

LK1023



Electronic level sensor

LK0472B-B-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	hydrous coolants; water; media similar to water
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; hygienic areas and electroplating applications
Maximum speed of the change of level [mm/s]	200
Tank pressure [bar]	0.5; (when mounting with mounting accessories: E43001 - E43007, E43019)
Coolants	
Medium temperature [°C]	0...35; (with climatic tube E43101: 35...60 °C)
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 climatic tube E43101: 35...60 °C)
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
Measuring principle		capacitive
Inputs / outputs		
Number of inputs and outputs		Number of digital outputs: 2
Outputs		
Total number of outputs		2
Output signal		switching signal; IO-Link
Electrical design		PNP/NPN
Number of digital outputs		2
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
Short-circuit protection		yes
Type of short-circuit protection		thermal, pulsed
Overload protection		yes
Measuring/setting range		
Factory setting		hydrous coolants; water; media similar to water
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
Accuracy / deviations		
Measuring error	[X16]	± 5
Repeatability		± 2
Resolution	[mm]	5
Software / programming		
Parameter setting options		hysteresis / window; normally open / normally 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: Process Data Variable; Device Identification, Device Diagnosis	
SIO mode	yes	
Required master port type	A	
Process data analogue	2	
Process data binary	2	
Min. process cycle time [ms]	3.2	
Supported DeviceIDs	Type of operation	DeviceID
	default	653
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 [ANN]	265	
Mechanical data		
Weight [g]	372.45	
Dimensions [mm]	Ø 16	
Materials	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.	

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Electrical connection

Connector: 1 x M12; coding: A



Connection



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

Core colours :

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