

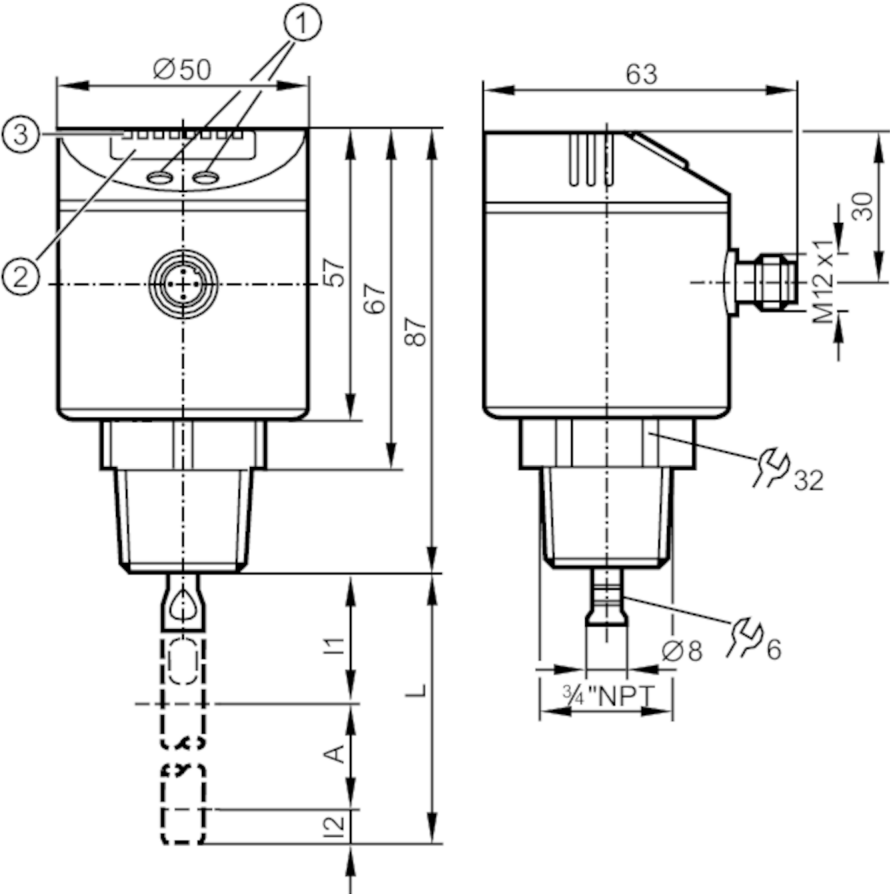


Continuous level sensor (guided wave radar)

LR0000B-BN34AQPKG/US

Please see the technical note under "Downloads"

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



- 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: 2                 |
| Probe length L [mm]               | 100...1600                                   |
| Process connection                | threaded connection 3/4" NPT external thread |
| Application                       |                                              |
| Special feature                   | Gold-plated contacts                         |
| Application                       | for industrial applications                  |
| Media                             | Liquids                                      |
| Dielectric constant of the medium | ≥ 5                                          |
| Recommended media                 | water; hydrous media                         |



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|                                                 |        |                                                                  |
|-------------------------------------------------|--------|------------------------------------------------------------------|
| Cannot be used for                              |        | See the operating instructions, chapter "Function and features". |
| Process temperature                             | [°C]   | -25...80; (90 < 1 h ; see note under remarks)                    |
| Pressure rating                                 | [bar]  | 16                                                               |
| Vacuum resistance                               | [mbar] | -1000                                                            |
| MAWP (for applications according to CRN)        | [bar]  | 16                                                               |
| 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: 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 / 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                                                             |
| 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                                                                |



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|                               |  |                                                                                                                                                                                     |                                                                |
|-------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 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 CDV                                                                                                                                                                     |                                                                |
| Profiles                      |  | no profile                                                                                                                                                                          |                                                                |
| SIO mode                      |  | yes                                                                                                                                                                                 |                                                                |
| Required master port type     |  | A                                                                                                                                                                                   |                                                                |
| Process data analogue         |  | 1                                                                                                                                                                                   |                                                                |
| Process data binary           |  | 2                                                                                                                                                                                   |                                                                |
| Min. process cycle time [ms]  |  | 2.3                                                                                                                                                                                 |                                                                |
| Supported DeviceIDs           |  | Type of operation                                                                                                                                                                   | DeviceID                                                       |
|                               |  | default                                                                                                                                                                             | 9                                                              |
| Operating conditions          |  |                                                                                                                                                                                     |                                                                |
| Ambient temperature [°C]      |  | -25...60                                                                                                                                                                            |                                                                |
| Storage temperature [°C]      |  | -40...85                                                                                                                                                                            |                                                                |
| Protection                    |  | IP 67                                                                                                                                                                               |                                                                |
| 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]                  |  | 233                                                                                                                                                                                 |                                                                |
| UL approval                   |  | UL Approval no.                                                                                                                                                                     | H007                                                           |
|                               |  | File number UL                                                                                                                                                                      | E174191                                                        |
| Mechanical data               |  |                                                                                                                                                                                     |                                                                |
| Weight [g]                    |  | 397.25                                                                                                                                                                              |                                                                |
| Materials                     |  | stainless steel (304/1.4301); stainless steel (316L/1.4404); FKM; PBT; PC; PEI; TPE-V                                                                                               |                                                                |
| Materials (wetted parts)      |  | stainless steel (303/1.4305); probe connection: stainless steel (316L/1.4435); PTFE; FKM                                                                                            |                                                                |
| Process connection            |  | threaded connection 3/4" NPT 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                                  |
| Remarks                       |  |                                                                                                                                                                                     |                                                                |
| Notes                         |  | Please see the technical note under "Downloads"; For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher. |                                                                |
| Pack quantity                 |  | 1 pcs.                                                                                                                                                                              |                                                                |

# LR7300



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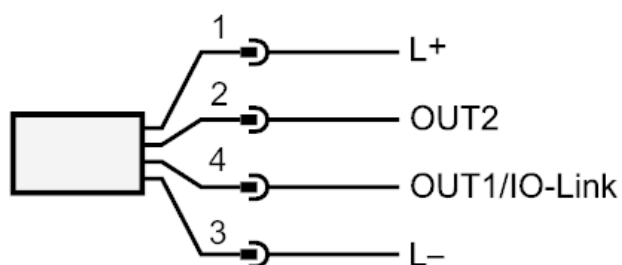
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### Electrical connection

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



### Connection



### Diagrams and graphs

Measurement deviation D at the limits of the active rod range

