

## PIEZORESISTIVE PRESSURE TRANSMITTERS

## SERIES 23 S / 25 S

### ABSOLUTE AND GAUGE PRESSURE

This transmitter is well suited for use in industrial applications that require good accuracy and high stability. It is designed especially for safety critical applications where media compatibility is paramount. The Series 23S / 25S features a fully welded pressure port construction, no internal O-Rings or seals are used up to 600 bar. The wetted materials are a 316L stainless steel housing and a brazed diaphragm.

- **Series 23 S** Male pressure port G1/4"
  - Accuracy 0,25 %FS (best straight line), optional 0,1 %FS
- **Series 25 S** G1/2" pressure port with flush diaphragm
  - Accuracy 0,25 %FS (best straight line), optional 0,1 %FS

### A Comprehensive Range

Absolute, barometric, gauge (positive and negative pressures). 16 nominal pressure ranges. Current or voltage output.

### Flexibility

A modular concept is used, with fast and economical production achieved by using off-the-shelf Series 7 S and 9 S capsules and Series 6 S sensors.

Numerous options and variations are available to meet customers' specific requirements: Pressure ranges, pressure ports, signal outputs, electrical connectors, etc.

### Quality

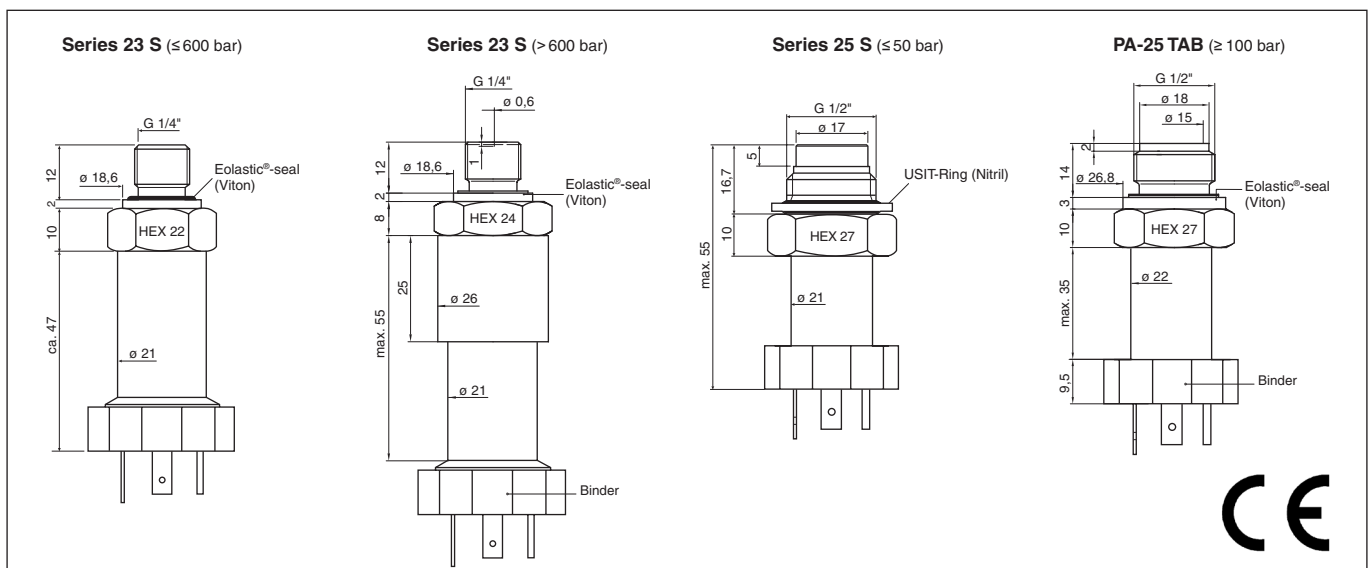
Each transmitter is subjected to severe test- and calibration procedures. Transmitters are manufactured and tested according to ISO 9001:2000.



Series 23 S



Series 25 S



Subject to alterations

04/07

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## Specifications

### Pressure Ranges (FS) in Bar

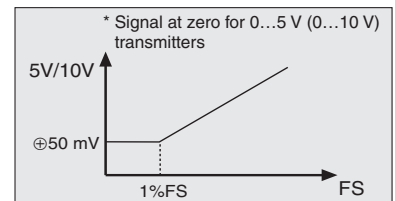
PR-23 S / PR-25 S G1/2"	-1	-0,5	-0,2	0,2	0,5	1	2	5	10	20						
PAA-23 S / PAA-25 S G1/2"				0,5	1	2	5	10	20							
PA-23 S					1	2	5	10	20	50	100	200	400	600	1000	
PA-25 S / PA-25 TAB G1/2"						1	2	5	10	20	50	100	200	400		
Overpressure	-1	-1	-1	2,5	2,5	3	4	10	20	40	100	200	300	600	900	1200

PAA: Absolute. Zero at vacuum PA: Sealed Gauge. Zero at 1000 mbar abs PR: Vented Gauge. Zero at atmospheric pressure

Linearity <sup>(1)</sup> + Hysteresis + Repeatability	± 0,25 %FS	± 0,5 %FS (Range ≤ 1 bar)	( <sup>1</sup> ) best straight line
Storage-/Operating Temperature	-40...100 °C		
Compensated Temperature Range	-10...80 °C		
Temperature Coefficients	<b>of Zero, in %FS/°C</b>		
· Range > 1 bar	0,005 typ.	0,01 max.	0,02 max.
· Range 1 bar	0,010 typ.	0,02 max.	0,02 max.
· Range 0,5 bar	0,015 typ.	0,03 max.	0,02 max.
· Range 0,2 bar	0,025 typ.	0,05 max.	0,02 max.
Stability	<b>of Sensitivity, in %/°C</b>		
· Range > 2 bar	0,1 %FS typ.	0,2 %FS max.	
· Range ≤ 2 bar	2 mbar typ.	4 mbar max.	

Signal Output / Type	<b>4...20 mA / 2-Wire</b>	<b>0...5 V / 3-Wire*</b>	<b>0...10 V / 3-Wire*</b>
Supply	8...28 VDC	8...28 VDC	13...28 VDC
Load Resistance (Ω)	(U-10 V) / 0,02 A	> 5 k	> 5 k
Frequency Response	5 kHz	1 kHz	1 kHz
Power Consumption		max. 5 mA	max. 5 mA

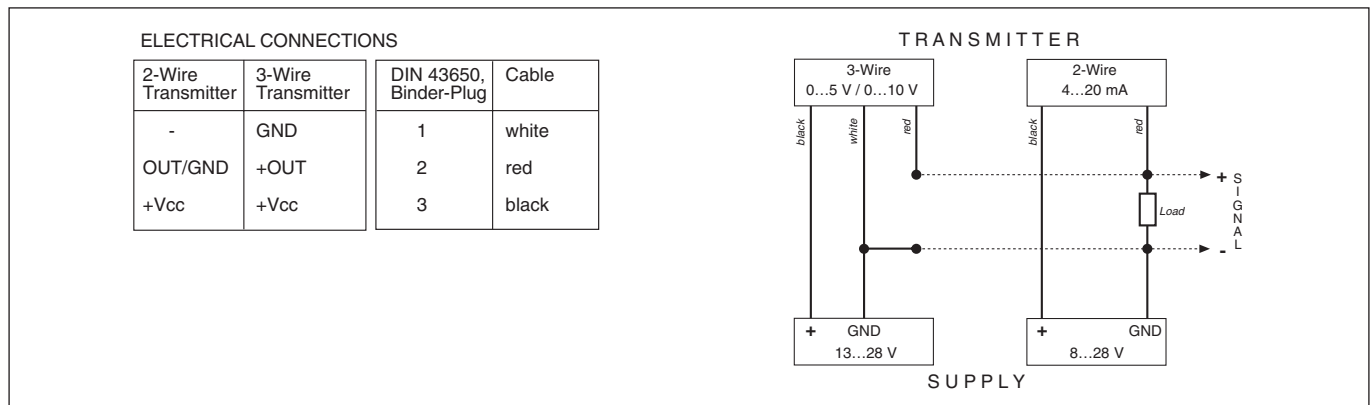
Electrical Connector	Plug DIN 43650
Dead Volume Change	< 0,1 mm <sup>3</sup>
Material in Media Contact	Stainless steel 316L (DIN 1.4435), hard solder
Protection Class	IP65
Weight	Series 23 S: ≈ 105 g Series 25 S: ≈ 115 g
Insulation	> 100 MΩ@500 V
Endurance	> 10 million cycles, 0...100 %FS at 25 °C
Oil Filling	Silicone fluid



## Options

Pressure Port	On request.
Electrical Output	Cable, other plug connections.
Pressure Ranges	On request.
Oil Filling	Fluorocarbon oil (O <sub>2</sub> -compatible), olive-oil, low temperature oil.

Also available in Ex-version; see separate data sheet 23(S)Ei / 25(S)Ei / 26 Ei.



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