

# LMK 306

## Stainless Steel Probe

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 17 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 slimline probe LMK 306 with ceramic sensor has been especially designed for the continuous level measurement at confined space conditions. Permissible media are clean or slightly contaminated water and thin fluids.

Different cable sheath materials are available in order to achieve maximum media compatibility.

### Preferred areas of use are

#### Water



level measurement at  
confined space conditions  
ground water monitoring  
depth or level measurement in wells  
drinking water abstraction  
level measurement in open tanks



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	
Standard	2-wire: 4 ... 20 mA / V <sub>S</sub> = 12 ... 36 V <sub>DC</sub>

Performance	
Accuracy	≤ ± 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

<sup>1</sup> 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 ... 70 °C storage: -25 ... 70 °C

Electrical protection <sup>2</sup>	
Short-circuit protection	permanent
Reverse polarity protection	no damage, but also no function
Electromagnetic protection	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

Electrical connection	
Cable with sheath material <sup>3</sup>	PVC (-5 ... 70 °C) grey PUR (-10 ... 70 °C) black FEP (-10 ... 70 °C) black

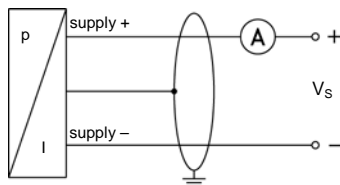
<sup>3</sup> shielded cable with integrated air tube for atmospheric pressure reference

Materials (media wetted)	
Housing	stainless steel 1.4404 (316L)
Seals	FKM
Diaphragm	ceramics Al <sub>2</sub> O <sub>3</sub> 96 %
Protection cap	POM

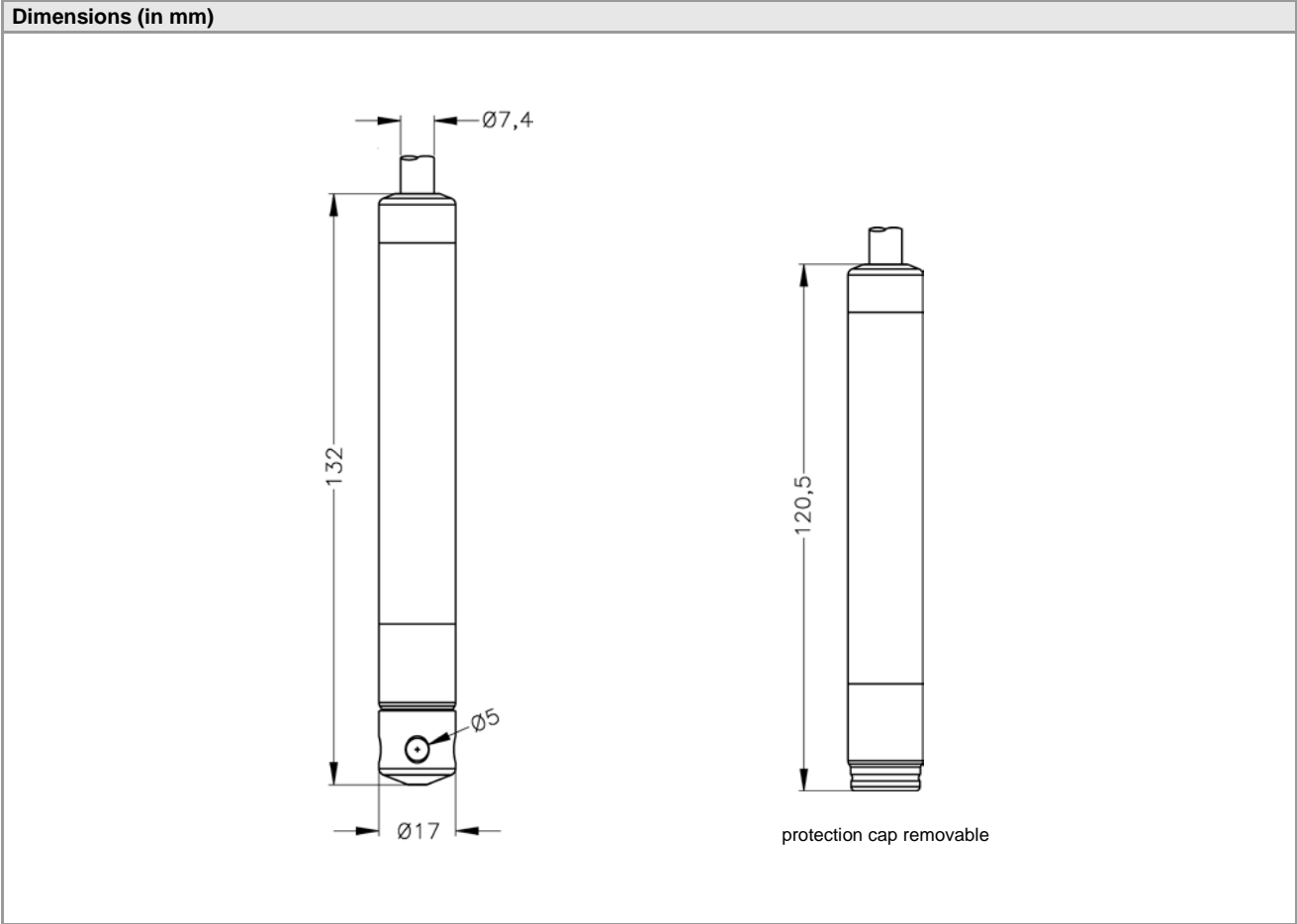
Miscellaneous	
Connecting cables (by factory)	cable capacitance: signal line/shield also signal line/signal line: 160 pF/m cable inductance: signal line/shield also signal line/signal line: 1 μH/m
Current consumption	max. 25 mA
Weight	approx. 100 g (without cable)
Ingress protection	IP 68
CE-conformity	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)



Accessories

Terminal clamp	
<b>Technical Data</b>	
Suitable for	all probes with cable $\varnothing$ 5.5 ... 10.5 mm
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)
Weight	approx. 160 g
<b>Ordering type</b>	
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 306

LMK 306

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<b>Pressure</b>		in bar	3	7	0														
		in mH <sub>2</sub> O	3	7	1														
<b>Input</b>	[mH <sub>2</sub> 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
<b>Housing</b>		Stainless steel 1.4404 (316L)																	
		customer																	consult
<b>Diaphragm</b>		Ceramics Al <sub>2</sub> O <sub>3</sub> 96%																	
		customer																	consult
<b>Output</b>		4 ... 20 mA / 2-wire																	
		customer																	consult
<b>Seals</b>		FKM																	
		customer																	consult
<b>Accuracy</b>		0.5 %																	
		customer																	consult
<b>Electrical connection</b>		PVC-cable <sup>1</sup>																	
		PUR-cable <sup>1</sup>																	
		FEP-cable <sup>1</sup>																	
		customer																	consult
<b>Cable length</b>		in m																	
<b>Special version</b>		standard																	
		customer																	consult

<sup>1</sup> cable with integrated air tube for atmospheric pressure reference

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