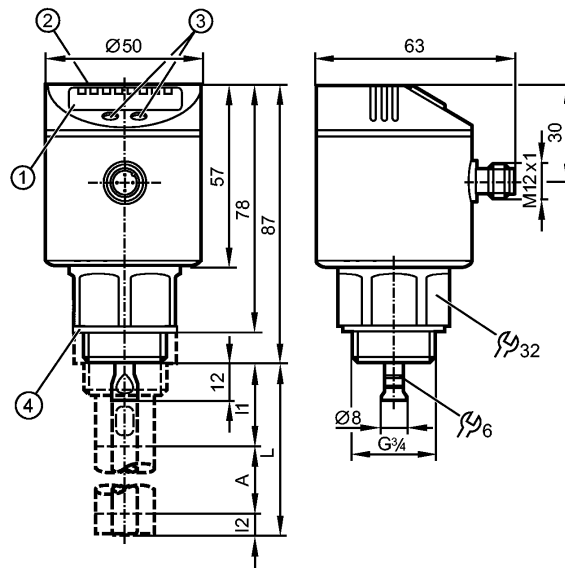


LR7000

LR0000B-BR34AQPKG/US

Level sensors



- 1: 4-digit alphanumeric display
- 2: LEDs (display unit / switching status)
- 3: Programming buttons
- 4: sealing
- A: Active range
- I1 / I2: Inactive ranges



Product characteristics

Electronic level sensor
Connector
Process connection: G 3/4 A
Communication interface: IO-Link 1.1
Guided wave radar
Freely rotatable housing 360°
Probe length: L = 100...1600 mm
2 switching outputs
4-digit alphanumeric display

Application

Application	Hydrous coolants, oils, oil-based media, water, media similar to water
MAWP (for applications according to CRN) [bar]	25
Cannot be used for:	fats, granulates, bulk materials, acids, alkalis; hygienic and electroplating applications; heavily foaming media
Medium temperature [°C]	0...80 (90 < 1 h)
Maximum speed of the change of level [mm/s]	100
Dielectric constant medium	≥ 2 for media with a dielectric constant 2...20 (e.g. oils) a coaxial pipe is required for operation (see below: accessories (optional))

Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...30 DC
Current consumption [mA]	< 80
Protection class	III

LR7000

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Level sensors

Reverse polarity protection	yes
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Outputs

Output	2 switching outputs
Output function	2 x normally open / closed programmable
Current rating [mA]	200
Voltage drop [V]	< 2.5
Short-circuit protection	thermal, pulsed
Overload protection	yes (max. 10 s)

Measuring / setting range

Probe length L [mm]	100...1600
Active range A [mm]	L-40 (L-60)*
Inactive range I1 / I2 [mm]	30 / 10 (30)*
Setting range	
Set point, SP [mm]	≥ 15 (35)* / ≤ L-30
Reset point, rP [mm]	≥ 10 (30)* / ≤ L-35
in steps of [mm]	5
Hysteresis [mm]	≥ 5

Accuracy / deviations

Deviations (in mm)	
Switch point accuracy	± (15 + 0.5 % MEW**)
Repeatability	± 5

Response times

Power-on delay time [s]	≤ 3
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Interfaces

IO-Link device	
Transfer type	COM2 (38.4 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9 CDV
IO-Link device ID	008 d / 00 00 08 h
Profiles	no profile
SIO mode	yes
Required master port class	A
Process data analogue	1
Process data binary	2
Min. process cycle time [ms]	2.3

Environment

Ambient temperature [°C]	0...60
Storage temperature [°C]	-25...80
Maximum vessel pressure [bar]	-1...16
Protection	IP 67

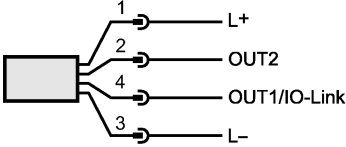
Tests / approvals

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

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Level sensors

Mechanical data	
Process connection	G ¾ A
Materials (wetted parts)	303 / 1.4305 (V2A); probe connection: High-grade stainless steel 316L / 1.4435; PTFE; FKM; sealing: NBR-PPTA 20
Housing materials	304 / 1.4301 (V2A); FKM; PBT; PC; PEI; TPE - V; PTFE
Weight [kg]	0.388
Displays / operating elements	
Display	Display unit 3 x LED green Switching status 2 x LED yellow Level 4-digit alphanumeric display Programming 4-digit alphanumeric display
Electrical connection	
Connection	M12 connector (according to EN 61076-2-101); Gold-plated contacts
Wiring  <p>Programming of the switching outputs: Hno = hysteresis / NO Hnc = hysteresis / NC Fno = window / NO Fnc = window / NC</p>	
Accessories	
Accessories (optional)	Probe, order no. E43203...E43205 / E43207...E43210; Coaxial pipe, order no. E43211...E43221, E43223, E43224; Matching accessories online next to the Datasheet → Accessories
Remarks	
Remarks	*) when set to oil and oil based media **) MEW = final value of the measuring range in mm; MEW = L - 30 mm
Pack quantity [piece]	1