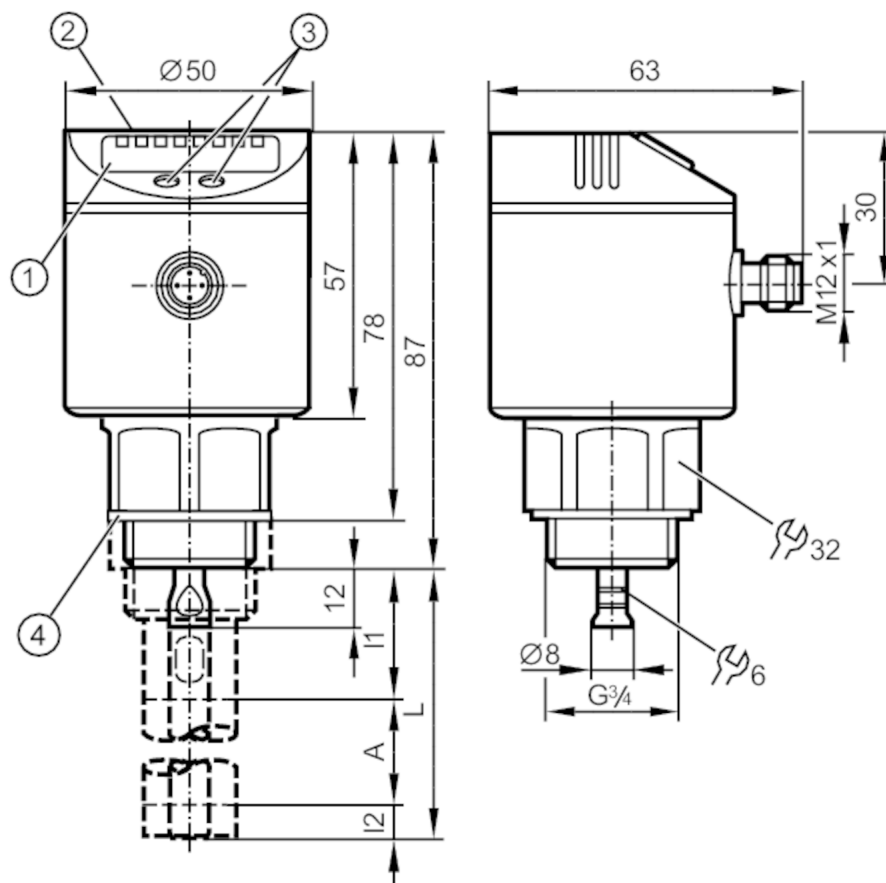


# LR7000



## Continuous level sensor (guided wave radar)

LR0000B-BR34AQPKG/US



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / Switching status
- 3 Programming buttons
- 4 sealing
- A Active zone
- I1 / I2 Inactive ranges



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2
Probe length L [mm]	100...1600
Process connection	G 3/4 external thread

### Application

System	gold-plated contacts
Media	hydrous coolants; oils; oil-based media; water; media similar to water
Dielectric constant of the medium	$\geq 2$ ; (for media with a dielectric constant of 2...20 (e.g. oils), a coaxial pipe is needed for operation)
Cannot be used for	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
-----------------------	------------

# LR7000



## Continuous level sensor (guided wave radar)

LR0000B-BR34AQPKG/US

Current consumption	[mA]	< 80
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: 2
------------------------------	------------------------------

### Outputs

Total number of outputs	2
Output signal	switching signal; IO-Link
Electrical design	PNP
Number of digital outputs	2
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	thermal, pulsed

### Measuring/setting range

Probe length L	[mm]	100...1600
Active range A	[mm]	L-40 (L-60); (when set to oil and oil based media)
Inactive range I1 / I2	[mm]	30 / 10 (30); (when set to oil and oil based media)

### 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
Switch point accuracy	[mm]	± (15 + 0,5 % ); (% of the final value of the measuring range: L - 30 mm)

### 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 class	A
Process data analog	1
Process data binary	2

# LR7000



## Continuous level sensor (guided wave radar)

LR0000B-BR34AQPKG/US

Min. process cycle time	[ms]	2.3
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	8

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]	233

Mechanical data		
Weight	[g]	381.7
Material	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; sealing: NBR-PPTA 20	
Process connection	G 3/4 external thread	

Displays / operating elements		
Display	Display unit	3 x LED, green
	Switching status	2 x LED, yellow
	Level	alphanumeric display, 4-digit
	Parameter setting	alphanumeric display, 4-digit

Accessories		
Accessories (optional)	Probe:, E43203...E43205 / E43207...E43210	
	Coaxial tubes for level sensors:, E43211...E43221, E43223, E43224	

Remarks		
Pack quantity	1 pcs.	

### Electrical connection

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



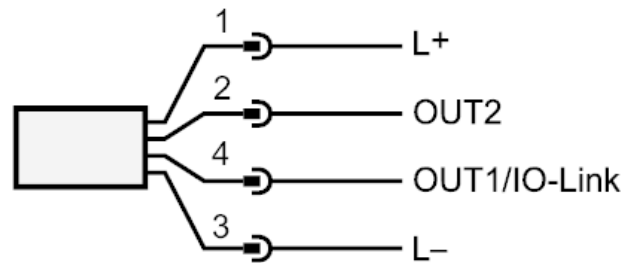
# LR7000



## Continuous level sensor (guided wave radar)

LR0000B-BR34AQPKG/US

### Connection



### Diagrams and graphs

Measurement deviation  $D$  at the limits of the active rod range

