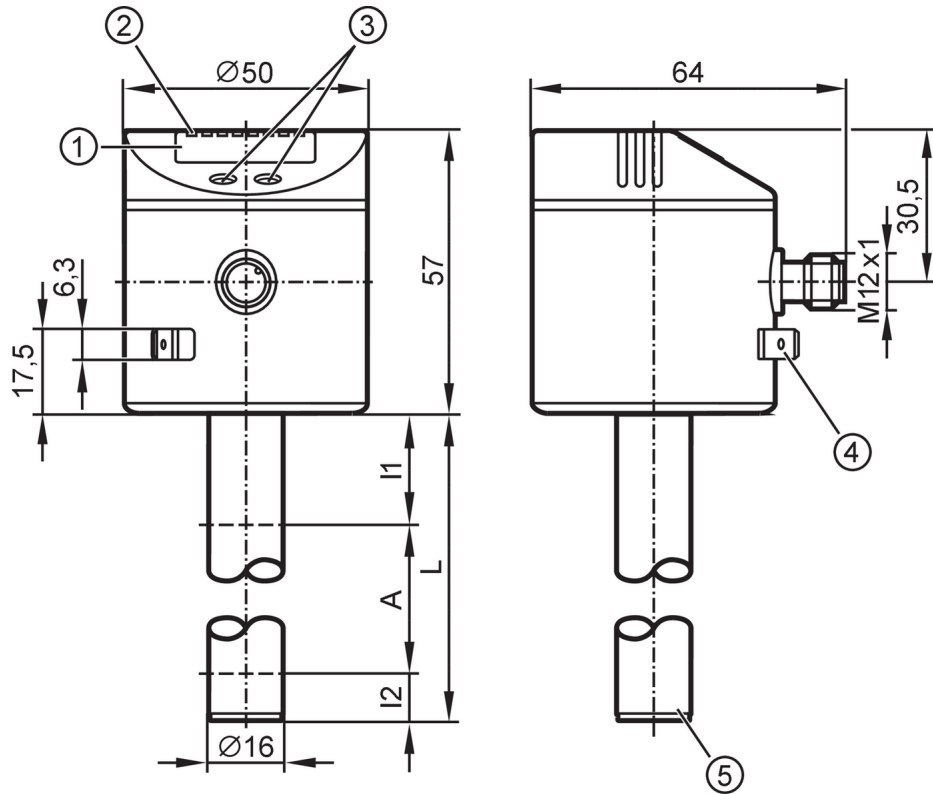


# LT3024



## Electronic level and temperature sensor

LT0728B-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 analogue outputs: 1
Factory setting	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
<b>Coolants</b>	
Medium temperature [°C]	0...35; (with climatic tube E43102 35...55 °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 climatic tube E43102 35...55 °C)

# LT3024



## Electronic level and temperature sensor

LT0728B-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 analogue outputs: 1
Outputs	
Total number of outputs	2
Output signal	switching signal; analogue signal; IO-Link
Electrical design	PNP/NPN
Number of digital outputs	1
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
Number of analogue outputs	1
Analogue current output [mA]	4...20, invertible
Max. load [ $\Omega$ ]	500
Analogue 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]	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

# LT3024



## Electronic level and temperature sensor

LT0728B-B-00KLPKG/US

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

### 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 / normally closed; switching logic; current/voltage output; SP/rP position; adjustment OP; medium selection; offset setting; switch-on/switch-off delay
---------------------------	--

### 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	1	
Min. process cycle time	[ms]	4.5
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	648

### 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

# LT3024



## Electronic level and temperature sensor

LT0728B-B-00KLPKG/US

UL approval	UL approval no.	H002
-------------	-----------------	------

### Mechanical data

Weight [g]	556.3
Dimensions [mm]	Ø 16
Materials	stainless steel (304/1.4301); stainless steel (316L/1.4404); 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

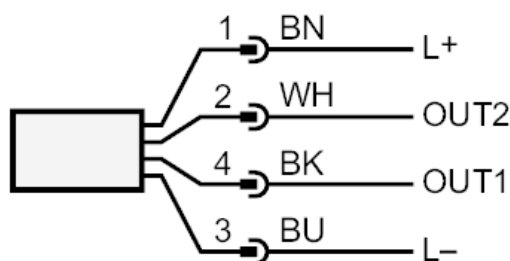
Pack quantity	1 pcs.
---------------	--------

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



### Connection



OUT1: switching output IO-Link  
OUT2: analogue output  
colours to DIN EN 60947-5-2

Core colours :

BK = black  
BN = brown  
BU = blue  
WH = white