

LMK 306



Stainless Steel Probe

Ceramic Sensor

accuracy according to IEC 60770:
0.5 % FSO

Nominal pressure

from 0 ... 6 mH₂O up to 0 ... 200 mH₂O

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



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Technical Data

| Input pressure range | | | | | | | | | | |
|------------------------|---------------------|-----|----|-----|-----|----|----|-----|-----|-----|
| Nominal pressure gauge | [bar] | 0.6 | 1 | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 20 |
| Level | [mH ₂ 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 _S = 12 ... 36 V _{DC} |

| 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 |

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 0 ... 70 °C |
| Permissible temperatures | medium: -10 ... 70 °C storage: -25 ... 70 °C |

| 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 Ø 7.4 mm PUR (-10 ... 70 °C) black Ø 7.4 mm FEP ⁴ (-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 |

³ shielded cable with integrated ventilation tube for atmospheric pressure reference

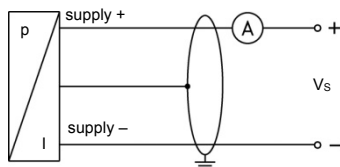
⁴ do not use freely suspended probes with an FEP cable if effects due to highly charging processes are expected

| Materials (media wetted) | |
|--------------------------|--|
| Housing | stainless steel 1.4404 (316L) |
| Seals | FKM |
| Diaphragm | ceramics Al ₂ O ₃ 96 % |
| Protection cap | POM-C |
| Cable sheath | PVC, PUR, FEP |

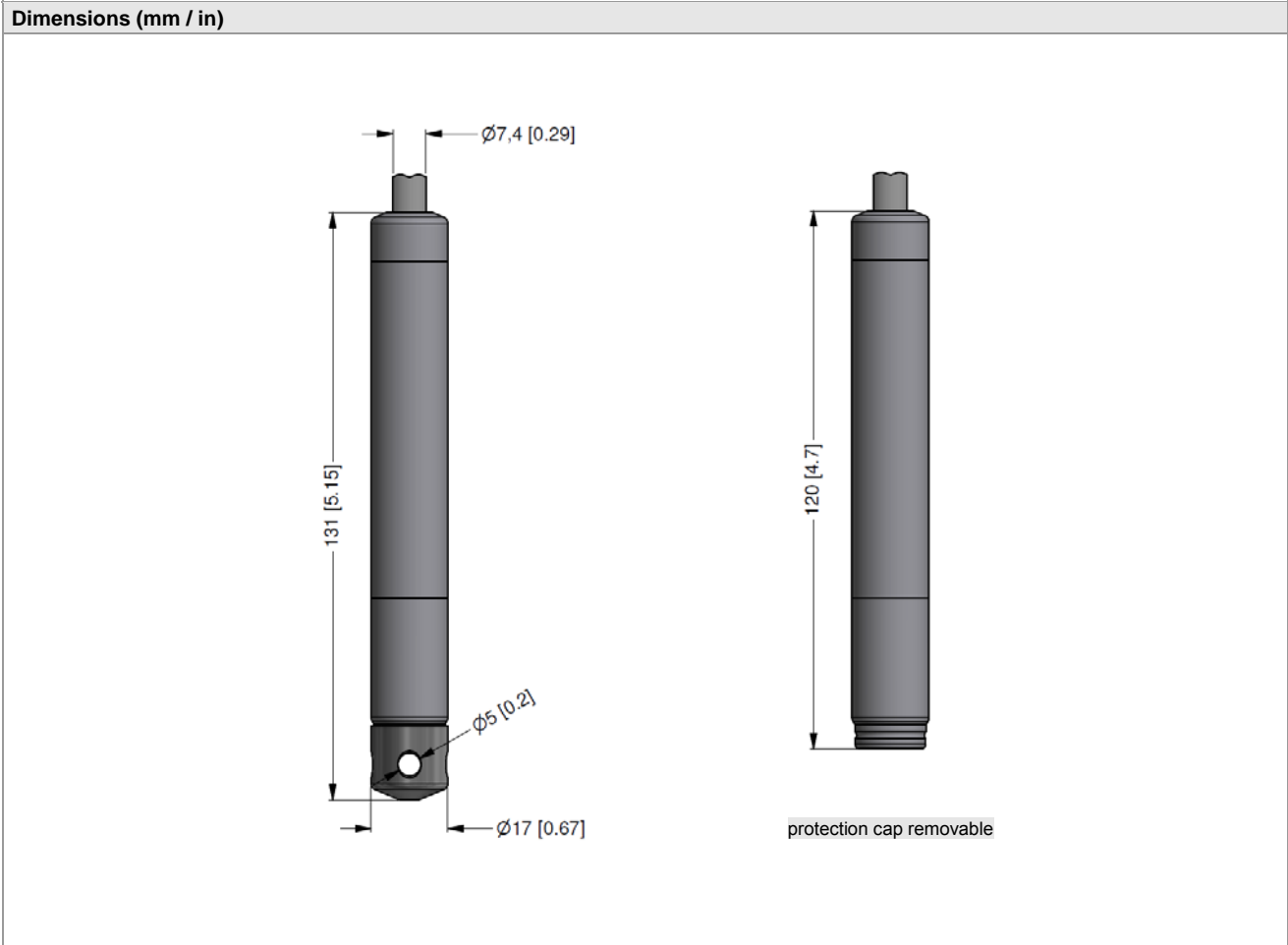
| Miscellaneous | |
|---------------------|-------------------------------|
| Current consumption | max. 25 mA |
| Weight | approx. 100 g (without cable) |
| Ingress protection | IP 68 |
| CE-conformity | EMC Directive: 2014/30/EU |

Wiring diagram

2-wire-system (current)



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



Accessories

| Terminal clamp | | |
|---|--|---------------|
| | | |
| Technical data | | |
| 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 | |
| Ordering type | Ordering code | Weight |
| Terminal clamp, steel, zinc plated | Z100528 | approx. 160 g |
| Terminal clamp, stainless steel 1.4301 (304) | Z100527 | |

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