



KELLER

PIEZORESISTIVE PRESSURE TRANSMITTERS ABSOLUTE-, GAUGE- AND DIFFERENTIAL PRESSURE

SERIES 23 / 25

These piezoresistive transmitters have been designed for precision applications in industrial environments for pressures ranging from 0,2 to 1000 bar, liquids or gas.

- **Series 23** Male pressure port
Accuracy 0,5%FS, optional 0,1 and 0,2%FS
- **Series 25** Flush diaphragm
Accuracy 0,5%FS, optional 0,1 and 0,2%FS



Series 23



Series 25

• A Complete Range

Absolute, barometric, gauge (over- and underpressure) and differential for wet/wet applications. 13 nominal pressure ranges. Current or voltage output.

• Flexibility

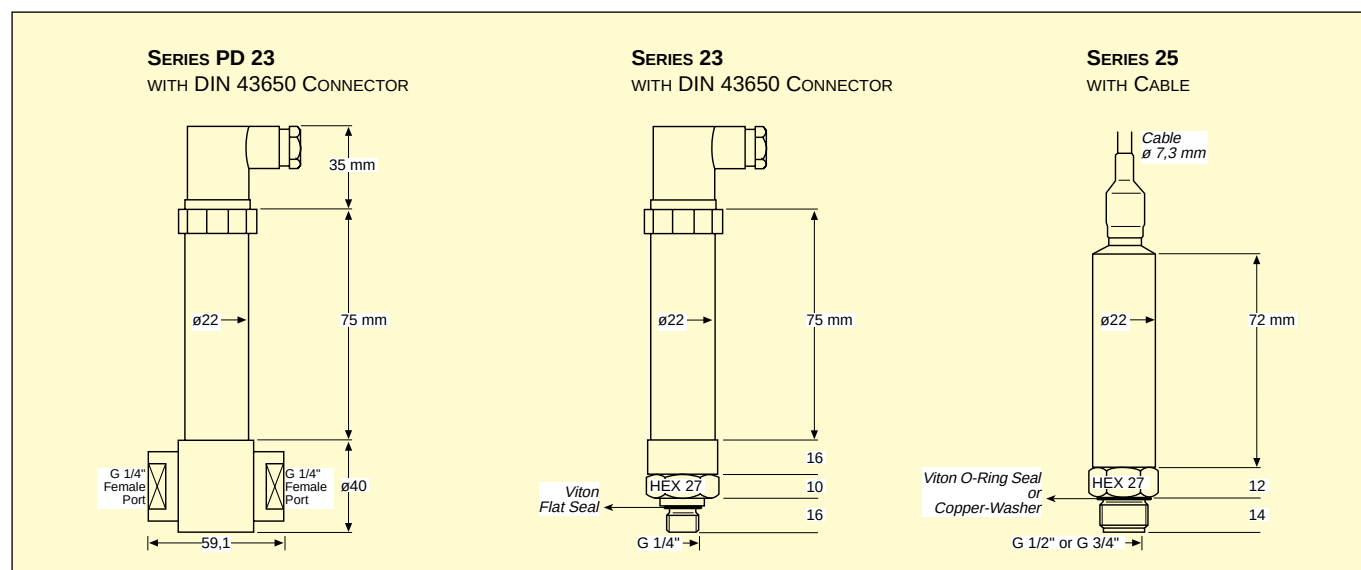
A modular concept uses the selection of off-the-shelf capsules, allowing a customised production. Numerous options and variants are available, fully adapted to the customer's requirements: Mechanical and electrical interface, ports, signal outputs, materials in media contact, oil filling, oxygen-compatibility, special features, flameproof- and intrinsically safe versions.

• Reliability / Quality

These transmitters use the highly stable KELLER Series 10 capsules, proven in millions of applications throughout the world. Each capsule is subjected to severe tests and calibration procedures. The transmitters are manufactured and tested according to ISO 9001 / EN 29001.

The type of the transmitter is defined according to the reference pressure:

- **PAA-23/25** Absolute Pressure Transmitter (Zero at 0 bar abs.)
- **PA-23/25** Sealed Gauge Pressure Transmitter (Zero at ≈ 1 bar abs.)
- **PR-23/25** Vented Gauge Pressure Transmitter (Zero at atmospheric)
- **PD-23** Differential Pressure Transmitter (wet / wet)



Subject to alterations

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SPECIFICATIONS

	PRESSURE RANGES (FS) IN BAR										
	-1	-0,5	-0,2	0,2	0,5	1	2	5	10	20	
PR -23/25				0,2	0,5	1	2	5	10	20	
PD-23				0,2	0,5	1	2	5	10	20	
PAA-23/25				0,2	0,5	1	2	5	10	20	
PA-23/25						1	2	5	10	20	50 100 200 400 600 1000
Overpressure	-1	-1	-1	2,5	2,5	3	4	10	20	40	100 200 300 600 900 1100
Overpressure Ref.-Side PD				1	1	2	3	7	15	25	
PD, static line pressure	200 bar max.										

Linearity ⁽¹⁾ +Hysteresis+Repeatability	$\pm 0,2\%$ FS typ., $\pm 0,5\%$ FS max.		(¹) best straight line, based zero
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...20 mA / 3-WIRE	0...10 V / 3-WIRE
Supply	10...30 VDC	10...28 VDC	13...28 VDC
Load Resistance (R_{Ω})	(U-10V)/0,02A	(U-5V)/0,02A	> 5 k

Electrical Connection	- Plug DIN 43650, protection IP 65 - Cable (with reference tube for gauge); protection IP 65
Volumetric Change	< 0,1 mm ³
Pressure Connection	See drawings front page
Material in Media Contact	Stainless steel 316L (DIN 1.4435), viton
Protection	IP65
Weight	PR/PA/PAA: $\approx$ 180 g. PD: $\approx$ 440 g
Insulation	> 100 M Ω @50 V
Endurance	> 10 million cycles 0...100%FS at 25°C
Frequency Response	1 kHz (5 kHz option)

OPTIONS

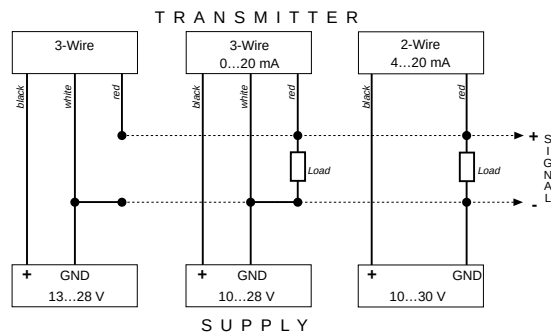
Pressure Connection, Electrical Out	On request; many possibilities
Pressure Ranges	All pressure ranges between 0,2 and 1000 bar, diff. units
Linearity. Specifications	$\pm 0,1$ and $\pm 0,2\%$ FS or any customer requirement
Materials in Contact with Media	Hastelloy C, monel, platinum, nickel, tantalum, gold-plated
Oil Filling	Fluorized oil (O ₂ -compatible), olive-oil, low temperature oil
Hazardous Applications	Flameproof- and intrinsically safe version
Protection	IP67
Higher Static Line Pressure	up to 600 bar (PD only)



Series PD-23

ELECTRICAL CONNECTIONS

Two Wire Transmitter	Three Wire Transmitter	DIN 43650 Connector	Amphenol C91A	Cable
-	0 V / GND	1	1	white
+Signal	Signal	2	2	red
+Supply	+Supply	3	3	black



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