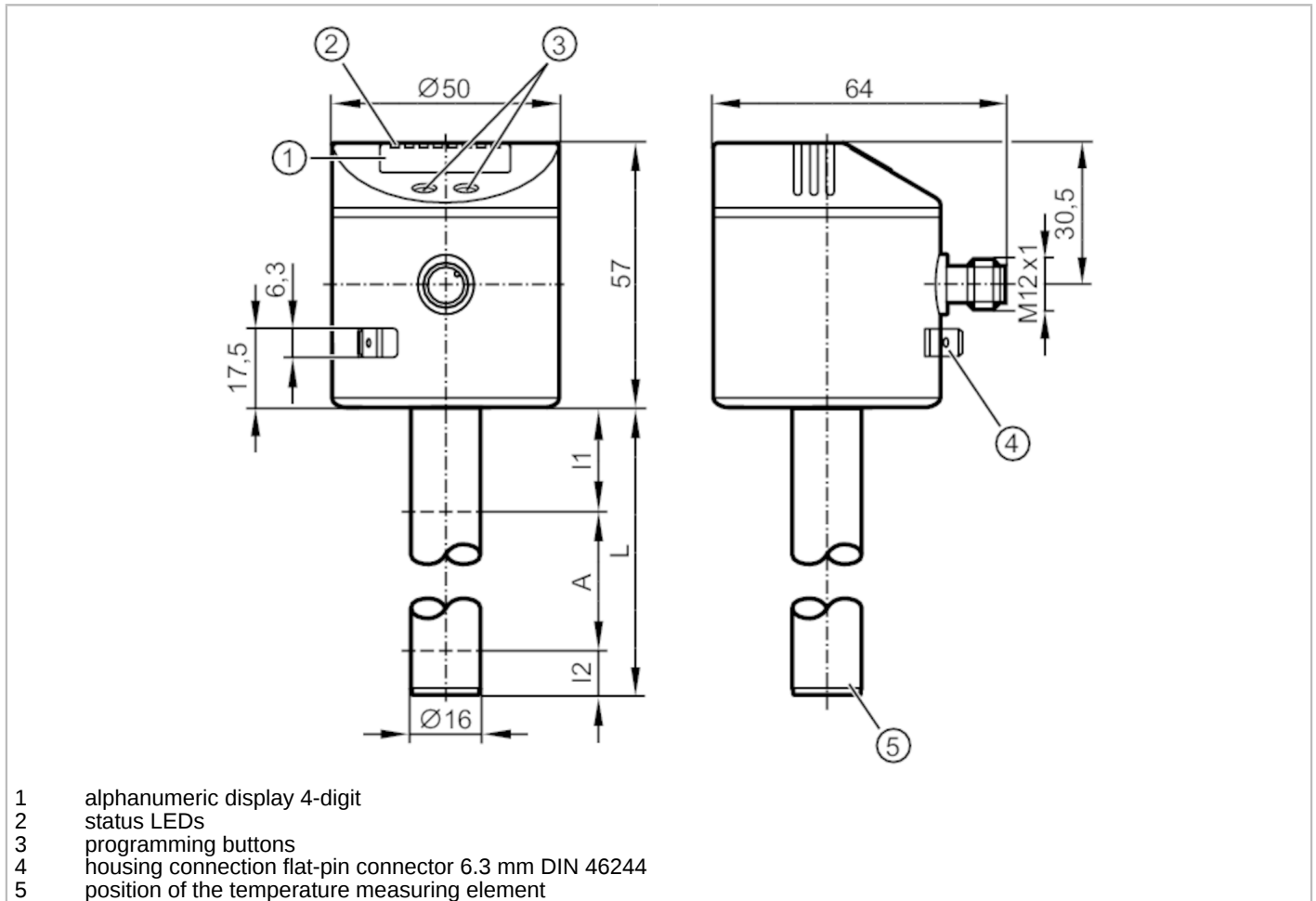


LT3024



Electronic level and temperature sensor

LT0728B-B-00KLPKG/US



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
Coolants	
Medium temperature [°C]	0...35; (with climatic tube E43102 35...55 °C)
Oil	
Medium temperature [°C]	0...70
Medium temperature short time [°C]	0...90; (< 1 h)
Water	
Medium temperature [°C]	0...35; (with climatic tube E43102 35...55 °C)

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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 [Ω]	500
Analogue voltage output [V]	0...10, invertible
Min. load resistance [Ω]	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

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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 / normally 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 type	A	
Process data analogue	4	
Process data binary	1	
Min. process cycle time	[ms]	4.5
Supported DeviceIDs	Type of operation	DeviceID
	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
UL approval	UL Approval no.	H002

Mechanical data

Weight	[g]	556.3
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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

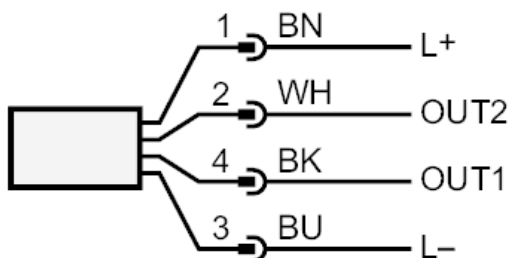
Remarks	
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



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