

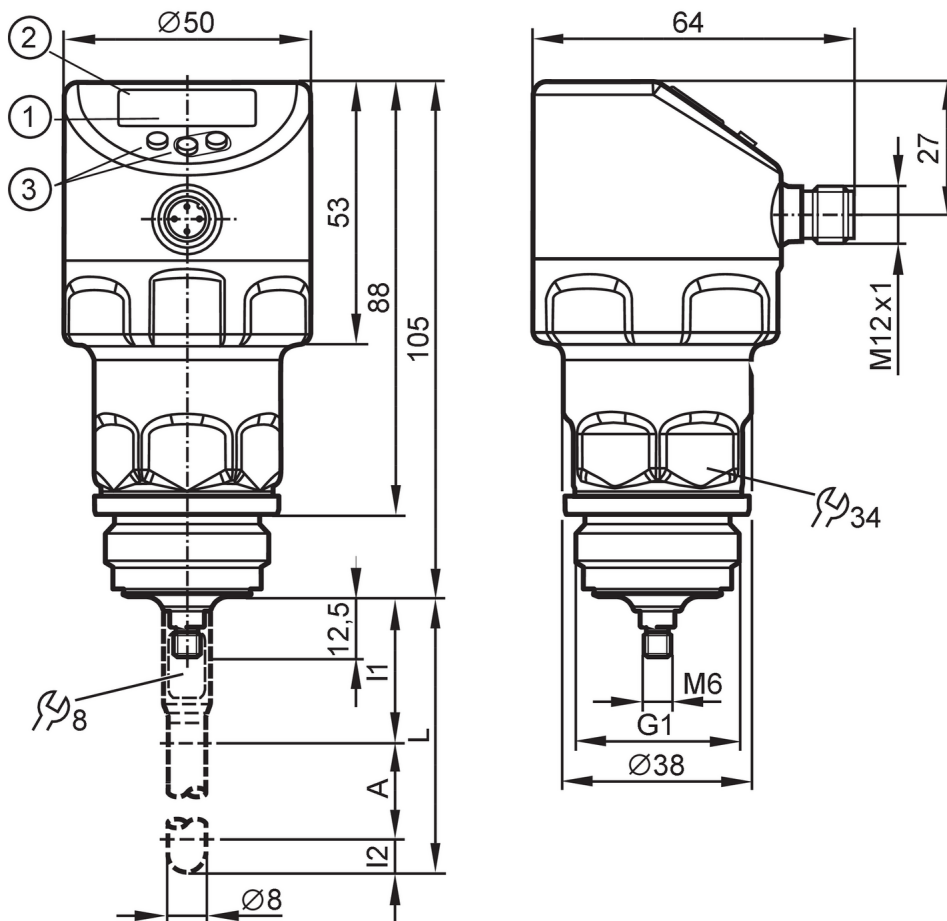
LR2750



Continuous level sensor (guided wave radar)

LR0000B-EA01AKSKG/US

For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.
 For 3-A applications, the medium temperature is limited to 121 °C and COP cleaning is required.



- 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] | 150...2000 |
| Process connection | threaded connection G 1 external thread Aseptoflex Vario |

Application

| | |
|-----------------------------------|-------------------------------------|
| Special feature | Gold-plated contacts |
| Application | hygienic systems |
| Media | Liquids |
| Dielectric constant of the medium | > 5 |
| Recommended media | water; hydrous media |
| Process temperature [°C] | -40...150; (see note under remarks) |
| Pressure rating | 40 bar / 4 MPa |

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| | | | |
|---|-------|---|-------------------|
| Vacuum resistance | | -1000 mbar | -0.1 MPa |
| MAWP for applications according to CRN | [bar] | | 25 |
| Electrical data | | | |
| Operating voltage | [V] | | 18...30 DC |
| Current consumption | [mA] | | < 50 |
| 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: 1; Number of analogue outputs: 1 | |
| Outputs | | | |
| Total number of outputs | | 2 | |
| Output signal | | switching signal; analogue signal; IO-Link | |
| Electrical design | | PNP/NPN | |
| 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] | 150; (200 (...60 °C)) | |
| Number of analogue outputs | | 1 | |
| Analogue current output | [mA] | 4...20, invertible; (scalable) | |
| Max. load | [Ω] | 500 | |
| Short-circuit protection | | yes | |
| Type of short-circuit protection | | pulsed | |
| Overload protection | | yes | |
| Measuring/setting range | | | |
| Probe length L | [mm] | 150...2000 | |
| 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] | 1 | |
| Hysteresis | [mm] | > 5 | |
| Accuracy / deviations | | | |
| Measuring error | [mm] | ± 7 | |
| Offset error | [mm] | 5 | |
| Resolution | [mm] | 1 | |
| Zero signal (current) | [mA] | 4.0 | |
| Full signal (current) | [mA] | 20 | |

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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 | |
| Profiles | Smart Sensor - SSP 0 | Generic Profiled Sensor |
| | Function | Device identification |
| | Function | Process data variable |
| | Function | Device diagnosis |
| 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 | 478 |

Operating conditions

| | |
|--------------------------|---------------|
| Ambient temperature [°C] | -40...80 |
| Storage temperature [°C] | -40...100 |
| Protection | IP 68; IP 69K |

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) / 20 g (6 ms) with reference rod 0.5 m |
| Vibration resistance | DIN EN 60068-2-6 | 20 g (10...2000 Hz) / 1 g (5...200 Hz) with reference rod 0.5 m |
| MTTF [years] | 216 | |

Mechanical data

| | | |
|---|--|--|
| Weight [g] | 330.75 | |
| Materials | stainless steel (316L/1.4404); PEI; PFA; PBT; FKM | |
| Materials (wetted parts) | stainless steel (316L/1.4404); PEEK; EPDM | |
| Process connection | threaded connection G 1 external thread Aseptoflex Vario | |
| Surface characteristics Ra/Rz of the wetted parts | Ra < 0.8 µm | |

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 | For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.; For 3-A applications, the medium temperature is limited to 121 °C and COP cleaning is required. |
|-------|---|

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Pack quantity

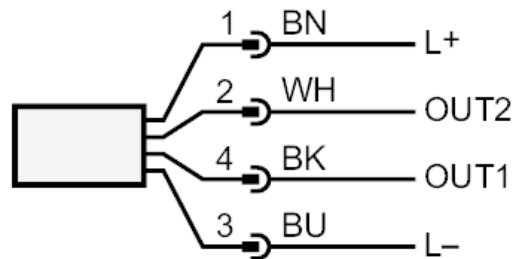
1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



OUT1: switching output IO-Link
OUT2: switching output analogue output
colours to DIN EN 60947-5-2
Core colours :
BK = black
BN = brown
BU = blue
WH = white

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Diagrams and graphs

Measurement deviation D at the limits of the active rod range

