

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

- ▶ small thermal effect
- ▶ excellent linearity
- ▶ good long term stability
- ▶ accuracy:
0.175% / 0.125% FSO BFSL
(0.35 % / 0.25% FSO IEC 60770)
- ▶ customer specific versions:
- special pressure ranges

Characteristics



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Technical Data

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 / $V_s = 12 \dots 36 V_{DC}$

Performance	
Accuracy ¹	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 % FSO / 10 V load: 0.05 % FSO / k Ω
Long term stability	$\leq \pm 0.1 \% \text{ FSO} / \text{year}$

Thermal errors (Offset and Span)					
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 band	$\leq \pm 2 \% \text{ FSO}$	$\leq \pm 1.5 \% \text{ FSO}$	$\leq \pm 1 \% \text{ FSO}$	$\leq \pm 1 \% \text{ FSO}$	$\leq \pm 0.75 \% \text{ FSO}$
TC, average [% FSO / 10 K]	± 0.3	± 0.2	± 0.14	± 0.1	± 0.07
in compensated range	0 ... 50 °C			0 ... 70 °C	

Electrical protection ²	
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	emission and immunity according to EN 61326

Permissible temperatures	
Medium	0 ... 50 °C
Storage	-10 ... 50 °C

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

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

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

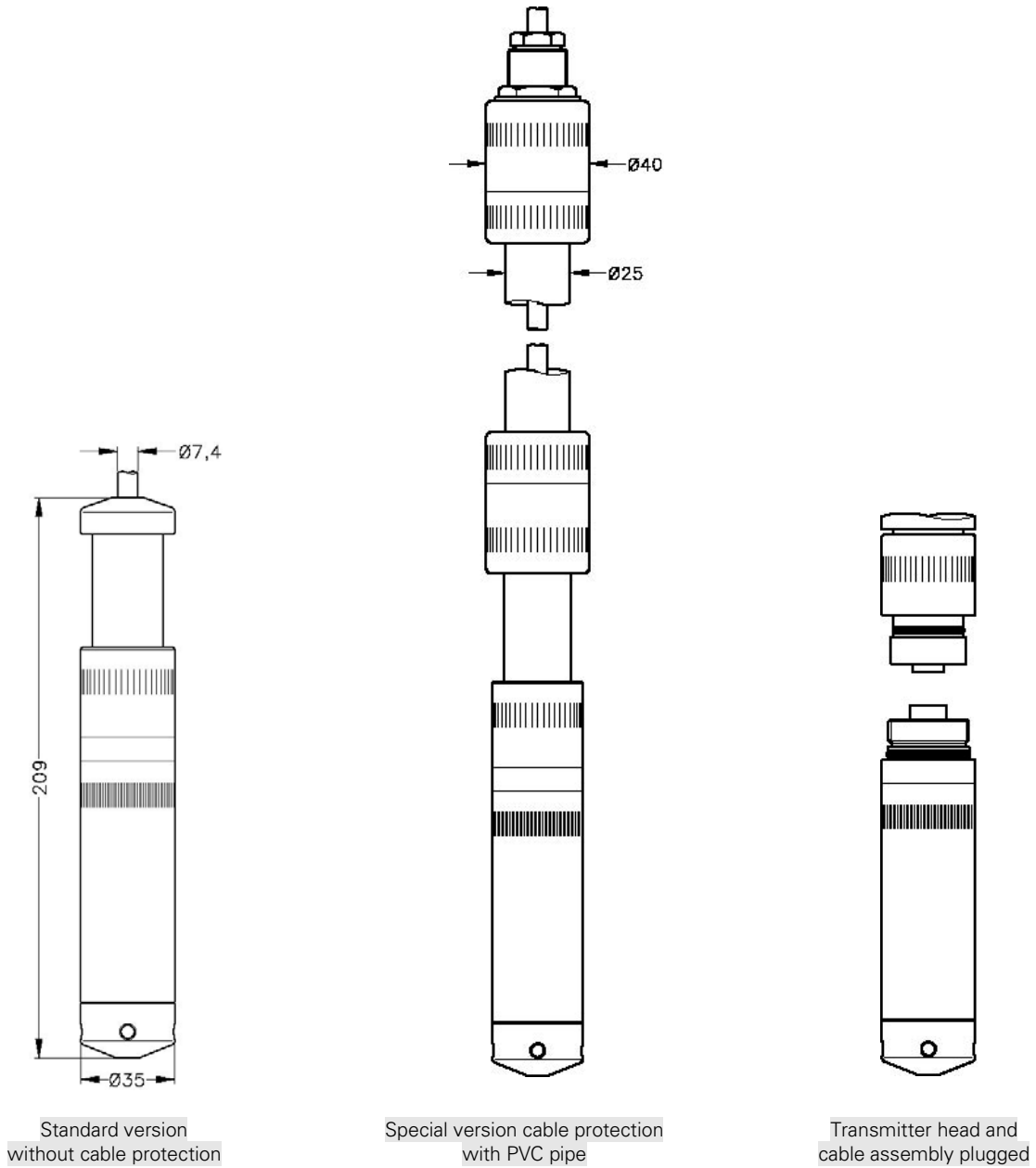
³ cable with integrated air tube for atmospheric pressure reference

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Dimensions



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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)

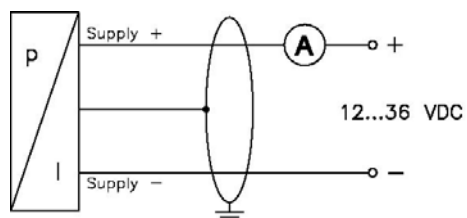
Screw fitting, of PVC
Terminal clamp, of stainless steel 1.4301 (304) or steel, zinc plated

Pin configuration

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

Wiring diagram

2-wire-system (current)



This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

