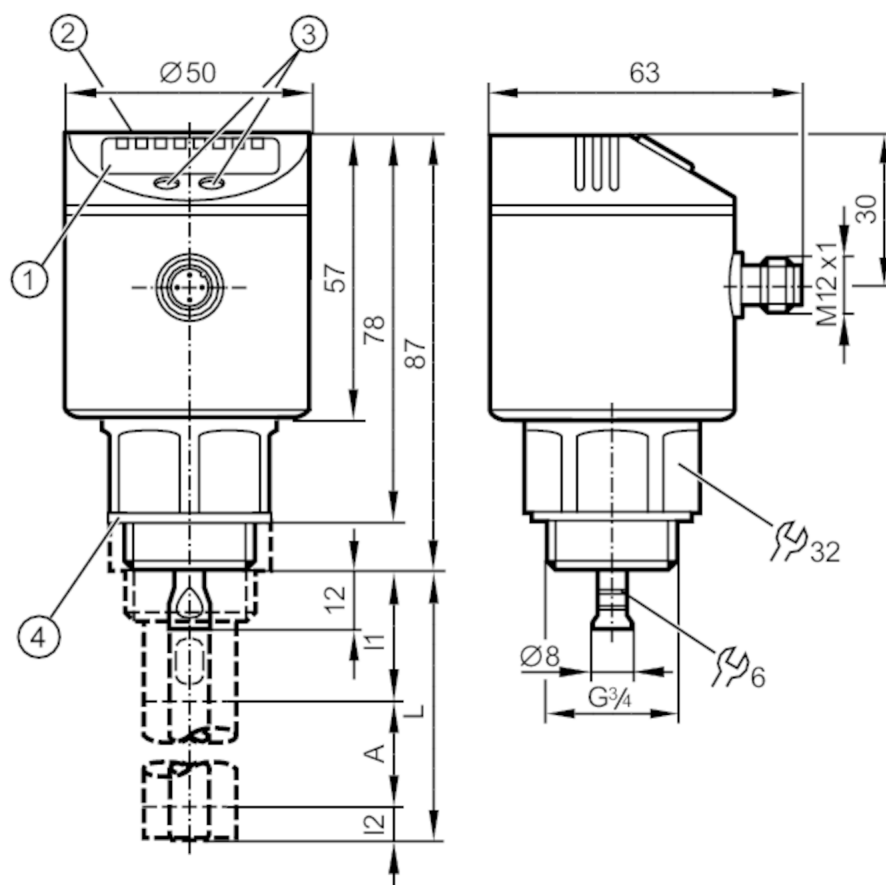


Continuous level sensor (guided wave radar)

LR0000B-BR34AMPKG/US



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming buttons
- 4 Sealing
- 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 | G 3/4 external thread |

Application

| | |
|--|---|
| Special feature | Gold-plated contacts |
| Media | hydrous coolants; oils; oil-based media; water; media similar to water |
| Dielectric constant of the medium | ≥ 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 |



Continuous level sensor (guided wave radar)

LR0000B-BR34AMPKG/US

| 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 (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 (35) / ≤ L-30 |
| Note on setpoint SP | | when set to oil and oil based media |
| Reset point rP | [mm] | ≥ 10 (30) / ≤ L-35 |
| Note on reset point rP | | when set to oil and oil based media |
| 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) |
| Characteristics deviation | | ± 10 |
| Offset error | [mm] | 10 |
| Measuring sensitivity | | 16 mA ÷ MEW |

LR3000



Continuous level sensor (guided wave radar)

LR0000B-BR34AMPKG/US

| | | |
|-----------------------|------|---|
| | | 10 V ÷ MEW |
| 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 | 344 d / 00 01 58 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] 384 |
| 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; Sealing: NBR-PPTA 20 |
| Process connection | G 3/4 external thread |

Displays / operating elements

| | | |
|---------|-------------------|-------------------------------|
| | Display unit | 3 x LED, green |
| | switching status | 1 x LED, yellow |
| Display | level | alphanumeric display, 4-digit |
| | parameter setting | alphanumeric display, 4-digit |

Accessories

| | |
|------------------------|---|
| Accessories (optional) | Probe: E43203...E43205 / E43207...E43210 Coaxial pipe: E43211...E43221, E43223, E43224 |
|------------------------|---|

Remarks

| | |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

LR3000



Continuous level sensor (guided wave radar)

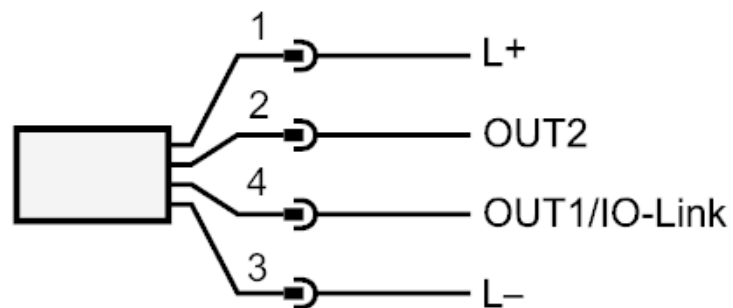
LR0000B-BR34AMPKG/US

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT1: switching output

OUT2: analogue output