

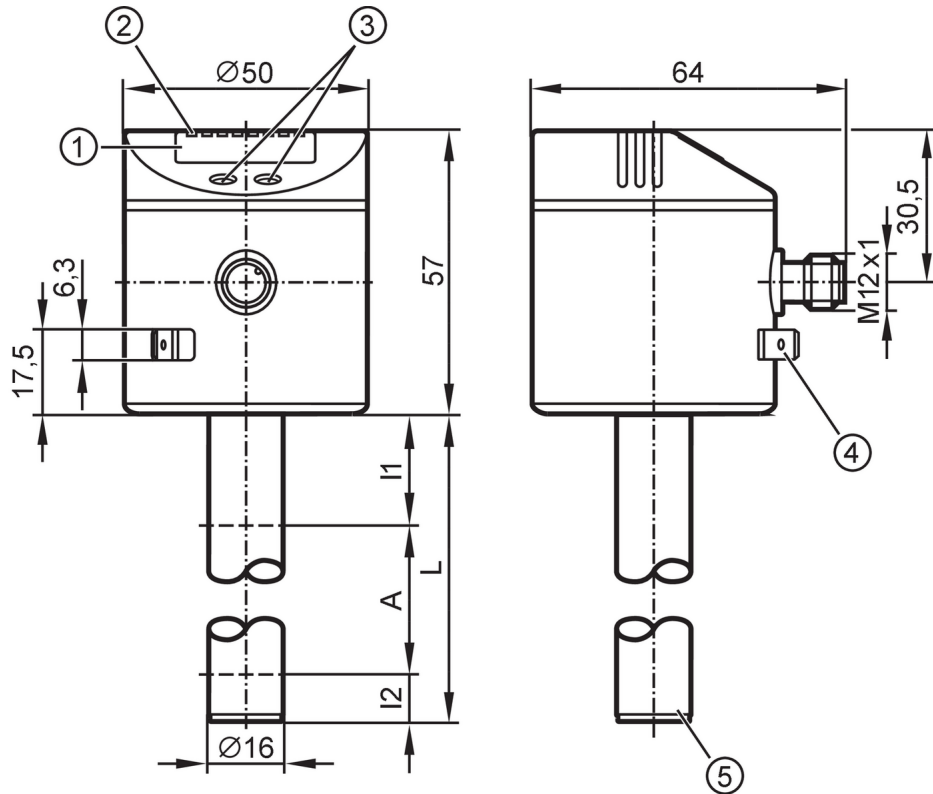
LT8024



Electronic level and temperature sensor

LT0728B-B-00KSPKG/US

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



- 1 alphanumeric display 4-digit
- 2 status LEDs
- 3 programming buttons
- 4 housing connection flat-pin connector 6.3 mm DIN 46244
- 5 position of the temperature measuring element



Product characteristics

| | |
|------------------------------|--|
| Number of inputs and outputs | Number of digital outputs: 4 |
| Factory setting | 2 switching outputs level (OUT1, OUT2); 2 switching outputs temperature (OUT3, OUT4); mineral oils |
| Probe length L [mm] | 728 |

Application

| | | |
|-----------------------------------|--|--|
| Media | hydrous coolants; oils; oil-based media; water; media similar to water | |
| Dielectric constant of the medium | > 2 | |
| Cannot be used for | extremely conductive media; adhering media; granulates; bulk material; acids; alkali | |
| Tank pressure | 0.5; (when mounting with mounting accessories: E43001 - E43007, E43019) bar | 0.05; (when mounting with mounting accessories: E43001 - E43007, E43019) MPa |
| Coolants | | |
| Medium temperature [°C] | 0...35; (with climatic tube E43102 35...55 °C) | |
| Oil | | |
| Medium temperature [°C] | 0...70 | |

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| | | |
|---|------|--|
| Medium temperature short time | [°C] | 0...90; (< 1 h) |
| Water | | |
| Medium temperature | [°C] | 0...35; (with climatic tube E43102 35...55 °C) |
| 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 | | capacitive |
| Inputs / outputs | | |
| Number of inputs and outputs | | Number of digital outputs: 4 |
| Outputs | | |
| Total number of outputs | | 4 |
| Output signal | | switching signal; IO-Link |
| Electrical design | | PNP/NPN |
| Number of digital outputs | | 4 |
| 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 |
| Short-circuit protection | | yes |
| Type of short-circuit protection | | thermal, pulsed |
| Overload protection | | yes |
| Measuring/setting range | | |
| Factory setting | | 2 switching outputs level (OUT1, OUT2); 2 switching outputs temperature (OUT3, OUT4); mineral oils |
| Probe length L | [mm] | 728 |
| Active range A | [mm] | 585 |
| Inactive range I1 / I2 | [mm] | 104 / 39 |
| Setting range | | |
| Set point SP | [mm] | 60...590 |
| Reset point rP | [mm] | 50...580 |
| In steps of | [mm] | 10 |
| Reference point OP | [mm] | 200 - 240 - 280 - 310 - 350 - 390 - 420 - 460 - 500 - 530 - 570 - 610 - OFF |
| Hysteresis, OP | [mm] | 4 |
| Temperature monitoring | | |
| Measuring range | [°C] | -20...90 |
| Set point SP | [°C] | -19.5...90 |
| Reset point rP | [°C] | -20...89.5 |
| In steps of | [°C] | 0.5 |

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| | | |
|--------------------------------|-----|-----|
| Resolution of switching output | [K] | 0.5 |
|--------------------------------|-----|-----|

Accuracy / deviations

| | | |
|-----------------|------------------------|-----|
| Measuring error | | ± 5 |
| | [% of the final value] | |
| Repeatability | | ± 2 |
| Resolution | [mm] | 10 |

Temperature monitoring

| | | |
|-----------------------|-----|-------|
| Switch point accuracy | [K] | ± 1,5 |
| Resolution | [K] | 0.5 |
| Dynamic response T09 | [s] | 90 |

Software / programming

| | |
|---------------------------|--|
| Parameter setting options | hysteresis / window; normally open / normally closed; SP/rP position; OP position; adjustment OP; medium selection; offset setting; Display unit; process value assignment |
|---------------------------|--|

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 | 4 | |
| Process data binary | 4 | |
| Min. process cycle time | [ms] | 4.5 |
| Supported DeviceIDs | Type of operation | DeviceID |
| | default | 20 |

Operating conditions

| | | |
|---------------------|------|----------|
| Ambient temperature | [°C] | 0...60 |
| Storage temperature | [°C] | -25...80 |
| Protection | | IP 67 |

Tests / approvals

| | | |
|----------------------|-------------------|--------------------|
| EMC | DIN EN 61000-6-2 | |
| | DIN EN 61000-6-4 | |
| Shock resistance | DIN EN 60068-2-27 | 15 g (11 ms) |
| Vibration resistance | DIN EN 60068-2-6 | 5 g (10...2000 Hz) |
| MTTF | [years] | 224 |

Mechanical data

| | | |
|------------|---|-------|
| Weight | [g] | 550.5 |
| Dimensions | [mm] | Ø 16 |
| Materials | stainless steel (304/1.4301); stainless steel (316L/1.4404); FKM; NBR; PBT; PC; PA; PP; TPV | |

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Materials (wetted parts)

PP

Displays / operating elements

| | | |
|---------|-------------------|-----------------------------------|
| Display | Display unit | 4 x LED, green (cm, inch, °C, °F) |
| | switching status | 4 x LED, yellow (OUT4...OUT1) |
| | measured values | alphanumeric display, 4-digit |
| | parameter setting | alphanumeric display, 4-digit |

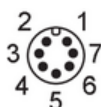
Remarks

Pack quantity

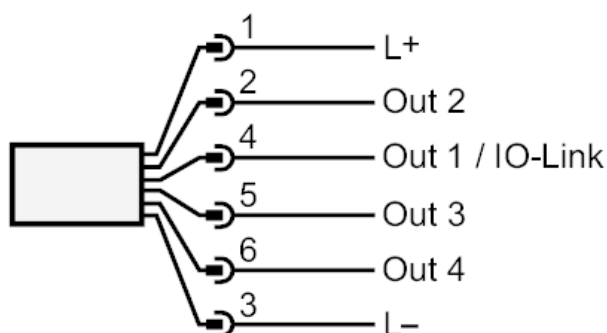
1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



Connection



OUT1: switching output IO-Link
OUT2...4: switching output