

LMK 806



Plastic Probe for Aggressive Media

Ceramic Sensor

accuracy according to IEC 61298-2:
0.5 % FSO

Nominal pressure

from 0 ... 6 mH₂O up to 0 ... 100 mH₂O

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



Input pressure range								
Nominal pressure gauge	[bar]	0.6	1	1.6	2.5	4	6	10
Level	[mH ₂ O]	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] Ω
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ
Response time	≤ 10 msec

¹ accuracy according to IEC 61298-2 – 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:	0 ... 60 °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)

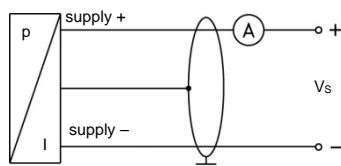
Housing	PP-HT	others on request
Seals	FKM	
Diaphragm	ceramics Al ₂ O ₃ 96 %	
Protection cap	POM-C	
Cable sheath	PVC, PUR, FEP	

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 +	WH (white)
Supply -	BN (brown)
Shield	GNYE (green-yellow)


LMK 806

Plastic Probe

Technical Data



Accessories

Terminal clamp		
		
Technical data		
Suitable for	all probes with cable \varnothing 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

Ordering code LMK 806

LMK 806

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Pressure																					
	in bar	3	7	5																	
	in mH ₂ O	3	7	6																	
Input																					
	[mH ₂ O]																				
	[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 ₂ O 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

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¹ shielded cable with integrated ventilation tube for atmospheric pressure reference