

SERIES 23 Ed SERIES 25 Ed



FLAMEPROOF PRESSURE TRANSMITTERS FOR HAZARDOUS APPLICATIONS

These piezoresistive pressure transmitters are approved for use in high explosion risk areas. They provide stable and accurate measurements of absolute, gauge and differential pressures of liquid and gaseous media in the pressure range between 0,2 and 200 bar.

- **SERIES 23 Ed** Accuracy 0,5 %FS, optional 0,1 and 0,2 %FS
- **SERIES 25 Ed** Accuracy 0,5 %FS, optional 0,1 and 0,2 %FS
Flush Diaphragm



• A COMPLETE RANGE

Absolute, barometric, gauge (positive and negative) and differential for wet/wet applications. 10 nominal pressure ranges. Current or voltage output.

• Flexibility

A modular concept uses the selection of off-the-shelf flameproof capsules, allowing rapid 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.

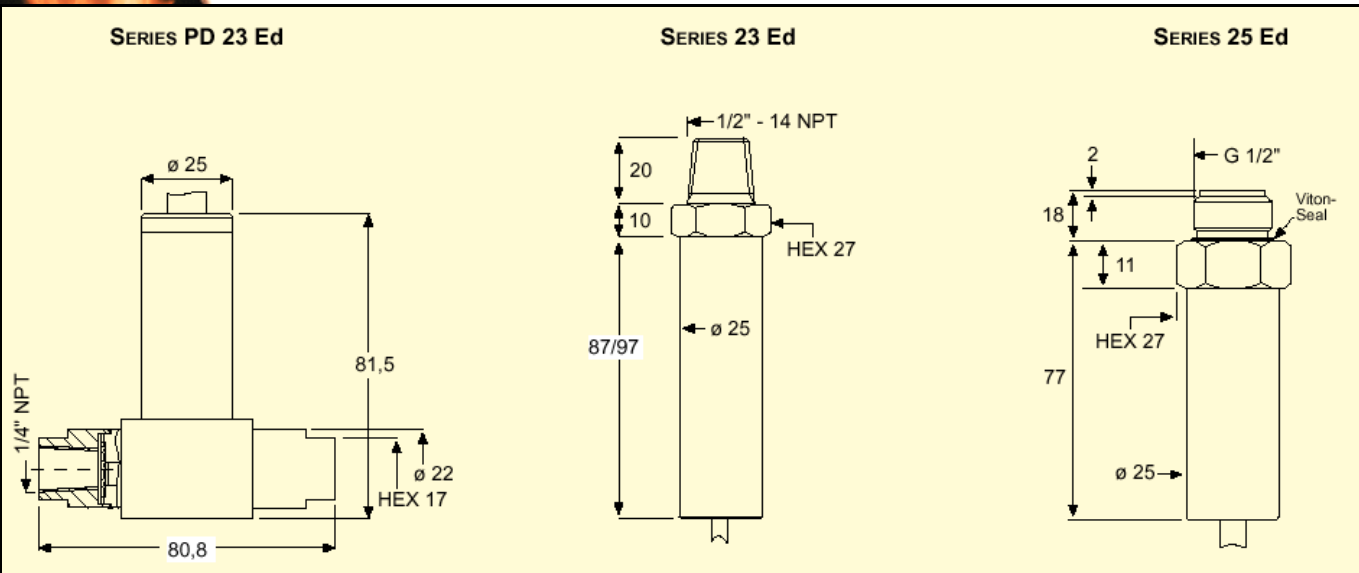
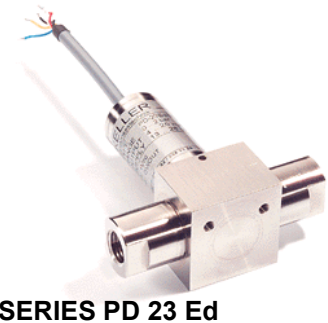
• Reliability / Quality

These transmitters use the highly stable KELLER Series 10 capsules, proven in millions of applications throughout the world. Each capsule is subjected to severe test and calibration procedures. The transmitters are manufactured and tested according to ISO 9001 / EN29001.



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

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



Subject to alterations

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SPECIFICATIONS

PRESSURE RANGES (FS) IN BAR

PR-23/25 Ed	-1	-0,5	-0,2	0,2	0,5	1	2	5	10	20			
PD-23 Ed				0,2	0,5	1	2	5	10	20			
PAA-23/25 Ed				0,2	0,5	1	2	5	10	20			
PA-23/25 Ed						1	2	5	10	20	50	100	200
Overpressure	-1	-1	-1	2,5	2,5	3	4	10	20	40	100	200	300
PD, Overpressure Ref.-Side -				1	1	2	3	5	7	10			
PD, Static Line Pressure	≤200 bar												

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

(1) best straight line, based zero

	<u>2-Wire</u>	<u>3-Wire</u>	<u>3-Wire</u>
Signal Output	4...20 mA	0...20 mA	0...10 V
Supply (U)	10...28 Vcc	10...28 Vcc	13...28 Vcc
Load Resistance (R _Ω)	(U-10 V)/0,02A	(U-5 V)/0,02 A	> 5 k
Electrical Connection	PUR-cable, length 2 m (with PE-sheath and reference tube for gauge). Others on request.		
Volumetric Change	< 0,1 mm ³ / bar		
Pressure Connection	See drawings front page		
Material in Media Contact	Stainless steel 316L (DIN 1.4435), Viton		
Protection	IP65		
Weight	PR/PA/PAA ≈200 g. PD ≈300 g		
Insulation	> 100 MΩ@ 50 V		
Endurance	> 10 million cycles 0...100%FS at 25°C		
Frequency Response	250 Hz (< 1 bar), 1 kHz (≥1 bar)		

CERTIFICATE OF CONFORMITY

The certificate for the Series 23/25 transmitters has been officially registered under number **88.B6114X** by LCIE in France.

It confirms that the instruments comply with the following harmonised European Standards:
 - EN 50014 (1977), NF C 23-514 (1982) and amendments
 - EN 50018 (1977), NF C 23-518 (1982) and amendments

Special conditions for safe use:

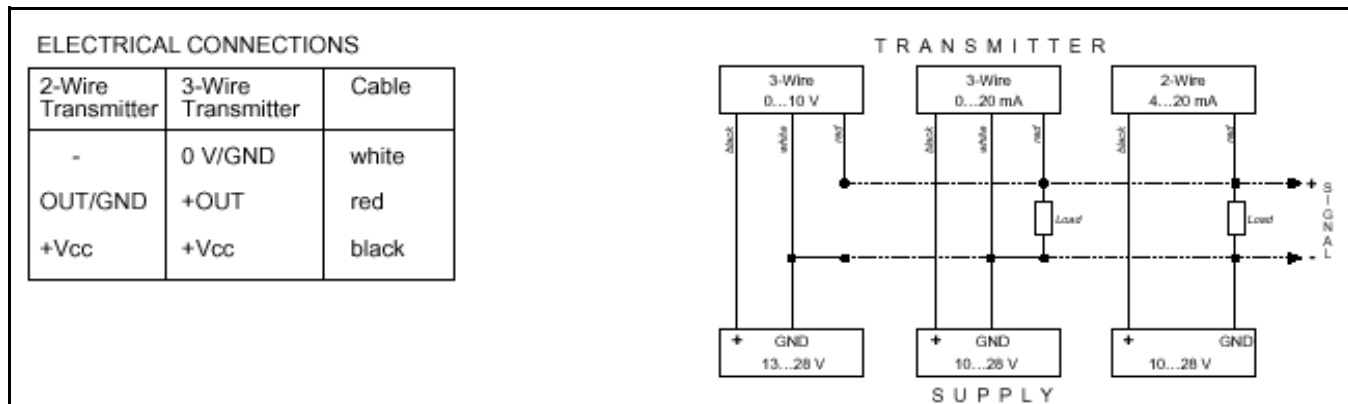
If the temperature of the fluid to be measured exceeds 40°C, the device will not have to operate in an atmosphere which can be ignited at the maximum surface temperature of 85°C, increased of the difference between the measured fluid temperature and 40°C.

The transmitters are marked **EEX-d IIC T6**.
 EEx: Protection class in accordance with **CENELEC**

- d: Flameproof
- II: All areas with an explosive atmosphere (with the exception of mines)
- C: All gas groups including hydrogen
- T6: Surface temperature ≤85°C

OPTIONS

Pressure Connection / Electrical Out	On request / Many possibilities
Pressure Ranges	All pressure ranges between 0,2 and 200 bar
Linearity / Specifications	0,1 and 0,25 %FS / Customer-specific on request
Material in Contact with Media	Hastelloy C, monel, platinum, nickel, tantalum, gold-plated
Oil Filling	Fluorized oil (O ₂ -compatible), olive-oil, low temperature oil



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