



LMK 858

Plastic Submersible Transmitter

- ▶ capacitive ceramic sensor
- ▶ diameter: 39.5 mm
- ▶ transmitter head and cable assembly plugged
- ▶ nominal pressure ranges:
 0 ... 40 mbar up to 0 ... 10 bar
 (0 ... 40 cmWC up to 0 ... 100mWC)

The level transmitter LMK 858 has been developed for continuous level measurement in aggressive media. Basic element is a capacitive ceramic sensor.

Usage in more viscous media as for example sludge is possible because of the semi-flush diaphragm.

For seals and cable different materials are available. 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.

Different mounting versions make adaption to construction and other on-site conditions easy.

Preferred areas of use are:

- ▶ level monitoring in open tanks with low filling heights
- ▶ depth or level measurement in wells and open waters
- ▶ ground water level measurement
- ▶ sewage treatment, water supply
- ▶ chemical and pharmaceutical industries

- ▶ good long term stability
- ▶ accuracy:
 0.175% / 0.125% FSO BFSL
 (0.35% / 0.25% FSO IEC 60770)
- ▶ cable protection with PVC pipe possible
- ▶ customer specific versions:
 - special pressure ranges
 - other versions on request

Characteristics



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Technical Data

Input pressure range ¹														
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]	1	1	2	2	4	4	4	7	7	15	25	25	40	

Output signal /Supply	
Standard	2-wire: 4 ... 20 mA / $V_s = 9 \dots 36 V_{DC}$

Performance	
Accuracy ²	standard: $\leq \pm 0.35 \% \text{ FSO}$ (BFSL: $\leq \pm 0.175 \% \text{ FSO}$) option: $\leq \pm 0.25 \% \text{ FSO}$ (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 effects	
Tolerance range for offset and span	$\leq \pm 0.1 \% \text{ FSO} / 10 \text{ K}$
in compensated range	0 ... 70 °C

Electrical protection ³	
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 ⁴	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 version with diaphragm Al₂O₃ 99,9% up to 1 bar

² accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)

³ additional external overvoltage protection unit in terminal box KL1 and KL2 with atmospheric pressure reference available on request (please ask for data sheet)

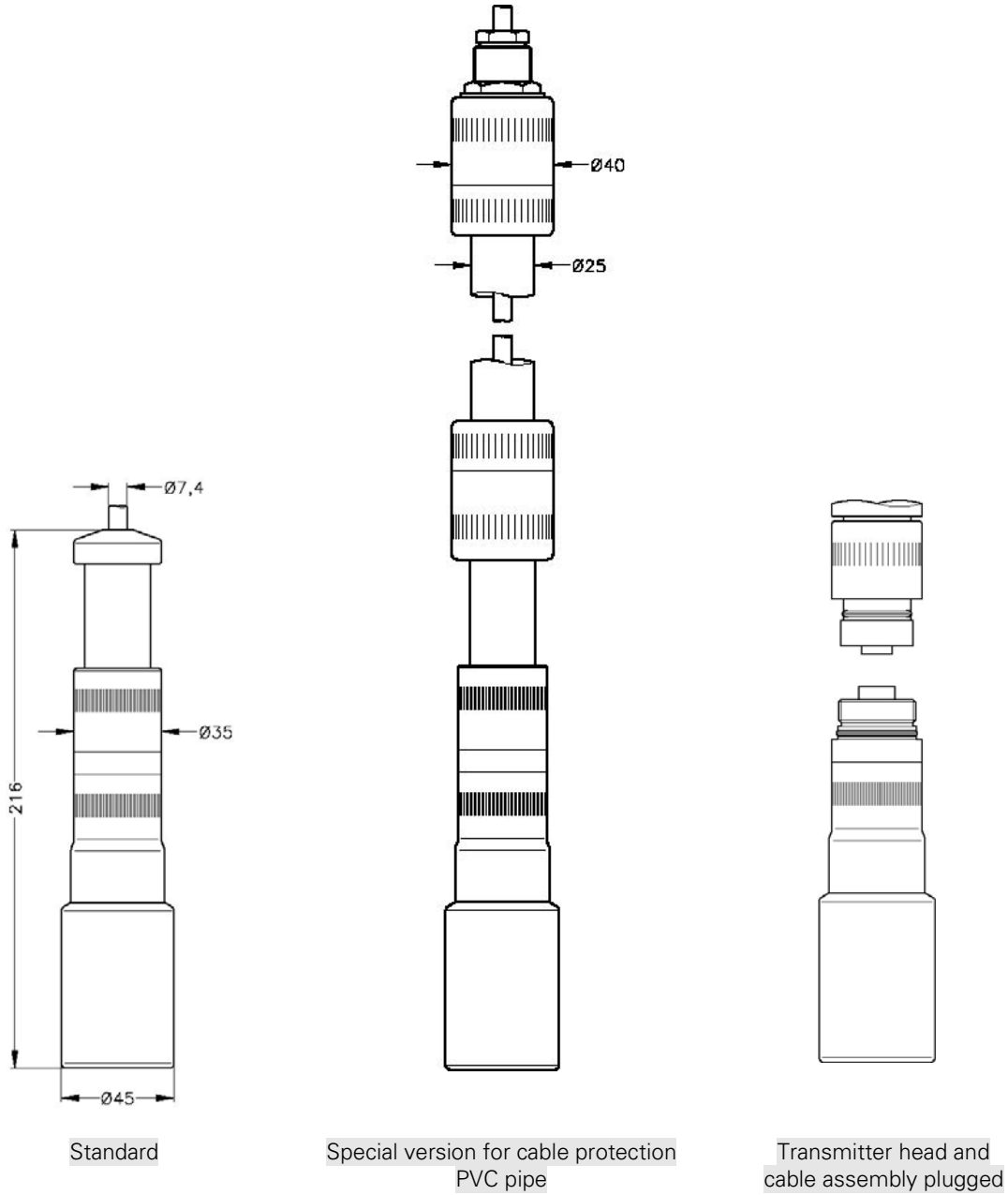
⁴ cable with integrated air tube for atmospheric pressure reference

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Dimensions



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Materials

Housing	PVC grey
Seals	FKM / others on request
Diaphragm	Standard: ceramics Al_2O_3 96 % Option: ceramics Al_2O_3 99.9 % (up to 1 bar)
Cable sheath	PVC / PUR / FEP

Miscellaneous

Current consumption	max. 21 mA
Ingress protection	IP 68
Weight	approx. 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	yellow / black

Wiring diagram

2-wire-system (current)

