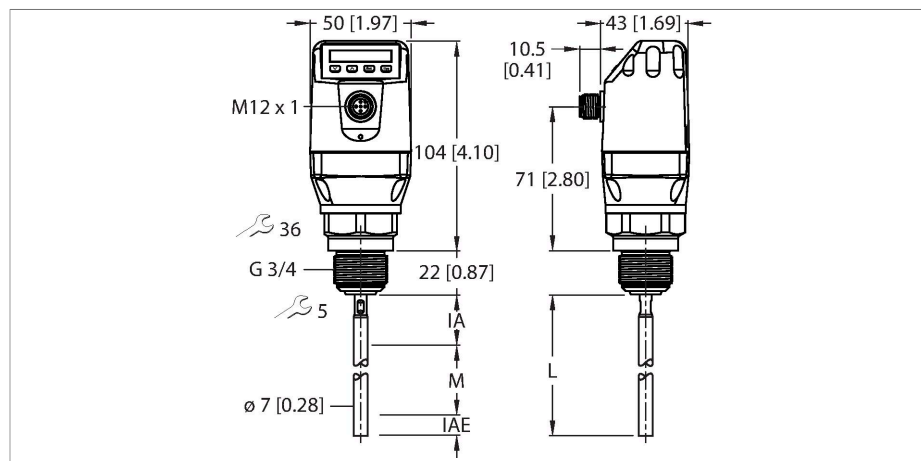


LS-551-1000-LIU24PN8X-H1181

Level Sensor – With Analog Output and 4 × Switching Outputs



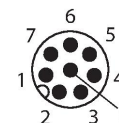
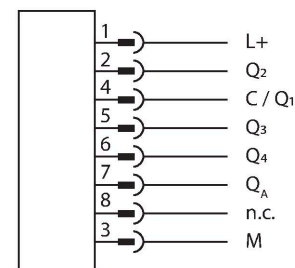
Technical data

Type	LS-551-1000-LIU24PN8X-H1181
Ident. no.	100015810
Medium temperature	-20...+100 °C
Application area	liquids
Probe length (L)	1000 mm
Max. loading of probe	6 Nm
Probe accuracy	± 5 mm
Temperature drift	≤ 0.1
Hysteresis	≥ 2 mm
Repeatability	≤ 2 mm
Inactive area at process connection	25 mm
Inactive area at probe end	10 mm
Dielectric constant	≥ 5; ≥ 1.8 mit Koaxialrohr (Zubehör)
Pressure resistance	-1...10 bar
Electrical data	
Operating voltage	12...30 VDC
Current consumption	≤ 100 mA
Short-circuit/reverse polarity protection	yes / yes
Inductive load	< 1 H
Capacitive load	100 nF
Insulation class	III
Outputs	
Output 1	Analog output (current/voltage, automatic switching depending on load)

Features

- Multiple output signals: one system for both level detection and continuous level monitoring
- Low maintenance and quick commissioning without calibration
- High flexibility due to cuttable probe
- Compact, rotatable display housing ensures easy installation
- Small inactive areas, ideal for small containers
- Process temperature to 212 °F
- Process pressure up to 145 psi
- Coaxial tubes available for non-metallic tanks
- IO-Link 1.1
- 12...30 VDC
- 1x analog output 4... 20 mA/0... 10 V (automatic switchover depending on load)
- 1x transistor output (PNP) or IO-Link
- 3x transistor output (PNP/NPN switchable)
- Process connection G3/4" male thread
- Probe length 1000 mm

Wiring diagram



Functional principle

The LS-5 series liquid level sensors uses time-of flight technology to measure electromagnetic waves to generate a level signal. The advanced technology enables calibration free commissioning with probes that can be cut to length for quick integration into most applications. Highly resistant to deposit formations with no moving parts, the LS-5 series offers significant cost saving due to multiple output signals for both continuous level

detection and point level monitoring. Simply setup with four buttons and integral display, or through an IO-Link interface

Technical data

Output 2	IO-Link/switching output (PNP)
Output 3	Switching output (PNP/NPN)
Output 4	Switching output (PNP/NPN)
Output 5	Switching output (PNP/NPN)
Switching output	
Communication protocol	IO-Link
Output function	NO/NC, PNP/NPN, analog output
Analog output	
Current output	4...20 mA
High level signal current	20...20.5 mA
Low level signal current	3.8...4 mA
Load resistance, current output	≤ 0.5 kΩ
Voltage output	0...10 V
High level signal voltage	U _v - 2 V
Low level signal voltage	≤ 2 V
Load resistance voltage output	≥ 0.75 kΩ
Response time typical	< 400 ms
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Transmission physics	COM 2 (38.4 kBaud)
Frame type	2.2
Included in the SIDI GSDML	Yes
Mechanical data	
Housing material	Plastic, PBT
Materials (contact with media)	Stainless steel 1.4404, PTFE, FKM
Process connection	G 3/4" male thread
Electrical connection	Connector, M12 × 1
Protection class	IP67
Environmental conditions	
Ambient temperature	-20...+60 °C
Storage temperature	-40...+80 °C
Display functions	
Display	Digital display
MTTF	194 years

Accessories

LSCT-51-0700	100001882	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 700 mm, process connection G3/4"	LSCT-34-0700	100001883	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 700 mm, process connection 3/4" NPT
LSRP-1000	100002197	Probe rod for screwing into LS-5 level sensors, length 1000 mm	LSCT-51-1000	100015813	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 1000 mm, process connection G3/4"
LSCT-51-1500	100015814	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 1500 mm, process connection G3/4"	LSCT-51-2000	100015815	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 2000 mm, process connection G3/4"
LSCT-34-1000	100015818	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 1000 mm, process connection 3/4" NPT	LSCT-34-1500	100015817	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 1500 mm, process connection 3/4" NPT
LSCT-34-2000	100015816	Coaxial tube for LS-5 level sensors (only G3/4") for use in non-metallic containers, tube length 2000 mm, process connection 3/4" NPT			

Accessories

Accessories