

# LMK 808

## Separable Plastic Submersible Probe

Ceramic Sensor

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



### Nominal pressure

from 0 ... 1 mH<sub>2</sub>O up to 0 ... 100 mH<sub>2</sub>O

### Output signals

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

### Special characteristics

- ▶ diameter 35 mm
- ▶ diaphragm ceramics 99.9% Al<sub>2</sub>O<sub>3</sub>
- ▶ cable and sensor section separable
- ▶ good long-term stability
- ▶ especially for waste water

### Optional versions


- ▶ mounting accessories as screw fitting and terminal clamp of stainless steel
- ▶ different kinds of elastomer
- ▶ customer specific versions  
e. g. special pressure ranges


The separable plastic submersible probe LMK 808 was developed for level and gauge measurement in water and wastewater for level measurement of fuel and oils.

The mechanical robustness of the front-flush ceramic diaphragm facilitates an easy disassembly and cleaning of the probe in case of service.

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

### Preferred areas of use

 Water  
Groundwater and level monitoring  
Sea water

 Sewage  
waste water treatment  
water recycling



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Technical Data

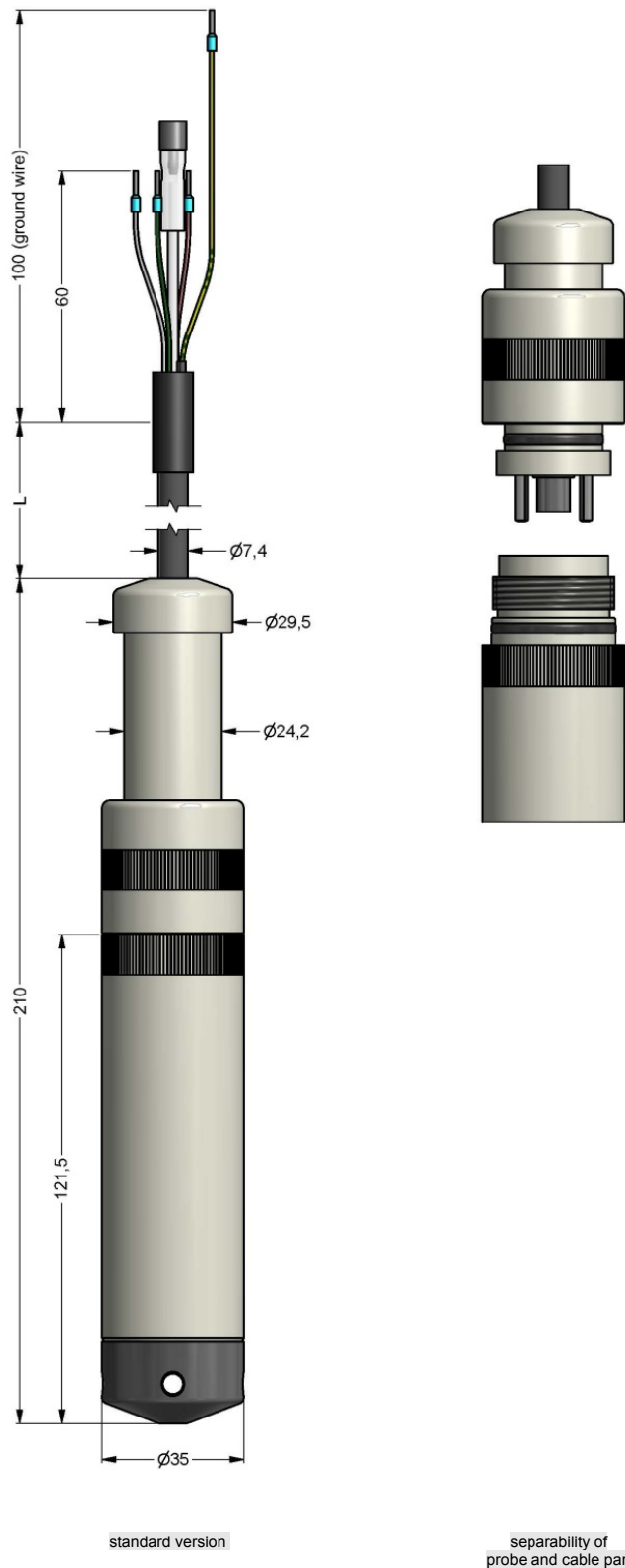
Input pressure range												
Nominal pressure gauge	[bar]	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	10
Level	[mH <sub>2</sub> O]	1	1.6	2.5	4	6	10	16	25	40	60	100
Overpressure	[bar]	3	4	5	5	7	7	12	20	20	20	20
Burst pressure ≥	[bar]	4	6	8	8	9	9	18	25	25	30	30
Permissible vacuum	[bar]	-0.2	-0.3			-0.5					-1	
Output signal / Supply												
Standard	2-wire: 4 ... 20 mA / V <sub>S</sub> = 13 ... 30 V <sub>DC</sub>											
Performance												
Accuracy <sup>1</sup>	standard: ≤ ± 0.35 % FSO option: ≤ ± 0.25 % FSO others on request											
Permissible load	R <sub>max</sub> = [(V <sub>S</sub> - V <sub>S min</sub> ) / 0.02 A] Ω											
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ											
Long term stability	≤ ± 0.1 % FSO / year at reference conditions											
Turn-on time	up to 1.5 sec											
Mean response time	≤ 20 ms											
Measuring rate	200 Hz											
<sup>1</sup> accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)												
Thermal effects (Offset and Span)												
Tolerance band	≤ 1.0% FSO for nominal pressure ranges in compensated range: -20 ... 80 °C											
Permissible temperatures												
Permissible temperatures	medium, electronics / environment, storage: -20 ... 80 °C											
Electrical protection <sup>2</sup>												
Short-circuit protection	permanent											
Reverse polarity protection	no damage, but also no function											
Electromagnetic compatibility	emission and immunity according to EN 61326											
<sup>2</sup> additional external overvoltage protection unit in terminal box KL 1 or KL 2 with atmospheric pressure reference available on request												
Overvoltage protection												
Series resistance	9,4 Ω for each positive and negative wire											
Nominal discharge current	8 kA (8/20 μs)											
Max. rated current	30 mA											
Electrical connection												
Cable outlet	shielded cable with integrated air tube for atmospheric reference (for nominal pressure ranges absolute, the air tube is closed)											
Materials (media wetted)												
Housing	PP-HT										others on request	
Cable	TPE-U (blue) suitable for drinking water										others on request	
Seals (O-rings)	standard: FKM option: EPDM										others on request	
Diaphragm	ceramics Al <sub>2</sub> O <sub>3</sub> 99.9%											
Protection cap	POM											
Miscellaneous												
Current consumption	max. 22 mA											
Weight	approx. 300 g (without cable)											
Ingress protection	IP 68											
CE-conformity	EMC Directive: 2014/30/EU											
Pin configuration												
Electrical connection	cable colours (IEC 60757)											
Supply +	wh (white)											
Supply -	bn (brown)											
Shield	gnye (green-yellow)											
Wiring diagrams												
2-wire-system (current)												

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## Dimensions (in mm)



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## Ordering code LMK 808

LMK 808

Pressure		in bar	4	1	A												
		in mH <sub>2</sub> O	4	1	B												
Input	[mH <sub>2</sub> O]	[bar]															
	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												consult
Housing		PP-HT				R											
	customer					9											consult
Diaphragm		ceramic Al <sub>2</sub> O <sub>3</sub> 99.9 %					C										
	customer					9											consult
Output		4 ... 20 mA / 2-wire						1									
	customer							9									consult
Seals		FKM							1								
	EPDM								3								
	customer								9								consult
Electrical connection		TPE-U-cable <sup>1</sup>								F							
	customer									9							consult
Accuracy		standard	0.35 % FSO								3						
	option	0.25 % FSO									2						
	customer										9						consult
Cable length		in m									9	9	9				
Special version		standard												0	0	0	
	customer													9	9	9	consult

<sup>1</sup> cable, drinking water suitable, with integrated air tube for atmospheric pressure reference

