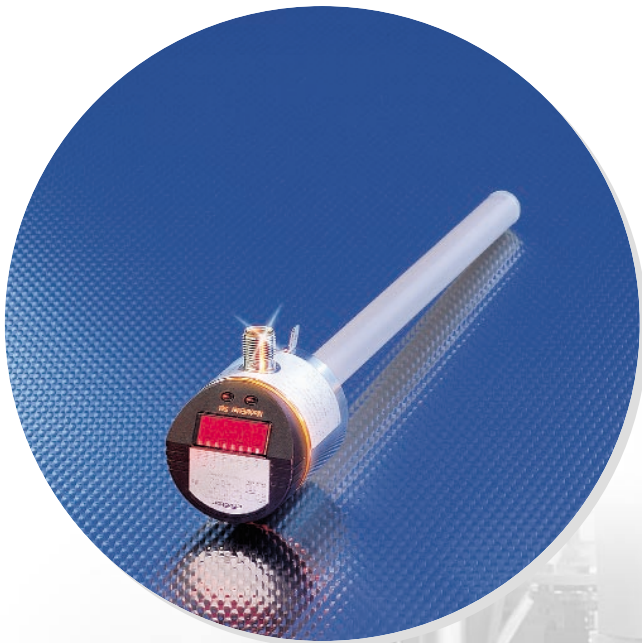


Level sensor with integrated leakage monitoring.



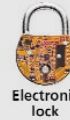
It safely detects sudden and progressive leakage.

- Freely programmable operating switching output.
- Additional switch point designed as overflow protection.
- 2 configurable switching outputs for the detection of leakage.
- Easy medium selection via the user menu.
- Direct indication of the current level by LED display.

IP 67



M12 connector



Electronic lock

LED display

One unit – three functions

Sensors of type LL are suited for the continuous detection of levels in vessels of all kinds. It is for example possible to detect vessels in coolant or hydraulic plants. Levels can be conveniently controlled within the set limits using the operating switching output.

In addition, critical process states such as overflow of the vessel can be directly monitored using the overflow switch point. For safety reasons this output is completely independent of the level measurement.

The two programmable outputs of the leakage monitor detect sudden as well as progressive leakage without additional programming of the controller.



fluid sensors and diagnostic systems

position sensors and object recognition

bus, identification and control systems

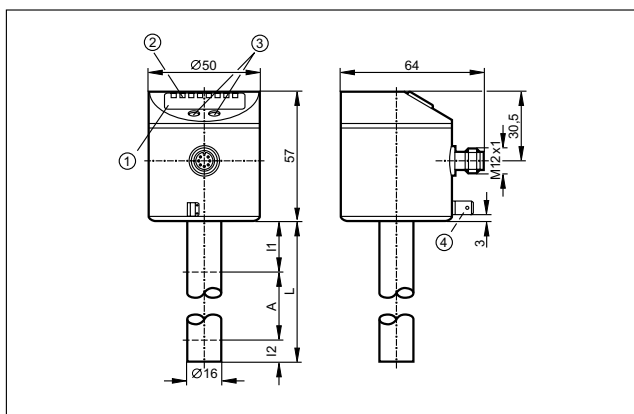
Level sensors

Rod length 264, 472 and 728 mm
 Electrical design: DC PNP, 8-wire
 M12 connector

Rod length [mm]	Active zone [mm]	Inactive zone [mm]	U _b [V]	Medium temperature [°C]	I _B [mA]	Order no.
Output function 1 x / , 1 x overflow output, 2 x / leakage monitoring						
264	195	53 / 15	18...30 DC	0...70 * / 65 **	200	LL8022
472	390	53 / 30	18...30 DC	0...70 * / 60 **	200	LL8023
728	585	102 / 40	18...30 DC	0...70 * / 55 **	200	LL8024

Medium temperature * oil / ** for hydrous coolants, water and media similar to water the unit has to be mounted in the climatic tube if the temperatures are > 35°C (order no. E43100, E43101, E43102).

Dimensions



- 1) 4-digit alphanumeric display
- 2) LEDs
- 3) Programming buttons
- 4) Housing connection (flat-pin connector 6.3 mm following DIN 46244)

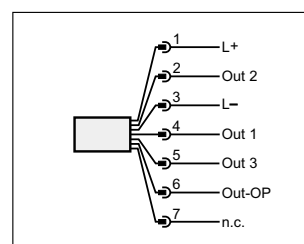
Accessories

Type	Description	Order no.
	Mounting clamp, Ø 16 mm	E43000
	Mounting clamp, Ø 16 mm with angle bracket	E43016
	Welding adapter Ø 50 / M24 x 1.5 for capacitive level sensors	E43002
	Welding adapter G 3/4 / M24 x 1.5 for capacitive level sensors	E43003
	Welding adapter G 1 / M24 x 1.5 for capacitive level sensors	E43004
	Flange plate, LK 73-90	E43001
	Flange plate, LK 65-80	E43006

Common technical data

Current consumption	[mA]	< 60
Power-on delay time	[s]	3
Switch point accuracy	[%]	± 5
Repeatability	[%]	± 2
Max. response time of peak monitoring	[s]	2
Max. response time of continuous monitoring	[s]	5
Dielectric constant medium		> 2
Maximum vessel pressure (when mounted with mounting accessories E43000 – E43007)	[bar]	0.5
Operating temperature	[°C]	0...60
Storage temperature	[°C]	-25...80
Materials (wetted parts)		PP
Housing materials		FKM, NBR, PBT, PC, PEI, PP, TPE-V, stainless steel

Wiring diagram



Connectors and splitter boxes

Type	Description	Order no.
	Socket, M12, 2 m black, PUR cable	E11231
	Socket, M12, 5 m black, PUR cable	E11232
	Socket, M12, 10 m black, PUR cable	E11311

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