

- 1: 4-digit alphanumeric display
- 2: LEDs (display unit / switching status)
- 3: Programming buttons
- A: Active zone
- I1 / I2: Inactive ranges



Product characteristics

Electronic level sensor

Quick disconnect

Process connection: $\frac{3}{4}$ " NPT

Communication interface: IO-Link 1.1

Guided wave radar

Freely rotatable housing 360°

Probe length: L = 100...1600 mm

2 Output

OUT1 = Switching output

OUT2 = Analog output

4-digit alphanumeric display

Application

Application

Hydrous coolants, water, media similar to water

Recommended media

Hydrous coolants, water, media similar to water

Conditionally suitable for:

acids or alkalis, in hygienic areas or in electroplating applications (check the compatibility of the materials with the media to be monitored!)

Cannot be used for:

oils, greases, granulates, bulk materials, acids, alkalis; hygienic and electroplating applications; heavily foaming media

Dielectric constant medium

≥ 20

MAWP (for applications according to CRN) [bar]

25

Medium temperature [°C]

0...80 (90 < 1 h)

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

100

Electrical data

Electrical design

DC PNP

Operating voltage [V]

18...30 DC

LR3300 - Electronic level sensor - eclass: 27200513 / 27-20-05-13

Current consumption [mA]	< 80
Protection class	III
Reverse polarity protection	yes
Outputs	
Output	2 Output OUT1 = Switching output OUT2 = Analog output
Output function	normally open / closed programmable; 4...20 mA or 0...10 V
Current rating [mA]	200
Voltage drop [V]	< 2.5
Short-circuit protection	thermal, pulsed
Overload protection	yes
Analog output	I: 4...20 mA / U: 0...10 V
Max. load [Ω]	I: 500
Min. load [Ω]	U: 2000
Measuring / setting range	
Probe length L [mm]	100...1600
Active range A [mm]	L-40
Inactive range I1 / I2 [mm]	30 / 10
Setting range	
Set point, SP [mm]	$\geq 15 / \leq L-30$
Reset point, rP [mm]	$\geq 10 / \leq L-35$
in steps of [mm]	5
Hysteresis [mm]	≥ 5
Accuracy / deviations	
Deviations (in mm)	
Switch point accuracy	$\pm (15 + 0.5 \% \text{ MEW}) *$
Repeatability	± 5
Characteristics deviation	± 10
Offset error [mm]	± 10
Resolution [mm]	0.5 (L < 300 mm) 0.2% MEW *) (L > 300 mm)
Zero signal [mA] / [V]	3.95...4.0 / 0...0.02
Full signal [mA] / [V]	20...20.2 / 10.0...10.1
Reaction times	
Power-on delay time [s]	≤ 3
Interfaces	
IO-Link Device	
Transfer type	COM2 (38.4 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9 CDV
IO-Link Device ID	345 d / 00 01 59 h
Profiles	no profile
SIO mode	yes
Required master port class	A
Process data analogue	1
Process data binary	1
Min. process cycle time [ms]	2.3
Environment	
Ambient temperature [$^{\circ}\text{C}$]	0...60
Storage temperature [$^{\circ}\text{C}$]	-25...80
Maximum vessel pressure [bar]	-1...16
Protection	IP 67
Tests / approvals	
EMC	IEC 60947-1
Shock resistance	DIN IEC 68-2-27: 50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6: 5 g (10...2000 Hz)
MTTF [Years]	174.71

LR3300 - Electronic level sensor - eclass: 27200513 / 27-20-05-13

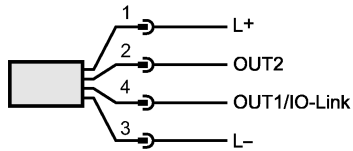
Mechanical data

Process connection	3/4" NPT
Materials (wetted parts)	303 / 1.4305 (V2A); probe connection: 1.4435 (V4A / 316L); PTFE; FKM
Housing materials	304 / 1.4301 (V2A); FKM; PBT; PC; PEI; TPE - V; PTFE
Weight [kg]	0.329
Displays / operating elements	
Display	Display unit 3 x LED green Switching status 1 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
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Wiring



Programming of the switching output:

Hno = hysteresis / NO

Hnc = hysteresis / NC

Fno = window / NO

Fnc = window / NC

Accessories

Accessories (optional)	Probe, part no. E43203...E43205 / E43207...E43210; Matching accessories online next to the Datasheet → Accessories
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Remarks

Remarks	*) MEW = final value of the measuring range in mm; MEW = L - 30 mm
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Pack quantity [piece]	1
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