LMK 806

Plastic Probe for Aggressive Media

Ceramic Sensor

accuracy according to
IEC 60770: 0.5 % FSO

Nominal pressure

from 0 ... 6 mH_2O up to 0 ... 200 mH_2O

Output signals

2-wire: 4 ... 20 mA
others on request

Special characteristics

- diameter 21 mm
- suitable for hydrostatic level measurement e.g. 3/4" pipes
- excellent linearity
- excellent long term stability

Optional versions

- different cable materials
- customer specific versions e.g. special pressure ranges

The LMK 806 with ceramic sensor and diameter from only 21 mm has been especially designed for the continuous level measurement at confined space conditions. Permissible media are waste water and different aggressive media.

Basic element of the plastic submersible probe is the flush mounted ceramic sensor, which makes cleaning easier when solid parts of the medium deposit on it. Different cable and elastomer materials are available in order to achieve maximum media compatibility.

Preferred areas of use are

Sewage
waste water treatment
water recycling
dumpsite

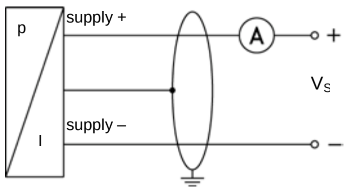
Aggressive media
level measurement in most of acids and lyes

Input pressure range										
Nominal pressure gauge	[bar]	0.6	1	1.6	2.5	4	6	10	16	20
Level	[mH_2O]	6	10	16	25	40	60	100	160	200
Overpressure	[bar]	2	2	4	4	10	10	20	40	40
Burst pressure ≥	[bar]	4	4	5	5	12	12	25	50	50

Output signal / Supply	
2-wire	4 ... 20 mA / V_S = 8 ... 32 V_{DC}
Performance	
Accuracy[1]	≤ ± 0.5 % FSO
Permissible load	$R_{max} = [(V_S – V_{S\ min}) / 0.02\ A]\ \Omega$
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ
Response time	≤ 10 msec
[1] accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)	
Thermal effects (Offset and Span) / Permissible temperatures	
Thermal error	≤ ± 0.2 % FSO / 10 K in compensated range -25 ... 70 °C
Permissible temperatures	medium: -10 ... 50 °C storage: -25 ... 50 °C
Electrical protection [2]	
Short-circuit protection	permanent
Reverse polarity protection	no damage, but also no function
Electromagnetic protection	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[4] (-10 … 50 °C) black
[3] shielded cable with integrated air tube for atmospheric pressure reference *[4] do not use freely suspended probes with an FEP cable if effects due to highly charging processes are expected*	
Materials (media wetted)	
Housing	PVC
Seals	FKM
Diaphragm	ceramics Al_2O_3 96 %
Protection cap	POM
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. 100 g (without cable)
Ingress protection	IP 68
CE-conformity	EMC Directive: 2004/108/EC

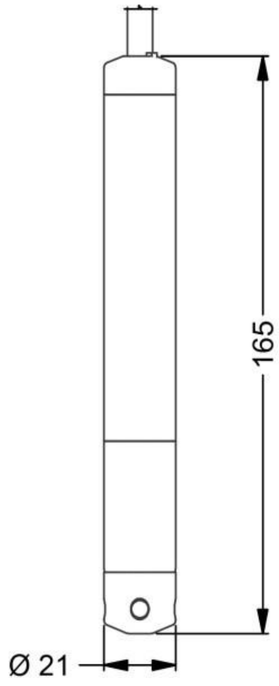
Wiring diagram

2-wire-system (current)



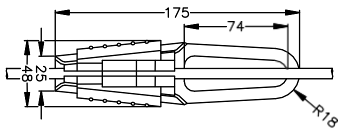
Pin configuration	
Electrical connection	cable colours (DIN 47100)
Supply + Supply –	wh (white) bn (brown)
Shield	gn/ye (green / yellow)

Dimensions (in mm)



Accessories

Terminal clamp

Technical Data		
Suitable for	all probes with cable ∅ 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

Ordering code LMK 806

LMK 806 ☐☐☐-☐☐☐☐-☐-☐-☐-☐-☐-☐-☐☐☐-☐☐☐

Pressure				
		in bar	375	
		in mH_2O	376	
Input	**[mH_2O]**	**[bar]**		
	6	0.60	6000	
	10	1.0	1001	
	16	1.6	1601	
	25	2.5	2501	
	40	4.0	4001	
	60	6.0	6001	
	100	10	1002	
	160	16	1602	
	200	20	2002	
		customer	9999	consult
Housing				
		PVC	A	
		customer	9	consult
Diaphragm				
		Ceramics Al_2O_3 96%	2	
		customer	9	consult
Output				
		4 … 20 mA / 2-wire	1	
		customer	9	consult
Seals				
		FKM	1	
		customer	9	consult
Accuracy				
		0.5 %	5	
		customer	9	consult
Electrical connection				
		PVC-cable [1]	1	
		PUR-cable [1]	2	
		FEP-cable [1]	3	
		customer	9	consult
Cable length				
		in m	999	
Special version				
		standard	000	
		customer	999	consult

[1] cable with integrated air tube for atmospheric pressure reference

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