



# LMK 858

## Plastic Submersible Transmitter

- ▶ capacitive ceramic sensor
- ▶ diameter 39.5 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 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 acc. to IEC 60770:  
0.35 % FSO  
option: 0.25 % FSO
- ▶ cable protection with PVC pipe possible
- ▶ customer specific versions:
  - special pressure ranges
  - other versions on request

Characteristics

CE

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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]	1	1	2	2	4	4	4	7	7	15	25	25	40

### Output signal /Supply

Standard	2-wire: 4 ... 20 mA / $V_s = 9 \dots 36 V_{dc}$
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### Performance

Accuracy <sup>1</sup>	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	$R_{max} = [(V_s - V_{smin}) / 0.02] \Omega$
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / k $\Omega$
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 <sup>2</sup>

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

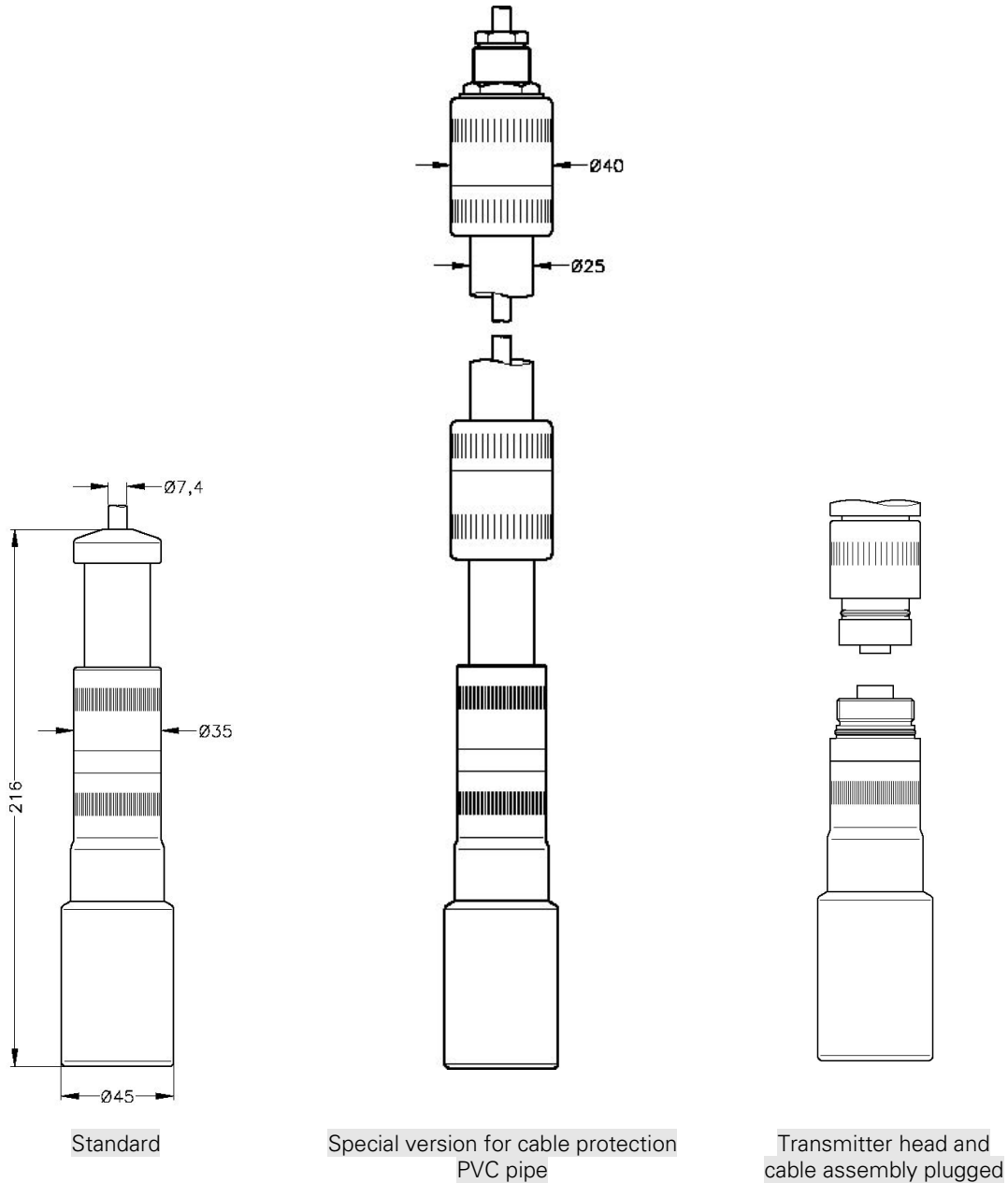
### Permissible temperatures

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

<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 and KL2 with atmospheric pressure reference available on request (please ask for data sheet)

## 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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Technical Data

## Materials

Housing	PVC grey
Seals	FKM others on request
Diaphragm	ceramic Al <sub>2</sub> O <sub>3</sub> 96 %
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)

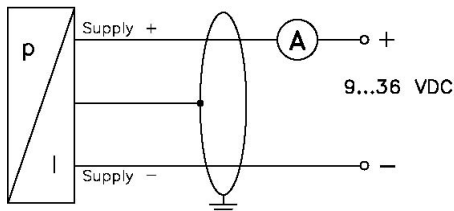
Screw fitting, of PVC

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



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