

LMP 305

Slimline Probe

Stainless Steel Sensor

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

Nominal pressure

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

Output signals

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

Special characteristics

- diameter 19 mm for cramped areas
- small thermal effect
- excellent long term stability
- excellent linearity

Optional versions

- different kinds of cable
- customer specific versions e.g. special pressure ranges

The slimline probe LMP 305 with silicon stainless steel sensor is designed for continous level measurement in confined space conditions. Permissible media are clean or lightly polluted water and thin fluids.

A piezoresistiv stainless steel sensor with low thermal error, an excellent linearity and a long term stability, is basis of LMP 305.

Preferred areas of use are

Water

level measurement in confined space conditions



ground water monitoring depth or level measurement in wells and open waters drinking water system level measurement in container



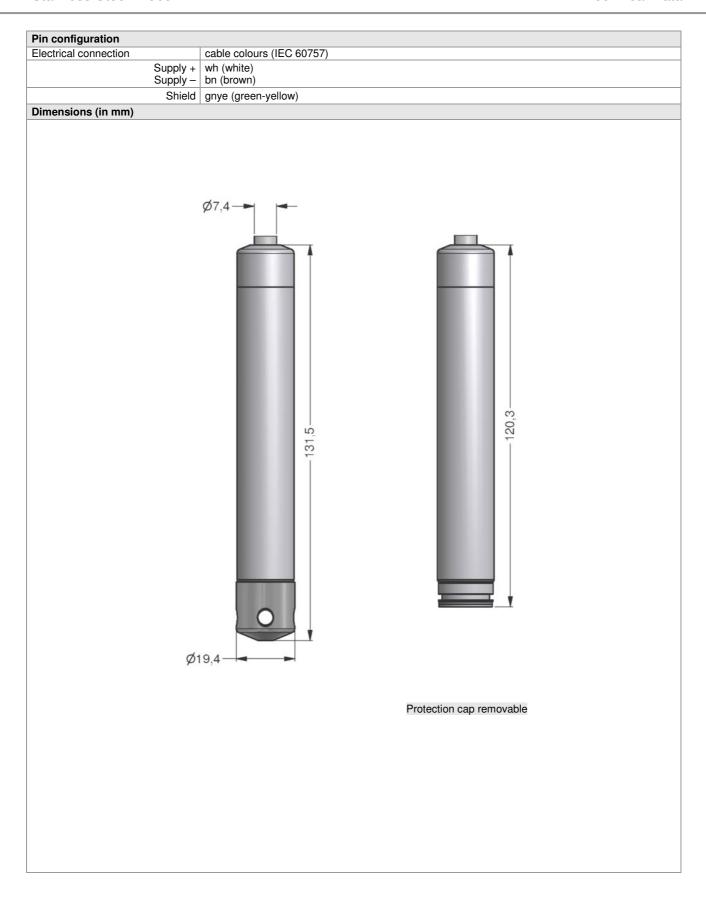




Stainless Steel Probe Technical Data

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]	1	1	1	1	3	3	6	6	20	20	60	60	100

Output signal / Supply													
Standard	2-wire: 4 20	mA / V _S = 12 36 \	/ _{DC}										
Performance			DC										
Accuracy	standard: nomina	al pressure > 0.4 ba	: ≤ ± 0.35 % FSO	1									
Accuracy		al pressure ≤ 0.4 bai											
		al pressure > 0.4 ba											
Permissible load	$R_{\text{max}} = [(V_{\text{S}} - V_{\text{S min}})]$												
Influence effects		6 FSO / 10 V											
	1	% FSO / kΩ											
Long term stability	≤ ± 0.1 % FSO / ye	ar at reference cond	itions										
Response time	< 10 msec												
¹ accuracy according to IEC 60770 – lim	it point adjustment (non-	linearity, hysteresis, re	peatability)										
Thermal effects (Offset and Span)												
<u> </u>	[bar] ≤ 0.1 ≤ 0.25 ≤ 0.4 ≤ 1 > 1												
Tolerance band [% FSO]	≤ ± 2												
<u> </u>				_	≤ ± 0.75								
TC, average [% FSO / 10 K]	± 0.3	± 0.2	± 0.14	± 0.1	± 0.07								
in compensated range [°C]		0 50		0	. 70								
Permissible temperatures													
Permissible temperatures	medium: -10 7 storage: -25 7												
Electrical protection ²													
Short-circuit protection													
Reverse polarity protection	·												
Electromagnetic compatibility	<u> </u>	inity according to EN	61326										
	1	, ,		ana ayailahla an rasyaa	<u> </u>								
² additional external overvoltage protecti	on uniil in lenniinai box r	NL 1 01 NL 2 WILII aliiilos	oneric pressure reierer	ice available on request									
Electrical connection	T-1/2 /												
Cable with sheath material ³	PVC (-5 70 °C) (PUR (-10 70 °C)												
	FEP4 (-10 70 °C)												
	others on request) black											
³ cable with integrated air tube for atmos		се											
⁴ do not use freely suspended probes wi	th an FEP cable if effect	s due to highly chargin	g processes are expec	ted									
Materials (media wetted)													
Housing	stainless steel 1.44	04 (316L)											
Seals	FKM / EPDM												
Diaphragm	stainless steel 1.44	35 (316L)											
Protection cap	POM												
Cable sheath	PVC / PUR / FEP												
Miscellaneous				111 100 51									
Connecting cables	cable capacitance:		llso signal line/signa										
(by factory) Current consumption	signal output currer	cable inductance: signal line/shield also signal line/signal line: 1 μH/m signal output current: max. 25 mA											
Weight	approx. 100 g (with												
	IP 68	out cable)											
Ingress protection CE-conformity	EMC Directive: 201	4/20/ELL											
	EIVIC DITECTIVE. 201	4/30/EU											
Wiring diagram													
2-wire-system (current)													
p / supply + A	-• + ∨ _s												
supply –	-∘ -												

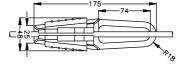


Stainless Steel Probe Accessories

Mounting flange with	cable gland									
Technical data			cable gland M16x1.5 with							
Suitable for	all probes	all probes								
Flange material	stainless steel 1.4404 (316L)		seal insert (for cable-Ø 4 11 mm) \							
Material of cable gland	standard: brass, nickel plated on request: stainless steel 1.4305 (303	3); plastic	nxØd							
Seal insert	material: TPE (ingress protection IP 68)									
Hole pattern	according to DIN 2507									
Version	Size (in mm)	Weight	۵ ا							
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									
Cable clamp										

Cable clamp

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



Ordering type	Ordering code
Terminal clamp, of steel, zinc plated	Z100528
Terminal clamp, of 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 Ex-approval

CIT 600

Multichannel process display with graphics-capable LC display

CIT 650

 $\label{lem:multichannel} \mbox{ Multichannel process display with graphics-capable LC display and datalogger}$

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



Pressure				Oı	·de	rii	ng	CC	de	LN	1P :	305		ı		ı		ı	ı	
In par	LMP 305			П-	П	I		-	1-Г	1-[1-Г	1-[-	1-[
In par																	_			
Input [mH,O] [bar] 1.0 0.10 1 0 0 0 0 1 1.6 0.16 1 6 0 0 0 2.5 0.25 2 5 0 0 0 4.0 0.40 4 0 0 0 0 6.0 0.60 6 0 0 0 0 10 1.0 1 0 0 1 16 1.6 1.6 1 6 0 1 2.5 2.5 2.5 2 5 0 0 4.0 4.0 4.0 1 0 0 0 0 10 1.0 1 0 0 1 1 10 1.0 1 0 0 1 10 60 6.0 6 0 0 6 1 0 0 1 100 10 1 1 0 0 2 160 16 1 6 1 6 0 2 250 25 2 5 2 5 0 2 250 25 2 5 0 2 250 25 2 5 0 2 160 16 1 6 0 1 6 0 2 250 25 2 5 0 2 250 25	Pressure																			
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160						0 0	1													
Housing Stainless steel 1.4404 (316L)						0	2													
Housing Stainless steel 1.4404 (316L)					1 6	0 6	2													
Housing Stainless steel 1.4404 (316L)	250				2 5	5 0	2													
Stainless steel 1.4404 (316L)		customer			9 9	9 9	9													consult
Diaphragm		1404 (2461.)				-														
Diaphragm Stainless steel 1.4435 (316L)	Stainless steel 1.2																			a a may ult
Stainless steel 1.4435 (316L) 1 customer consult Output 4 20 mA / 2-wire 1 consult Customer 9 consult Seals FKM 1 consult EPDM 3 consult Accuracy standard for P _N > 0.4 bar 0.35 % 3 consult standard for P _N > 0.4 bar 0.5 % 5 consult consult Electrical connection 9 consult consult Electrical connection 1 2 consult Electrical connection 9 consult consult Cable length 3 consult Cable length in m 9 9 consult Special version standard 0 0 0 0	Dionhroam	customer						9												Consuit
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PVC-cable 1	option for P _N > 0.4 bar																			
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¹ cable with integrated air tube for atmospheric pressure reference