





Stainless Steel Probe

Stainless Steel Sensor

accuracy according to IEC 60770: standard: 0.35 % FSO option: 0.25 % / 0.1 % FSO

Nominal pressure

from 0 ... 1 mH₂O up to 0 ... 250 mH₂O

Output signals

2-wire: 4 ... 20 mA

3-wire: 0 ... 20 mA / 0 ... 10 V

others on request

Special characteristics

- ▶ diameter 26,5 mm
- small thermal effect
- excellent accuracy
- excellent long term stability

Optional versions

- ▶ IS-protection zone 0
- SIL 2 (Safety Integrity Level)
- Drinking water certificate acc. to DVGW and KTW
- different kinds of cables
- different kinds of seal materials

The stainless steel probe LMP 307 is designed for continuous level measurement in water and clean or waste fluids.

Basic element is a high quality stainless steel sensor with high requirements for exact measurement with excellent long term stability.

Preferred areas of use are

Water / filtrated sewage



drinking water system
ground water level measurement
rain spillway basin
pump and booster stations
level measurement in container
water treatment plants
water recycling



Fuel / Oil fuel storage tank farm



















Stainless Steel Probe

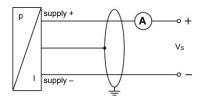
Input pressure range														
Nominal pressure gauge	[bar]	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	10	16	25
Level	[mH ₂ O]	1	1.6	2.5	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	0.5	1	1	2	5	5	10	10	20	40	40	80	80
Burst pressure >	[bar]	1.5	1.5	1.5	3	7.5	7.5	15	15	25	50	50	120	120

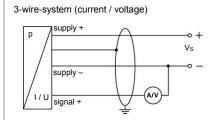
Output signal / Supply								
Standard		2-wire: 4 20 mA / V _S	= 8 32 V _{DC}		SIL-version: V _S = 14 28 V _{DC}			
Option Ex-protection		2-wire: 4 20 mA / V _S			SIL-version: $V_S = 14 \dots 28 V_{DC}$			
Options 3-wire			= 14 30 V _{DC}		0 10 V / V _S = 14 30 V _{DC}			
Performance	,				0 20			
Accuracy	İ	standard: nominal pressure <	: 0.4 bar:	≤ ± 0.5 %	FSO			
,		nominal pressure ≥ 0.4 bar: $\leq \pm 0.35 \%$ FSO						
		option 1: nominal pressure ≥ 0.4 bar: ≤ ± 0.25 % FSO						
		option 2: for all nominal press	sures:	≤ ± 0.1 %	FSO STATE OF THE PROPERTY OF T			
Permissible load		-, -	- V _S min) / 0.02 A]	Ω				
		current 3-wire: $R_{max} = 500 \Omega$						
1.61 .66 .6		voltage 3-wire: $R_{min} = 10 \text{ k}\Omega$						
Influence effects		supply: 0.05 % FSO		load:	0.05 % FSO / kΩ			
Long term stability		≤ ± 0.1 % FSO / year at reference						
Response time		2-wire: < 10 msec;	3-wire:	≤ 3 ms	ec			
¹ accuracy according to IEC 6	60770 – limit	point adjustment (non-linearity, hyste	eresis, repeatability)					
Thermal effects (Offset a	and Span)							
Nominal pressure P _N	[bar]	< 0.40			<u>≥</u> 0.40			
Tolerance band	[% FSO]	≤ ± 1			≤ ± 0.75			
in compensated range	[°C]		0 .	70				
Permissible temperature			-					
Permissible temperatures		medium: -10 70 °C	etorago:	-25 70	1°C			
Electrical protection ²		mediam10 /0 C	Siorage.	-25 10				
Short-circuit protection	i	normanant						
		permanent						
Reverse polarity protectio		no damage, but also no function						
Electromagnetic compatib		emission and immunity according to EN 61326 on unit in terminal box KL 1 or KL 2 with atmospheric pressure reference available on request						
 additional external overvoita 	ane nrotectii							
	age protection	in unit in terminal box KL 1 or KL 2 wi	iui auriosprierio pres	soure refere	erice available on request			
Electrical connection			ин анноѕрненс ргез	sare rerere	ince available on request			
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Electrical connection		PVC (-5 70 °C) grey PUR (-10 70 °C) black FEP 4 (-10 70 °C) black	· · ·		·			
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Stainless Steel Probe Technical Data

Wiring diagrams

2-wire-system (current)



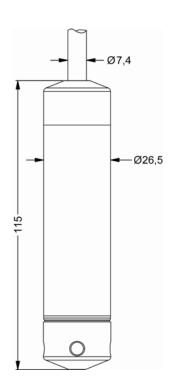


Pin configuration

Electrical connection	cable colours (IEC 60757)				
Supply + Supply – Signal + (only 3-wire)	wh (white) bn (brown) gn (green)				
Shield	gnye (green-yellow)				

Dimensions (in mm)

standard



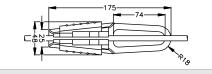
 \Rightarrow Total length of devices with accuracy 0.1 % FSO IEC 60770 increases by 35 mm!

Stainless Steel Probe

Mounting flange with c	able gland						
Technical data							
Suitable for	all probes	cable gland M16x1.5 with seal insert (for cable- \varnothing 4 11 mm)					
Flange material stainless steel 1.4404 (316L)			Seal insert (ioi cable-9/4 11 mm)				
Material of cable gland	erial of cable gland standard: brass, nickel plated on request: stainless steel 1.4305 (303); plastic insert material: TPE (ingress protection IP 68)		nxØd				
Seal insert							
Hole pattern							
Version	Size (in mm)	Weight	ا م				
DN25 / PN40	D = 115, k = 85, b = 18, n = 4, d= 14	1.4 kg					
DN50 / PN40	D = 165, k = 125, b = 20, n = 4, d= 18	3.2 kg	Øk				
DN80 / PN16	D = 200, k = 160, b = 20, n = 8, d= 18	4.8 kg	ØD				
Ordering type	•	Ordering code					
DN25 / PN40 with cable	gland brass, nickel plated	ZMF2540					
DN50 / PN40 with cable	gland brass, nickel plated	ZMF5040					
DN80 / PN16 with cable	gland brass, nickel plated	ZMF8016					

Terminal clamp

Technical data		
Suitable for	all probes with cable Ø 5.5 10.5 mm	
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)	
Weight	approx. 160 g	
Ordering type	·	Ordering code



Ordering type	Ordering code
Terminal clamp, steel, zinc plated	Z100528
Terminal clamp, stainless steel 1.4301 (304)	Z100527

Display program

CIT 200

Process display with LED display

CIT 250

Process display with LED display and contacts

CIT 300

Process display with LED display, contacts and analogue output

CIT 350

Process display with LED display, bargraph, contacts and analogue output

CIT 400

Process display with LED display, contacts, analogue output and $\operatorname{Ex-approval}$

CIT 600

Multichannel process display with graphics-capable LC display

CIT 650

Multichannel process display with graphics-capable LC display and datalogger

CIT 700

Multichannel process display with graphics-capable TFT monitor, touchscreen and contacts

PA 440

Field display with 4-digit LC display

For further information please contact our sales department or visit our homepage: http://www.bdsensors.com





	Orderin	g code	LMP	307					
LMP 307	Ш-Ш	- 🗌 - 🔲	- 🔲 - 🖸]-[- 🗌 -		·Ш	-	Ti.
ressure in bar	4 5 0					-			
$\frac{\text{in mH}_2\text{O}}{\text{mput}}$	4 5 1								
1.0 0.10 1.6 0.16 2.5 0.25	1 0 0 0 1 6 0 0 2 5 0 0								
4.0 0.40 6.0 0.60	4 0 0 0								
10 1.0 16 1.6	1 0 0 1								
25 2.5 40 4.0	2 5 0 1 4 0 0 1								
60 6.0 100 10	6 0 0 1 1 0 0 2								
160 16 250 25 customer	1 6 0 2 2 5 0 2 9 9 9 9								consult
ousing Stainless steel 1.4404 (316L)	9 9 9 9	1							Consult
customer		9			_				consult
Stainless steel 1.4435 (316L) customer		1 9							consult
9utput 4 20 mA / 2-wire			1						
0 20 mA / 3-wire 0 10 V / 3-wire Intrinsic safety 4 20 mA / 2-wire			2 3 E						
SIL2 4 20 mA / 2-wire SIL2 with Intrinsic safety			1S						
4 20 mA / 2-wire customer			ES 9						consult
eals FKM			1						consult consult consult
EPDM ¹ customer			9						consult
tandard for $P_N \ge 0.4$ bar 0.35 % tandard for $P_N < 0.4$ bar 0.5 %				3 5					
ption 1 for $P_N \ge 0.4$ bar 0.25 % ption 2 0.1 % 2				2					
customer customer		_	_	9					consult
PVC cable ³ PUR cable ³					1 2				
FEP cable ³ TPE-U cable ¹					3 F				
customer Cable length		_	_		9				consult
in m standard: 3 m PVC standard: 5 m PVC						0 0 3 0 5			
standard: 10 m PVC standard: 15 m PVC						0 1 0 0 1 5			
standard: 20 m PVC special length PVC						0 2 0 9 9 9			
standard: 3 m PUR standard: 5 m PUR						0 0 3 0 5			
standard: 3 m PUR standard: 10 m PUR standard: 15 m PUR						0 1 0 0 1 5			
standard: 20 m PUR special length PUR						0 2 0 9 9			
standard: 5 m FEP						0 0 5 0 1 0			
special length FEP						9 9 9			consult 05.07.2017
special length TPE-U			-			9 9 9	0 0 0		
standard customer							0 0 0 9 9		consult
ith drinking water certification according to DVGW / KT of in combination with SIL	·w								
able with integrated air tube for atmospheric pressure of possible with IS-protection (explosion protection)	reference								
tandard lengths 3 / 5 / 10 / 15 / 20 m are available fr	om stock, special lengths are r	nanufactured o	order-related	=					

 $^{^{\}rm 1}$ with drinking water certification according to DVGW / KTW

on the combination with SIL acable with integrated air tube for atmospheric pressure reference not possible with IS-protection (explosion protection)