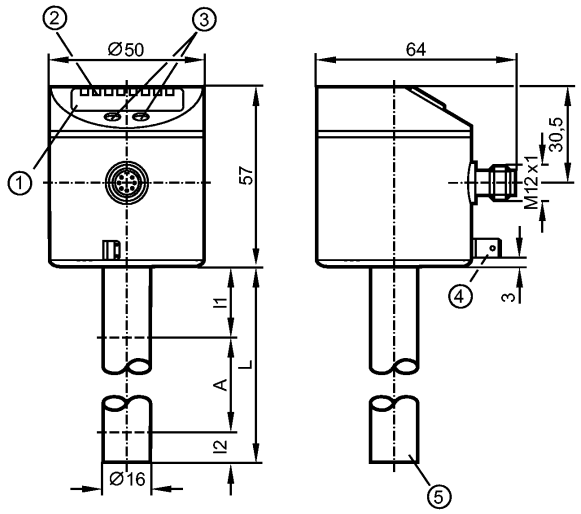
LL8024

LL0728B-B-00KVPKG/US

Level sensors

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



1: 4-digit alphanumeric display
2: status LEDs
3: Programming buttons
4: Housing connection (flat-pin connector 6.3 mm following DIN 46244)
5: Position of the temperature measuring element

Product characteristics

Electronic level sensor
with leakage monitoring

Quick disconnect

4 switching outputs:

1 operating output

1 output sudden leakage

and minimum level alarm

1 output progressive leakage

1 overflow output

Temperature indication

-10...100 °C

4-digit alphanumeric display

Probe length: L = 728 mm

4-digit alphanumeric display

Application

Application		Hydrous coolants, oils, water, media similar to water
Cannot be used for:		extremely conductive and adhering media, granulates and bulk materials, acids and alkalis, food and electroplating applications
Dielectric constant medium		> 2
Medium temperature oil		
- Continuous	[°C]	0...70
- Short time	[°C]	0...90
Medium temperature water and hydrous media	[°C]	0...35 (LL8024 + E43102: 0...55) **)
Medium temperature coolant emulsions	[°C]	0...35 (LL8024 + E43102: 0...55) **)

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Maximum speed of the change of level	[mm/s]	300
Electrical data		
Electrical design		DC PNP
Operating voltage	[V]	18...30 DC [1])
Current consumption	[mA]	< 60
Protection class		III
Reverse polarity protection		yes
Outputs		
Output function		4 x normally open / closed programmable
Current rating	[mA]	200
Voltage drop	[V]	< 2.5
Short-circuit protection		thermal, pulsed
Overload protection		yes
Measuring / setting range		
Probe length L	[mm]	728
Active range A	[mm]	585
Inactive range I1 / I2	[mm]	102 / 40
Setting range		
Set point, SP	[mm]	60...580
Reset point, rP	[mm]	50...570
in steps of	[mm]	10
Hysteresis	[mm]	10
Overflow switch point OP	[mm]	200 - 240 - 280 - 310 - 350 - 390 - 420 - 460 - 500 - 530 - 570 -610
Hysteresis OP	[mm]	4
Accuracy / deviations		
Deviations (% of value of measuring range)		
Switch point accuracy		± 5
Repeatability		± 2
Reaction times		
Power-on delay time	[s]	3
Software / programming		
Programming options		hysteresis / window function; N.O. / N.C; position of SP/rP; position of OP; OP adjustment; medium adjustment; offset; display unit; settings for leakage monitoring
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 61000-4-6 HF conducted: 10 V
Shock resistance		DIN EN 60068-2-29: 15 g (11 ms)

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Level sensors

Vibration resistance	DIN EN 60068-2-6	5 g (10...2000 Hz)
MTTF [Years]	202	

Mechanical data

Materials (wetted parts)	PP
Housing materials	stainless steel (304S15); FKM; NBR; PBT; PC; PEI; PP; TPE / V
Weight [kg]	0.535

Displays / operating elements

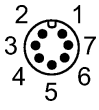
Display	Display unit / status	4 x LED green
	Switching status	4 x LED yellow
	Level	4-digit alphanumeric display
	Programming	4-digit alphanumeric display

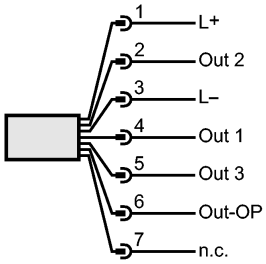
Electrical connection

Connection: M12 connector (according to EN 61076-2-101); gold-plated contacts

Wiring

OUT1 = operating output
OUT2 = output sudden leakage / minimum level alarm
OUT3 = output progressive leakage
OUT-OP = overflow output
n.c. = not connected





Remarks

Remarks:
[1]) cULus - Class 2 source required
**) for water and hydrous media with temperatures > 35 °C install the unit into a climatic tube (order no. E43102)

Pack quantity [piece]	1	

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