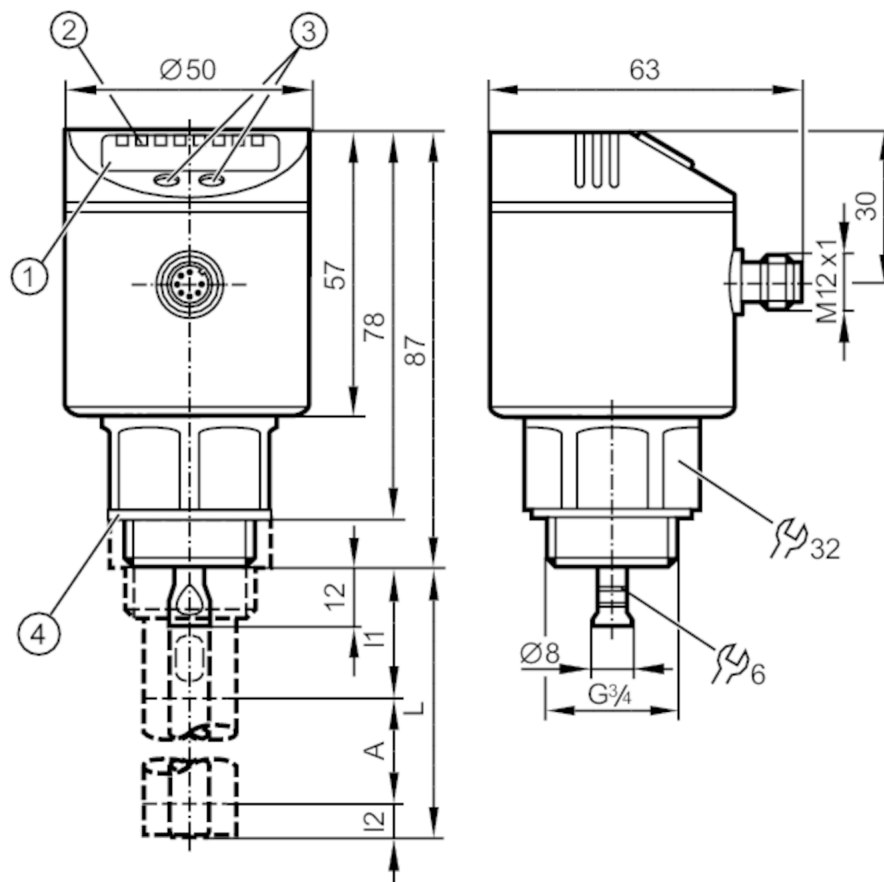


Continuous level sensor (guided wave radar)

LR0000B-BR34AVPKG/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).



- 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
Installation	Operation only in conjunction with rod and coaxial pipe.
Media	Liquids
Dielectric constant of the medium	≥ 2



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Recommended media	water; hydrous media; hydrous coolants; oils; oil-based media
Cannot be used for	See the operating instructions, chapter "Function and features".
Process temperature [°C]	0...80; (see note under remarks)
Pressure rating [bar]	4
Vacuum resistance [mbar]	-500

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
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Outputs

Total number of outputs	4
Output signal	switching signal
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
Overflow switch point OP [mm]	70...L-30
Hysteresis, OP [mm]	10

Accuracy / deviations

Repeatability [mm]	± 5
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Measuring error	[mm]	± 7
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	
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	Type of operation	DeviceID
	default	1250

Operating conditions

Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-25...80
Protection		IP 67

Tests / approvals

Approval	WHG; General building authority approval; overflow prevention	
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	[ANN]	198

Mechanical data

Weight	[g]	402
Materials	stainless steel (1.4404 / 316L); stainless steel (1.4301 / 304); FKM; PBT; PC; PEI; TPE-V	
Materials (wetted parts)	sensor:: stainless steel (1.4305 / 303); stainless steel (1.4435 / 316L); PTFE; FKM; NBR reinforced fibre; Probe:: stainless steel (1.4404 / 316L); Coaxial pipe:: stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); stainless steel (1.4310 / 301); PPS reinforced fibre	
Process connection	threaded connection G 3/4 external thread	

Displays / operating elements

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

LR8010



Continuous level sensor (guided wave radar)

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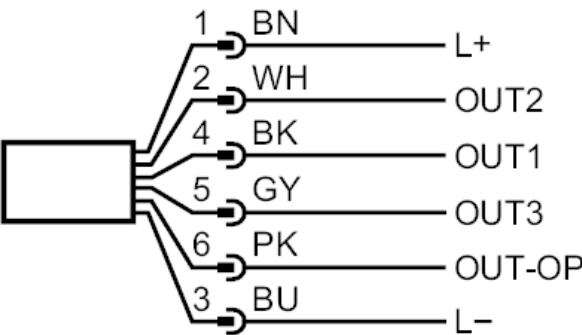
Remarks	
Notes	For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1: IO-Link / switching output
OUT2: switching output
OUT3: switching output
OUT-OP: switching output overflow prevention
colours to DIN EN 60947-5-2

Core colours :
BN = brown
WH = white
BK = black
GY = grey
PK = pink
BU = blue

LR8010



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Diagrams and graphs

Measurement deviation D at the limits of the active rod range

