



LMK 807

Plastic Submersible Probe For Aggressive Media

Ceramic Sensor

**accuracy according to IEC 60770:
0.5 % FSO**

Plastic Submersible Probe

Nominal pressure

from 0 ... 4 mH₂O
up to 0 ... 100 mH₂O

Special characteristics

- ▶ diameter 35 mm
- ▶ excellent long term stability
- ▶ easy handling

Optional versions

- ▶ SIL 2 (Safety Integrity Level)
according to IEC 61508 / IEC 61511
- ▶ different kinds of cables and elastomers
- ▶ customer specific version
e. g. special pressure ranges

The plastic submersible probe LMK 807 is designed for continuous level measurement for waste water or 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

LMK 807

CE



LMK 807

Plastic Submersible Probe

Technical Data

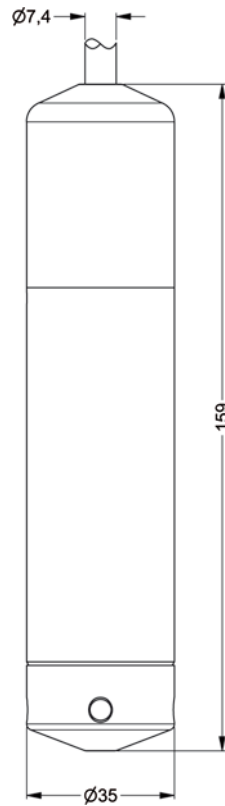
Input pressure range									
Nominal pressure gauge [bar]	0.4	0.6	1	1.6	2.5	4	6	10	
Level [mH ₂ O]	4	6	10	16	25	40	60	100	
Overpressure [bar]	1	2	2	4	4	10	10	20	
Burst pressure ≥ [bar]	2	4	4	5	5	12	12	25	
Output signal / Supply									
Standard	2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}								
Performance									
Accuracy ¹	≤ ± 0.5 % FSO								
Permissible load	$R_{max} = [(V_S - V_{S_{min}}) / 0.02] \Omega$								
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / k Ω								
Long term stability	≤ ± 0.1 % FSO / year								
Response time	< 10 msec								
¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)									
Thermal effects (Offset and Span)									
Thermal error	≤ ± 0.2 % FSO / 10 K in compensated range -25 ... 70 °C								
Permissible temperatures									
Permissible temperatures	medium: 0 ... 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	(0 ... 50 °C)	grey						
	PUR	(0 ... 50 °C)	black						
	FEP	(0 ... 50 °C)	black						
³ cable with integrated air tube for atmospheric pressure reference									
Materials (media wetted)									
Housing	PVC grey								
Seals	FKM / EPDM / FFKM								
Diaphragm	ceramic Al ₂ O ₃ 96 %								
Miscellaneous									
Option SIL 2 application	according to IEC 61508 / IEC 61511								
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 μ H/m								
Current consumption	max. 25 mA								
Weight	approx. 200 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 +	wh (white)							
	Supply -	bn (brown)							
	Shield	gn/ye (green / yellow)							

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Accessories

Dimensions (in mm)

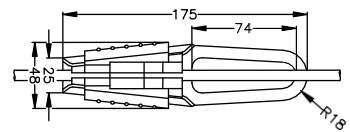


Accessories

Terminal clamp

Technical Data

Suitable for	all probes with cable $\varnothing 5.5 \dots 10.5$ mm
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)
Weight	approx. 160 g



Ordering type

Terminal clamp, of steel, zinc plated
Terminal clamp, of stainless steel 1.4301 (304)

Ordering code

Z100528
Z100527

Ordering code LMK 807

LMK 807

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Pressure																				
	in bar	3	9	0																
	in mH ₂ O	3	9	1																
Input																				
	[mH ₂ O] [bar]																			
	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 Al ₂ O ₃ 96%							2												
	customer							9												consult
Output																				
	4 ... 20 mA / 2-wire								1											
	SIL2 4 ... 20 mA / 2-wire								1S											
	customer								9											consult
Seals																				
	FKM								1											
	EPDM								3											
	FFKM								7											
	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										9	9	9							
Special version																				
	standard														0	0	0			
	customer														9	9	9			consult

¹ cable with integrated air tube for atmospheric pressure reference



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