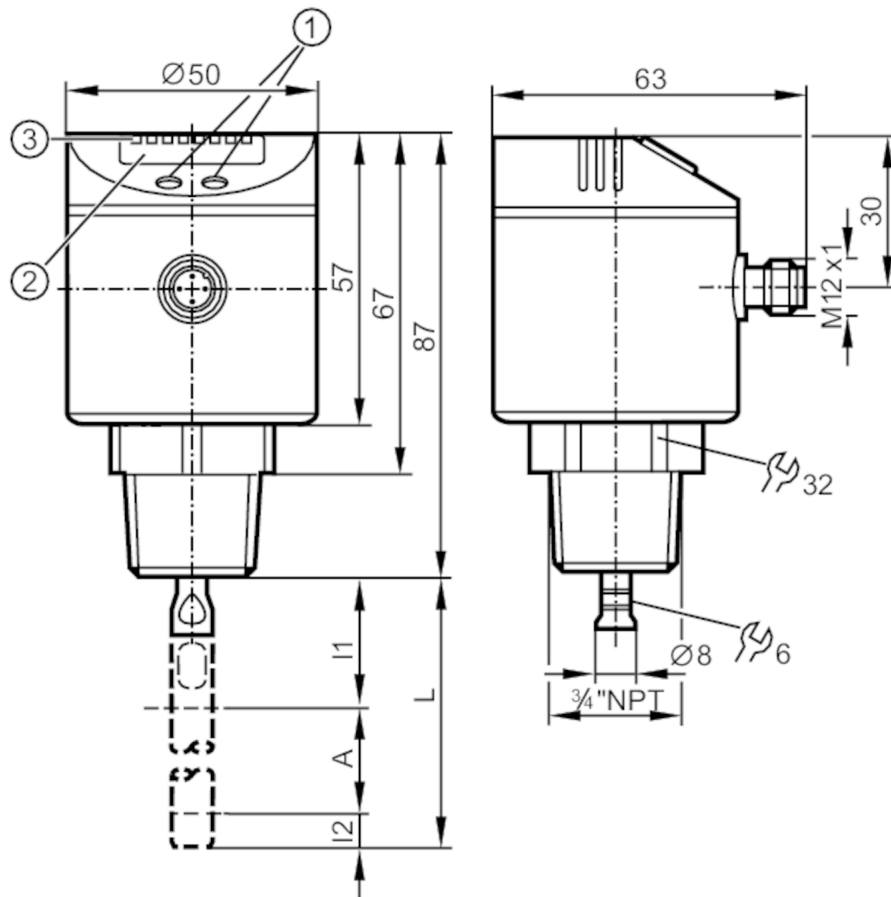


LR3300



Continuous level sensor (guided wave radar)

LR0000B-BN34AMPKG/US



- 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	3/4" NPT

LR3300



Continuous level sensor (guided wave radar)

LR0000B-BN34AMPKG/US

Application	
Special feature	Gold-plated contacts
Media	hydrous coolants; water; media similar to water
Dielectric constant of the medium	≥ 20
Recommended media	hydrous coolants; water; media similar to water
Conditionally suitable for	acids; alkali
Cannot be used for	oils; greases; granulates; bulk material; acids; alkali; heavily foaming media
Medium temperature [°C]	0...80; (90 < 1 h)
Tank pressure [bar]	-1...16
MAWP (for applications according to CRN) [bar]	25
Electrical data	
Operating voltage [V]	18...30 DC
Current consumption [mA]	< 80
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	< 3
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
Max. load [Ω]	500
Analogue voltage output [V]	0...10
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

LR3300



Continuous level sensor (guided wave radar)

LR0000B-BN34AMPKG/US

Setting range			
Set point SP	[mm]	$\geq 15 / \leq L-30$	
Reset point rP	[mm]	$\geq 10 / \leq L-35$	
In steps of	[mm]	5	
Hysteresis	[mm]	> 5	
Accuracy / deviations			
Repeatability	[mm]	± 5	
Switch point accuracy	[mm]	$\pm (15 + 0,5 \%)$; (% of the final value of the measuring range: L - 30 mm)	
Characteristics deviation		± 10	
Offset error	[mm]	10	
Resolution	[mm]	0.5 (L < 300 mm) 0.2% MEW (L > 300 mm)	
Zero signal (voltage)	[V]	0...0.02	
Zero signal (current)	[mA]	3.95...4.0	
Full signal (voltage)	[V]	10.0...10.1	
Full signal (current)	[mA]	20...20.2	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9 CDV	
IO-Link device ID		345 d / 00 01 59 h	
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	
Operating conditions			
Ambient temperature	[°C]	0...60	
Storage temperature	[°C]	-25...80	
Protection		IP 67	
Tests / approvals			
EMC		IEC 60947-1	
Shock resistance		DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance		DIN IEC 68-2-6	5 g (10...2000 Hz)
MTTF	[years]	196	
Mechanical data			
Weight	[g]	345	
Materials		stainless steel (1.4301 / 304); FKM; PBT; PC; PEI; TPE-V; PTFE	
Materials (wetted parts)		stainless steel (1.4305 / 303); probe connection: stainless steel (1.4435 / 316L); PTFE; FKM	
Process connection		3/4" NPT	

LR3300



Continuous level sensor (guided wave radar)

LR0000B-BN34AMPKG/US

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

Accessories	
Accessories (optional)	Probe:, E43203...E43205 / E43207...E43210

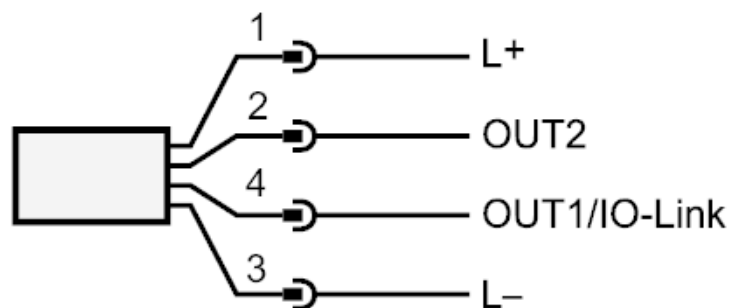
Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT1: switching output
OUT2: analogue output

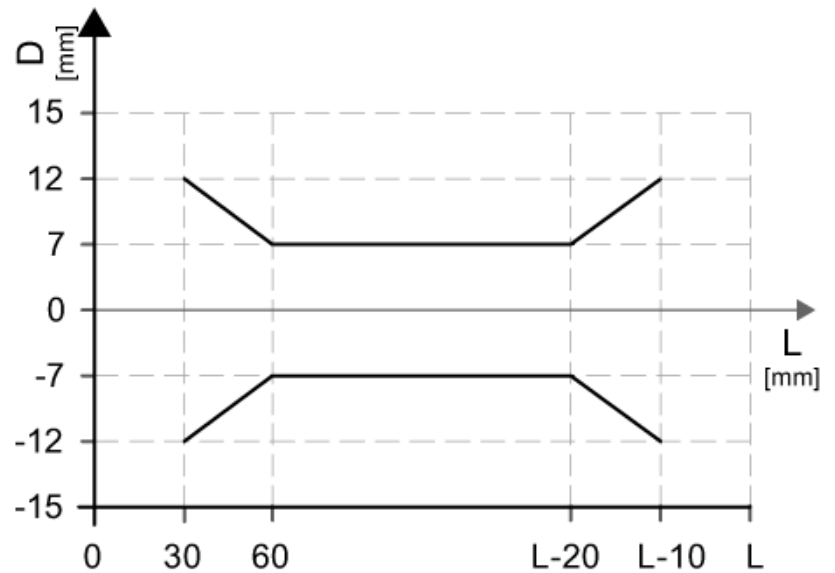
LR3300



Continuous level sensor (guided wave radar)

LR0000B-BN34AMPKG/US

Diagrams and graphs



Measurement deviation D at the limits of the active rod range