

LMK 806

Plastic Probe for Aggressive Media

Ceramic Sensor

accuracy according to
IEC 60770: 0.5 % FSO

Nominal pressure

from 0 ... 6 mH₂O up to 0 ... 200 mH₂O

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 ₂ O]	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 / $V_S = 8 \dots 32V_{DC}$

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

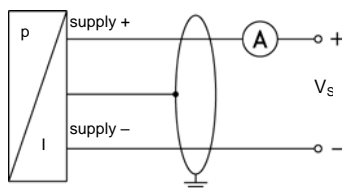
⁴ do not use freely suspended probes with an FEP cable if effects due to highly charging processes are expected

Materials (media wetted)	
Housing	PVC
Seals	FKM
Diaphragm	ceramics Al ₂ O 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)



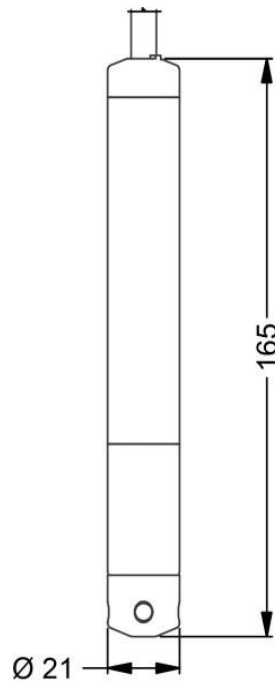
Pin configuration	
Electrical connection	cable colours (DIN 47100)
Supply +	wh (white)
Supply -	bn (brown)
Shield	gn/ye (green / yellow)

LMK 806

Plastic Probe

Technical Data

Dimensions (in mm)



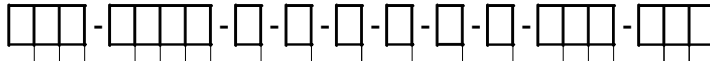
Accessories

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		Ordering code
Terminal clamp, steel, zinc plated		Z100528
Terminal clamp, stainless steel 1.4301 (304)		Z100527

This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

Ordering code LMK 806

LMK 806



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													
	160	16	1	6	0	2													
	200	20	2	0	0	2													
	customer		9	9	9	9													consult
Housing		PVC																	
	customer						A												consult
Diaphragm		Ceramics Al ₂ O ₃ 96%																	
	customer						2												consult
Output		4 ... 20 mA / 2-wire																	
	customer						1												consult
Seals		FKM																	
	customer						1												consult
Accuracy		0.5 %																	
	customer						5												consult
Electrical connection		PVC-cable ¹																	
		PUR-cable ¹																	
		FEP-cable ¹																	
	customer						9												consult
Cable length		in m																	
Special version		standard																	
	customer																		consult

¹ cable with integrated air tube for atmospheric pressure reference



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