

# **LMK 806**



## Plastic Probe for **Aggressive Media**

Ceramic Sensor

accuracy according to IEC 60770: 0.5 % FSO

#### **Nominal pressure**

from 0 ... 6 mH<sub>2</sub>O up to 0 ... 200 mH<sub>2</sub>O

#### **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 parts cleaning easier when solid 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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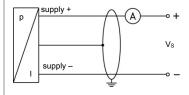


Input pressure range										
Nominal pressure gauge	[bar]	0.6	1	1.6	2.5	4	6	10	16	20
Level	[mH <sub>2</sub> O]	6	10	16	25	40	60	100	160	200
Overpressure	[bar]	2	2	4	4	10	10	20	40	40
Burst pressure ≥	[bar]	4	4	5	5	12	12	25	50	50

Output signal / Supply						
2-wire	4 20 mA / V <sub>S</sub> = 12 32 V <sub>DC</sub>	4 20 mA / V <sub>S</sub> = 12 32 V <sub>DC</sub>				
Performance						
Accuracy 1	≤±0.5 % FSO					
Permissible load	$R_{\text{max}} = [(V_{\text{S}} - V_{\text{S min}}) / 0.02 \text{ A}] \Omega$					
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ					
Response time	≤ 10 msec					
<sup>1</sup> accuracy according to IEC 60770 – I	imit point adjustment (non-linearity, hysteresis, repeatability)					
Thermal effects (Offset and Spa	an) / Permissible temperatures					
Thermal error	≤±0.4 % FSO / 10 K	in compensated range -25 70 °C				
Permissible temperatures	medium / electronics / environment / storage: -25 80 °C					
Electrical protection <sup>2</sup>						
Short-circuit protection	permanent	permanent				
Reverse polarity protection	no damage, but also no function	no damage, but also no function				
Electromagnetic protection	emission and immunity according to EN 61326					
<sup>2</sup> additional external overvoltage prote	ction unit in terminal box KL 1 or KL 2 with atmospheric pres	ssure reference available on request				
Electrical connection						
Cable with sheath material <sup>3</sup>	PVC (-5 70 °C) grey Ø 7.4 mm PUR (-25 70 °C) black Ø 7.4 mm FEP <sup>4</sup> (-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 µ					
Bending radius	static installation: 10-fold cable diameter dynamic application: 20-fold cable diameter					
<ul> <li><sup>3</sup> shielded cable with integrated ventile</li> <li><sup>4</sup> do not use freely suspended probes</li> </ul>	ation tube for atmospheric pressure reference with an FEP cable if effects due to highly charging processe	es are expected				
Materials (media wetted)						
Housing	PP-HT others on request					
Seals	FKM					
Diaphragm	ceramics Al <sub>2</sub> O <sub>3</sub> 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						

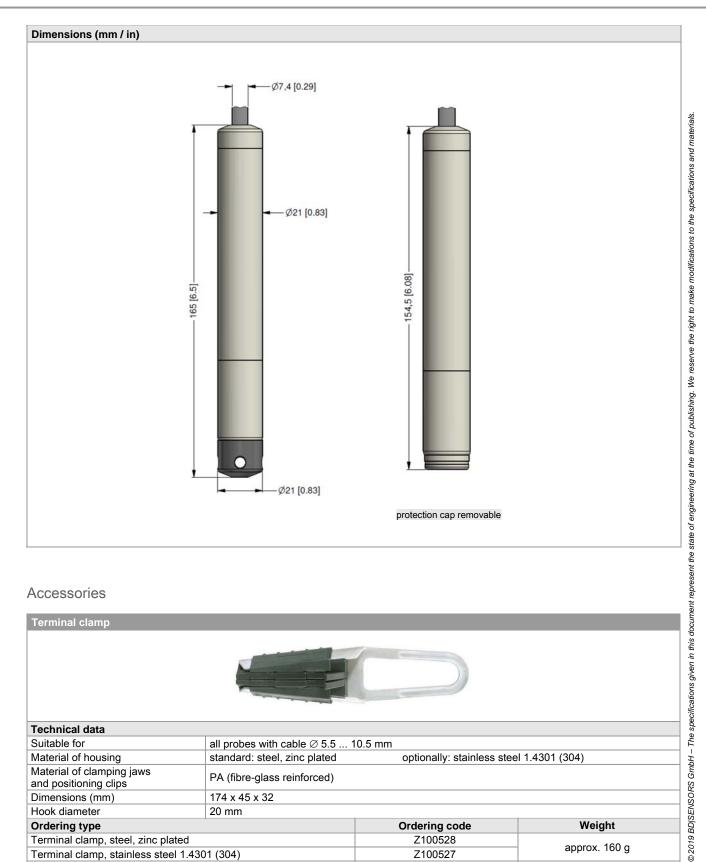
#### Willing diagram

2-wire-system (current)



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

# Plastic Probe



#### Accessories

Terminal clamp

Terminal Glamp						
Technical data						
Suitable for	all probes with cable Ø 5.5 1	all probes with cable Ø 5.5 10.5 mm				
Material of housing	standard: steel, zinc plated	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)				
Material of clamping jaws and positioning clips	PA (fibre-glass reinforced)	PA (fibre-glass reinforced)				
Dimensions (mm)	174 x 45 x 32	174 x 45 x 32				
Hook diameter	20 mm	20 mm				
Ordering type		Ordering code	Weight			
Terminal clamp, steel, zinc plate	ed	Z100528	20000 160 0			
Terminal clamp, stainless steel 1.4301 (304)		Z100527	approx. 160 g			

LMK806\_E\_010919 pressure measurement

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#### Ordering code LMK 806 LMK 806 Pressure 3 7 5 3 7 6 in $mH_2O$ Input [mH<sub>2</sub>O] [bar] 6 0 0 0 0 1 0 0 1 1 6 0 1 2 5 0 1 4 0 0 0 1 6 0 0 1 1 0 0 2 1 6 0 2 2 0 0 2 9 9 9 9 0.60 6 10 1.0 1.6 16 25 2.5 40 4.0 60 6.0 100 10 160 16 200 20 customer consult The specifications given in this document represent the state of engineering at the time of publishing. We reserve the right to make modifications to the specifications and materials. PP-HT R customer consult Diaphragm ceramics Al<sub>2</sub>O<sub>3</sub> 96% 2 customer 9 consult Output 4 ... 20 mA / 2-wire customer 9 consult Seals 1 customer consult Accuracy 5 9 0.5 % FSO customer consult Electrical co PVC-cable (grey, Ø 7.4 mm) PUR-cable (black, Ø 7.4 mm) 1 FEP-cable (black, Ø 7.4 mm) 3 customer consult 9 Cable length 9 9 9 in m Special version 0 0 0 9 9 9 standard customer consult

<sup>&</sup>lt;sup>1</sup> shielded cable with integrated ventilation tube for atmospheric pressure reference