



● Characteristics

2 - TRANSDUCER - EX - ATEX - LEVEL PROBE -

 	Ranges:	0...0,1 bar up to 0...10 bar	
	Output:	4...20 mA	
	Accuracy:	0,5% of span	(option: 0,25% of span)
	Temperature range:	-10...+85 °C	
	Material enclosure:	CrNi steel (Option: Hastelloy)	
	Electrical connection:	Cable	
	Protection class:	IP68	
	Pressure connection:	CrNi: 1/2"	Hastelloy: 1/4" female
Immersion depth:	100 m		

● Technical Data

Input

Relative pressure:	0...0,1 up to 0...10 bar
Ranges:	see table page 2
Overpressure safety:	see table page 2
Burst pressure:	see table page 2

Output

Analog:	4...20 mA:	2-wire
	Load:	maximum (U+ - 10 V) / 0,02 A - (Cable length in m x 0,14 Ω)

Performance Parameters

Accuracy:	<0,5% of span
Option:	<0,25% of span (For pressure ranges >0,25 bar) Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement per IEC 61298-2)
Calibration:	in vertical mounting position with lower pressure connection
Non-linearity:	<0,2% of span (BFSL per IEC 61298-2)
Non repeatability:	<0,1% of span
1-year stability:	<0,2% of span (at reference conditions)

Supply

Voltage:	10...30 VDC
Electrical protection:	Reverse polarity: U+ towards U-

Approvals

Ex-approval:	according ATEX directive: 2014/34/EU (EPL according DIN EN 60079-14) EC-type examination certificate: BVS 12 ATEX E 076 X
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● Applications

The level probe is suitable for use in hazardous environments in refineries, distilling equipment, painting plants, shipbuilding or filling equipment for combustible gases in Zone 0, Zone 1, Zone 2 (gas and vapour).



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● Technical Data (Continued)

Environmental Conditions

Temperature medium:	-10...+85 °C		
More details regarding environmental and medium temperature see below (ATEX and EPL)			
Storage temperature:	-10...+60 °C		
Rated temperature range:	0...+50 °C (compensated range)		
Temperature coefficient:	mean temperature coefficient (TC) within rated temperature range		
TC zero:	<0,2% of span / 10 K		
	<0,4% span / 10 K for ranges <250 mbar		
TC span:	<0,2% span / 10 K		
CE-conformity:	EMC directive:	2014/30/EU	
	EN 61326:	Emission (Group 1, Class B) and immunity for industrial locations	

Mechanics

Material	Cable:	FEP
	Case:	CrNi steel Option: Hastelloy
	Diaphragm:	CrNi steel or Hastelloy
	Protection cap:	Plastics with CrNi steel
Transmission fluid:	synthetic oil (internally)	
Pressure connection:	CrNi steel:	G1/2 B (male thread)
	Hastelloy:	G1/4 (female thread)
Electrical connection:	see page 3	
Protection class:	IP68 (according IEC 60529)	
Weight:	Level probe:	approx. 200 g
	Cable:	80 g per meter

ATEX and EPL

Ex-protection ATEX, ignition protection type and EPL:

- II 1G Ex ia IIA T4/T5/T6 Ga
- II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb
- II 2G Ex ia IIC T4/T5/T6 Gb

Maximum values concerning safety regulations

- Voltage: 30 VDC
- Current: 100 mA
- Power: 1 W
- Effective internal capacitance C: 16,5 nF + 0,1 nF/m (Value see type plate of level probe)
- Effective internal inductance L: 0 µH + 1 µH/m (Value see type plate of level probe)

Insulation voltage: Insulation complies with EN 60079-11, 6.4, 12

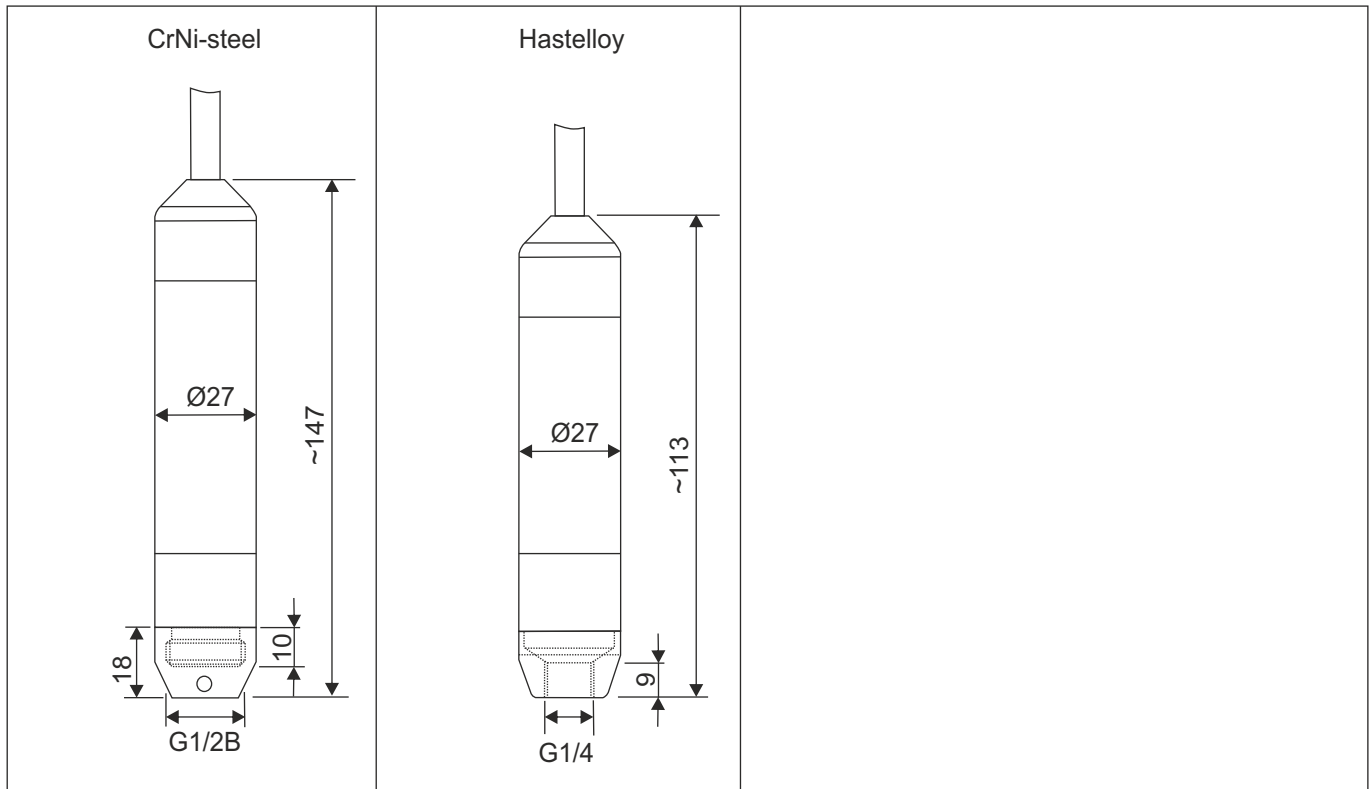
Valid temperature ranges

Category according ATEX 2014/34/EU	EPL according DIN EN 60079-14	Temperature class	Ambient and medium temperature range
1G, 1/2G, 2G	Ga, Ga/Gb, Gb	T6	-30...+60 °C
1G, 1/2G, 2G	Ga, Ga/Gb, Gb	T5	-30...+80 °C
1G, 1/2G, 2G	Ga, Ga/Gb, Gb	T4	-30...+105 °C

Pressure Table

Measurement range	0,1	0,16	0,25	0,4	0,6	1	1,6	2,5
Overpressure limit	1	1,5	2	2	4	5	10	10
Bursting pressure	2	2	2,4	2,4	4,8	6	12	12
Measurement range	4	6	10					
Overpressure limit	17	35	35					
Bursting pressure	20,5	42	42					

● **Dimensions (in mm)**

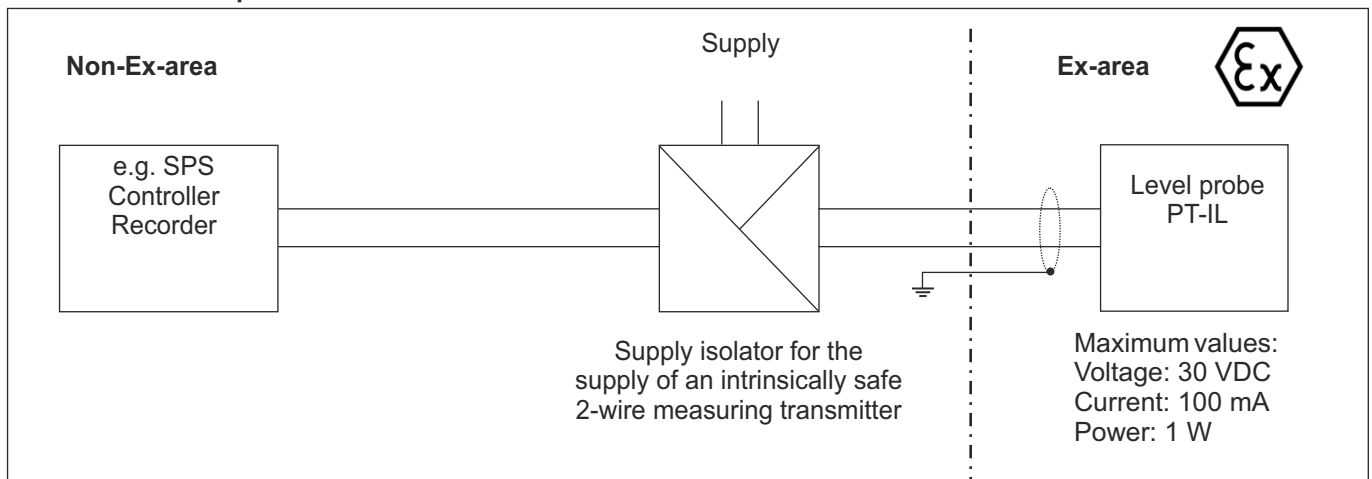


● **Electrical Connection**

Cable		FEP	
4...20 mA (2-wire)		U+ = brown (1) U- = green (2)	
Cable shield	put on on casing	gray	
Wire cross section	with wire end ferrules	0,25 mm ² (AWG 24)	
Cable diameter		7,5 mm	
Cable length		variable	
Maximum immersion depth		100 m	
Maximum tensile strength		500 N	
Protection class	as per IEC 60529	IP68	

Level probe mechanical mounting is done without an additional strain relief via the connection cable.
For mounting and safety instructions see the manual for this product.

Connection Example



● **Order Code**

U E X X X - X

Accuracy:	0,5% (Standard)	0			
	0,25%	1			
Material:	CrNi-steel (Standard)	0			
	Hastelloy	1			
Pressure range:	0,1 bar		A1		
	0,16 bar		A2		
	0,25 bar		A3		
	0,4 bar		A4		
	0,6 bar		A5		
	1 bar		B1		
	1,6 bar		B2		
	2,5 bar		B3		
	4 bar		B4		
	6 bar		B5		
10 bar		C1			
Cable length:	5 m			E00	
	10 m			J00	
	15 m			J50	
	20 m			K00	
	25 m			K50	
	30 m			L00	
	35 m			L50	