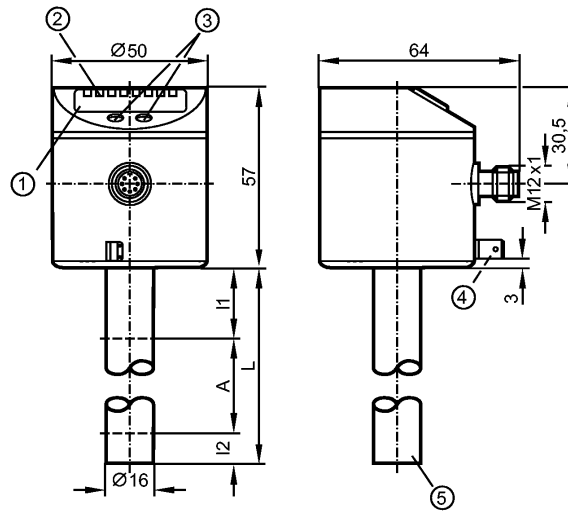


LT8024

LT0728B-B-00KSPKG/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: status LEDs
- 3: Programming buttons
- 4: Housing connection (flat-pin connector 6.3 mm following DIN 46244)
- 5: Position of the temperature measuring element



Product characteristics

Electronic level and temperature sensor

Quick disconnect

Probe length: L = 728 mm

2 outputs for level monitoring (OUT1, OUT2)
2 outputs for temperature monitoring (OUT3, OUT4)

4-digit alphanumeric display

Application

| | |
|---------------------------------------------|--------|
| Application | oils |
| Recommended media | oils |
| Dielectric constant medium | > 2 |
| Medium temperature oil | |
| - Continuous [°C] | 0...70 |
| - Short time [°C] | 0...90 |
| Maximum speed of the change of level [mm/s] | 300 |

Electrical data

| | |
|-----------------------------|--------------------------|
| Electrical design | DC PNP |
| Operating voltage [V] | 18...30 DC ¹⁾ |
| Current consumption [mA] | < 60 |
| Protection class | III |
| Reverse polarity protection | yes |

Outputs

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Level sensors

| | |
|--------------------------|----------------------------------------------------------------------------------------------------------|
| Output | 2 outputs for level monitoring (OUT1, OUT2) 2 outputs for temperature monitoring (OUT3, OUT4) |
| Output function | 2 x normally open / closed programmable (level) 2 x normally open / closed programmable (temperature) |
| 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...580 |
| Reset point, rP [mm] | 50...570 |
| in steps of [mm] | 10 |
| Hysteresis [mm] | 5 |
| Reference point OP [mm] | 200 - 240 - 280 - 310 - 350 - 390 - 420 - 460 - 500 - 530 - 570 - 610 |
| Hysteresis OP [mm] | 4 |
| Temperature monitoring | |
| Measuring range [°C] | -10...100 **) |
| Set point, SP [°C] | 0.5...90 |
| Reset point, rP [°C] | 0.0...89.5 |
| in steps of [°C] | 0.5 |
| Hysteresis [K] | 0.5 |

| Accuracy / deviations | |
|--------------------------------------------|-------------------|
| Deviations (% of value of measuring range) | |
| Switch point accuracy | ± 5 |
| Repeatability | ± 2 |
| Resolution [mm] | 10 |
| Temperature monitoring | |
| Accuracy [K] | ± 1 |
| Resolution [K] | 0.5 |
| Dynamic response (T09) [s] | 90 (DIN EN 60751) |

| 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 | |
|-------------------|--|
|-------------------|--|

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Level sensors

| | | |
|----------------------|----------------------------|--------------------|
| 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 61000-4-5 Surge: | 0.5/1 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] | | 224 |

Mechanical data

| | |
|--------------------------|-------------------------------------------------|
| Materials (wetted parts) | PP (polypropylene) |
| Housing materials | FKM; NBR; PBT; PC; PP; TPE / V; stainless steel |
| Weight [kg] | 0.509 |

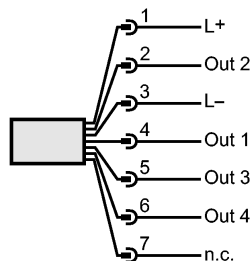
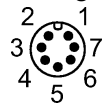
Displays / operating elements

| | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display | Display unit 4 x LED green (cm, inch, °C, °F) Switching status 4 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Electrical connection

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

Wiring



Remarks

| | |
|---------|---------------------------------------------------------------------------------------------------------------------------------|
| Remarks | n.c. = not connected **) permissible medium temperature: see line "medium temperature" ¹) cULus - Class 2 source required |
|---------|---------------------------------------------------------------------------------------------------------------------------------|

| | |
|-----------------------|---|
| Pack quantity [piece] | 1 |
|-----------------------|---|

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