

High Precision Pressure Sensor

**For absolute pressure measurement
Model 8264**

**For relative pressure measurement
Model 8267**

Code:	8264 EN
Delivery:	ex stock
Warranty:	24 months



- Measuring ranges between 0 ... 100 mbar to 0 ... 2000 bar
- Accuracy < 0.1 %
- Output 0 ... 10 V or 4 ... 20 mA available (optional)
- Suitable for liquid and gaseous media
- For dynamic and static measurements
- Nominal temperature up to 160 °C (optional)
- Protection class IP67

Application

High-precision pressure transducers of these models are a very attractive and economic solution for making extremely accurate pressure measurements for users from all fields of engineering. Thanks to their excellent long-term stability, reliability and rugged construction, the pressure transducers are suitable for use in both research and production and many other applications.

These pressure transducers can be used for static and dynamic measurements on gaseous and liquid media. Being made of stainless steel they are also suitable for measurements on corrosive media. Critical media may result in damage around the welded seams inside the transducer. Please contact us.

Range of applications:

- ▶ Test benches
- ▶ Machine building
- ▶ Aerospace engineering
- ▶ Process technology

Description

Model 8264 pressure transducers measure the absolute pressure with respect to a vacuum. Built-in overload protection for measuring ranges ≤ 500 mbar prevents the sensor element being damaged by atmospheric pressure.

Model 8267 pressure transducers measure the pressure with respect to the surrounding atmosphere in measuring ranges ≤ 20 bar. They are designed as „true gauge“ sensors, i.e. the chamber behind the diaphragm is in direct contact with the atmosphere through a small opening in the sensor body. This atmosphere can be damp and corrosive, because the sensor element is protected by a second diaphragm.

In measuring ranges ≥ 50 bar, pressures are measured with respect to a sealed atmosphere of approximately 1 bar as reference pressure.

A special connecting cable is available to let you benefit from the burster TEDS electronic data sheet (memory chip fitted in the plug and containing sensor-specific data).

Technical Data

Order Code		Meas. Range [bar]	Dimensions [mm]				Resonance Frequency [kHz]	Dead Volume [cm ³]
Absolute 8264	Gauge 8267		8264		8267			
			øD	L	øD	L		
-	8267-4100	0.1	-	-	57.2	67.9	0.5	5.24
-	8267-4200	0.2	-	-	57.2	67.9	1.0	5.24
8264-4500	8267-4500	0.5	38.1	81.7	44.5	72.8	1.3	4.10
8264-5001	8267-5001	1	38.1	81.7	44.5	72.8	1.6	4.10
8264-5002	8267-5002	2	38.1	81.7	38.1	73.0	1.7	2.79
8264-5005	8267-5005	5	38.1	81.7	38.1	73.0	2.5	2.79
8264-5010	8267-5010	10	38.1	81.7	38.1	73.0	4.0	2.79
8264-5020	8267-5020	20	38.1	81.7	38.1	73.0	7.2	2.79
8264-5050	8267-5050	50	38.1	81.7	38.1	81.7	12.0	2.79
8264-5100	8267-5100	100	38.1	81.7	38.1	81.7	20.0	2.79
8264-5200	8267-5200	200	38.1	71.9	38.1	71.9	40.0	1.97
8264-5500	8267-5500	500	38.1	71.9	38.1	71.9	80.0	1.97
8264-6001	8267-6001	1000	38.1	67.3	38.1	67.3	95.0	1.97
8264-6002	8267-6002	2000	38.1	67.3	38.1	67.3	110.0	1.97

Electrical values

Bridge resistance: foil strain gauges 350 Ω , nominal
 Calibration resistor: 59 kΩ ± 0.1 %
 The bridge output voltage caused by a shunt of this value is given in the calibration protocol.
 Excitation voltage: 10 V
 Sensitivity: 3 mV/V, nominal
 measuring range 0.1 bar 1 - 2 mV/V, nominal

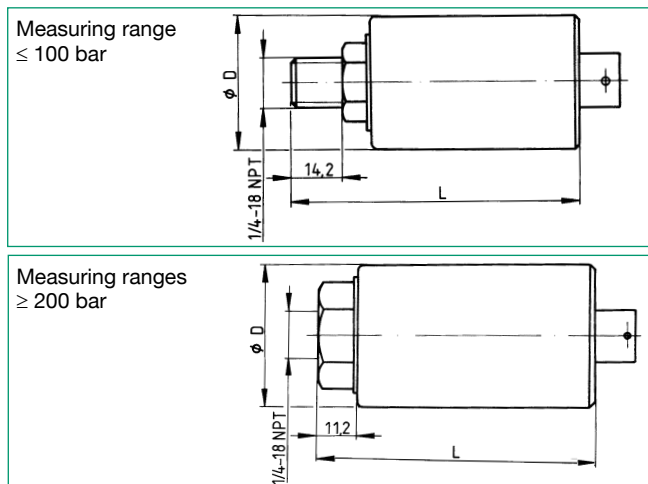
Environmental conditions

Range of operating temperature:
 measuring range ≤ 1000 bar - 70 °C ... 160 °C
 measuring range 2000 bar - 70 °C ... 95 °C
 Nominal temperature range: 15 °C ... 70 °C
 Influence of temperature on zero: ≤ ± 0.025 % F.S./K
 Influence of temperature on sensitivity: ≤ ± 0.025 % F.S./K

Mechanical values

Accuracy: Combined error consisting of linearity deviation, hysteresis and variation: < ± 0.1 % F.S.
 Kind of measurement:
 model 8264 absolute pressure measurement
 model 8267 gauge/relative pressure measurement
 Measuring ranges: refer to table
 Dead volume: refer to table
 Overload: 50 % over capacity
 pressure transducers of model 8264 with measuring range ≤ 500 mbar have a internal overload protection, active up to 1 bar.
 Burst pressure:
 measuring range ≤ 200 bar 300 % over capacity
 measuring range 500 bar 200 % over capacity
 measuring range ≥ 1000 bar 70 % over capacity
 Dynamic load
 recommended: 70 % of capacity
 possible: 100 % of capacity
 Design:
 Pressure transducer with hermetically sealed measurement chamber, diaphragm and housing are welded. Pressure transducers of model 8264 with measuring range ≥ 50 bar uses a sealed atmosphere, pressure approx. 1 bar, as reference.
 Material: stainless steel 17 - 4 PH (similar to material 1.4542)
 Pressure connection:
 measuring range ≤ 100 bar external thread 1/4-18NPT
 measuring range 200 bar, 500 bar int. thread 1/4-18NPT
 measuring range ≥ 1000 bar Autoklave AE F250-C
 Sealing: self-sealing, conic thread at sensor's side
 Electrical connection:
 6 pin bayonet plug-in connector, Souriau 851-07A10-6P
 Mating connector:
 Souriau 851-06E-C-10-6S or Amphenol 62GB-16F-10-6S included in scope of delivery
 Dimension: refer to table and dimensional drawing
 Weight: approx. 290 g
 Protection class: IP67

Dimensional drawing models 8264 and 8267



Technical Data with Internal Amplifier

	Voltage output 0 ... 10 V	Current output 4 ... 20 mA
Excitation voltage	15 V ... 28 V	22 ... 32 V
Current consumption	max. 40 mA	max. 65 mA
Connection technology	4 wire	3 wire
Load impedance	-	500 Ω
Measuring rate	3 kHz	2.5 kHz
Range of operating temperature	- 40 °C ... 85 °C	- 20 °C ... 85 °C

Wiring Code

Pin	without Amplifier	Voltage output	Current output
A	excitation +	excitation +	excitation +
B		signal -	signal - and
C	excitation -	excitation -	excitation -
D		signal +	signal +
E	signal -	calibration resistor	calibration resistor
F	signal +	calibration resistor	calibration resistor

Order Codes

Refer to tables, mention options with corresponding short terms

Accessories

Connecting cable for transducers without amplifier, 6 pin, shielded, bending radius > 5 mm, PVC insulated, length 3 m with open, color coded and tinned cable ends **Model 9986**
 to burster evaluation electronics (desktop versions) with 12 pin connector **Model 9911**
 for transducers with internal amplifier, with open color coded and tinned cable ends **Model 99545-000D-0160030**
 to 7281 with burster TEDS **Model 99229-545D-0160030**
 Mating connector (is included in scope of delivery) **Model 9945**
 Other lengths or special cable versions on request.

Test and Calibration Certificate

Included in delivery, et al. with specification of zero output, sensitivity and shunt calibration factor.

Options

Extension of the nominal temperature range to 20 °C ... 120 °C **...-xxFxxxxx**
 Extension of the nominal temperature range to 20 °C ... 160 °C, possible for measuring range ≥ 1 bar **...-xxGxxxxx**
 Internal measurement amplifier with voltage output 5 V = **...-x1xxxxxx**
 Internal measurement amplifier with voltage output 10 V = **...-x2xxxxxx**
 Internal measurement amplifier with current output 4 ... 20 mA = **...-x4xxxxxx**

Factory Calibration Certificate (WKS)

Calibration of a pressure transducer separately as well as connected to an indicator. Standard is a certificate with 11 points, starting at zero, running up and down in 20% increments and covering the complete measuring range. Special calibrations on request. Calculation of costs by base price plus additional costs per point.

Order Code 82WKS-82XX