

Level sensors

**LR3000**

Electronic level sensor  
LR30

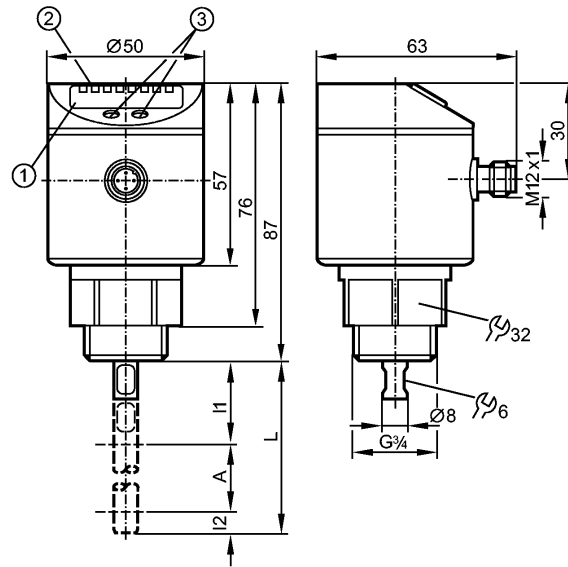
Plug and socket  
Process connection: G $\frac{3}{4}$  A

Guided wave radar  
Freely rotatable housing 360°

Probe length  
L = 150...1600 mm \*)

2 Output  
OUT1 = Switching output  
OUT2 = Analogue output

4-digit alphanumeric display



- 1: 4-digit alphanumeric display
- 2: LEDs (display unit / switching status)
- 3: Programming buttons



**Application**  
**Electrical design**  
**Output**

Operating voltage	[V]
Current rating	[mA]
Short-circuit protection	
Reverse polarity protection	
Overload protection	
Voltage drop	[V]
Current consumption	[mA]
Analogue output	
Active range A	[mm]
Inactive range I1 / I2	[mm]
<b>Setting range</b>	
Set point, SP	[mm]
Reset point, rP	[mm]
in steps of	[mm]
Hysteresis	[mm]

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

**Deviations (in cm)**

Switch point accuracy	
Repeatability	
Characteristics deviation	
Offset error	[mm]
Measuring sensitivity [mA/V pro mm]	
Resolution	[mm]
Zero signal [mA/V]	
Full signal [mA/V]	

**Hydrous coolants, water, media similar to water**  
**DC PNP**  
**normally open / closed programmable; 4...20 mA or 0...10 V**

Operating voltage	18...30 DC
Current rating	200
Short-circuit protection	thermal, pulsed
Reverse polarity protection	yes
Overload protection	yes
Voltage drop	< 2.5
Current consumption	< 80
Analogue output	I: 4...20 mA / U: 0...10 V (I: max. 500 / U: min. 2000 Ω)
Active range A	L - 50
Inactive range I1 / I2	40/10
Set point, SP	15...(L - 40)
Reset point, rP	10...(L - 45)
in steps of	5
Hysteresis	5
Maximum speed of the change of level	100
Switch point accuracy	± (1.5 + 0.5% A) **)
Repeatability	± 0.5
Characteristics deviation	± 1.0
Offset error	± 10
Measuring sensitivity [mA/V pro mm]	16 mA/A **) / 10 V/A **)
Resolution	0.5 ***) / 0.2% A ****)
Zero signal [mA/V]	3.6...4.0 / 0...0.2
Full signal [mA/V]	20...20.8 / 10.0...10.3

**LR3000**

Recommended media	Hydrous coolants, water, media similar to water
Cannot be used for:	oils, grease, granulates, bulk material, acids, alkalis; food and electroplating applications
Dielectric constant medium	> 20
Maximum vessel pressure [bar]	-1...4
Power-on delay time [s]	3
Operating temperature [°C]	0...60
Medium temperature [°C]	0...80
Storage temperature [°C]	-25...80
Protection	IP 67, III
Shock resistance	DIN EN 60068-2-29:12 g (11 ms)
Vibration resistance	2.5 g (RMS, 1...1000 Hz)
EMC	IEC 60947-1
Housing material	stainless steel (304S15); FKM; NBR; PBT; PC; PEI; TPE / V; PTFE
Materials (wetted parts)	stainless steel (303S22); PTFE; NBR
Display	Display unit 2 LED green Switching status 1 LED yellow Level 4-digit alphanumeric display Programming 4-digit alphanumeric display
Connection	M12 connector (according to EN 61076-2-101); gold-plated contacts
Remarks	*) depending on the probe (to be ordered separately as accessory) **) A = active zone ***) active zone up to 250 mm ****) active zone 250...1550 mm
Accessories (included)	sealing (Tesnit)

**Wiring**

