

PIEZORESISTIVE PRESSURE TRANSMITTERS

ABSOLUTE- AND GAUGE PRESSURE

For low pressure measurements, high stability has previously only been achieved with large piezoresistive or ceramic capsules and stress-free, floating mountings with O-rings or seals. However, in modern industrial applications, the increasing demand for reliability and extended lifetimes means that O-rings and seals are less and less acceptable, as they are potential causes of failure.

KELLER have now introduced a totally new production method, using a stainless steel brazing technique to give high stability and high accuracy without internal O-rings. This is the new 23 S and 25 S production line.

- **Series 23 S** Male pressure port G1/4"
Accuracy 0,25% FS (best straight line), optional 0,1% and 0,2% FS
 - **Series 25 S** **G1/2"** pressure port with flush diaphragm
 - **Series 25 S** **M18 x 1,5** pressure port with flush diaphragm
Accuracy 0,25% FS (best straight line), optional 0,1% and 0,2% FS
- | | | |
|---|------------------------|---|
| • | PAA-23 S / 25 S | Absolute Pressure Transmitter (Zero at 0 bar abs.) |
| • | PA-23 S / 25 S | Sealed Gauge Pressure Transmitter (Zero at ≈ 1 bar) |
| • | PR-23 S / 25 S | Vented Gauge Pressure Transmitter (Zero at atmospheric) |

• 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

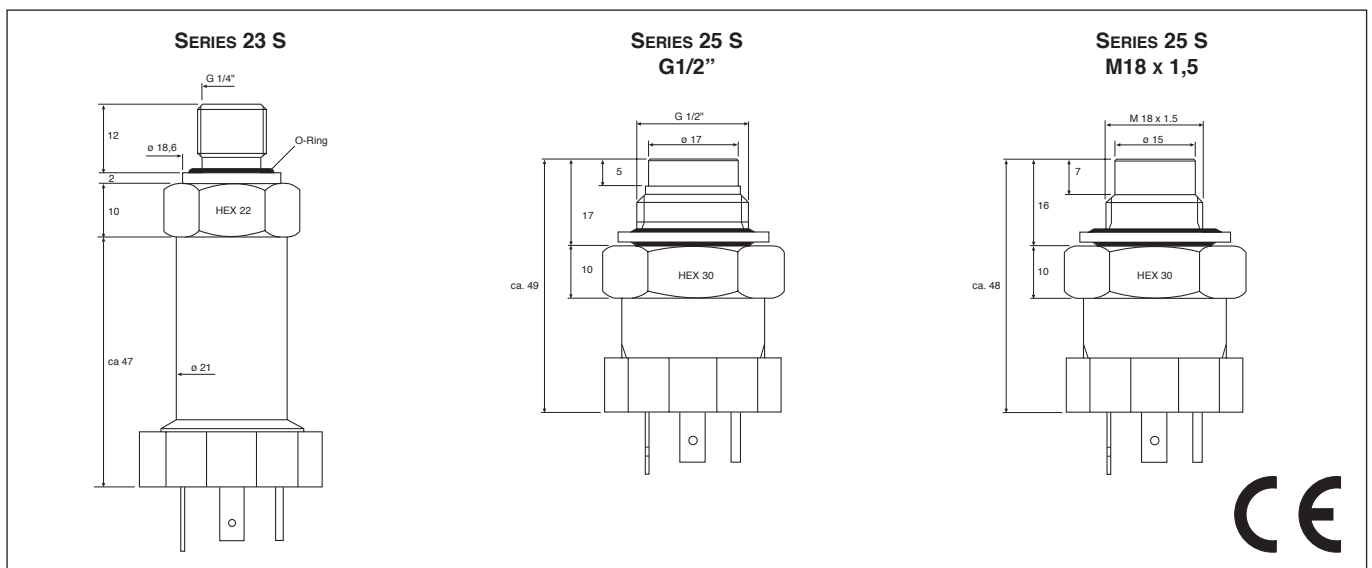
Each transmitter is subjected to severe test- and calibration procedures. Transmitters are manufactured and tested according to ISO 9001 / EN 29001.



Series 23 S



Series 25 S



Subject to alterations

11/98



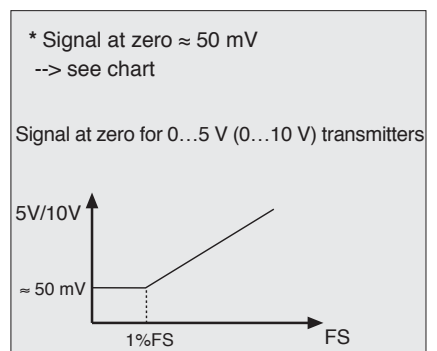
KELLER

SPECIFICATIONS

	PRESSURE RANGES (FS) IN BAR										
	-1	-0,5	-0,2	0,2	0,5	1	2	5	10	20	
PR-23 S / PR-25 S G1/2"											
PR-25 S M18 x 1,5									5	10	20
PAA-23 S / PAA-25 S G1/2"				0,2	0,5	1	2	5	10	20	
PAA-25 S M18 x 1,5									5	10	20
PA-23 S						1	2	5	10	20	50 100 200 400 600 1000
PA-25 S G1/2"						1	2	5	10	20	50 100 200
PA-25 S M18 x 1,5								5	10	20	50 100 200
Overpressure	-1	-1	-1	2,5	2,5	3	4	10	20	40	100 200 300 600 900 1200

Linearity ⁽¹⁾ +Hysteresis+Repeatability	±0,25 % FS	(¹) best straight line
Storage-/Operating Temperature	-40...100°C	
Compensated Temperature Range	-10...80°C	
Temperature Coefficients...	OF ZERO, IN %FS/°C	OF SENSITIVITY, IN %/°C
· 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		
· Range > 2 bar	0,1% FS typ. 0,2% FS max.	
· Range ≤ 2 bar	1 mbar typ. 2 mbar max.	

Signal Output / Type	4...20 mA / 2-WIRE	0...10 V / 3-WIRE *
Supply	10...30 VDC	13...28 VDC
Load Resistance (Ω)	(U-10V)/0,02A	> 5 k



Electrical Connector	Plug DIN 43650
Dead Volume Change	< 0,1 mm ³
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@50 V
Endurance	> 10 million cycles 0...100% FS at 25°C
Frequency Response	1 kHz (5 kHz option)
Oil Filling	Silicone fluid

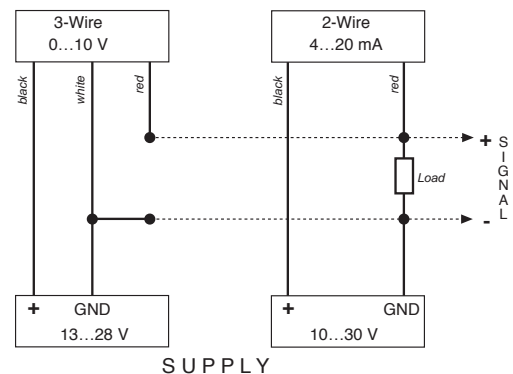
OPTIONS

Pressure Port	On request.
Electrical Output	Cable (with reference tube for gauge); protection IP 65.
Pressure Ranges	Any range between 0,2 and 1000 bar, various units (PSI etc.)
Accuracy	±0,1 and ±0,2%FS
Oil Filling	Fluorocarbon oil (O ₂ -compatible), olive-oil, low temperature oil

ELECTRICAL CONNECTIONS

2-Wire Transmitter	3-Wire Transmitter	DIN 43650 Plug	Cable
-	GND	1	white
OUT/GND	+OUT	2	red
+Vcc	+Vcc	3	black

TRANSMITTER



Subject to alterations

11/98

KELLER AG für Druckmesstechnik
KELLER Gesellschaft für Druckmesstechnik mbH

St. Gallerstrasse 119
Schwarzwaldstrasse 17

CH-8404 Winterthur
D-79798 Jestetten

Tel. 052 - 235 25 25
Tel. 07745 - 9214 - 0

Fax 052 - 235 25 00
Fax 07745 - 9214 - 50