

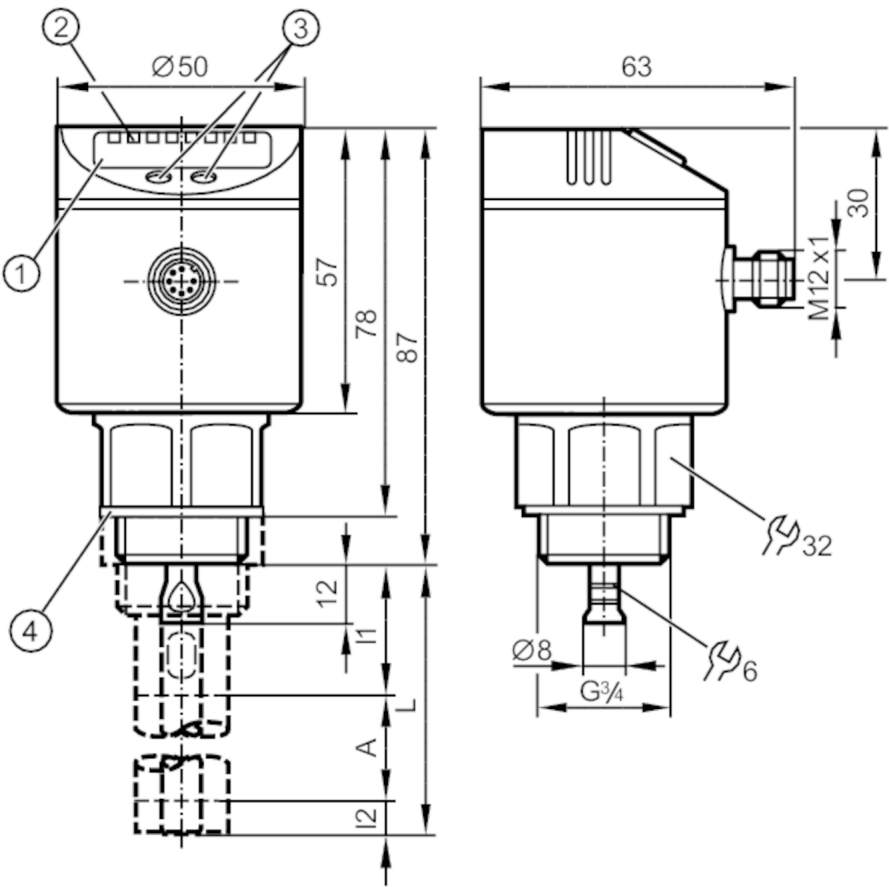


Continuous level sensor (guided wave radar)

LR0000B-BR34ASPKG/US

For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.

For 8-pole sockets the core colours are not standardised.
Please note the wiring of the sensor and the sockets (see data sheet).
Please see the technical note under "Downloads"



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



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 4
Probe length L [mm]	100...1600
Process connection	threaded connection G 3/4 external thread
Application	
Special feature	Gold-plated contacts
Application	for industrial applications
Media	Liquids
Dielectric constant of the medium	≥ 1,8; (for media with a dielectric constant of 1.8...5 (e.g. oils), a coaxial pipe is needed for operation)



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Recommended media	water; hydrous media; oils; oil-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)	
Pressure rating [bar]	16	
Vacuum resistance [mbar]	-1000	
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: 4	
Outputs		
Total number of outputs	4	
Output signal	switching signal; IO-Link	
Electrical design	PNP	
Number of digital outputs	4	
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	
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; (when set to oil and oil based media: L-60)	
Inactive range I1 / I2 [mm]	30 / 10; (when set to oil and oil based media: 30 / 30)	
Sampling rate [Hz]	4	
Setting range		
Set point SP [mm]	15...L-30	
Note on setpoint SP	when set to oil and oil based media: 35...L-30	
Reset point rP [mm]	10... L-35	
Note on reset point rP	when set to oil and oil based media: 30...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
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	4				
Min. process cycle time	[ms] 2.3				
Supported DeviceIDs	<table> <tr> <th>Type of operation</th><th>DeviceID</th></tr> <tr> <td>default</td><td>10</td></tr> </table>	Type of operation	DeviceID	default	10
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default	10				

Operating conditions

Ambient temperature	[°C]	-25...60
Storage temperature	[°C]	-40...85
Protection		IP 67

Tests / approvals

EMC	<table> <tr> <td>DIN EN 61000-6-2</td><td></td></tr> <tr> <td>DIN EN 61000-6-3</td><td>in a closed metal tank</td></tr> <tr> <td>DIN EN 61000-6-4</td><td>in plastic or open metal tanks</td></tr> </table>	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
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	<table> <tr> <td>DIN EN 60068-2-27</td><td>50 g (11 ms) / 25 g (6 ms) with reference rod 0.5 m</td></tr> </table>	DIN EN 60068-2-27	50 g (11 ms) / 25 g (6 ms) with reference rod 0.5 m				
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Vibration resistance	<table> <tr> <td>DIN EN 60068-2-6</td><td>5 g (10...2000 Hz) / 1 g (5...200 Hz) with reference rod 0.5 m</td></tr> </table>	DIN EN 60068-2-6	5 g (10...2000 Hz) / 1 g (5...200 Hz) with reference rod 0.5 m				
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MTTF	[ANN] 205						
UL approval	<table> <tr> <td>UL Approval no.</td><td>H008</td></tr> <tr> <td>File number UL</td><td>E174191</td></tr> </table>	UL Approval no.	H008	File number UL	E174191		
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Mechanical data

Weight	[g] 380.45
Materials	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; Sealing: NBR reinforced fibre
Process connection	threaded connection G 3/4 external thread

Displays / operating elements

Display	<table> <tr> <td>Display unit</td><td>3 x LED, green</td></tr> <tr> <td>switching status</td><td>4 x LED, yellow</td></tr> <tr> <td>level</td><td>alphanumeric display, 4-digit</td></tr> <tr> <td>parameter setting</td><td>alphanumeric display, 4-digit</td></tr> </table>	Display unit	3 x LED, green	switching status	4 x LED, yellow	level	alphanumeric display, 4-digit	parameter setting	alphanumeric display, 4-digit
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Remarks

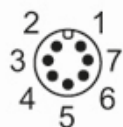
Notes	For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.
Pack quantity	1 pcs.

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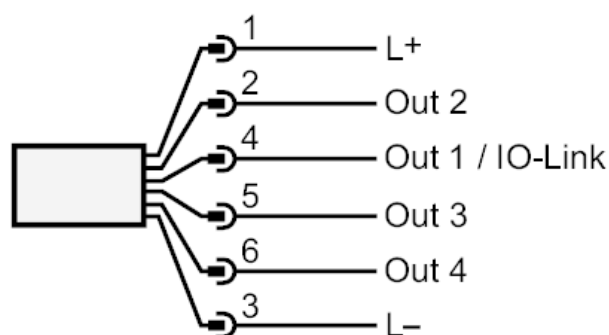
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Electrical connection

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



Connection



Diagrams and graphs

Measurement deviation D at the limits of the active rod range

