

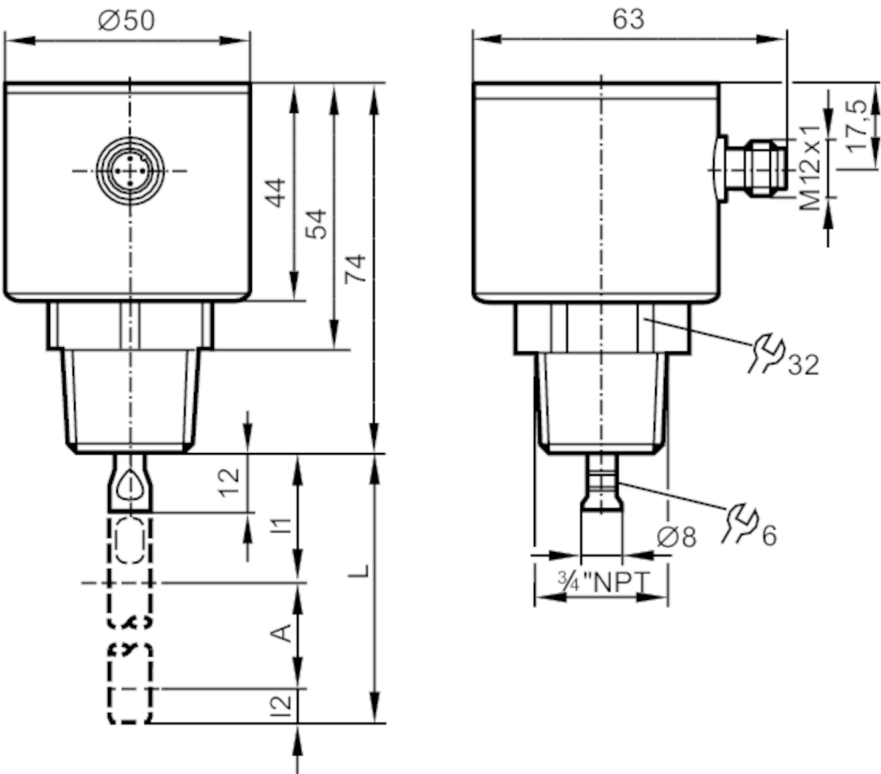


Continuous level sensor (guided wave radar)

LR0000--BN34ASPKG/US

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

For 8-wire cordsets the core colors are not standardized.
Please note the wiring of the sensor and the cordsets (see data sheet).
Please see the technical note under "Downloads"



A Active zone
I1 / I2 Inactive ranges



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 4
Probe length L [mm]	100...2000
Process connection	threaded connection 3/4" NPT external thread
Application	
System	gold-plated contacts
Application	for industrial applications
Media	Liquids
Dielectric constant of the medium	> 5
Recommended media	water; water-based media
Process temperature [°C]	-25...80; (90 < 1 h ; see note under remarks)
Pressure rating [bar]	16
Vacuum resistance [mbar]	-1000

LR8320



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Electrical data		
Operating voltage	[V]	18...30 DC
Current consumption	[mA]	< 25
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/NPN
Number of digital outputs		4
Output function		normally open / closed; (configurable)
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		yes (non-latching)
Overload protection		yes
Measuring/setting range		
Probe length L	[mm]	100...2000
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
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

LR8320



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Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
SIO mode	yes	
Required master port class	A	
Process data analog	3	
Process data binary	4	
Min. process cycle time [ms]	3.2	
Supported DeviceIDs	Type of operation	DeviceID
	default	979

Operating conditions

Ambient temperature [°C]	-25...60
Storage temperature [°C]	-40...85
Protection	IP 68; IP 69K; (7 days / 1 m water depth / 0.1 bar: IP 68)

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]	242	
UL approval	UL approval number	H011
	File number UL	E174191

Mechanical data

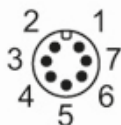
Weight [g]	444.8
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); FKM; PEI
Materials (wetted parts)	stainless steel (1.4305 / 303); probe connection: stainless steel (1.4435 / 316L); PTFE; FKM
Process connection	threaded connection 3/4" NPT external thread

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 - plug

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



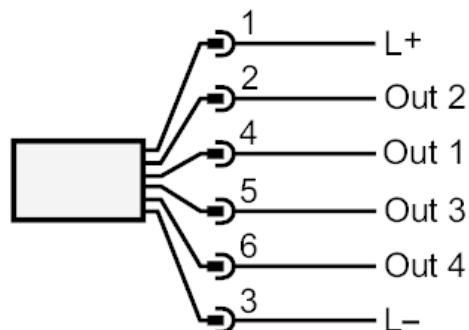
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Connection



OUT1 : switching output or IO-Link
OUT2...4 : Switching output

Diagrams and graphs

Measurement deviation D at the limits of the active rod range

