

# LMP 808

## Plastic Submersible Transmitter

- ▶ piezoresistive stainless steel sensor
- ▶ diameter 35 mm
- ▶ transmitter head and cable assembly plugged
- ▶ nominal pressure ranges from 0 ... 40 mbar up to 0 ... 10 bar (0 ... 40 cmWC up to 0 ... 100 mWC)

The LMP 808 plastic submersible transmitter is suited for continuous level measurement of liquids.

In order to facilitate stock-keeping and maintenance the transmitter head is plugged to the cable assembly with a connector. If needed the transmitter can be changed easily, without expensive electrical and mechanical installation work.

Due to the additional possibility of cable protection and different mounting alternatives the LMP 808 represents a submersible transmitter for a wide range of applications.

Our application engineers would like to assist you in selecting the best combination suited for your specific application.

Preferred areas of use are:

- ▶ environmental engineering: water treatment
- ▶ depth or level measurement in wells and open waters
- ▶ ground water level measurement
- ▶ level measurement in open tanks

Characteristics

- ▶ small thermal effect
- ▶ excellent linearity
- ▶ good long term stability
- ▶ accuracy according to IEC 60770: 0.35 % FSO  
option: 0.25 % FSO
- ▶ customer specific versions:  
- special pressure ranges



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### Input pressure range

Nominal pressure gauge [bar]	0.04	0.06	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	10
Level [mWC]	0.4	0.6	1	1.6	2.5	4	6	10	16	25	40	60	100
Permissible overpressure [bar]	0.2	0.2	0.5	0.5	1	1	3	3	6	6	20	20	20

### Output signal / Supply

Standard	2-wire: 4 ... 20 mA / $V_s = 12 \dots 36 V_{DC}$
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### Performance

Accuracy <sup>1</sup>	standard: $\leq \pm 0.35 \% \text{ FSO}$ (BFSL: $\leq \pm 0.175 \% \text{ FSO}$ ) nominal pressure $\leq 0.4 \text{ bar}$ : $\leq \pm 0.5 \% \text{ FSO}$ (BFSL: $\leq \pm 0.25 \% \text{ FSO}$ ) option (nominal pressure $> 0.4 \text{ bar}$ ): $\leq \pm 0.25 \% \text{ FSO}$ (BFSL: $\leq \pm 0.125 \% \text{ FSO}$ )
Permissible load	$R_{\max} = [(V_s - V_{s \min}) / 0.02] \Omega$
Influence effects	supply: $0.05 \% \text{ FSO} / 10 \text{ V}$ load: $0.05 \% \text{ FSO} / k\Omega$
Long term stability	$\leq \pm 0.1 \% \text{ FSO} / \text{year}$

### Thermal effects

Nominal pressure $P_N$	$\leq 0.1 \text{ bar}$	$\leq 0.25 \text{ bar}$	$\leq 0.4 \text{ bar}$	$\leq 1 \text{ bar}$	$> 1 \text{ bar}$
Tolerance range for offset and span	$\leq \pm 2 \% \text{ FSO}$	$\leq \pm 1.5 \% \text{ FSO}$	$\leq \pm 1 \% \text{ FSO}$	$\leq \pm 1 \% \text{ FSO}$	$\leq \pm 0.75 \% \text{ FSO}$
in compensated range	$0 \dots 50 \text{ }^\circ\text{C}$			$0 \dots 70 \text{ }^\circ\text{C}$	

### Electrical protection <sup>2</sup>

Insulation resistance	$> 100 \text{ M}\Omega$
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	emission and immunity according to EN 61326

### Permissible temperatures

Medium	$0 \dots 50 \text{ }^\circ\text{C}$
Storage	$-10 \dots 50 \text{ }^\circ\text{C}$

<sup>1</sup> accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)

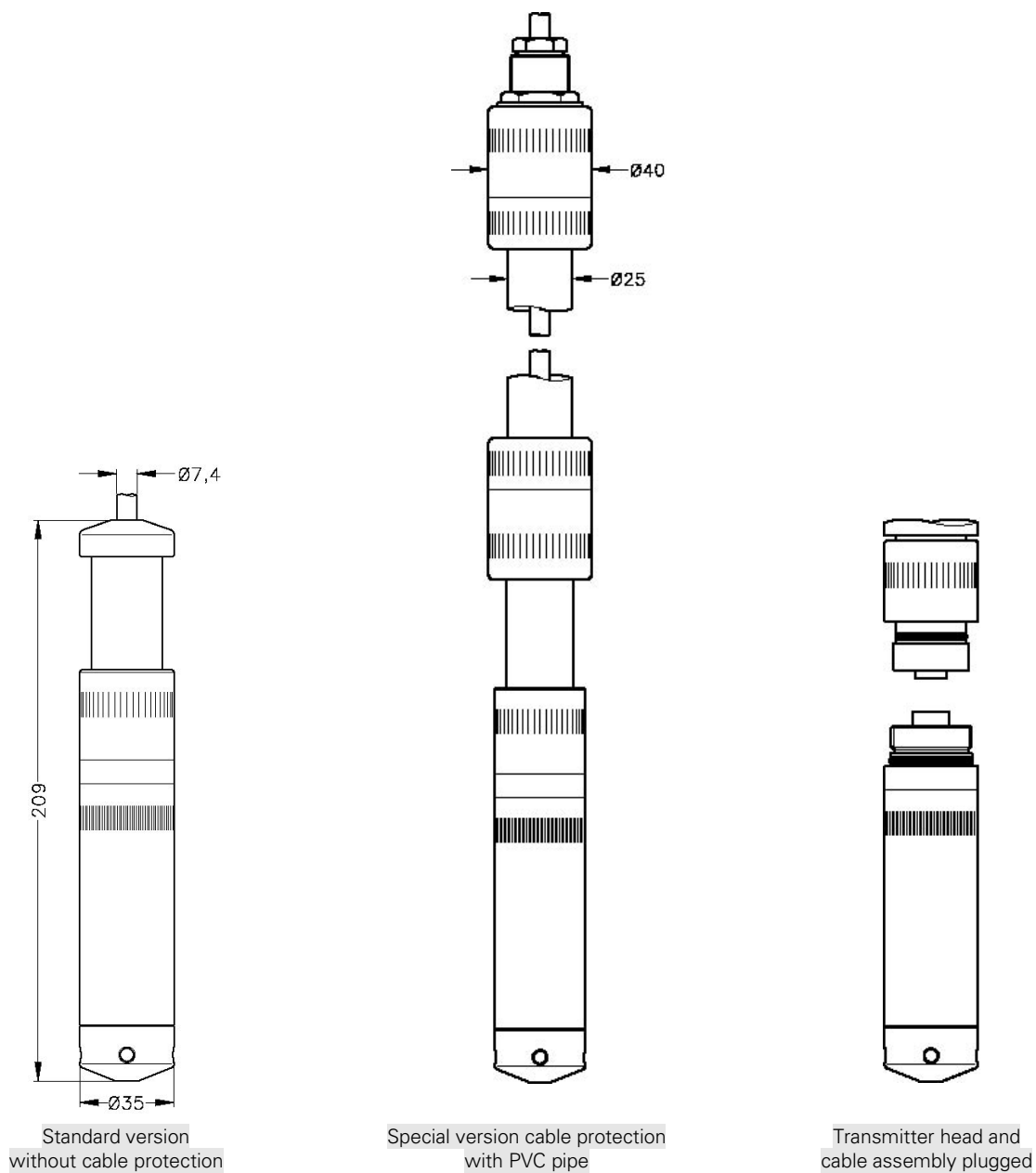
<sup>2</sup> additional external overvoltage protection unit in terminal box KL1 or KL2 with atmospheric pressure reference available on request (please ask for data sheet)

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Technical Data

## Dimensions



## Electrical connection

Cable with sheath material <sup>3</sup>	PVC grey PUR black FEP black
Cable protection	standard: without cable protection optional: prepared for mounting of a PVC pipe with diameter 25 mm

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

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## Materials

Housing	PVC grey
Seals	FKM / EPDM
Diaphragm	stainless steel 1.4435 (316L)
Cable sheath	PVC / PUR / FEP

## Miscellaneous

Current consumption	max. 25 mA
Ingress protection	IP 68
Weight	400 g (without cable)

## Mounting accessories (not part of delivery)

Screw fitting, of PVC
Terminal clamp, of stainless steel 1.4301 (304) or steel, zinc plated

## Pin configuration

Electrical connection		Cable colours (DIN 47100)
2-wire-system	Supply +	white
	Supply -	brown
	Ground	cable shield

## Wiring diagram

2-wire-system (current)

