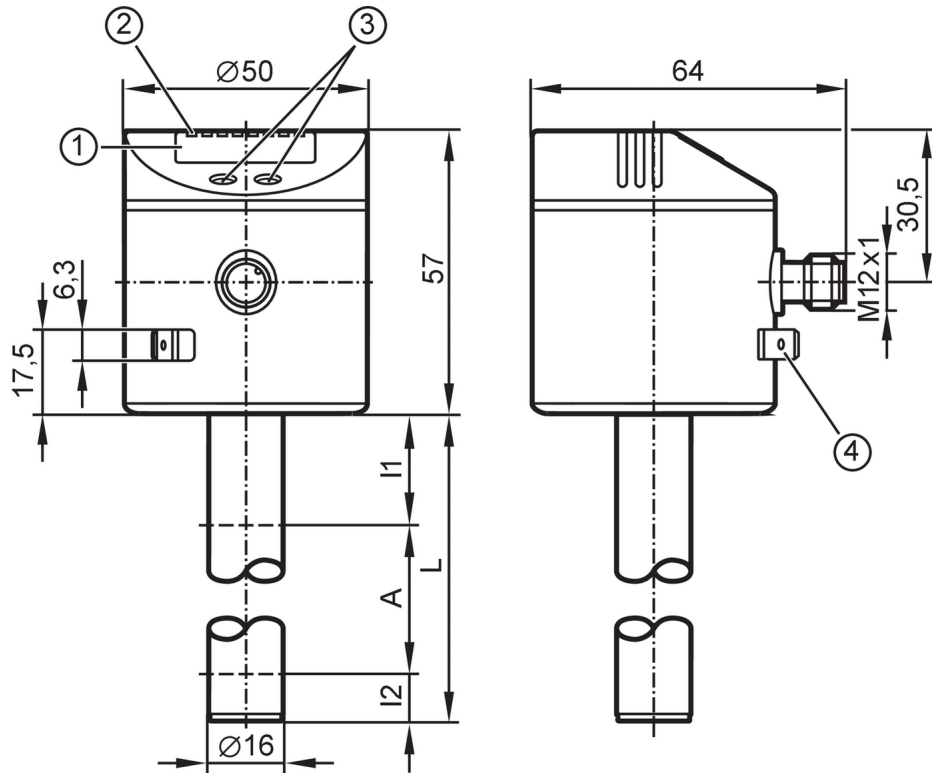


# LK7023



## Electronic level sensor

LK0472A-A-00KQPKG/US



- 1 alphanumeric display 4-digit
- 2 status LEDs
- 3 Programming buttons
- 4 housing connection flat-pin connector 6.3 mm DIN 46244



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2
Factory setting	automatic medium detection
Probe length L [mm]	472

### Application

Special feature	gold-plated contacts
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; hygienic areas and electroplating applications
Maximum speed of the change of level [mm/s]	200
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 climate tube E43101: 35...60 °C)
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### Oil

Medium temperature [°C]	0...70
Medium temperature short time [°C]	0...90; (< 1 h)

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Water	
Medium temperature	[°C] 0...35; (with climate tube E43101: 35...60 °C)
<b>Electrical data</b>	
Operating voltage	[V] 12...30 DC
Current consumption	[mA] < 50
Protection class	III
Reverse polarity protection	yes
Power-on delay time	[s] < 3
Measuring principle	capacitive
<b>Inputs / outputs</b>	
Number of inputs and outputs	Number of digital outputs: 2
<b>Outputs</b>	
Total number of outputs	2
Output signal	switching signal; IO-Link
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / closed; (configurable)
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
<b>Measuring/setting range</b>	
Factory setting	automatic medium detection
Probe length L	[mm] 472
Active range A	[mm] 390
Inactive range I1 / I2	[mm] 60 / 22
<b>Setting range</b>	
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
<b>Accuracy / deviations</b>	
Measuring error	± 5
[% of the final value]	
Repeatability	± 2
Resolution	[mm] 5
<b>Software / programming</b>	
Parameter setting options	hysteresis / window; normally open / closed; switching logic; 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 - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
SIO mode	yes	
Required master port class	A	
Process data analog	2	
Process data binary	2	
Min. process cycle time [ms]	3.2	
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	656
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]	265	
Mechanical data		
Weight [g]	372.2	
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	2 x LED, green (cm, inch)
	Switching status	2 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: gold-plated		

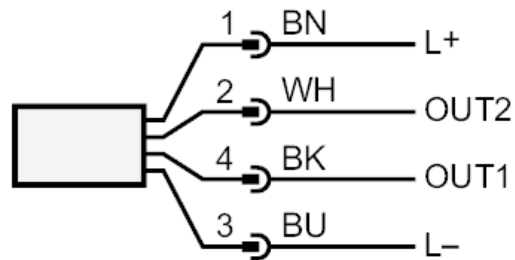
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### Connection



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