

# ILMK 807



## Plastic Probe for Aggressive Media

Ceramic Sensor

accuracy according to  
IEC 60770: 0.5 % FSO

### Nominal pressure

from 0 ... 4 mH<sub>2</sub>O up to 0 ... 100 mH<sub>2</sub>O

### Output signals

2-wire: 4 ... 20 mA  
others on request

### Special characteristics

- ▶ diameter 35 mm
- ▶ excellent long term stability
- ▶ easy handling

### Optional versions

- ▶ SIL 2 (Safety Integrity Level)  
according to IEC 61508 / IEC 61511
- ▶ different kinds of cables and  
elastomers
- ▶ customer specific version  
e. g. special pressure ranges

The plastic submersible probe ILMK 807 is designed for continuous level measurement for waste water or and different aggressive media.

Basic element of the plastic submersible probe is the 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  
dumpsite



#### Aggressive media

level measurement in most of acids and  
lyes



Input pressure range									
Nominal pressure gauge	[bar]	0.4	0.6	1	1.6	2.5	4	6	10
Level	[mH <sub>2</sub> O]	4	6	10	16	25	40	60	100
Overpressure	[bar]	1	2	2	4	4	10	10	20
Burst pressure ≥	[bar]	2	4	4	5	5	12	12	25

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / V <sub>S</sub> = 8 ... 32 V <sub>DC</sub>

Performance	
Accuracy <sup>1</sup>	≤ ± 0.5 % FSO
Permissible load	R <sub>max</sub> = [(V <sub>S</sub> - V <sub>S.min</sub> ) / 0.02 A] Ω
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ
Long term stability	≤ ± 0.1 % FSO / year at reference conditions
Response time	< 10 msec

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

Thermal effects (Offset and Span)	
Thermal error	≤ ± 0.2 % FSO / 10 K in compensated range -25 ... 70 °C

Permissible temperatures	
Permissible temperatures	medium: 0 ... 50 °C storage: -10 ... 50 °C

Electrical protection <sup>2</sup>	
Short-circuit protection	permanent
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	emission and immunity according to EN 61326

<sup>2</sup> 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 <sup>3</sup>	PVC (0 ... 50 °C) grey PUR (0 ... 50 °C) black FEP (0 ... 50 °C) black

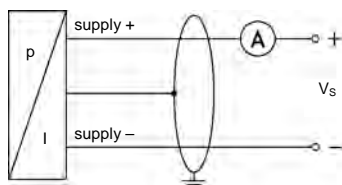
<sup>3</sup> cable with integrated air tube for atmospheric pressure reference

Materials (media wetted)	
Housing	PVC grey
Seals	FKM / EPDM / FFKM
Diaphragm	ceramics Al <sub>2</sub> O <sub>3</sub> 96 %

Miscellaneous	
Option SIL 2 application	according to IEC 61508 / IEC 61511
Connecting cables (by factory)	cable capacitance: signal line/shield also signal line/signal line: 160 pF/m cable inductance: signal line/shield also signal line/signal line: 1µH/m
Current consumption	max. 25 mA
Weight	approx. 200 g (without cable)
Ingress protection	IP 68
CE-conformity	EMC Directive: 2004/108/EC

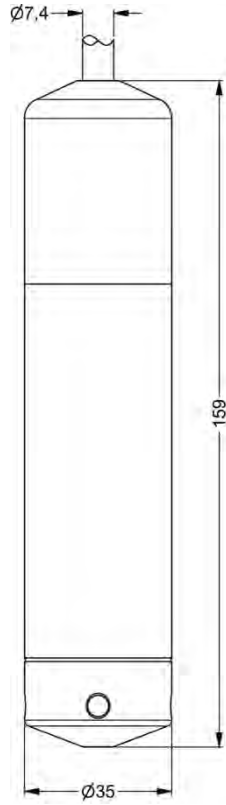
#### Wiring diagram

2-wire-system (current)

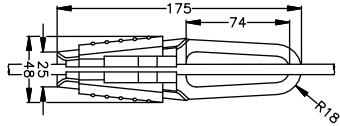


Pin configuration	
Electrical connection	cable colours (DIN 47100)
Supply +	wh (white)
Supply -	bn (brown)
Shield	gn/ye (green / yellow)

Dimensions (in mm)



Accessories

Terminal clamp		
Technical Data		
Suitable for	all probes with cable $\varnothing$ 5.5 ... 10.5 mm	
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)	
Weight	approx. 160 g	
Ordering type		Ordering code
Terminal clamp, of steel, zinc plated		Z100528
Terminal clamp, of stainless steel 1.4301 (304)		Z100527

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

# Ordering code ILMK 807

ILMK 807



<b>Pressure</b>																			
	in bar	3	9	0															
	in mH <sub>2</sub> O	3	9	1															
<b>Input</b>		[mH <sub>2</sub> O]	[bar]																
	4.0	0.40		4	0	0	0												
	6.0	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												
	customer			9	9	9	9												consult
<b>Housing</b>																			
	PVC								A										
	customer								9										consult
<b>Diaphragm</b>																			
	Ceramics Al <sub>2</sub> O <sub>3</sub> 96%								2										
	customer								9										consult
<b>Output</b>																			
	4 ... 20 mA / 2-wire								1										
	SIL2 4 ... 20 mA / 2-wire								1S										
	customer								9										consult
<b>Seals</b>																			
	FKM								1										
	EPDM								3										
	FFKM								7										
	customer								9										consult
<b>Accuracy</b>																			
	0.5 %								5										
	customer								9										consult
<b>Electrical connection</b>																			
	PVC-cable <sup>1</sup>								1										
	PUR-cable <sup>1</sup>								2										
	FEP-cable <sup>1</sup>								3										
	customer								9										consult
<b>Cable length</b>																			
	in m									9	9	9							
<b>Special version</b>																			
	standard														0	0	0		
	customer														9	9	9		consult

<sup>1</sup> cable with integrated air tube for atmospheric pressure reference

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