

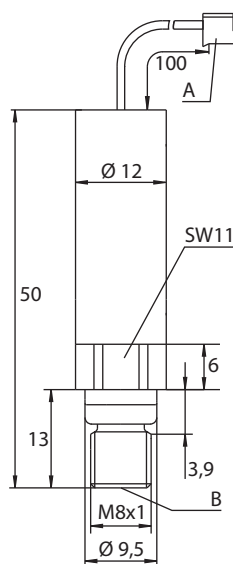
HySense PR 280

Miniature pressure sensor

This sensor is ideal for applications where very low weight and minimized dimensions are required (e.g. in regulating valves).



Dimensions



- A Connector box PHR-3 by JST
B Restrictor drill hole Ø 0.6

Qualities

Measuring principle	piezo-resistive (poly-cristalline silicon thin film structure on high-grade steel membrane)
Pressure type	relative pressure
Output signal	0.5 ... 4.5 VDC
Electrical measuring connector	connector box JST PHR-3
Mechanical connection thread	M8 x 1
Sealing material	O ring FKM
Protection type (EN 60529 / IEC 529)	IP 00
Casing material	1.4571
Membrane material	non-corrosive high-grade steel
Tightening torque	8 Nm (\pm 2 Nm)
Weight	~ 22 g

Pin assignment

Connector box PHR-3	0.5 ... 4.5 V DC (three wires)
	Pin 1 = Ub
	Pin 2 = GND
	Pin 3 = signal

Ø D	Measuring range		Order number
	bar	MPa	
15	0 ... 20	0 ... 2	34B3-27-03.49
12	0 ... 100	0 ... 10	34B3-16-03.49
	0 ... 160	0 ... 16	34B3-19-03.49
	0 ... 250	0 ... 25	34B3-17-03.49
	0 ... 400	0 ... 40	34B3-15-03.49

Due to EMC requirements, it is necessary to install the sensor in a capsuled metal casing.

HySense PR 280

Miniature pressure sensor



Technical data	PR 280
Overload range	2 x nominal pressure
Burst pressure	4 x nominal pressure
Signal type	three wire
Supply voltage U_b	12 ... 30 VDC
Current consumption	< 10 mA
Error limit (of final value)	comprises the influences non-linearity, hysteresis, repeatability, zero-point- and span error
... at +22 °C (room temperature)	± 0.5 %
... at -15 ... +85°C	± 0.5 %
... at +85 ... +100°C	± 1.0 %
... at -40 ... -15°C	± 1.0 %
Compensation temperature range	0 ... +80 °C
Non-linearity	< ± 0.2 % of final value
Reproducibility	< ± 0.05 % of final value
Hysteresis	< ± 0.1 % of final value
Long-term stability	< ± 0.2 % of final value/year
Response time	< = 1 ms
Frequency range	> 1 kHz
Isolation resistance	> 100 MΩ
Load resistance	2.3 kΩ
Number of load cycles	> 1 x 10 ⁷
Medium temperature	-20 ... +90 °C
Environmental temperature	-40 ... +125 °C
Storage temperature	-40 ... +140 °C
EMV test	DIN EN 61000-4-2 / -3 / -4 / -6 / -8
Vibrational stability	1 mm oscillation way (10 ... 50 Hz) 20 g (20 ... 2,000 Hz)
Shock stability	50 g (6 ms half-sine)
Mounting orientation	arbitrary