

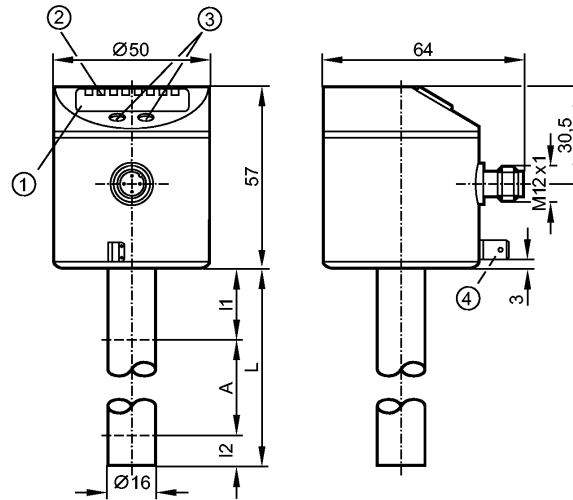


# LK1024

LK0728B-B-00KQPKG/US



Level sensors



- 1: 4-digit alphanumeric display
- 2: status LEDs
- 3: Programming buttons
- 4: Housing connection (flat-pin connector 6.3 mm following DIN 46244)



## Product characteristics

Electronic level sensor

Quick disconnect

Probe length: L = 728 mm

2 switching outputs

4-digit alphanumeric display

## Application

|   |   |
|---|---|
| Application                                     | Hydrous coolants, oils, water, media similar to water   |
| Cannot be used for:                             | extremely conductive and adhering media, granulates and bulk materials, acids and alkalis, food and electroplating applications |
| Dielectric constant medium                      | > 2   |
| <b>Medium temperature oil</b>                   |   |
| - Continuous [°C]                               | 0...70  |
| - Short time [°C]                               | 0...90  |
| Medium temperature water and hydrous media [°C] | 0...35 (LK1024 + E43102: 0...55) **   |
| Medium temperature coolant emulsions [°C]       | 0...35 (LK1024 + E43102: 0...55) **   |
| Maximum speed of the change of level [mm/s]     | 300   |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Electrical design           | DC PNP     |
| Operating voltage [V]       | 18...30 DC |
| Current consumption [mA]    | < 60       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

## Outputs

|                 |   |
|-----------------|---|
| Output          | 2 switching outputs                     |
| Output function | 2 x normally open / closed programmable |



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|                          |      |                 |
|--------------------------|------|-----------------|
| Current rating           | [mA] | 200             |
| Voltage drop             | [V]  | < 2.5           |
| Short-circuit protection |      | thermal, pulsed |
| Overload protection      |      | yes             |

### Measuring / setting range

|                        |      |   |
|------------------------|------|---|
| Probe length L         | [mm] | 728   |
| Active range A         | [mm] | 585   |
| Inactive range I1 / I2 | [mm] | 102 / 40  |
| Setting range          |      |   |
| Set point, SP          | [mm] | 60...590  |
| Reset point, rP        | [mm] | 50...580  |
| in steps of            | [mm] | 10  |
| Hysteresis             | [mm] | 10  |
| Overflow prevention OP | [mm] | 200 - 240 - 280 - 310 - 350 - 390 - 420 - 460 - 500 - 530 - 570 - 610 |
| Hysteresis OP          | [mm] | 4   |

### Accuracy / deviations

|  |  |     |
|--|--|-----|
| Deviations (% of value of measuring range) |  |     |
| Switch point accuracy                      |  | ± 5 |
| Repeatability                              |  | ± 2 |

### Reaction times

|                     |     |   |
|---------------------|-----|---|
| Power-on delay time | [s] | 3 |
|---------------------|-----|---|

### Software / programming

|                     |   |  |
|---------------------|---|--|
| Programming options | hysteresis / window function; N.O. / N.C; position of SP/rP; position of OP; OP adjustment; medium adjustment; offset; display unit |  |
|---------------------|---|--|

### Environment

|                         |       |   |
|-------------------------|-------|---|
| Ambient temperature     | [°C]  | 0...60  |
| Storage temperature     | [°C]  | -25...80  |
| Maximum vessel pressure | [bar] | 0.5 (mounted with mounting accessories E43001 - E43007) |
| Protection              |       | IP 67   |

### Tests / approvals

|                      |                            |                    |
|----------------------|----------------------------|--------------------|
| EMC                  | EN 61000-4-2 ESD:          | 4 kV CD / 8 kV AD  |
|                      | EN 61000-4-3 HF radiated:  | 10 V/m             |
|                      | EN 61000-4-4 Burst:        | 2 kV               |
|                      | EN 61000-4-6 HF conducted: | 10 V               |
| Shock resistance     | DIN EN 60068-2-29:         | 15 g (11 ms)       |
| Vibration resistance | DIN EN 60068-2-6           | 5 g (10...2000 Hz) |
| MTTF                 | [Years]                    | 265                |

### Mechanical data

|                          |      |   |
|--------------------------|------|---|
| Materials (wetted parts) |      | PP  |
| Housing materials        |      | stainless steel (304S15); FKM; NBR; PBT; PC; PEI; PP; TPE / V |
| Weight                   | [kg] | 0.507   |

### Displays / operating elements

|         |  |  |
|---------|--|--|
| Display | Display unit / status 2 x LED green<br>Switching status 2 x LED yellow<br>Measured values 4-digit alphanumeric display<br>Programming 4-digit alphanumeric display |  |
|---------|--|--|



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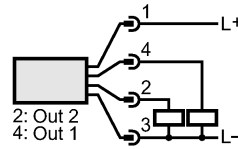
Level sensors

## Electrical connection

Connection M12 connector (according to EN 61076-2-101); gold-plated contacts

### Wiring

Programming of the output function:  
 Hno = hysteresis / normally open  
 Hnc = hysteresis / normally closed  
 Fno = window function / normally open  
 Fnc = window function / normally closed



## Remarks

Remarks cULus - Class 2 source required  
 \*\*) for water and hydrous media with temperatures > 35 °C install the unit into a climatic tube (order no. E43102)

Pack quantity [piece] 1