

LMK 806



Plastic Probe for Aggressive Media

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 21 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 LMK 806 with ceramic sensor and diameter of only 21 mm has been especially designed for the continuous level measurement at confined space conditions. Permissible media are highly polluted and aggressive fluids.

Basic element of the plastic submersible probe is a flush mounted ceramic sensor, which makes cleaning easier when solid parts of the medium deposit on it. Different cable and elastomer materials are available in order to achieve maximum media compatibility.

Preferred areas of use are

Sewage



waste water treatment
water recycling
dumpsites



Aggressive media

level measurement
in most of acids and lyes



| 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 |
| Max. ambient pressure (housing): 30 bar | | | | | | | | | | |

| Output signal / Supply | |
|------------------------|--|
| 2-wire | 4 ... 20 mA / V _S = 12 ... 32 V _{DC} |

| Performance | |
|--|--|
| Accuracy ¹ | ≤ ± 0.5 % FSO |
| Permissible load | $R_{\max} = [(V_S - V_{S_{\min}}) / 0.02 \text{ A}] \Omega$ |
| 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) | |

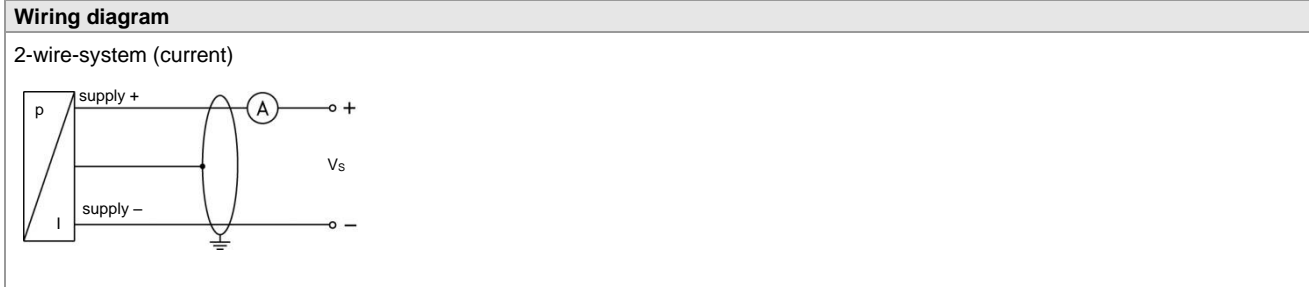
| Thermal effects (Offset and Span) / Permissible temperatures | |
|--|--|
| Thermal error | ≤ ± 0.4 % FSO / 10 K in compensated range 0 ... 70 °C |
| Permissible temperatures | medium / electronics / environment / storage: -25 ... 80 °C |

| 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 (-25 ... 70 °C) black Ø 7.4 mm FEP ⁴ (-25 ... 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 | PP-HT others on request |
| 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 |

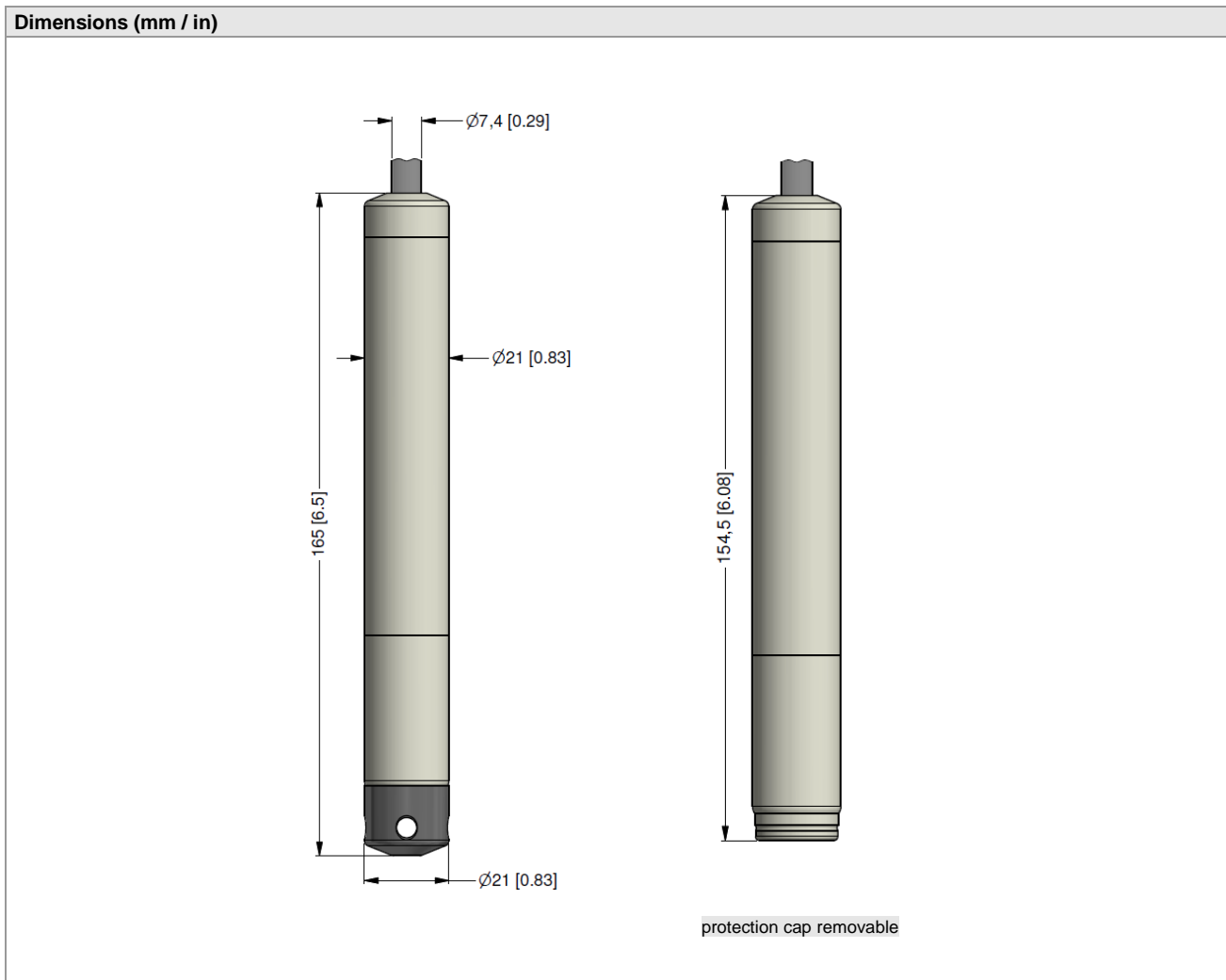


| Pin configuration | |
|-----------------------|---------------------------|
| Electrical connection | cable colours (IEC 60757) |
| Supply + | WH (white) |
| Supply - | BN (brown) |
| Shield | GNYE (green-yellow) |

LMK 806

Plastic Probe

Technical Data



Accessories

Terminal clamp

| Technical data | |
|---|--|
| Suitable for | all probes with cable \varnothing 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 |
| Terminal clamp, steel, zinc plated | Z100528 |
| Terminal clamp, stainless steel 1.4301 (304) | Z100527 |
| Weight | |
| approx. 160 g | |

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LMK806_E_080221

Ordering code LMK 806

LMK 806

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| □ | □ | □ | - | □ | □ | □ | - | □ | - | □ | - | □ | - | □ | □ | □ | - | □ | □ | □ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|---------|
| Pressure | | | | | | | | | | | | | | | | | | | | |
| | in bar | 3 | 7 | 5 | | | | | | | | | | | | | | | | |
| | in mH ₂ O | 3 | 7 | 6 | | | | | | | | | | | | | | | | |
| Input | | | | | | | | | | | | | | | | | | | | |
| | [mH ₂ 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 |
| Housing | | | | | | | | | | | | | | | | | | | | |
| | PP-HT | | | | | | | R | | | | | | | | | | | | |
| | customer | | | | | | | 9 | | | | | | | | | | | | consult |
| Diaphragm | | | | | | | | | | | | | | | | | | | | |
| | ceramics Al ₂ O ₃ 96% | | | | | | | 2 | | | | | | | | | | | | |
| | customer | | | | | | | 9 | | | | | | | | | | | | consult |
| Output | | | | | | | | | | | | | | | | | | | | |
| | 4 ... 20 mA / 2-wire | | | | | | | 1 | | | | | | | | | | | | |
| | customer | | | | | | | 9 | | | | | | | | | | | | consult |
| Seals | | | | | | | | | | | | | | | | | | | | |
| | FKM | | | | | | | 1 | | | | | | | | | | | | |
| | customer | | | | | | | 9 | | | | | | | | | | | | consult |
| Accuracy | | | | | | | | | | | | | | | | | | | | |
| | 0.5 % FSO | | | | | | | 5 | | | | | | | | | | | | |
| | customer | | | | | | | 9 | | | | | | | | | | | | consult |
| Electrical connection | | | | | | | | | | | | | | | | | | | | |
| | PVC-cable (grey, Ø 7.4 mm) ¹ | | | | | | | | 1 | | | | | | | | | | | |
| | PUR-cable (black, Ø 7.4 mm) ¹ | | | | | | | | 2 | | | | | | | | | | | |
| | FEP-cable (black, Ø 7.4 mm) ¹ | | | | | | | | 3 | | | | | | | | | | | |
| | customer | | | | | | | | 9 | | | | | | | | | | | consult |
| Cable length | | | | | | | | | | | | | | | | | | | | |
| | in m | | | | | | | | | 9 | 9 | 9 | | | | | | | | |
| Special version | | | | | | | | | | | | | | | | | | | | |
| | standard | | | | | | | | | | | | 0 | 0 | 0 | | | | | |
| | customer | | | | | | | | | | | | 9 | 9 | 9 | | | | | consult |

¹ shielded cable with integrated ventilation tube for atmospheric pressure reference

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