



FOR GAS AND DUST ATMOSPHERES

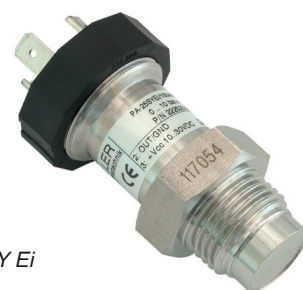


SERIE 23 (S)Y Ei /
25 Y Ei / 26 Y Ei

The Y-line transmitters have an extremely small temperature error. This is achieved using an additional circuit containing a temperature sensor that subdivides the temperature range into fields that are 1,5 Kelvin (K) wide. The TK zero and TK compensation values are calculated for each field and programmed into the additional circuit. During operation, these values are fed into the analogue signal path depending on the temperature. Each temperature is the „calibration temperature” for this transmitter. The accuracy thereof is mainly determined by linearity. 120 fields are available, representing a possible temperature range of 180 K. The wider the temperature range, the greater the amount of testing that is needed to minimise the inaccuracy of the mathematical model.



Series 23 (S)Y Ei



Series 25 Y Ei

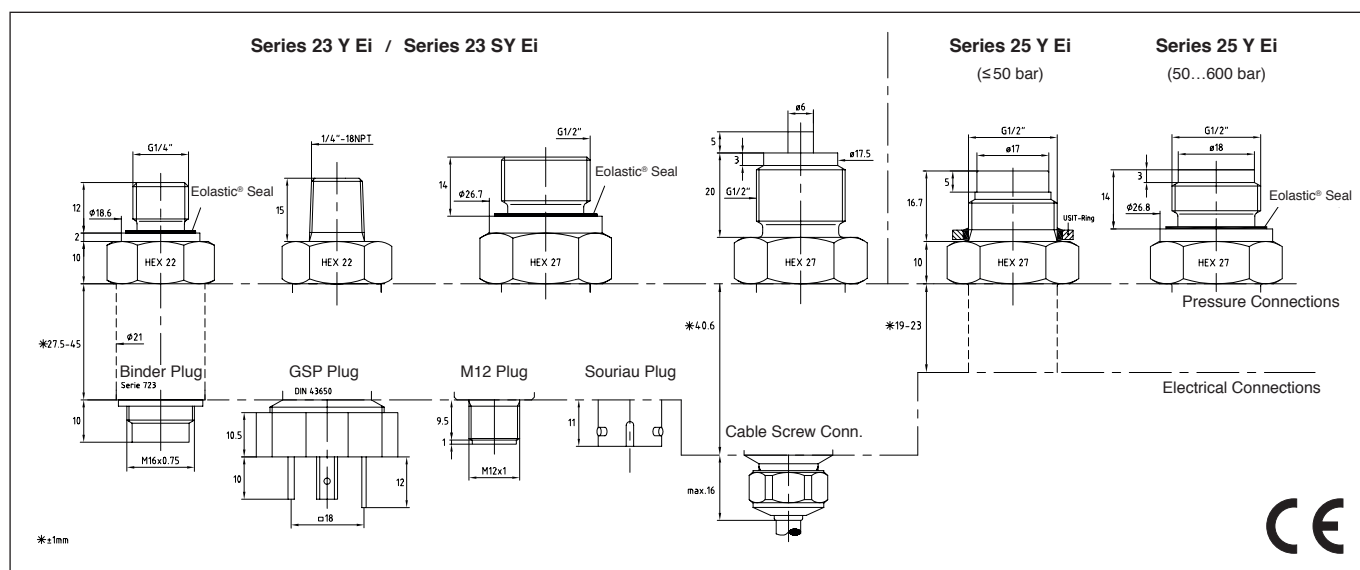


Series 26 Y Ei

- | | | |
|--------------------------|---------------|---|
| • Series 23 Y Ei | 0,2...2 bar | Floating mounted sensor. Internal O-Ring. |
| • Series 23 SY Ei | 1...1000 bar | Fully welded (no internal seals) |
| • Series 25 Y Ei | 0,5...600 bar | Flush, fully welded. |
| • Series 26 Y Ei | 0...20 bar | Level Probe. Floating mounted sensor.
Internal O-Ring. |

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

 II 1G Ex ia IIC T6–T4
 II 1D Ex ia IIIC T 130 °C
 IBExU 10 ATEX 1124 X



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Specifications

Pressure Ranges (FS) in bar

PA(A)/PR-23 Y Ei	-1	-0,5	-0,2	0,2	0,5	1	2										
PA(A)/PR-23 (S)Y Ei (PR-Version ≤ 20 bar)	-1					1	2	5	10	20	50	100	200	400	600	1000	
PA(A)/PR-25 Y Ei (PR-Version ≤ 20 bar)	-1	-0,5			0,5	1	2	5	10	20	50	100	200	400	600		
PA(A)/PR-26 Y Ei				0,2	0,5	1	2	5	10	20							
Overpressure	-1	-1	-1	2,5	2,5	3	4	10	20	40	100	200	300	600	900	1100	
PAA: Absolute. Zero at vacuum PA: Absolute. Zero at 1000 mbar abs PR: Gauge Pressure																	

Pressure Range	Accuracy ¹⁾	Error Band @ 0...50 °C ^{2) 3)}		Error Band @ -10...80 °C ^{2) 3)}	
		typ.	max.	typ.	max.
2...1000 bar	±0,25 %FS	±0,3 %FS	±0,5 %FS	±0,4 %FS	±0,7 %FS
0,5...< 2 bar	±0,25 %FS	±0,6 %FS	±1,0 %FS	±0,8 %FS	±1,5 %FS
0,2...0,5 bar	±0,50 %FS	± 2 mbar	± 5 mbar	± 3 mbar	±7,5 mbar

¹⁾ Linearity (best fitted straight line), including Hysteresis + Repeatability

²⁾ Accuracy + Temperature Coefficients + Zero + Span Tolerance

³⁾ Only 3-wire Version: Without burden of the voltage output ($R_i = 100 \Omega$). With burden $R_a = 100 K\Omega$ the error increases by 0,1 %FS.

Storage Temperature	-40...100 °C
Ambient-/Media Temperature Range	Temperature classification: T6: -20...65 °C Temperature classification: T5: -20...80 °C Temp. classific.: T4, dust: -20...100 °C
Stability	Range > 2 bar 0,1 %FS typ. 0,2 %FS max. Range ≤ 2 bar 2 mbar typ. 4 mbar max.

Intrinsically safe in conjunction with certified intrinsically safe power circuits, with the following maximum connected loads:
 $U_i \leq 30 V$, $I_i \leq 200 mA$, $P_i \leq 640 mW$
 $L_i = 0 mH$, $C_i = 2 nF$

Type	<u>2-wire</u>	<u>3-wire</u>	<u>3-wire</u>
Signal Output	4...20 mA	0...10 V	0...5 V
Limitation Signal Output	3,2...22,3 mA	-1,2...11,2 V	-0,6...5,6 V
Supply	10...30 VDC	15...30 VDC	10...30 VDC
Load Resistance	< (U-10 V) / 0,025 A	> 100 k Ω	> 100 k Ω
Limiting Frequency	2 kHz	2 kHz	2 kHz
Power Consumption		max. 5 mA	max. 5 mA
Electrical Connection	- Plug: Binder-423/723 (5-pole), GSP (DIN 43650), M12 (4-pole), Souriau (MIL-C26482) - Cable		
Pressure Connection	Series 23 (S)Y Ei: G1/4", 1/4"-18NPT, G1/2", G1/2" Mano Series 25 Y Ei: G1/2"		
Response Time (Supply ON)	(0...99 %) < 5 ms		
Insulation	> 10 M Ω @320 V		
EMV	EN 61000-6-2: 2005 / EN 61000-6-3: 2007 / EN 61326-2-3: 2006		
Dead Volume Change	< 0,1 mm ³		
Material in Media Contact	Stainless Steel AISI 316L (DIN 1.4404/1.4435), USIT or Viton® O-Ring (others on request)		
Schutzart	Plug: IP65...IP67 (depending on connection and with corresponding mating plug) Cable Screw Connection: IP68		
Weight	≈ 120 g (depending on version)		
Endurance	> 10 million, 0...100 %FS at 25 °C		
Oil Filling	Silicone oil		

Options

Temperature Range	Other temperature ranges on request. Maximal range: -20...+100 °C (T4, dust)
Oil Filling	Fluorocarbon oil (O2-compatible), olive-oil
Pressure Ranges	Intermediate ranges on request
Pressure Connection, Electrical Connection	Others on request

Subject to alterations

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Companies approved to ISO 9001

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