ITC 900

LevelproSubmersiblePVC Level Pressure Sensor

Ceramic Sensor
accuracy according to IEC 60770:
standard: 0.35 % FSO
option: 0.25 % FSO

Nominal pressure

from 0 ... 16 in/H2O up to 0 ... 460 ft/H2O

Output signals

2-wire: 4 ... 20 mA

Special characteristics

- diameter 45 mm
- cable and probe separable
- chemical resistance
- housing PVC

Optional versions

- cable protection via PVC pipe
- diaphragm 99.9 % AI2O3
- different kinds of cable
- different kinds of seal materials

The separable plastic submersible probe LMK 858 is designed for level measurement in most aggressive media. Usage in more viscous media as for example sludge is possible because of the semi-flush diaphragm.

In order to facilitate stock-keeping andmain-tenance the transmitter head is plugged to the cable assembly with a connector and can be changed easily.

Preferred areas of use are

Sewage

waste water treatment
water recycling
dumpsite

Aggressive media

level measurement in most of acids and lyes

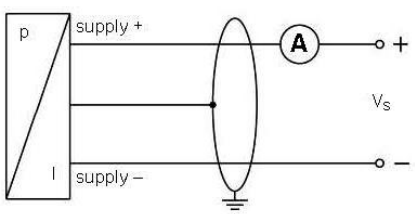
CE

Input pressure range														
Nominal pressure	[bar]	0.04	0.06	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	10
Level	[mH2O]	0.4	0.6	1	1.6	2.5	4	6	10	16	25	40	60	100
Overpressure	[bar]	2	2	4	4	6	6	8	8	15	25	25	35	35

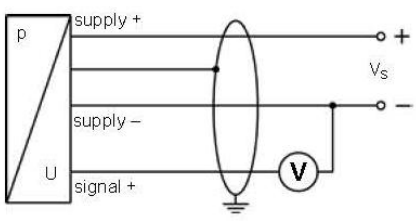
Output signal / Supply		
Standard	2-wire: 4 ... 20 mA / VS = 9 ... 32 VDC	option 3-wire: 0 ... 10 V / VS = 12.5 ... 32 VDC
Performance		
Accuracy	IEC 60770 1	
	standard: ≤ ± 0.35 % FSO☐ option: ≤ ± 0.25 % FSO	
Permissible load	Rmax = [(VS – VS min) / 0.02 A] Ω	
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ	
Long term stability	≤ ± 0.1 % FSO / year	
Turn-on time	700 msec	
Mean response	< 200 msec	measuring rate 5/sec
Max. response time	380 msec	
[1] accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)		
Thermal effects (Offset and Span)		
Thermal error	≤ ± 0.1 % FSO / 10 K in compensated range 0 ... 50 °C	
Permissible temperatures		
Permissible temperatures	medium: -10 ... 50 °C electronic / environment: -10 ... 50 °C storage: -10 ... 50 °C	
Electrical protection [2]		
Short-circuit protection	permanent	
Reverse polarity protection	no damage, but also no function	
Electromagnetic compatibility	Emission and immunity according to EN 61326	
[2] additional external overvoltage protection unit in terminal box KL 1 or KL 2 with atmospheric pressure reference available on request		
Electrical connection		
Cable with sheath material [3]	PVC (-5 … 50 °C) grey PUR (-10… 50 °C) black FEP (-10 … 50 °C) black	
Cable protection	standard: without cable protection optional: prepared for mounting of a PVC pipe with diameter 25 mm	
[3] cable with integrated air tube for atmospheric pressure reference		
Materials (media wetted)		
Housing	PVC grey	
Seals	FKM / EPDM / others on request	
Diaphragm	standard: ceramics Al2O3 96 % option: ceramics Al2O3 99.9 %	
Miscellaneous		
Connecting cables (by factory)	cable capacitance: signal line/shield also signal line/signal line: 160 pF/m cable inductance: signal line/shield also signal line/signal line: 1 µH/m	
Current consumption	Max. 25 mA	
Weight	approx.. 400 g (without cable)	
Ingress protection	IP 68	
CE – conformity	EMC Directive: 2004/108/EC	

Wiring diagram

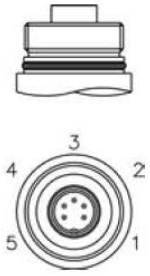
2-wire-system (current)



3-wire-system (voltage)



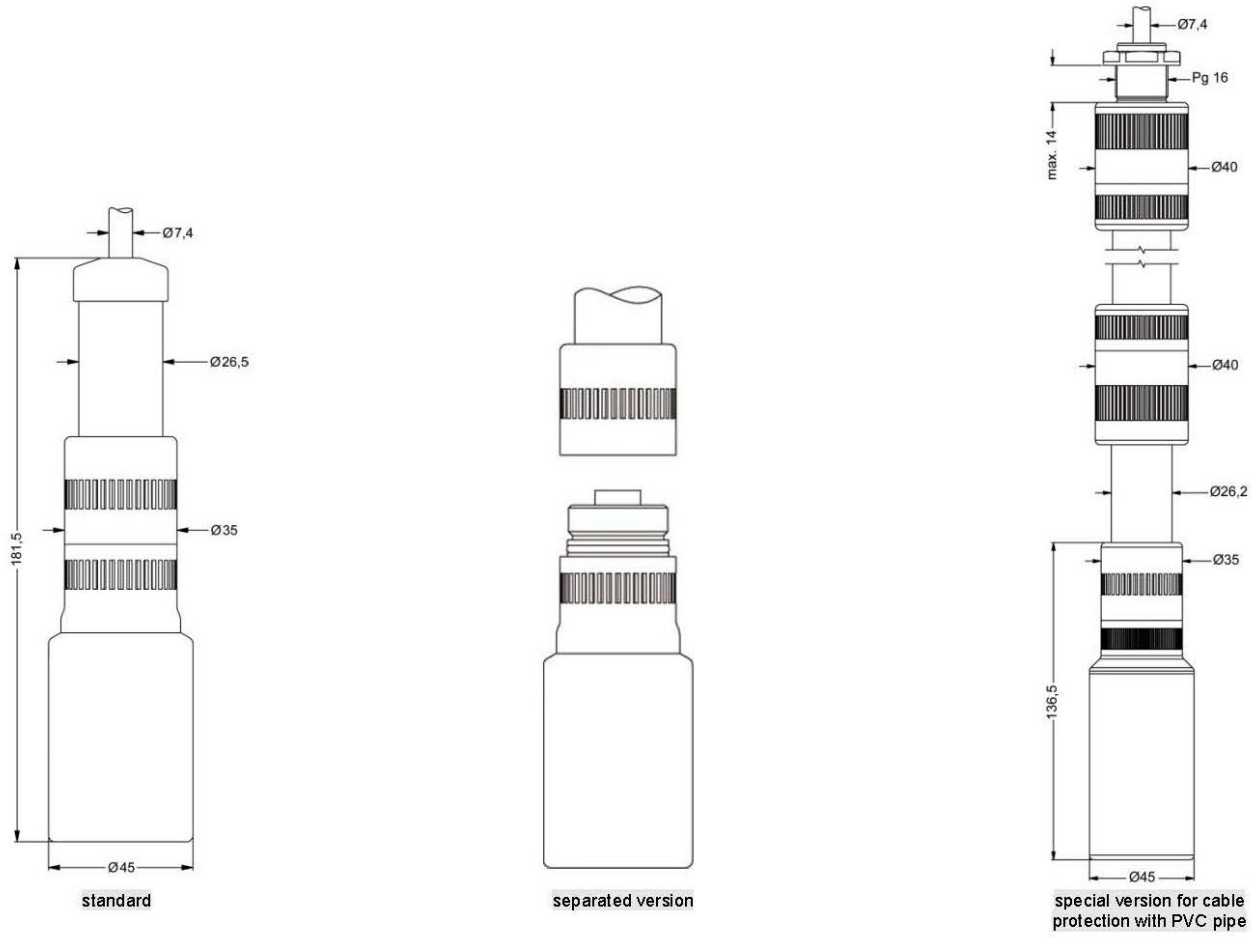
connector



Pin configuration			
Electrical connection	Binder series 723 [4] (5-pin)		cable colours (DIN 47100)
	2 – wire	3 - wire	
Supply + Supply – Signal + (only for 3-wire)	3 1 -	3 4 1	wh (white) bn (brown) gn (green)
Shield	5	5	gn/ye (green / yellow)

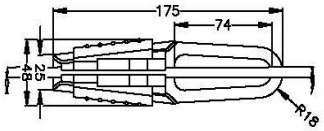
[4] in separated version

Dimensions (in mm)



Accessories

Terminal clamp	
Technical Data	
Suitable for	all probes with cable ø 5.5 ... 10.5 mm
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)
Weight	approx.. 160 g



Ordering type	Ordering code
Terminal clamp, steel, zinc plated	Z100528
Terminal clamp, stainless steel 1.4301 (304)	Z100527

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Plastic Probe

OrderingcodeITC 900

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Section	[mH2O]	[bar]	Code	
Pressure				
		in bar 4	1 5	
		in mH2O 4	1 6	
Input	**[mH2O]**	**[bar]**		
	0.40	0.04	0 4 0 0	
	0.60	0.06	0 6 0 0	
	1.0	0.10	1 0 0 0	
	1.6	0.16	1 6 0 0	
	2.5	0.25	2 5 0 0	
	4.0	0.40	4 0 0 0	
	6.0	0.60	6 0 0 0	
	10	1.0	1 0 0 1	
	16	1.6	1 6 0 1	
	25	2.5	2 5 0 1	
	40	4.0	4 0 0 1	
	60	6.0	6 0 0 1	
	100	10	1 0 0 2	
		customer	9 9 9 9	consult
Housing				
		PVC	A	
		customer	9	consult
Diaphragm				
		Ceramics Al2O3 96%	2	
		Ceramics Al2O3 99.9%	C	
		customer	9	consult
Output				
		4 … 20 mA / 2-wire	1	
		0 … 10 V / 3-wire	3	
		customer	9	consult
Seals				
		FKM	1	
		EPDM	3	
		customer	9	consult
Electrical connection				
		PVC-cable [1]	1	
		PUR-cable [1]	2	
		FEP-cable [1]	3	
		customer	9	consult
Accuracy				
standard		0.35 %	3	
option		0.25 %	2	
		customer	9	consult
Cable length				
		in m	9 9 9	
Special version				
		standard	0 0 0	
		prepared for mounting with PVC pipe[2]	1 0 6	
		customer	9 9 9	consult

[1] cable with integrated air tube for atmospheric pressure reference
[2] PVC pipe is not part of the supply

This price list contains product specification; prope es are not guaranteed. Detailed information about options are defined in the datasheet. Subject to change without notice.

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