


● Characteristics

2 - TRANSDUCER - EX - ATEX - LEVEL PROBE -

 <div style="display: flex; flex-direction: column; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px;">Ex</div> <div style="border: 1px solid black; padding: 2px;">GL</div> </div>	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:	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

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: 94/9/EG (EPL according DIN EN 60079-14)
	EC-type examination certificate: BVS 12 ATEX E 076 X
GL-approval:	according guidelines: Performance of Type Approvals
	Category: C, F, EMC1
	Certificate: 59952-13 HH

● 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)

Ambient conditions

Temperature medium:	-10...+85 °C		
More details regarding ambient 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:	2004/108/EG	
	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	
Ingress protection:	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)

Dielectric strength: Insulation complies with EN 60079-11, 6.4, 12

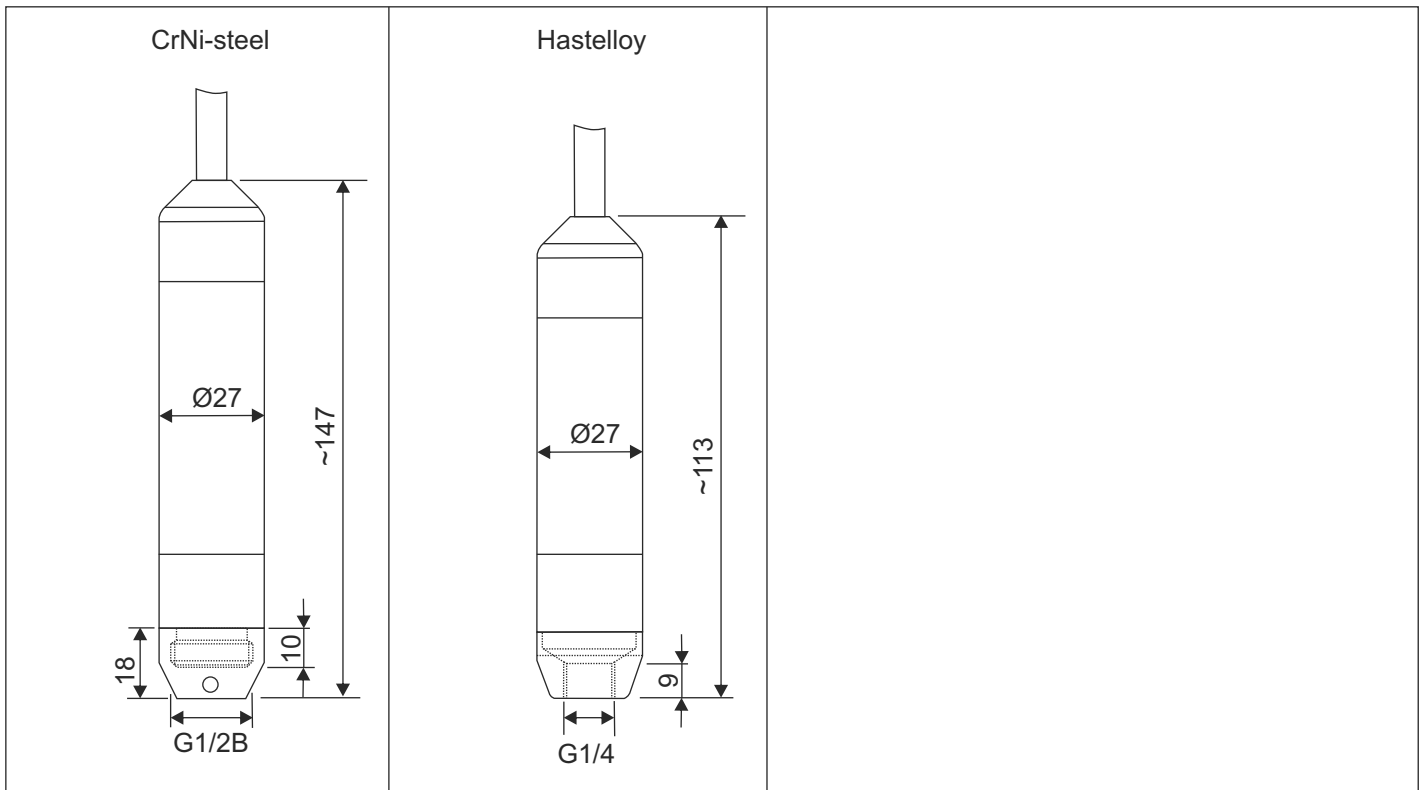
Allowed temperature ranges

Category according ATEX 94/9/EG	EPL according DIN EN 60079-14	Temperaturklasse	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

Measuring range	0,1	0,16	0,25	0,4	0,6	1	1,6	2,5
Overpressure safety	1	1,5	2	2	4	5	10	10
Burst pressure	2	2	2,4	2,4	4,8	6	12	12
Measuring range	4	6	10					
Overpressure safety	17	35	35					
Burst pressure	20,5	42	42					

● **Dimensions (in mm)**

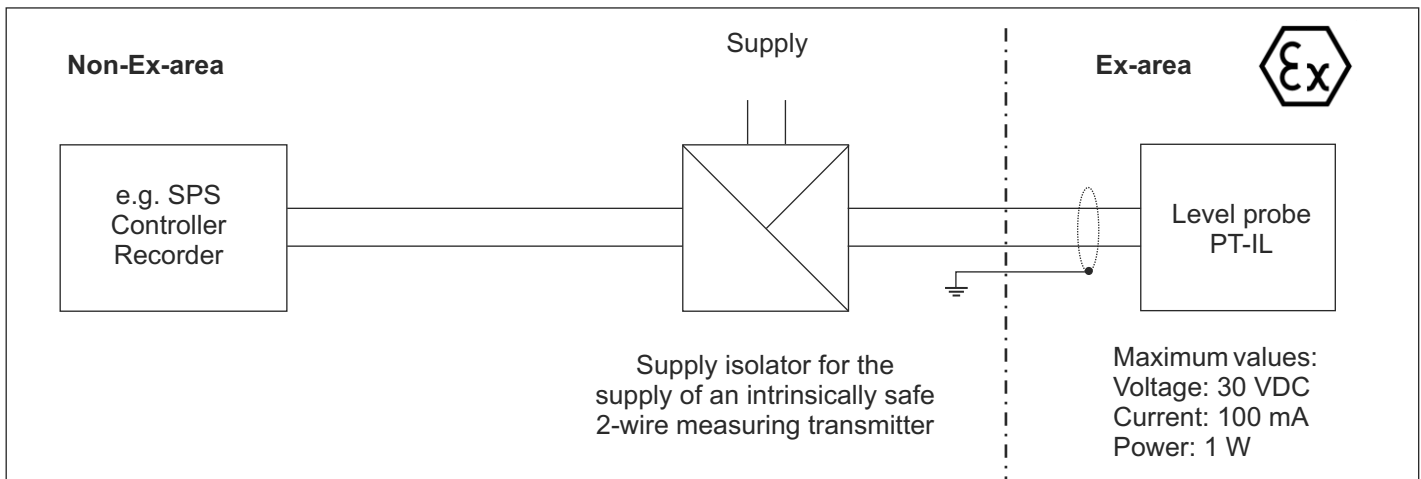


● **Electrical connection**

Cable		FEP	
4...20 mA (2-wire)		U+ = brown (1) U- = green (2)	
Cable screen	put on on enclosure	grey	
Cross section	with end splices	0,25 mm ² (AWG 24)	
Cable diameter		7,5 mm	
Cable length		variable	
Maximum immersion depth		100 m	
Maximum tensile strength		500 N	
Ingress protection	according IEC 60529	IP 68	

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

Example of connection



● **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		