

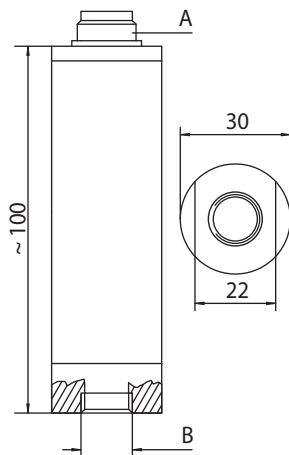
HySense PR 310

5 pole device connector, M16 x 0.75



This pressure sensor has a very fast response time ≥ 1 ms, very low noise qualities and optimized accuracy.

Dimensions



A 5 pole device connector, M16 x 0.75
B ISO 228 G $\frac{1}{4}$ inside thread

Qualities

Measuring principle	piezo-resistive (silicon chip in stainless steel casing filled with transmission fluid)
Pressure type	relative pressure
Output signal	0 ... 20 mA / 4 ... 20 mA
Electrical measuring connector	5 pole device connector, M16 x 0.75
Mechanical connection thread	ISO 228 – G $\frac{1}{4}$ inside thread
Sealing material	FKM (pressure measuring cell)
Protection type (EN 60529 / IEC 529)	IP 40
Casing material	1.4104, 1.4301
Membrane material	1.4435
Tightening torque	40 Nm (\pm 5 Nm)
Weight	~ 120 g

Pin assignment

	4 ... 20 mA (two wires)	0 ... 20 mA (three wires)
	Pin 1 = – Ub / signal –	Pin 1 = signal +
	Pin 2 = free	Pin 2 = – Ub / signal – / GND
	Pin 3 = + Ub / signal +	Pin 3 = + Ub
	Pin 4 = free	Pin 4 = free
	Pin 5 = free	Pin 5 = free

Measuring ranges		Order number	
bar	MPa	4 ... 20 mA	0 ... 20 mA
-1 ... 6	-0.1 ... 0.6	3403-32-71.37A	3403-32-71.33A
0 ... 60	0 ... 6.0	3403-21-71.37A	3403-21-71.33A
0 ... 200	0 ... 20	3403-10-71.37A	3403-10-71.33A
0 ... 400	0 ... 40	3403-15-71.37A	3403-15-71.33A
0 ... 600	0 ... 60	3403-18-71.37A	3403-18-71.33A
0 ... 1.000	0 ... 100	3403-29-71.37A	3403-29-71.33A

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Technical data	PR 310
Overload range	1.5 x measuring range
Burst pressure	2.5 x measuring range
Signal type	two wire 4 ... 20 mA, three wire 0 ... 20 mA
Supply voltage U_b	6.5 ... 30 VDC
Current consumption	three wire without signal < 10 mA
Overload protection	36 VDC
Error limit (of final value)	comprises the influences non-linearity, hysteresis, repeatability, zero-point- and span error
... at +22 °C (room temperature)	± 0,25 %
... at -20 ... +80°C	< ± 3%
Compensation temperature range	-20 ... +80 °C
Non-linearity	> 0.1 MPa < ± 0.25 % of final value
Reproducibility	< ± 0.25 % of final value
Hysteresis	> 0.1 MPa < ± 0.25 % of final value
Long-term stability	< = 0.1 % of final value
Response time	1 ms (0 ... 98 %)
Frequency range	< = 1 kHz
Isolation resistance	min. 10 MΩ
Total resistance	$R_g = U_b / 0,020$ (at output signal 4 ... 20 mA) $R_g = U_b / 0,030$ (at output signal 0 ... 20 mA)
Load resistance three wires	$R_L = U_b - 6 V / 0.020 < = 500 \text{ Ohm}$
Load resistance two wires	$R_L = U_b - 10 V / 0.020 < = 700 \text{ Ohm}$
Number of load cycles	> 1 x 10 ⁶
Medium temperature	-20 ... +80 °C
Environmental temperature	-20 ... +80 °C
Storage temperature	-20 ... +85 °C
EMV test	EN 50081-2, EN 50082-2
Vibrational stability	10 g (5 ... 2,000 Hz), IEC 60068-2-6
Shock stability	50 g (11 ms), IEC 60068-2-29
Mounting orientation	arbitrary