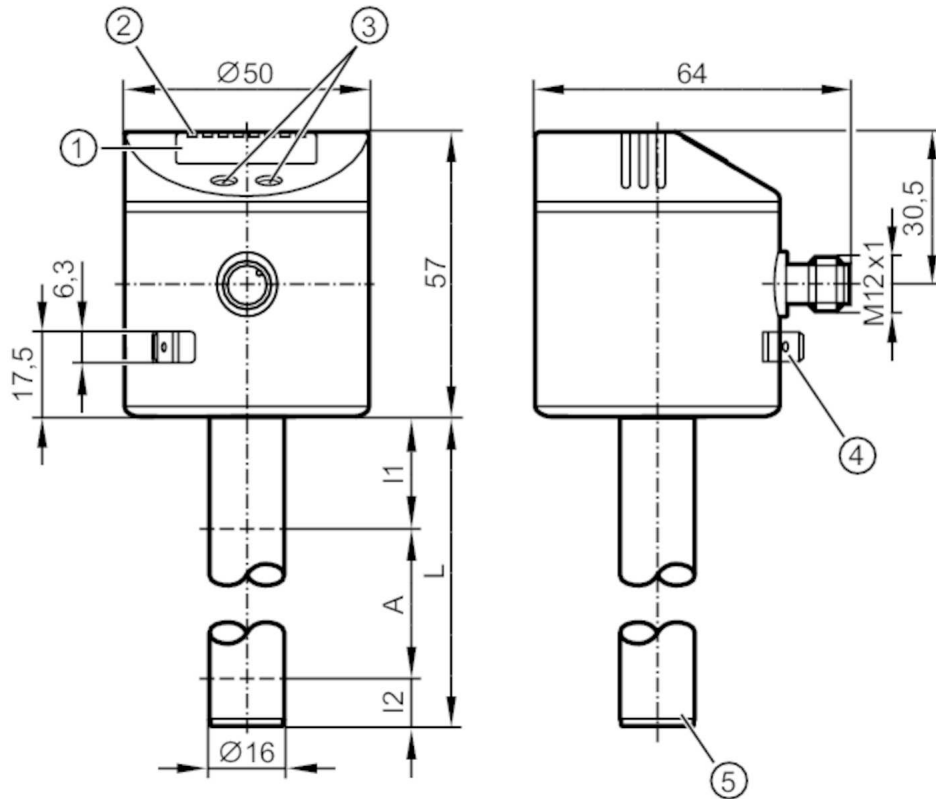


# LT3023



## Electronic level and temperature sensor

LT0472B-B-00KLPKG/US



- 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: 1; Number of analog outputs: 1
Factory setting	mineral oils
Probe length L [mm]	472

### 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 [bar]	0.5; (when mounting with mounting accessories: E43001 - E43007, E43019)
<b>Coolants</b>	
Medium temperature [°C]	0...35; (with climate tube E43101 35...60 °C)
<b>Oil</b>	
Medium temperature [°C]	0...70
Medium temperature short time [°C]	0...90; (< 1 h)
<b>Water</b>	
Medium temperature [°C]	0...35; (with climate tube E43101 35...60 °C)

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LT0472B-B-00KLPKG/US

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
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]	200
Number of analog outputs	1
Analog current output [mA]	4...20, invertible
Max. load [ $\Omega$ ]	500
Analog voltage output [V]	0...10, invertible
Min. load resistance [ $\Omega$ ]	2000
Short-circuit protection	yes
Type of short-circuit protection	thermal, pulsed
Overload protection	yes
Measuring/setting range	
Factory setting	mineral oils
Probe length L [mm]	472
Active range A [mm]	390
Inactive range I1 / I2 [mm]	60 / 22
Setting range	
Set point SP [mm]	35...390
Reset point rP [mm]	30...385
In steps of [mm]	5
Reference point OP [mm]	139 - 163 - 188 - 212 - 236 - 261 - 285 - 310 - 334 - 358 - 383 - 407 - OFF
Hysteresis, OP [mm]	3
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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## Electronic level and temperature sensor

LT0472B-B-00KLPKG/US

Resolution of switching output	[K]	0.5
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### Accuracy / deviations

Measuring error		± 5
	[% of the final value]	
Repeatability		± 2
Resolution	[mm]	5
Zero signal (voltage)	[V]	0
Zero signal (current)	[mA]	4.0
Full signal (voltage)	[V]	10
Full signal (current)	[mA]	20

### 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 / closed; switching logic; current/voltage output; SP/ rP position; adjustment OP; medium selection; offset setting; switch-on/switch-off delay
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### 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	4	
Process data binary	1	
Min. process cycle time	[ms]	4.5
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	647

### 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]	222
UL approval	UL approval number	H002

### Mechanical data

Weight	[g]	372.25
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# LT3023



## Electronic level and temperature sensor

LT0472B-B-00KLPKG/US

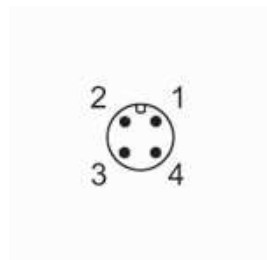
Dimensions	[mm]	Ø 16
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); FKM; NBR; PBT; PC; PA; PP; TPV	
Materials (wetted parts)	PP	

Displays / operating elements		
Display	Display unit	4 x LED, green (cm, inch, °C, °F)
	Switching status	1 x LED, yellow
	Measured values	alphanumeric display, 4-digit
	Parameter setting	alphanumeric display, 4-digit

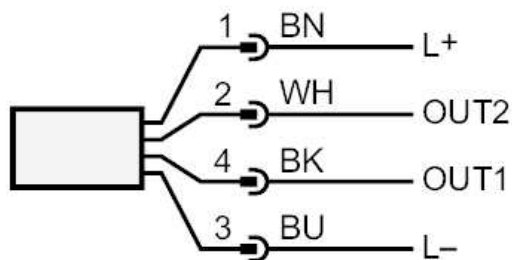
Remarks	
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A



### Connection



OUT1: Switching output IO-Link  
OUT2: analog output  
Colors to DIN EN 60947-5-2  
Core colors :  
BK = black  
BN = brown  
BU = blue  
WH = white