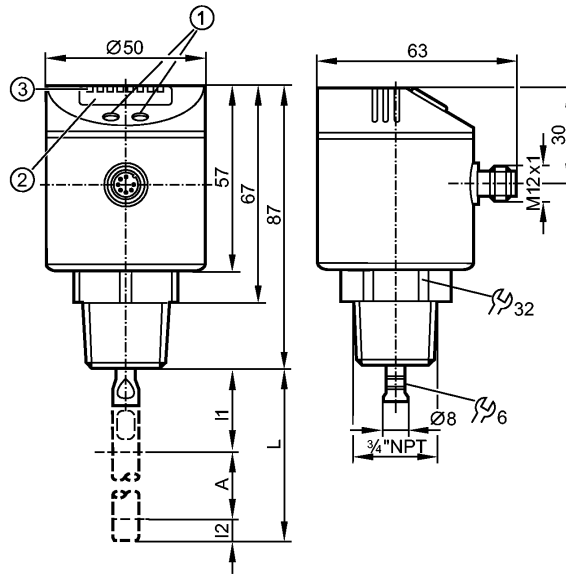


LR8300

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



Product characteristics

Electronic level sensor
Quick disconnect
Process connection: 3/4" NPT
Guided wave radar
Freely rotatable housing 360°
Probe length: L = 100...1600 mm
4 switch points
4-digit alphanumeric display

Application

Application	Hydrous coolants, water, media similar to water
Cannot be used for:	oils, greases, granulates, bulk materials, acids, alkalis; hygienic and electroplating applications; heavily foaming media
Dielectric constant medium	≥ 20
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
Current consumption [mA]	< 80
Protection class	III
Reverse polarity protection	yes

Outputs

LR8300

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Level sensors

Output		4 switch points
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 (max. 10 s)
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]	≥ 15 / ≤ L-30
Reset point, rP	[mm]	≥ 10 / ≤ L-35
in steps of	[mm]	5
Hysteresis	[mm]	≥ 5
Accuracy / deviations		
Deviations (in mm)		
Switch point accuracy		± (15 + 0.5 % MEW) *)
Repeatability		± 5
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		011 d / 00 00 B h
Profiles		no profile
SIO mode		yes
Required master port class		A
Process data analogue		1
Process data binary		4
Min. process cycle time	[ms]	2.3
Environment		
Ambient temperature	[°C]	0...60
Storage temperature	[°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]	182.01
Mechanical data		
Process connection		3/4" NPT

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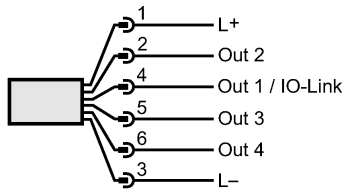
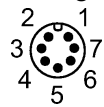
Level sensors

Materials (wetted parts)	stainless steel (303S22); probe connection: stainless steel 316L / 1.4435; PTFE; FPM (Viton)
Housing materials	stainless steel (304S15); FPM (Viton); PBT; PC; PEI; TPE / V; PTFE
Weight [kg]	0.332

Displays / operating elements	
Display	Display unit 3 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



Programming of the switching outputs:
 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

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

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