
 Electrical connection: connector DIN 43 650
 Power supply: 10...30 V_{DC}
 (14...30 V_{DC} for output 0 - 10 V)
 Output: 4 - 20 mA (2-wire), 0 - 5 V_{DC},
 0 - 10 V_{DC}
 Load (Ω): ≤ (U_B - 10 V)/0.02 A (for 4 - 20 mA)
 > 5 kΩ for 0 - 5 V
 > 10 kΩ for 0 - 10 V
 Response time: ≤ 1 ms (within 10 - 90 % of full scale)
 Adjustability: zero point and span ±5 %
 Temp. comp. range: 0...+80°C
 Temperature drift: zero point and measuring
 ±0.2%/10 K zero point for
 measuring range 0...0.1 and
 0...0.16 bar ±0.4%/10 K
 Protection: IP 65

Applications

- Process engineering
- Hydraulic systems
- Industrial process engineering
- Development and laboratory
- Pneumatic systems

Order Details Sensor (Example: SEN-3276 C315)

Measuring range	Order no. Gauge pressure class 0.5 4 - 20 mA	Order no. Gauge pressure class 0.5 0 - 5 V _{DC}	Order no. Gauge pressure class 0.5 0 - 10 V _{DC}	Order no. Gauge pressure class 0.25 4 - 20 mA	Order no. Gauge pressure class 0.25 0 - 5 V _{DC}	Order no. Gauge pressure class 0.25 0 - 10 V _{DC}
-1 to 0 bar	SEN-3276 C315	SEN-3276/1 C315	SEN-3276/2 C315	SEN-3277 C315	SEN-3277/1 C315	SEN-3277/2 C315
-1 to +1.5 bar	SEN-3276 C555	SEN-3276/1 C555	SEN-3276/2 C555	SEN-3277 C555	SEN-3277/1 C555	SEN-3277/2 C555
-1 to +5 bar	SEN-3276 C535	SEN-3276/1 C535	SEN-3276/2 C535	SEN-3277 C535	SEN-3277/1 C535	SEN-3277/2 C535
0 to 0.1 bar	SEN-3276 B126	SEN-3276/1 B126	SEN-3276/2 B126	-	-	-
0 to 0.16 bar	SEN-3276 B136	SEN-3276/1 B136	SEN-3276/2 B136	-	-	-
0 to 0.25 bar	SEN-3276 B146	SEN-3276/1 B146	SEN-3276/2 B146	SEN-3277 B146	SEN-3277/1 B146	SEN-3277/2 B146
0 to 0.4 bar	SEN-3276 B156	SEN-3276/1 B156	SEN-3276/2 B156	SEN-3277 B156	SEN-3277/1 B156	SEN-3277/2 B156
0 to 0.6 bar	SEN-3276 B015	SEN-3276/1 B015	SEN-3276/2 B015	SEN-3277 B015	SEN-3277/1 B015	SEN-3277/2 B015
0 to 1 bar	SEN-3276 B025	SEN-3276/1 B025	SEN-3276/2 B025	SEN-3277 B025	SEN-3277/1 B025	SEN-3277/2 B025
0 to 1.6 bar	SEN-3276 B035	SEN-3276/1 B035	SEN-3276/2 B035	SEN-3277 B035	SEN-3277/1 B035	SEN-3277/2 B035
0 to 2.5 bar	SEN-3276 B045	SEN-3276/1 B045	SEN-3276/2 B045	SEN-3277 B045	SEN-3277/1 B045	SEN-3277/2 B045
0 to 4 bar	SEN-3276 B055	SEN-3276/1 B055	SEN-3276/2 B055	SEN-3277 B055	SEN-3277/1 B055	SEN-3277/2 B055
0 to 6 bar	SEN-3276 B065	SEN-3276/1 B065	SEN-3276/2 B065	SEN-3277 B065	SEN-3277/1 B065	SEN-3277/2 B065
0 to 10 bar	SEN-3276 B075	SEN-3276/1 B075	SEN-3276/2 B075	SEN-3277 B075	SEN-3277/1 B075	SEN-3277/2 B075
0 to 16 bar	SEN-3276 B085	SEN-3276/1 B085	SEN-3276/2 B085	SEN-3277 B085	SEN-3277/1 B085	SEN-3277/1 B085
0 to 25 bar	SEN-3276 B095	SEN-3276/1 B095	SEN-3276/2 B095	SEN-3277 B095	SEN-3277/1 B095	SEN-3277/1 B095

More Measuring ranges see price list.



Pressure Transducer Heavy Duty Industrial Piezoresistive



measuring
•
monitoring
•
analysing

Option:
Pluggable
Sandwich
Display
Model AUF



- Absolute pressure
- Internally-fitted diaphragm
- Measuring range:
0...0.25 to 0...16 bar
- Temperature (medium):
max. 100 °C
- Accuracy class:
0.25 or 0.5
- Material:
Stainless steel
- Connection: G 1/2



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Model:
SEN-3245
SEN-3248

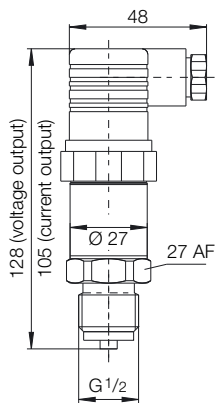


Description

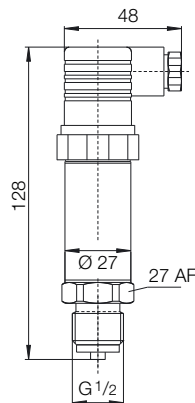
The heavy duty compact pressure sensors are top-of-the-range among pressure transmitters. A piezoresistive pressure measuring cell serves as measuring element. Housing and wetted parts are made of stainless steel and are thus resistant to chemically aggressive media. Pressure port and measuring cell are welded together – which means that the measuring system is very resistant to mechanical shock and vibrations. For difficult measurement applications (for example hydrostatic column) zero-point and span can be adjusted with two potentiometers.

Dimensions

SEN-3245...



SEN-3248...



Applications

- Plant engineering
- Process engineering
- Hydraulics
- R & D and laboratory
- Pneumatics

Technical Details

Version: internally-fitted diaphragm
 Type of pressure: absolute pressure
 Housing: stainless steel 1.4301
 Connections: G 1/2 external thread according to DIN 16288
 Wetted parts: stainless steel 1.4571 and 1.4542
 Measuring element: piezoresistive
 Max. temperature: storage: - 40 to +100 °C
 measured medium: - 30 to +100 °C
 environment: - 20 to +80 °C

Allowed excess pressure: ≤ 16 bar: 3.5-fold vacuum tight
 Accuracy class: 0.25 or 0.5
 Reproducibility: ≤ ±0.05 % f. s.
 Stability per year: ≤ ±0.2 % f. s. (at reference conditions)
 Electrical connection: connector accord. to DIN 43 650
 Auxiliary power: 10...30 V_{DC} (14...30 V_{DC} for 0 - 10 V output)
 Output: 4 - 20 mA (2-wire), 0 - 10 V_{DC}
 Load (Ω): ≤ (U_B - 10 V)/0.02 A (at 4 - 20 mA) > 10 kΩ at 0 - 10 V
 Response time: ≤ 1 ms (within 10 - 90 % f. s.)
 Variability: zero-point and span up to ±5 %
 Compensated range: 0 to +80 °C
 Temperature effect: on zero-point and span ±0.2%/10 K
 Protection: IP 65

Order Details Sensor (Example: SEN-3245 B015)

Measuring range	Order no. Absolute pressure class 0.5 4 - 20 mA	Order no. Absolute pressure class 0.5 0 - 10 V _{DC}	Order no. Absolute pressure class 0.25 4 - 20 mA	Order no. Absolute pressure class 0.25 0 - 10 V _{DC}
0 to 0.25 bar	SEN-3245 B146	SEN-3245/2 B146	SEN-3248 B146	SEN-3248/2 B146
0 to 0.4 bar	SEN-3245 B156	SEN-3245/2 B156	SEN-3248 B156	SEN-3248/2 B156
0 to 0.6 bar	SEN-3245 B015	SEN-3245/2 B015	SEN-3248 B015	SEN-3248/2 B015
0 to 1.0 bar	SEN-3245 B025	SEN-3245/2 B025	SEN-3248 B025	SEN-3248/2 B025
0 to 1.6 bar	SEN-3245 B035	SEN-3245/2 B035	SEN-3248 B035	SEN-3248/2 B035
0 to 2.5 bar	SEN-3245 B045	SEN-3245/2 B045	SEN-3248 B045	SEN-3248/2 B045
0 to 4.0 bar	SEN-3245 B055	SEN-3245/2 B055	SEN-3248 B055	SEN-3248/2 B055
0 to 6.0 bar	SEN-3245 B065	SEN-3245/2 B065	SEN-3248 B065	SEN-3248/2 B065
0 to 10.0 bar	SEN-3245 B075	SEN-3245/2 B075	SEN-3248 B075	SEN-3248/2 B075
0 to 16.0 bar	SEN-3245 B085	SEN-3245/2 B085	SEN-3248 B085	SEN-3248/2 B085