LMK 306

Stainless Steel Probe

Ceramic Sensor

accuracy according to IEC 60770:
0.5 % FSO

Nominal pressure

from 0 ... 6 mH_2O up to 0 ... 200 mH_2O

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

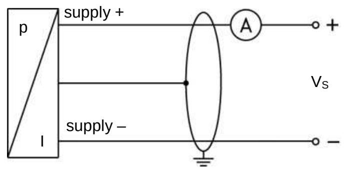
level measurement in open and
closed tanks

Input pressure range									
Nominal pressure gauge [bar]	0.6	1	1.6	2.5	4	6	10	16	20
Level [mH_2O]	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 = 12 ... 36 V_{DC}
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
[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/ 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 [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 … 70 °C) grey (-25 … 70 °C in fixed condition) Ø 7,4 mm PUR (-25 … 80 °C) black Ø 7,4 mm FEP [4] (-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
[3] shielded cable with integrated ventilation 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	stainless steel 1.4404 (316L)
Seals	FKM
Diaphragm	ceramics Al_2O_3 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

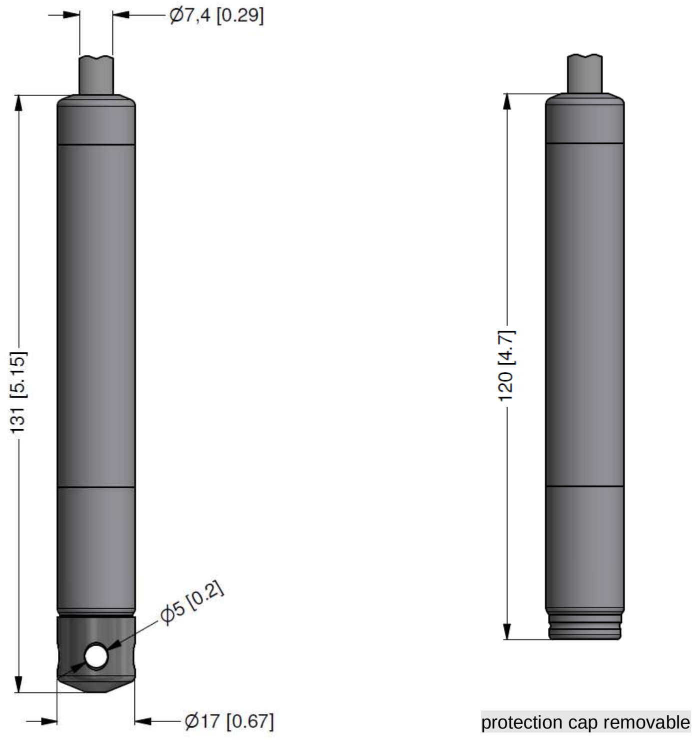
Wiring diagram

2-wire-system (current)



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

Dimensions (mm / in)



Accessories

Terminal clamp

Technical data	
Suitable for	all probes with cable ∅ 5.5 ... 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

Ordering type	**Ordering code**	**Weight**
Terminal clamp, steel, zinc plated	1003440	approx. 160 g
Terminal clamp, stainless steel 1.4301 (304)	1000278	

Ordering code LMK 306

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Pressure			
in bar			370
in H_2O			371
Input	**[mH_2O]**	**[bar]**	
	0 … 6	0 … 0,6	6000
	0 … 10	0 … 1	1001
	0 … 16	0 … 1,6	1601
	0 … 25	0 … 2,5	2501
	0 … 40	0 … 4	4001
	0 … 60	0 … 6	6001
	0 … 100	0 … 10	1002
	0 … 160	0 … 16	1602
	0 … 200	0 … 20	2002
Customer			9999
Housing material			
Stainless steel 1.4404 (316 L)			1
Customer			9
Diaphragm material			
Ceramic Al_2O_3 96 %			2
Customer			9
Output signal			
4 … 20 mA / 2-wire			1
Customer			9
Seals			
Viton (FKM)			1
Customer			9
Accuracy			
0,5 %			5
Customer			9
Electrical connection			
PVC - cable (grey, Ø 7,4 mm, price for 1 m)			1
PUR - cable (black, Ø 7,4 mm, price for 1 m)			2
FEP - cable with PTFE sheath (black, Ø 7,4 mm, price for 1 m)			3
Customer			9
Cable length			
in m			999
Special version			
Standard			000
Customer			999
Accessories for submersible transmitter			
Terminal clamp - zinc plated			1003440
Terminal clamp - Stainless Steel 1.4301			1000278
Mounting screw PG16 - plastic			5002200

0,-…without additional charge

1 - maximum length of PVC cable – 25 m, PUR, FEP, TPE – 40 m

On request...in accordance with the producer

Surcharges for calibration are not subject to any discounts. Subject to change.

This document contains the specification for ordering the product; detailed technical parameters of the product and its possible variants are given in the data sheet. BD SENSORS reserves the right to change sensor specifications without further notice.