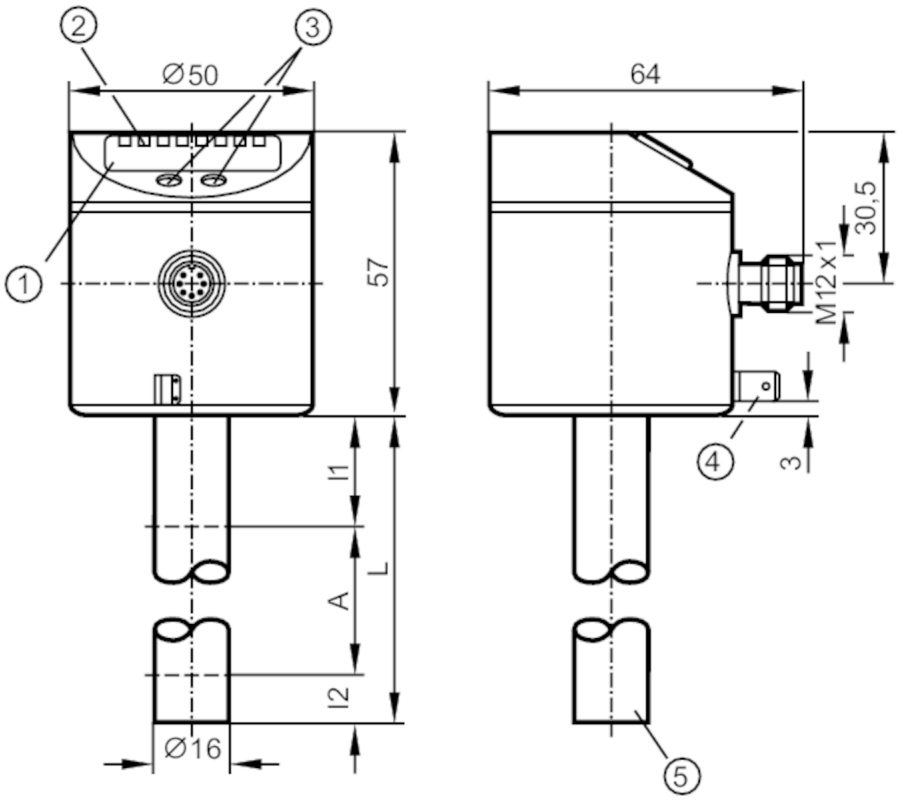
LL8023

Continuous level sensor with leakage monitoring

LL0472B-B-00KVPKG/US

phase-out article

For 8-pole sockets the core colours are not standardised.
Please note the wiring of the sensor and the sockets (see data sheet).



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: 4
Probe length L	[mm]	472
Application		
Special feature		Gold-plated contacts
Media		hydrous coolants; oils; 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	[bar]	0.5; (when mounting with mounting accessories: E43001 - E43007, E43019)
Coolants		
Medium temperature	[°C]	0...35; (LL8023 + E43101: 0...60; For water and hydrous media with temperatures > 35 °C install the unit into a climatic tube.)

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Oil		
Medium temperature	[°C]	0...70
Medium temperature short time	[°C]	0...90
Water		
Medium temperature	[°C]	0...35; (LL8023 + E43101: 0...60; For water and hydrous media with temperatures > 35 °C install the unit into a climatic tube.)
Electrical data		
Operating voltage	[V]	18...30 DC; ("supply class 2" to cULus)
Current consumption	[mA]	< 60
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: 4
Outputs		
Total number of outputs		4
Output signal		switching signal
Electrical design		PNP
Number of digital outputs		4
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		
Probe length L	[mm]	472
Active range A	[mm]	390
Inactive range I1 / I2	[mm]	53 / 30
Setting range		
Set point SP	[mm]	40...390
Reset point rP	[mm]	35...385
In steps of	[mm]	5
Hysteresis	[mm]	5
Overflow switch point OP	[mm]	139 - 163 - 188 - 212 - 236 - 261 - 285 - 310 - 334 - 358 - 383 -407
Hysteresis, OP	[mm]	3
Temperature monitoring		
Display range	[°C]	-10...100

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Accuracy / deviations			
Measuring error [% of the final value]		± 5	
Repeatability		± 2	
Software / programming			
Parameter setting options		hysteresis / window; normally open / normally closed; SP/ rP position; OP position; adjustment OP; medium selection; offset setting; Display unit; settings for leakage monitoring	
Operating conditions			
Ambient temperature	[°C]	0...60	
Storage temperature	[°C]	-25...80	
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 61000-4-6 HF conducted	10 V
Shock resistance		DIN EN 60068-2-29	15 g (11 ms)
Vibration resistance		DIN EN 60068-2-6	5 g (10...2000 Hz)
MTTF	[years]	202	
Mechanical data			
Weight	[g]	424	
Dimensions	[mm]	Ø 16	
Materials		stainless steel (1.4301 / 304); FKM; NBR; PBT; PC; PEI; PP; TPE-V	
Materials (wetted parts)		PP	
Displays / operating elements			
Display		display unit / status	4 x LED, green
		switching status	4 x LED, yellow
		level	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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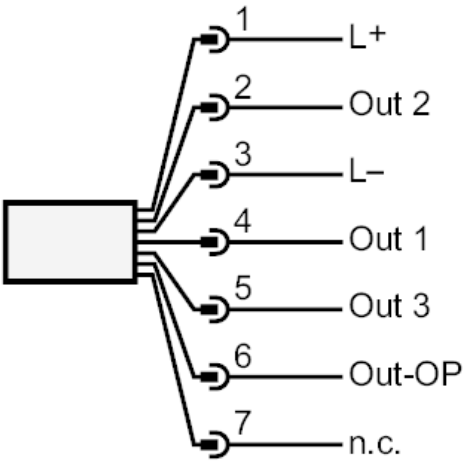
Connection