



# ILMK 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. 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 ILMK 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 % FSO
Permissible load	$R_{max} = [(V_S - V_{Smin}) / 0.02 A] \Omega$
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 0 ... 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

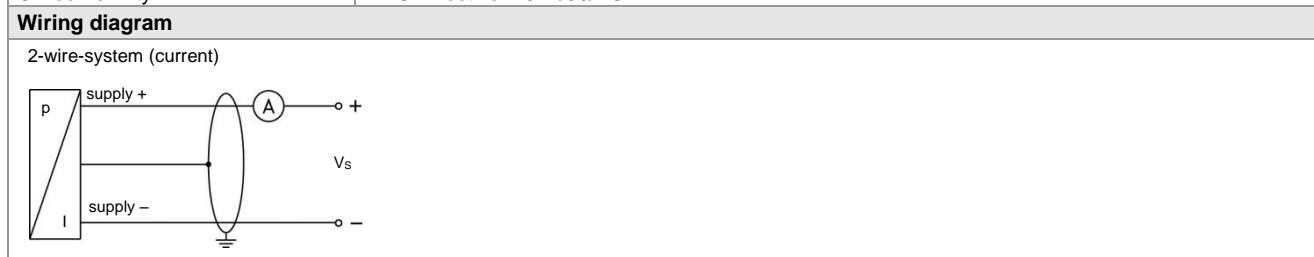
Electrical connection	
Cable with sheath material <sup>3</sup>	PVC ( -5 ... 70 °C) grey Ø 7.4 mm PUR ( -10 ... 70 °C) black Ø 7.4 mm FEP <sup>4</sup> ( -10 ... 70 °C) black Ø 7.4 mm others on request
Cable capacitance	signal line/shield also signal line/signal line: 160 pF/m
Cable inductance	signal line/shield also signal line/signal line: 1 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

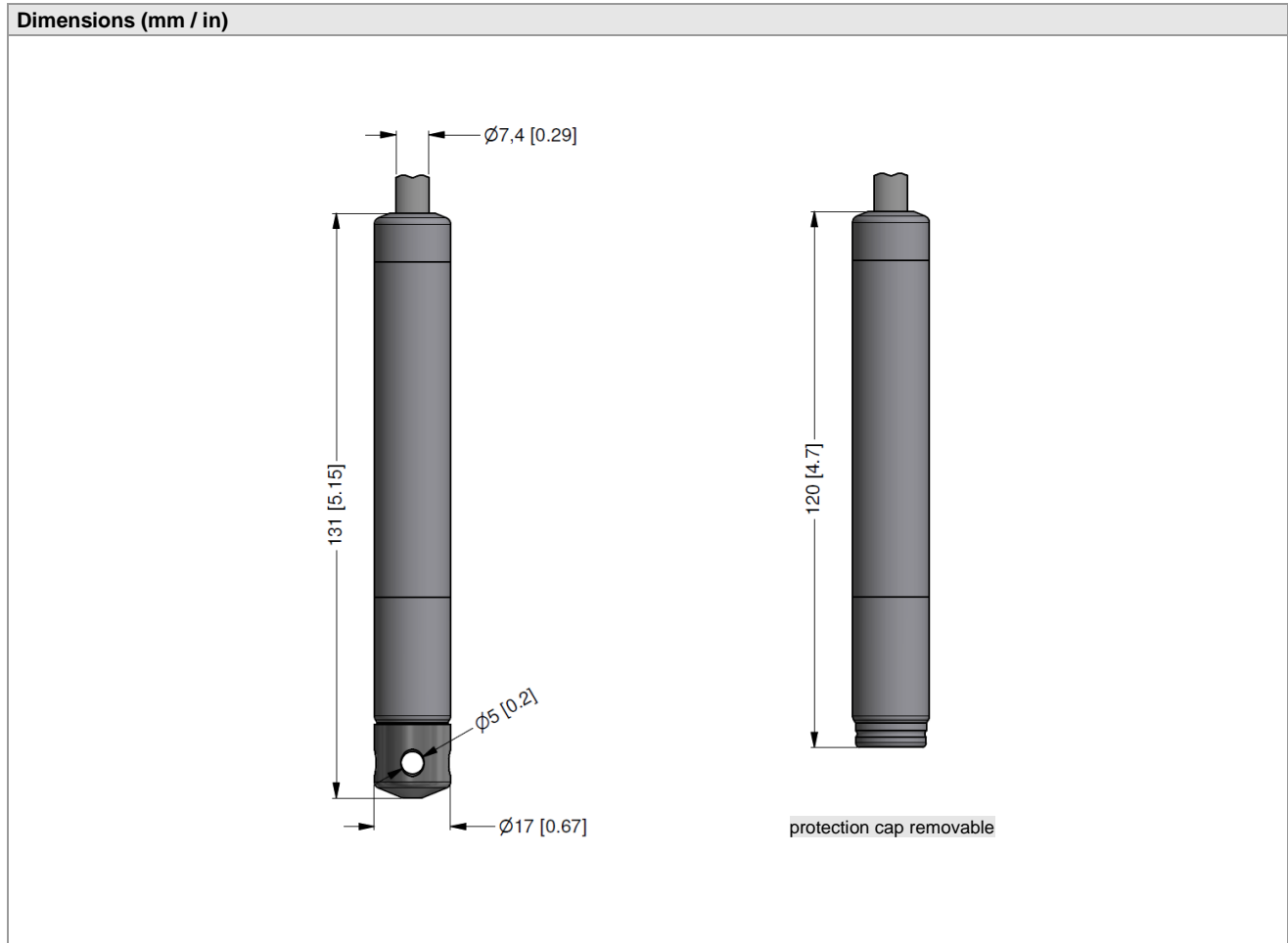
<sup>4</sup> do not use freely suspended probes with an FEP cable if effects due to highly charging processes are expected

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		
		
Technical data		
Suitable for	all probes with cable $\text{Ø} 5.5 \dots 10.5$ 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	
Ordering type	Ordering code	Weight
Terminal clamp, steel, zinc plated	Z100528	approx. 160 g
Terminal clamp, stainless steel 1.4301 (304)	Z100527	

## Ordering code ILMK 306

ILMK 306



<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)					1				
	customer					9				consult
<b>Diaphragm</b>										
	ceramics Al <sub>2</sub> O <sub>3</sub> 96%					2				
	customer					9				consult
<b>Output</b>										
	4 ... 20 mA / 2-wire					1				
	customer					9				consult
<b>Seals</b>										
	FKM					1				
	customer					9				consult
<b>Accuracy</b>										
	0.5 % FSO					5				
	customer					9				consult
<b>Electrical connection</b>										
	PVC-cable (grey, Ø 7.4 mm) <sup>1</sup>					1				
	PUR-cable (black, Ø 7.4 mm) <sup>1</sup>					2				
	FEP-cable (black, Ø 7.4 mm) <sup>1</sup>					3				
	customer					9				consult
<b>Cable length</b>										
	in m						9	9	9	
<b>Special version</b>										
	standard						0	0	0	
	customer						9	9	9	consult

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