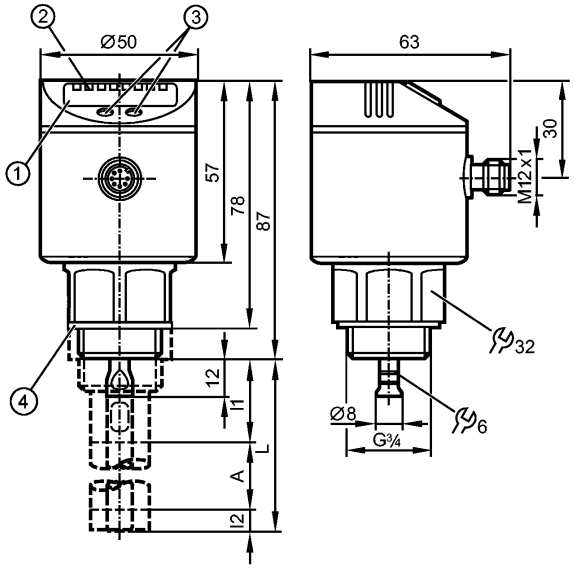
efector160

# LR8010

LR0000B-BR34AVPKG/US

**Level sensors**

**Please note the wiring of the sensor and the sockets (see data sheet) as for 8-pole sockets the core colours are not standardised.**




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

CE

| Product characteristics |
|---|
| Electronic level sensor |
| Quick disconnect |
| Process connection: G ¾ A |
| Guided wave radar |
| Freely rotatable housing 360° |
| General building authority approval: Z-65.16-529 |
| Overflow protection |
| Only use with a rod + a coaxial pipe |
| Probe length: L = 100...1600 mm |
| 4 switching outputs (one of them for overflow protection according to the German Federal Water Act (WHG)) |
| 4-digit alphanumeric display |

| Application | | |
|---|---|---|
| Application | | Hydrous coolants, oils, oil-based media, water, media similar to water |
| Cannot be used for: | | See the operating instructions, chapter "Function and features". |
| Dielectric constant medium | | ≥ 2 |
| Medium temperature | [°C] | 0...80 |
| Maximum speed of the change of level | [mm/s] | 50 |

| Electrical data | | |
|---|---|---|
| Electrical design | | DC PNP |
| Operating voltage | [V] | 18...30 DC |
| Current consumption | [mA] | < 65 |
| Protection class | | III |

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| | | |
|---|---|---|
| Reverse polarity protection | | yes |
| **Outputs** | | |
| Output | | 4 switching outputs (one of them for overflow protection according to the German Federal Water Act (WHG)) |
| Output function | | 3 x NO / NC programmable;<br>1 x NC (WHG - German Federal Water Act) |
| Current rating | [mA] | 200 |
| Voltage drop | [V] | < 2.5 |
| 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)*) |
| 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 |
| Overflow switch point OP | [mm] | 70...L-30 |
| Hysteresis OP | [mm] | 10 |
| **Accuracy / deviations** | | |
| Deviations (in mm) | | |
| Switch point accuracy | | ± (15 + 0.5 % MEW**)) |
| Repeatability | | ± 5 |
| **Reaction times** | | |
| Power-on delay time | [s] | ≤ 3 |
| Response time of the switching output [s] | | ≤ 1.5 |
| Fault detection [s] | | ≤ 3 |
| **Environment** | | |
| Ambient temperature | [°C] | 0...60 |
| Storage temperature | [°C] | -25...80 |
| Maximum vessel pressure | [bar] | -0.5...4 |
| Protection | | IP 67 |
| **Tests / approvals** | | |
| Approval | | WHG § 19 |
| EMC | | DIN EN 61000-6-2<br>DIN EN 61000-6-4 |
| Shock resistance | | DIN EN 60068-2-27 50 g (11 ms) |
| Vibration resistance | | DIN EN 60068-2-6 5 g (10...2000 Hz) |
| MTTF | [Years] | 183 |
| **Mechanical data** | | |
| Process connection | | G ¾ A |
| Materials (wetted parts) | | stainless steel (303S22); probe connection: stainless steel 316L / 1.4435; PTFE; FKM; sealing: NBR-PPTA 20 |

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**Level sensors**

| | | |
|---|---|---|
| Housing materials | | stainless steel 316L / 1.4404; stainless steel (304S15); FKM; PBT-GF 20; PC; PEI; TPV |
| Weight | [kg] | 0.404 |

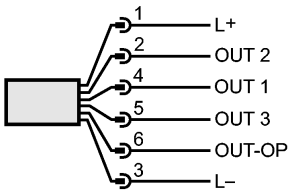
## Displays / operating elements

| | | |
|---|---|---|
| Display | Display unit | 3 x LED green |
| | Switching status | 4 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**


## Accessories

| | |
|---|---|
| Accessories (optional) | Matching accessories online next to the Datasheet → Accessories |

## Remarks

| | |
|---|---|
| Remarks | *) when set to oil and oil based media<br>**) MEW = final value of the measuring range in mm; MEW = L - 30 mm |
| Pack quantity [piece] | 1 |



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