

# LMK 306



## Stainless Steel Probe

Ceramic Sensor

accuracy according to IEC 60770:  
0.5 % span

### 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. in 3/4" pipes
- ▶ good linearity
- ▶ good 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 and closed 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
Max ambient pressure (housing)		40 bar								

Output signal / Supply	
2-wire	4 ... 20 mA / V <sub>S</sub> = 12 ... 36 V <sub>DC</sub>

Performance	
Accuracy	≤ ± 0.5 % span
Permissible load	$R_{max} = [(V_S - V_{Smin}) / 0.02 A] \Omega$
Influence effects	supply: 0.05 % span / 10 V      load: 0.05 % span / 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 % span / 10 K      in compensated range -25 ... 70 °C
Permissible temperatures	Medium/ electronics/ environment/ storage: -20 ... 80 °C *

\*If the cable is intended for use in a smaller temperature range, the use of the probe is limited by this range.

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

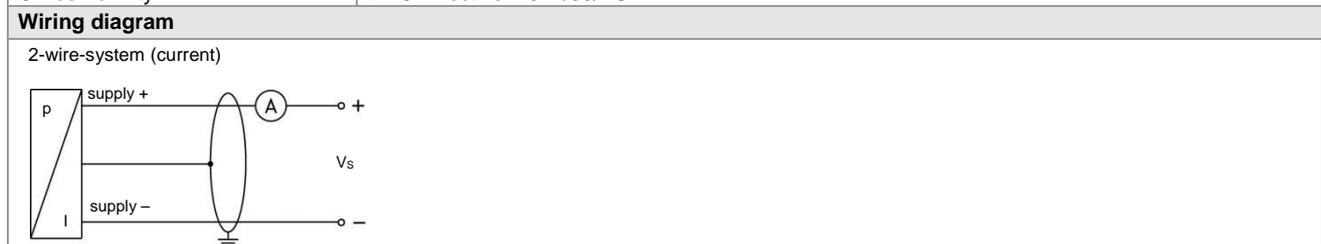
Electrical connection	
Cable with sheath material <sup>3</sup>	PVC (-5 ... 70 °C) grey (-25 ... 70 °C in fixed condition) Ø 7,4 mm PUR (-25 ... 80 °C) black (with drinking water certificate) Ø 7,4 mm FEP <sup>4</sup> (-25 ... 75 °C) black Ø 7,4 mm others on request
Cable capacitance	signal line/shield also signal line/signal line: 160 pF/m
Cable inductance	signal line/shield also signal line/signal line: 1 µH/m
Bending radius	static installation: 10-fold cable diameter dynamic application: 20-fold cable diameter

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

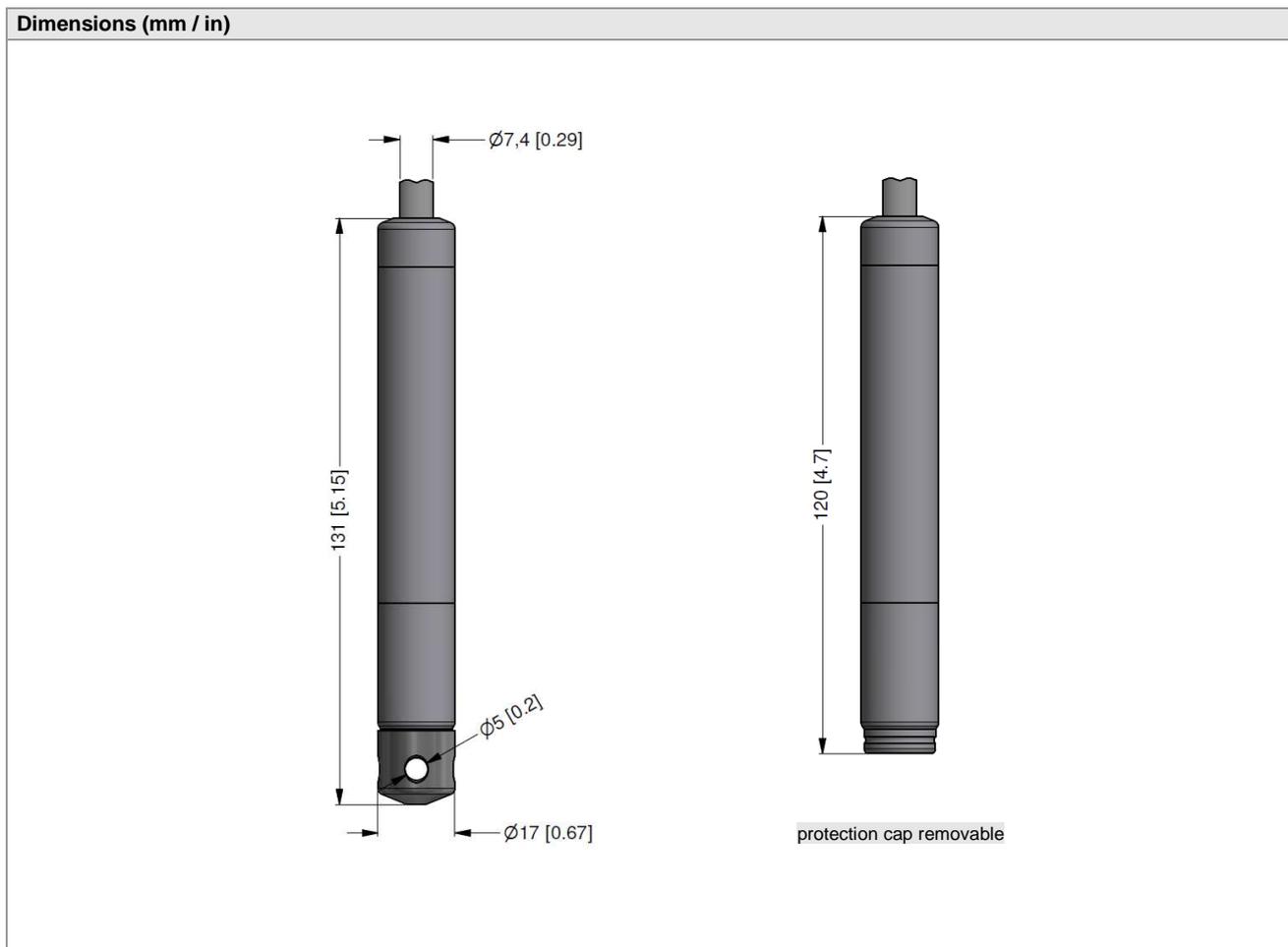
<sup>4</sup> do not use freely suspended probes with an FEP cable if effects due to highly charging processes are expected

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-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



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



## Accessories

Terminal clamp		
<b>Technical data</b>		
Suitable for	all probes with cable $\varnothing 5.5 \dots 10.5$ mm	
Material of housing	standard: steel, zinc plated      optionally: stainless steel 1.4301 (304)	
Material of clamping jaws and positioning clips	PA (fibre-glass reinforced)	
Dimensions (mm)	174 x 45 x 32	
Hook diameter	20 mm	
<b>Ordering type</b>	<b>Ordering code</b>	<b>Weight</b>
Terminal clamp, steel, zinc plated	1003440	approx. 160 g
Terminal clamp, stainless steel 1.4301 (304)	1000278	

© 2019 BD SENSORS s.r.o. – 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.

