

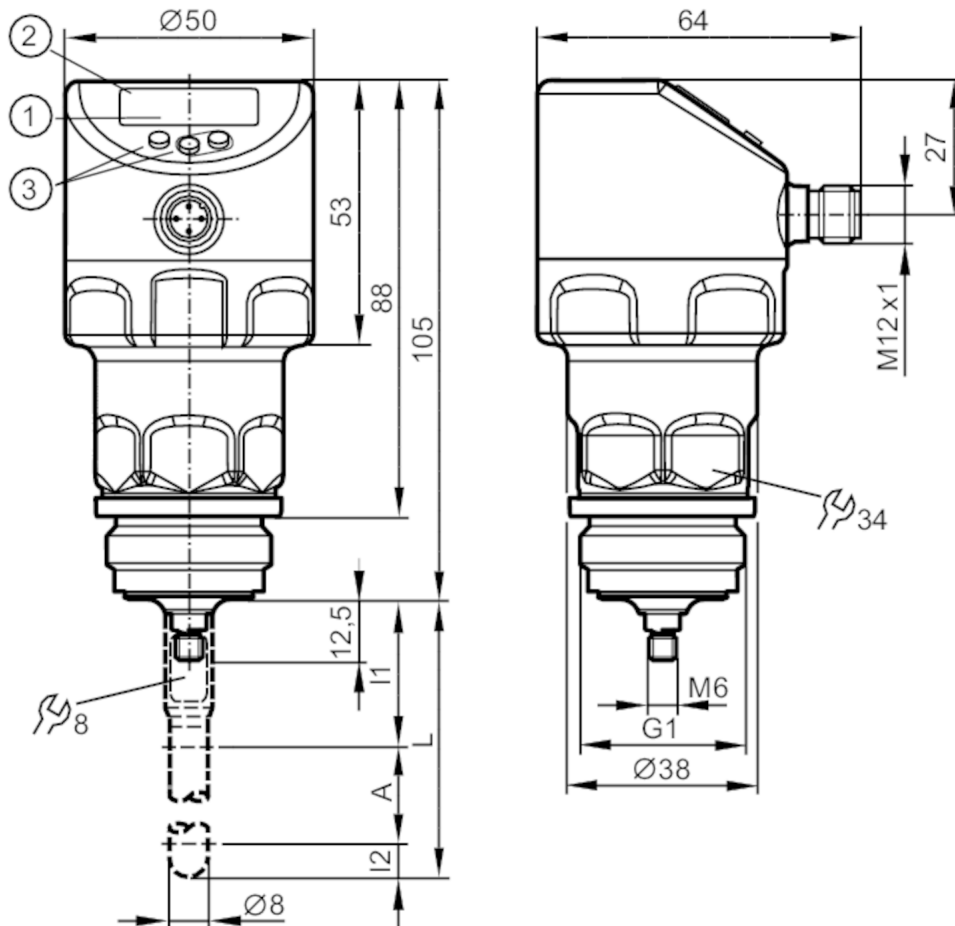
LR2759



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 zone
- I1 / I2 Inactive ranges



EC 1935/2004 EHEDG Certified



IO-Link



Product characteristics

| | |
|------------------------------|---|
| Number of inputs and outputs | Number of digital outputs: 1; Number of analog outputs: 1 |
| Probe length L [mm] | 150...2000 |
| Process connection | G 1 Aseptoflex Vario |



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| Application | |
|--|---|
| System | gold-plated contacts |
| Media | Liquids |
| Dielectric constant of the medium | > 5 |
| Recommended media | water; water-based media |
| Process temperature [°C] | -40...150; (see note under remarks) |
| Pressure rating [bar] | 40 |
| Vacuum resistance [mbar] | -1000 |
| 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 analog outputs: 1 |
| Outputs | |
| Total number of outputs | 2 |
| Output signal | switching signal; analog signal; IO-Link |
| Electrical design | PNP/NPN |
| Number of digital outputs | 1 |
| Output function | normally open / closed; (configurable) |
| Max. voltage drop switching output DC [V] | 2.5 |
| Permanent current rating of switching output DC [mA] | 150; (200 (...60 °C)) |
| Number of analog outputs | 1 |
| Analog current output [mA] | 4...20, invertible; (scalable) |
| Max. load [Ω] | 500 |
| Factory setting | Electrical design: NPN |
| Short-circuit protection | yes |
| Type of short-circuit protection | yes (non-latching) |
| 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 |

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| 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 |
| 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: Process Data Variable; Device Identification, Device Diagnosis |
| SIO mode | | yes |
| Required master port class | | A |
| Process data analog | | 1 |
| Process data binary | | 2 |
| Min. process cycle time | [ms] | 2.3 |
| Supported DeviceIDs | Type of operation | DeviceID |
| | default | 643 |

| 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] | 396.5 |
| Material | | stainless steel (1.4404 / 316L); PEI; PFA; PBT; FKM |
| Materials (wetted parts) | | stainless steel (1.4404 / 316L); PEEK; EPDM |
| Process connection | | G 1 Aseptoflex Vario |
| Surface characteristics Ra/Rz of the wetted parts | | < 0.8 |

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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

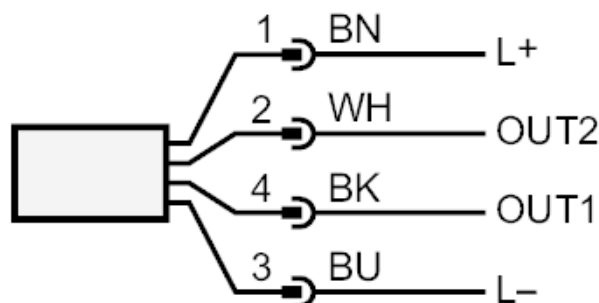
| | |
|---------------|---|
| Notes | For high process temperatures: The temperature at the process connection is decisive. The actual medium temperature may be higher.; For 3-A applications, the medium temperature is limited to 121 °C and COP cleaning is required. |
| Pack quantity | 1 pcs. |

Electrical connection

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



Connection



OUT1: Switching output IO-Link
OUT2: Switching output analog output
Colors to DIN EN 60947-5-2

Core colors :
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

