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 ... 100 mH_2O

Output signals

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

Special characteristics

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

Optional versions

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

The LMK 806 with ceramic sensor and diameter of only 21 mm has been especially designed for the continuous level measurement at confined space conditions. Permissible media are highly polluted and aggressive fluids.

Basic element of the plastic submersible probe is a 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
dumpsites

Aggressive media
level measurement
in most of acids and lyes

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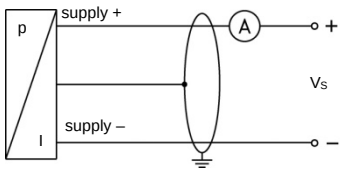
Input pressure range							
Nominal pressure gauge [bar]	0.6	1	1.6	2.5	4	6	10
Level [mH_2O]	6	10	16	25	40	60	100
Overpressure [bar]	2	2	4	4	10	10	20
Burst pressure ≥ [bar]	4	4	5	5	12	12	25
Max. ambient pressure (housing): 30 bar							

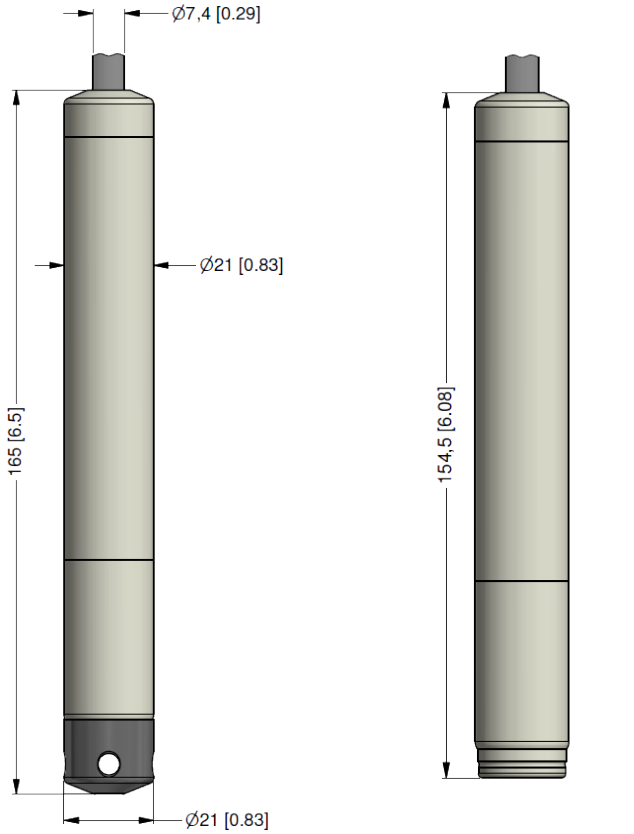
Output signal / Supply		
2-wire	4 ... 20 mA / V_S = 12 ... 32 V_{DC}	
Performance		
Accuracy [1]	≤ ± 0.5 % FSO	
Permissible load	$R_{max} = [(V_S - V_{S\,min}) / 0.02\ A]\ \Omega$	
Influence effects	supply: 0.05 % FSO / 10 V	load: 0.05 % FSO / kΩ
Response time	≤ 10 msec	
[1] accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)		
Thermal effects (offset and span) / Permissible temperatures		
Thermal error	≤ ± 0.4 % FSO / 10 K	in compensated range 0 ... 70 °C
Permissible temperatures	medium / electronics / environment / storage:	-25 ... 80 °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 … 70 °C) grey Ø 7.4 mm PUR (-25 … 70 °C) black Ø 7.4 mm FEP [4] (-25 … 70 °C) black Ø 7.4 mm others on request	
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	
Bending radius	static installation: 10-fold cable diameter dynamic application: 20-fold cable diameter	
[3] shielded cable with integrated ventilation 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	PP-HT	others on request
Seals	FKM	
Diaphragm	ceramics Al_2O_3 96 %	
Protection cap	POM-C	
Cable sheath	PVC, PUR, FEP	
Miscellaneous		
Current consumption	max. 25 mA	
Weight	approx. 100 g (without cable)	
Ingress protection	IP 68	
CE-conformity	EMC Directive: 2014/30/EU	
Wiring diagram		

2-wire-system (current)



Pin configuration	
Electrical connection	cable colours (IEC 60757)
Supply + Supply –	WH (white) BN (brown)
Shield	GNYE (green-yellow)

Dimensions (mm / in)



protection cap removable

Accessories

Terminal clamp

Technical data	
Suitable for	all probes with cable ∅ 5.5 ... 10.5 mm
Material of housing	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)
Material of clamping jaws and positioning clips	PA (fibre-glass reinforced)
Dimensions (mm)	174 x 45 x 32
Hook diameter	20 mm

Ordering type	**Ordering code**	**Weight**
Terminal clamp, steel, zinc plated	Z100528	approx. 160 g
Terminal clamp, stainless steel 1.4301 (304)	Z100527	

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BD|SENSORS pressure measurement

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Ordering code LMK 806

LMK 806 ☐☐☐-☐☐☐☐-☐-☐-☐-☐-☐-☐-☐☐☐-☐☐☐

Pressure				
in bar			3 7 5	
in mH_2O			3 7 6	
Input	**[mH_2O]**	**[bar]**		
	6	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				
PP-HT			R	
customer			9	consult
Diaphragm				
ceramics Al_2O_3 96 %			2	
customer			9	consult
Output				
4 … 20 mA / 2-wire			1	
customer			9	consult
Seal				
FKM			1	
customer			9	consult
Accuracy				
0.5 % FSO			5	
customer			9	consult
Electrical connection				
PVC-cable (grey, Ø 7.4 mm) [1]			1	
PUR-cable (black, Ø 7.4 mm) [1]			2	
FEP-cable (black, Ø 7.4 mm) [1]			3	
customer			9	consult
Cable length				
in m			9 9 9	
Special version				
standard			0 0 0	
customer			9 9 9	consult

[1] shielded cable with integrated ventilation tube for atmospheric pressure reference

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