

LR3300

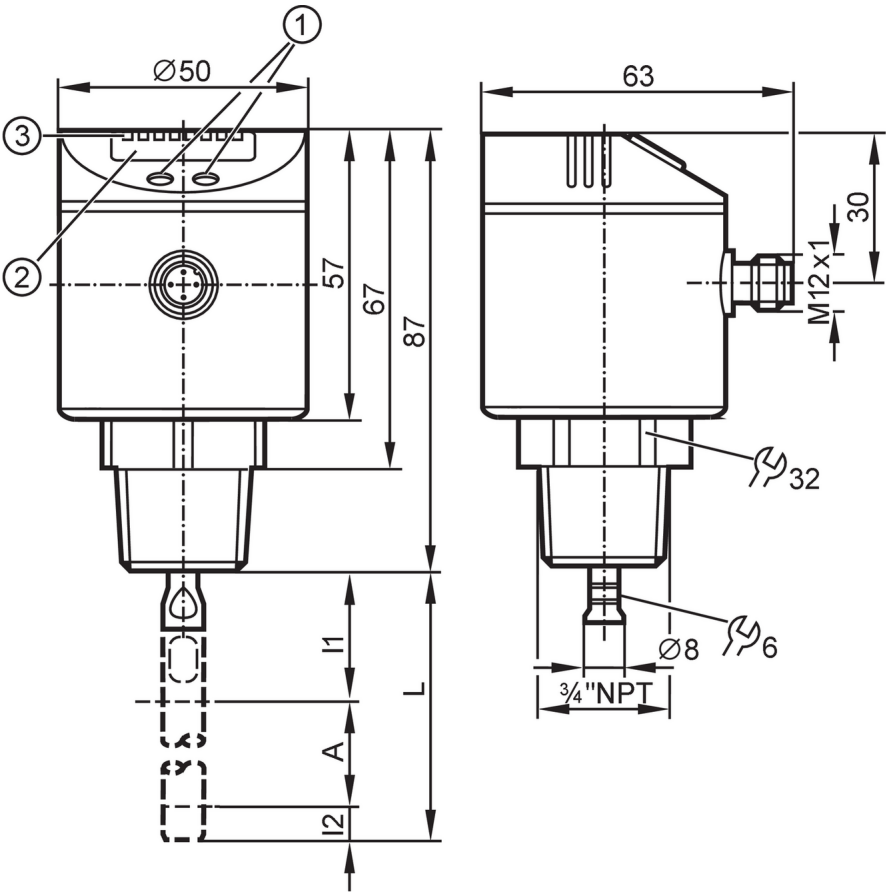


Continuous level sensor (guided wave radar)

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 zone
- I1 / I2 Inactive ranges



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 1; Number of analog 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; water-based media
Cannot be used for	See the operating instructions, chapter "Function and features".
Process temperature [°C]	-25...80; (90 < 1 h ; see note under remarks)

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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 analog outputs: 1
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Outputs

Total number of outputs	2	
Output signal	switching signal; analog signal; IO-Link	
Electrical design	PNP	
Number of digital outputs	1	
Output function	normally open / closed; (configurable)	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	200	
Number of analog outputs	1	
Analog current output [mA]	4...20, invertible; (scalable)	
Max. load [Ω]	500	
Analog 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	

Accuracy / deviations

Repeatability [mm]	± 5	
Measuring error [mm]	± 7	

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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	
SIO mode	yes	
Required master port class	A	
Process data analog	1	
Process data binary	1	
Min. process cycle time	[ms]	2.3
Supported DeviceIDs	Type of operation default	DeviceID 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 number	H006
	File number UL	E174191

Mechanical data

Weight	[g]	346.5
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); FKM; PBT; PC; PEI; TPE-V	
Materials (wetted parts)	stainless steel (1.4305 / 303); probe connection: stainless steel (1.4435 / 316L); PTFE; FKM	
Process connection	threaded connection 3/4" NPT external thread	

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

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Remarks

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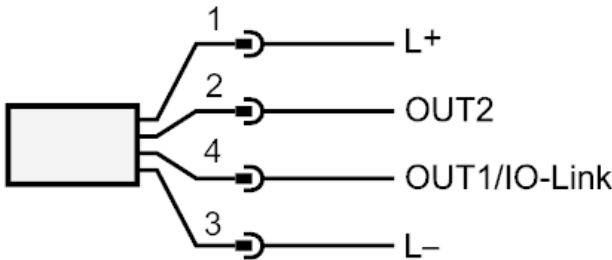
Pack quantity	1 pcs.
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Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



Diagrams and graphs

Measurement deviation D at the limits of the active rod range

