

INTRINSICALLY SAFE TRANSMITTER FOR LEVEL MEASUREMENT ATM/K/N/Ex



55



EEx ia IIC T4

Features

- Compact and robust stainless steel assembly 1.4435 (316L)
- Capacitive ceramic sensor without oil filling
- High resistance and overpressure
- Gauge or absolute
- Pressure ranges from 0...50 mbar to 0...20 bar
- Complies with the EMC directive 89/336/EEC
- High reliability
- Short delivery time
- Customized versions
- Reverse polarity and short circuit protected
- Surge (lightning) protection according to EN 61000-4-5 as an option

Typical applications

Depth and level measurement in hazardous areas

- Wells
- Bore holes
- Waste water
- Reservoirs
- Lakes, rivers
- Sewage treatment plant

Specifications

Pressure range	[bar]	0.1	0.2 / 0.4	1	2	4	10 / 20
Overpressure	[bar]	4	6	10	18	25	40
Accuracy ¹⁾		≤ ±0.25 % FS					
Thermal shift							
Zero	-20...80°C	≤ ±0.01% FS/°C					
Span	-20...80°C	≤ ±0.01%/°C					
Long term stability		≤ ±0.15 % FS/year					

¹⁾ Zero based non-conformity according to DIN 16086, including hysteresis and repeatability

Electrical connection

Type	4...20 mA Two wire current transmitter	Load resistance	[Ohm]
Supply voltage with surge (lightning) protection Supply voltage influence	12...30 V DC 12...30 V DC < 0.1% FS		
Circuit diagram			Load resistance influence

Ex-Approval

Type of protection Standards	intrinsic safety EEx ia IIC T4 EN 50 014: 1977 + A1...A5 EN 50 020: 1977 + A1...A5	KEMA Certificate No. Ex-97.D.3613 general requirements intrinsic safety "i" zener barrier
Max. values for supply/output circuit	30V / 100mA / 1W	

Materials

Housing	Stainless steel 1.4435 (316L)	(other materials on request)
Diaphragm	Ceramic Al ₂ O ₃ (96%)	
Seals (standard)	Viton	

Electromagnetic compability

Standard	Level	Typical interferences	
Emission:			
EN 50081-1:1992 EN 55022:1994	Generic emission standard Emission, class B		
Immunity:			
EN 50082-2:1995	Generic immunity		
EN 61000-4-2:1995	Electrostatic discharge	4kV contact, 8kV air	
ENV 50140:1993	Radiated electro-magnetic field	10V/m, 80-1000 MHz, 80% AM 1kHz	Cellular phones, radio sets
ENV 50204:1995	Radiated electro-magnetic field (GSM)	10V/m, 950 MHz, 200Hz on/off	Digital portable phones
EN 61000-4-4:1995	Fast transients (burst)	2 kV	Motors, valves
ENV 50141:1993	Conducted radio-frequency	10V, 0.15-80 MHz, 80% AM 1kHz	Cellular phones, radio sets
EN 61000-4-5:1995 ²⁾	Surge	10 kA (8/20 μs)	Lightning strikes

²⁾ Only with optional surge (lightning) protection



The pressure transmitter ATM fulfill the emission and immunity requirements described in the EMC directive 89/336/EEC.

Ordering Information

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Type	ATM/K/N/Ex	55				
Pressure type	Gauge	1				
	Absolute	2				
Pressure range²⁾	0... 50 mbar	50				
	0... 100 mbar	00				
	0... 200 mbar	40				
	0... 400 mbar	03				
	0... 1.0 bar	05				
	0... 1.6 bar	06				
	0... 2.0 bar	41				
	0... 4.0 bar	08				
	0... 10 bar	10				
	0... 20 bar	42				
	Special calibration	99				
Version	Standard (Fig. 1)	85				
	Special version	99				
Electrical connection	PUR cable, blue ¹⁾				31	
	PUR cable, blue with G 1/2 M ¹⁾ (Fig. 2)				33	
Output signal	4...20 mA				05	
	4...20 mA surge (lightning) protection				08	
Accuracy	≤ ±0.25 % FS					1
Temperature class	T4 (Ta: -20...80°C comp.)					3
Options	Special options					Z

¹⁾ Please specify the required cable length and media

²⁾ mH2O, mWS, mWC etc. available

Dimensions

Fig. 1

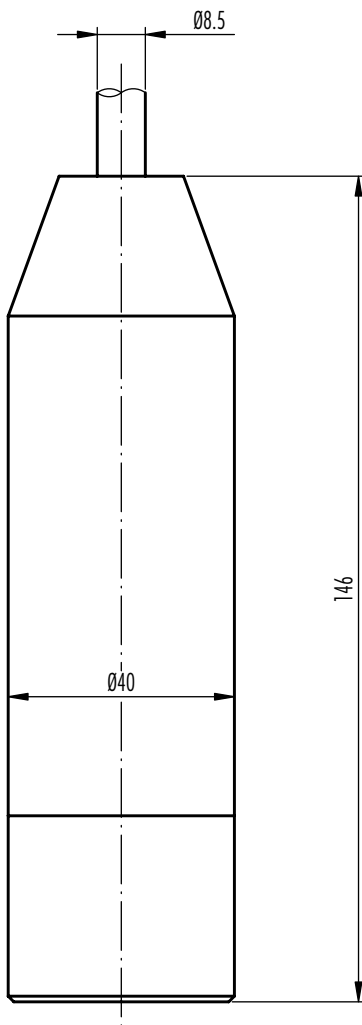
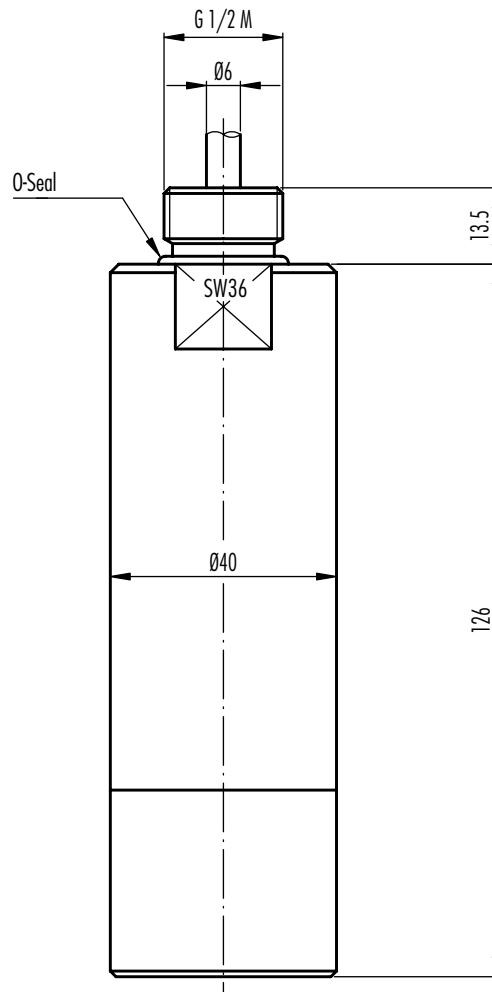


Fig. 2



Colour 2-Wire

white +Vin

yellow Pout

Weight approx. 950 gr.

Specifications may change without notice. Release 06/01

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