

Technical note: PDF

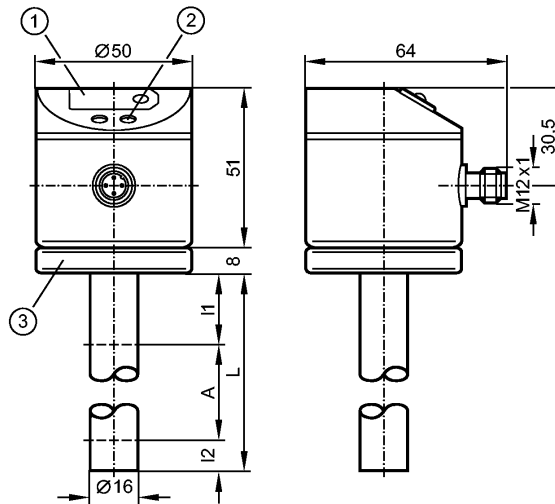
efector160

LK7023



LK0472A-A-00KQPKG/US

Level sensors



- 1: 7-segment LED display
- 2: Programming buttons
- 3: Housing connection with cable lug for cable 1.5 - 2.5 mm²



Product characteristics

Electronic level sensor

Quick disconnect

Probe length: L = 472 mm

2 switching outputs

7-segment LED display

Application

Application

hydrous coolants
 mineral oils (dielectric constant < 3)
 water, media similar to water
 cannot be used for media with separation layers (oil + water; oil/metal layer)
 cannot be used for acids and alkalis

Dielectric constant medium

> 2

Medium temperature oil [°C]

0...65

Medium temperature water and hydrous media [°C]

0...60 **)

Medium temperature coolant emulsions [°C]

0...60 **)

Medium temperature [°C]

0...35 (LK7023 + E43101: 0...60) **)

Maximum speed of the change of level [mm/s]

200

Electrical data

Electrical design

DC PNP

Operating voltage [V]

12...30 DC

Current consumption [mA]

< 80

Protection class

III

Reverse polarity protection

yes

Outputs

Output

2 switching outputs

Output function

2 x normally open / closed programmable


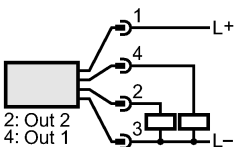
Current rating [mA]

200

Voltage drop [V]

< 2.5

LK7023 - Electronic level sensor - eclass: 27371813 / 27-37-18-13

Short-circuit protection	yes (non-latching)
Overload protection	yes
Measuring / setting range	
Probe length L [mm]	472
Active range A [mm]	390
Inactive range I1 / I2 [mm]	53 / 30
Setting range	
Set point, SP [mm]	40...415
Reset point, rP [mm]	35...410
in steps of [mm]	5
Hysteresis [mm]	5
Accuracy / deviations	
Deviations (% of value of measuring range)	
Switch point accuracy	± 5
Repeatability	± 2
Reaction times	
Power-on delay time [s]	3
Software / programming	
Adjustment of the switch point	Programming button
Environment	
Ambient temperature [°C]	0...60
Storage temperature [°C]	-25...80
Maximum vessel pressure [bar]	0.5 (mounted with mounting accessories E43001 - E43007)
Protection	IP 67
Tests / approvals	
EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 500 V / 1 kV EN 61000-4-6 HF conducted: 10 V
Shock resistance	DIN EN 60068-2-29: 12 g (11 ms)
Vibration resistance	DIN EN 60068-2-6 2.5 g (10...2000 Hz)
MTTF [Years]	265
Mechanical data	
Materials (wetted parts)	PP (polypropylene)
Housing materials	EPDM/X (Santoprene); FPM (Viton); brass Optalloy-plated; NBR (Buna N); PA; PBT (Pocan); PC (Makrolon); PP (polypropylene)
Weight [kg]	0.597
Displays / operating elements	
Display	Switching status 2 x LED red Measured values 7-segment LED display Programming 7-segment LED display
Electrical connection	
Connection	M12 connector; gold-plated contacts
Wiring	
Programming of the output function: Hno = hysteresis / normally open Hnc = hysteresis / normally closed Fno = window function / normally open Fnc = window function / normally closed	 
Complementary outputs: output 1: = Hno, output 2: = Hnc (with the same SP / rP)	
Remarks	**) for water and hydrous media with temperatures > 35 °C install the unit into a climatic tube (order no. E43101)

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Pack quantity [piece] 1

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