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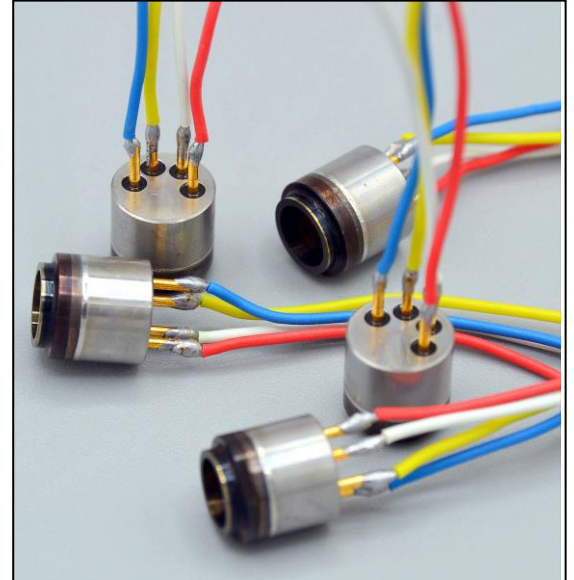
High Precision Absolute Pressure Sensors

Thin Film Technology on stainless steel

Type A10 Absolute

Features:

- Absolute pressure measurement
- Designed for static and dynamic measurement
- Strain gauge processed in thin film technology on stainless steel
- High precision resistors are connected to a full Wheatstone Bridge
- Basic sensor without any active amplification or compensation
- No bond creeping effects
- Best protection against environmental influences
- Sensor will be shipped with 25mm stranded wires

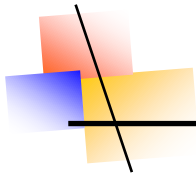


This specific sensor was designed to fulfill applications where the absolute pressure has to be measured without any oilfill and without any silicon devices. The mechanical design is based on our C10 units with several modifications to give the user an excellent product with a high vacuum reference.



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St.-Nummer 31/337/00253 Finanzamt Berlin (Friedrichshain – Kreuzberg) • USt-Nr.: DE258546892

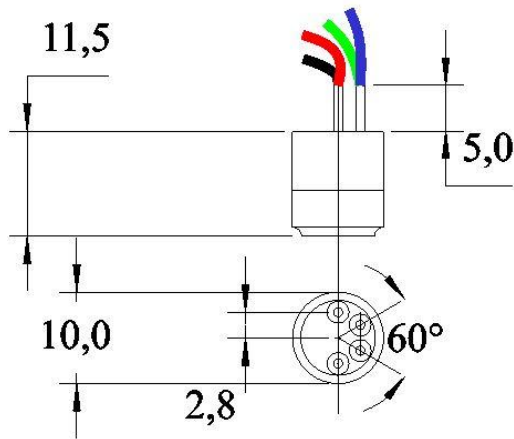
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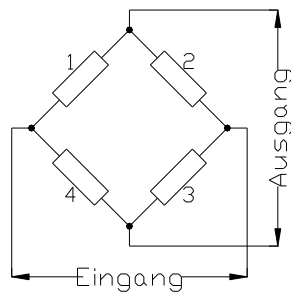
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A10 Type Dimensions:



Dimensions in mm

Schematic:



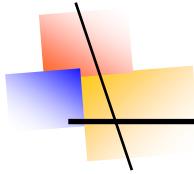
Wiring out:

Colour	Signal
Red	+ Supply
Black	- Supply
Green	+ Output
Blue	- Output



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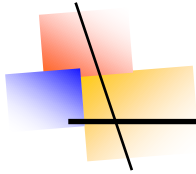
Technical data (standard parts):

Feature	Unit	Temperature range	
Type		S2	S3
Nominal Operation Temperature Range	°C	-65 ... +125	-65 ... +150
Diaphragm diameter	mm	4/*6	4/*6
Cup diameter	mm	10	10
Measurement range FS (Standard is highlighted)	bar	2.5, 6, 10, 16, 25, 40, 100, 250	2.5, 6, 10, 16, 25, 40, 100, 250
Cup height	mm	6	6
Bridge resistance	Ω	5k ± 20%,	5k ± 20%,
TCR (resistors)	ppm/K	< ± 25	< ± 25
Zero point	mV/V	< ± 0.2	< ± 0.2
TC of zero @ 2mV/V FS	%FS/K	< ± 0.035	< ± 0.035
Isolating resistance (100 V DC)	Ω	> 10 ⁹	> 10 ⁹
Nominal span	mV/V	2	2
Range of span	mV/V	1.5 ... 2.5	1.5 ... 2.5
TC of span	%/ K	0.01 ... 0.03	0.01 ... 0.03
Linearity	% FS	<0.5	<0.5
Hysteresis	% FS	< ± 0.2	< ± 0.2
Repeatability	% FS	< ± 0.05	< ± 0.05
Long term stability 60°C, 120 h 150 °C, 1000 h 175 °C, 1000 h 200°C, 1000h 260°C, 1000h 100% overload	μV/V	< ±10 < ±2	< ±20 < ±2
Supply voltage range ¹	(UB) V	5 (0.5 ... 10)	5 (0.5 ... 10)
Overload (non destructive)		2 x FS	2 x FS
Burst pressure		> 5 x FS	> 5 x FS
Connection		See table below	
Wetted Material		17-4PH (1.4548)	

¹ Higher supply voltages can give thermal effects, like drifts, until the sensor has a balanced temperature. Data is on request available.



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Available Isolating Voltages:

Voltage	Ordering Code
500 VAC	V3

Ordering Information:

	Ordering Code				
Type	A10				
Pressure range					
2.5 bar		P02			
6bar		P06			
10bar		P10			
16bar		P16			
25 bar		P25			
40 bar		P40			
100 bar		P100			
250 bar		P250			
Temperature °C³					
-65 ... +125			S2		
-65 ... +150			S3		
Connection					
Single Wires (PTFE or silicone)					J6

The data sheet above is for the bare absolute sensor. Pressure ports will be manufactured according to client's specification. There are many pressure ports designed by ICS-NH in use. Drawings are available on request.



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