



LMP 808

Separable Plastic Probe

Stainless Steel Sensor

accuracy according to IEC 60770:
Standard: 0.35 % FSO
Option: 0.25 % FSO

LMP 808 Plastic Probe

Nominal pressure

from 0 ... 1 mH₂O
up to 0 ... 100 mH₂O

Special characteristics

- ▶ diameter 45 mm
- ▶ cable and sensor section separable
- ▶ excellent accuracy
- ▶ small thermal effect

Optional versions

- ▶ SIL 2 (Safety Integrity Level) according to IEC 61508 / 61511
- ▶ mounting accessories as screw fitting and terminal clamp of stainless steel
- ▶ different kinds of cable and elastomers
- ▶ customer specific versions e. g. special pressure ranges



The separable plastic probe is designed for level measurement of water, waste water as well as fuels and oils. Basic element is a piezoresistive stainless steel sensor. Suitable for all fluids which are compatible with media wetted parts.

In order to facilitate stock-keeping and maintenance the transmitter head is plugged to the cable assembly with a connector and can be changed easily.

Preferred areas of use are

Water



ground water level measurement
rain spillway basin
drinking water system

Sewage



water recycling
waste water treatment
dumpsite

Fuel / Oil



fuel storage
tank farm
biogas plants
process water recycling

Input pressure range											
Nominal pressure gauge [bar]	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	10
Level [mH ₂ O]	1	1.6	2.5	4	6	10	16	25	40	60	100
Overpressure [bar]	0.5	1	1	2	5	5	10	10	20	40	40
Burst pressure ≥ [bar]	1.5	1.5	1.5	3	7.5	7.5	15	15	25	50	50
Output signal / Supply											
Standard	2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}										
Options 3-wire	3-wire: 0 ... 20 mA / V _S = 14 ... 30 V _{DC} 0 ... 10 V / V _S = 14 ... 30 V _{DC}										
Performance											
Accuracy	standard: nominal pressure < 0.4 bar: ≤ ± 0.5 % FSO nominal pressure ≥ 0.4 bar: ≤ ± 0.35 % FSO option 1: nominal pressure ≥ 0.4 bar: ≤ ± 0.25 % FSO										
Permissible load	current 2-wire: R _{max} = [(V _S - V _S min) / 0.02] Ω current 3-wire: R _{max} = 500 Ω voltage 3-wire: R _{min} = 10 kΩ										
Influence effects	supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ										
Long term stability	≤ ± 0.1 % FSO / year										
Response time	< 10 msec										
¹ accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)											
Thermal effects (Offset and Span)											
Nominal pressure P _N [bar]	< 0.40					≥ 0.40					
Tolerance band [% FSO]	≤ ± 1					≤ ± 0.75					
in compensated range [°C]	0 ... 50										
Permissible temperatures											
Permissible temperatures	medium: 0 ... 50 °C storage: -10 ... 50 °C										
Electrical protection ²											
Short-circuit protection	permanent										
Reverse polarity protection	no damage, but also no function										
Electromagnetic compatibility	emission and immunity according to EN 61326										
² 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 ³	PVC	(0 ... 50 °C)	grey								
	PUR	(0 ... 50 °C)	black								
	FEP	(0 ... 50 °C)	black								
Cable protection	standard: without cable protection optional: prepared for mounting of a PVC pipe with diameter 25 mm										
³ cable with integrated air tube for atmospheric pressure reference											
Materials (media wetted)											
Housing	PVC grey										
Seals	FKM EPDM										
Diaphragm	stainless steel 1.4435 (316L)										
Protection cap	POM										
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: 1 μH/m										
Current consumption	signal output current: max. 25 mA signal output voltage: max. 7 mA										
Weight	approx. 400 g (without cable)										
Ingress protection	IP 68										
CE-conformity	EMC Directive: 2004/108/EC										

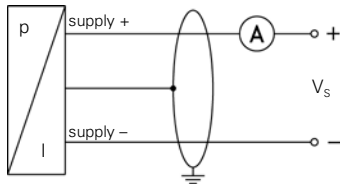
LMP 808

Plastic Probe

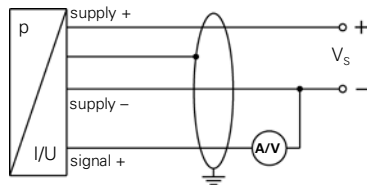
Technical Data

Wiring diagrams

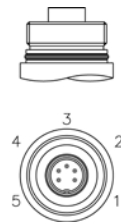
2-wire-system (current)



3-wire-system (current / voltage)



connector



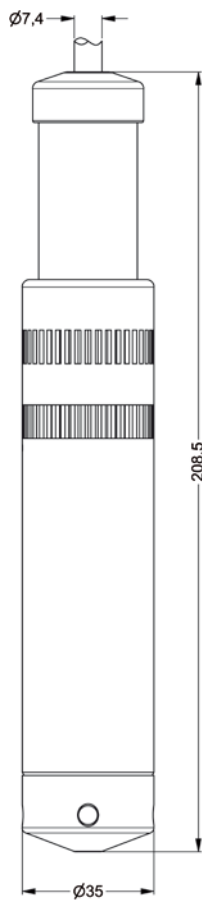
Pin configuration

Electrical connection	Binder serie 723 ⁴ (5-pin)	cable colours (DIN 47100)
Supply +	3	wh (white)
Supply - (only 2-wire)	1	bn (brown)
Supply - (only 3-wire)	4	bn (brown)
Signal + (only 3-wire)	1	gn (green)
Shield	5	gn/ye (green / yellow)

⁴ in separated version

Dimensions (in mm)

standard

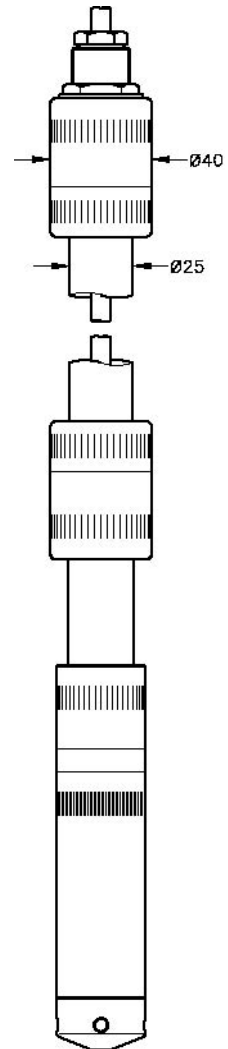


standard version

option



separate version



with PVC pipe

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

LMP808_E_010711

Ordering code LMP 808

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Pressure									
	in bar	4	1	0					
	in mH ₂ O	4	1	1					
Input									
	[mH ₂ O]	[bar]							
	1.0	0.10	1	0	0	0			
	1.6	0.16	1	6	0	0			
	2.5	0.25	2	5	0	0			
	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
Housing									
	PVC				A				
	customer				9				consult
Diaphragm									
	Stainless steel 1.4435 (316L)				1				
	customer				9				consult
Output									
	4 ... 20 mA / 2-wire					1			
	0 ... 20 mA / 3-wire					2			
	0 ... 10 V / 3-wire					3			
	SIL2 4 ... 20 mA / 2-wire					1S			
	customer					9			consult
Seals									
	FKM					1			
	EPDM					3			
	customer					9			consult
Electrical connection									
	PVC-cable ¹					1			
	PUR-cable ¹					2			
	FEP-cable ¹					3			
	customer					9			consult
Accuracy									
	standard for P _N ≥ 0.4 bar	0.35 %				3			
	standard for P _N < 0.4 bar	0.5 %				5			
	option 1 for P _N ≥ 0.4 bar	0.25 %				2			
	customer					9			consult
Cable length									
	in m					9	9	9	
Special version									
	standard					0	0	0	
	prepared for mounting with PVC pipe ²					1	0	6	
	customer					9	9	9	consult

¹ cable with integrated air tube for atmospheric pressure reference
² PVC pipe is not part of the supply

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