

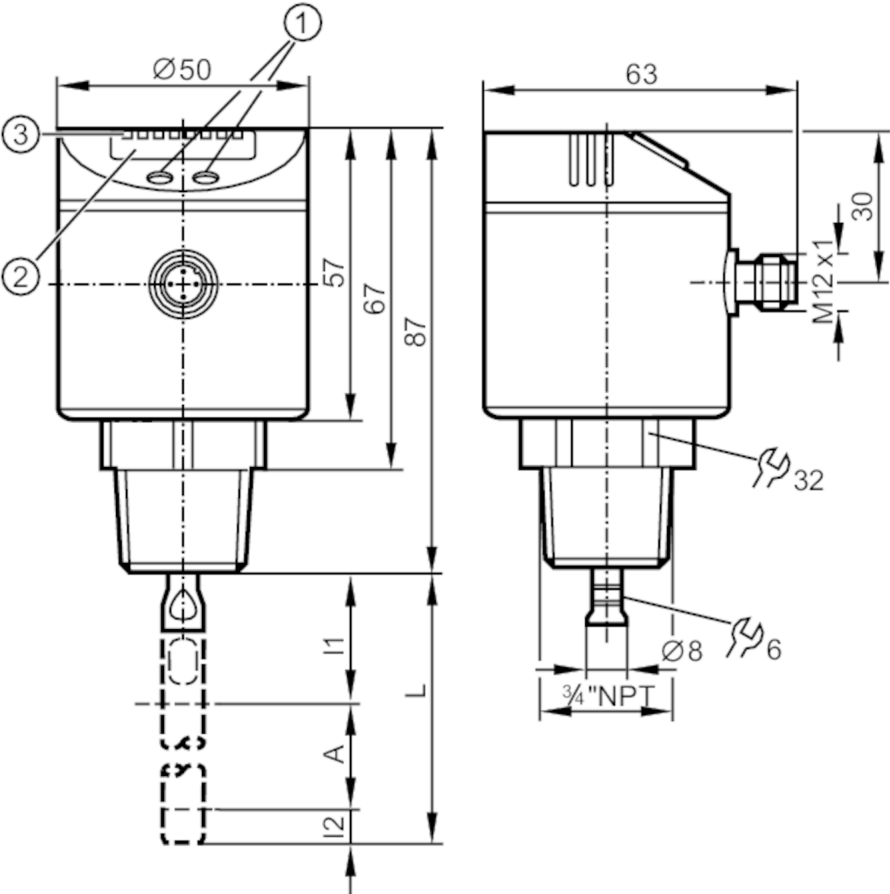
LR3300



Continuous level sensor (guided wave radar)

LR0000B-BN34AMPKG/US

Please see the technical note under "Downloads"
For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming buttons
- A active range
- I1 / I2 inactive ranges



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1
Probe length L [mm]	100...1600
Process connection	threaded connection 3/4" NPT external thread
Application	
Special feature	Gold-plated contacts
Application	for industrial applications
Media	Liquids
Dielectric constant of the medium	≥ 5
Recommended media	water; hydrous media



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Cannot be used for		See the operating instructions, chapter "Function and features".	
Process temperature	[°C]	-25...80; (90 < 1 h ; see note under remarks)	
Pressure rating		16 bar	1.6 MPa
Vacuum resistance		-1000 mbar	-0.1 MPa
MAWP (for applications according to CRN)	[bar]	16	
Electrical data			
Operating voltage	[V]	18...30 DC	
Current consumption	[mA]	< 30	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	< 3	
Measuring principle		guided wave radar	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analogue signal; IO-Link	
Electrical design		PNP	
Number of digital outputs		1	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC	[V]	2.5	
Permanent current rating of switching output DC	[mA]	200	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20, invertible; (scalable)	
Max. load	[Ω]	500	
Analogue voltage output	[V]	0...10, invertible; (scalable)	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		thermal, pulsed	
Overload protection		yes	
Measuring/setting range			
Probe length L	[mm]	100...1600	
Active range A	[mm]	L-40	
Inactive range I1 / I2	[mm]	30 / 10	
Sampling rate	[Hz]	4	
Setting range			
Set point SP	[mm]	15...L-30	
Reset point rP	[mm]	10... L-35	
In steps of	[mm]	5	
Hysteresis	[mm]	> 5	



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Accuracy / deviations		
Repeatability	[mm]	± 5
Measuring error	[mm]	± 7
Offset error	[mm]	5
Resolution	[mm]	1
Zero signal (voltage)	[V]	0
Zero signal (current)	[mA]	4
Full signal (voltage)	[V]	10
Full signal (current)	[mA]	20
Temperature drift per 10 K		± 0.2 %
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9 CDV
Profiles		no profile
SIO mode		yes
Required master port type		A
Process data analogue		1
Process data binary		1
Min. process cycle time	[ms]	2.3
Supported DeviceIDs	Type of operation	DeviceID
	default	345
Operating conditions		
Ambient temperature	[°C]	-25...60
Storage temperature	[°C]	-40...85
Protection		IP 67
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	in a closed metal tank
	DIN EN 61000-6-4	in plastic or open metal tanks
Shock resistance	DIN EN 60068-2-27	50 g (11 ms) / 25 g (6 ms) with reference rod 0.5 m
Vibration resistance	DIN EN 60068-2-6	5 g (10...2000 Hz) / 1 g (5...200 Hz) with reference rod 0.5 m
MTTF	[years]	196
UL approval	UL Approval no.	H006
	File number UL	E174191
Mechanical data		
Weight	[g]	346.5
Materials		stainless steel (304/1.4301); stainless steel (316L/1.4404); FKM; PBT; PC; PEI; TPE-V
Materials (wetted parts)		stainless steel (303/1.4305); probe connection: stainless steel (316L/1.4435); PTFE; FKM
Process connection		threaded connection 3/4" NPT external thread

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Displays / operating elements

Display	Display unit	3 x LED, green
	switching status	1 x LED, yellow
	level	alphanumeric display, 4-digit
	parameter setting	alphanumeric display, 4-digit

Remarks

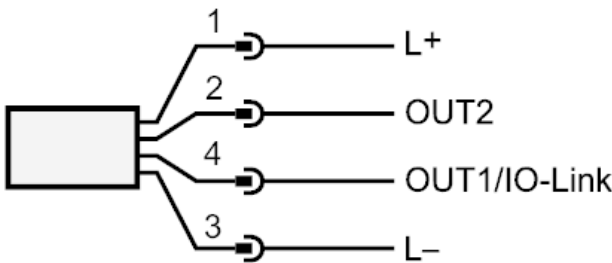
Notes	Please see the technical note under "Downloads"; For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



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Diagrams and graphs

Measurement deviation D at the limits of the active rod range

