LMT191
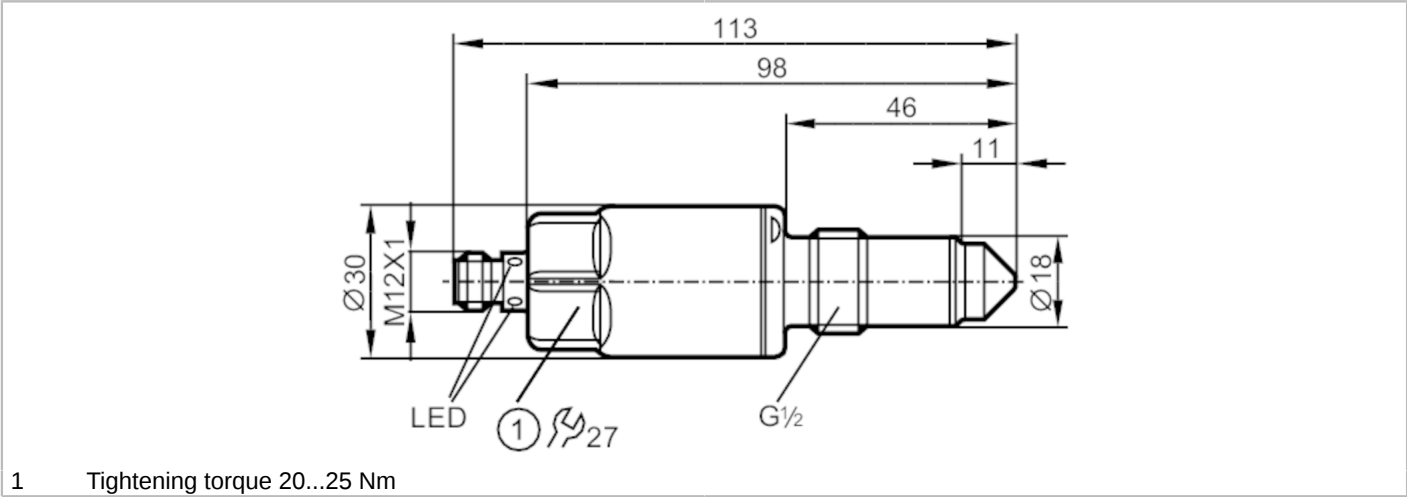
Level sensor for limit detection with overspill protection (German Federal Water Act)

LMACE-A12E-QPKG-2/US

1   Tightening torque 20...25 Nm

Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2
Factory setting	water-based media
Process connection	threaded connection G 1/2 sealing cone
Application	
System	gold-plated contacts
Media	Liquids
Recommended media	water; water-based media; oils; oil-based media
Cannot be used for	See the operating instructions, chapter "Function and features".
Probe length [mm]	11
Tank pressure [bar]	-1...40; (Applications according to the German Federal Water Act (WHG): -0,5...10 bar)
Oil	
Medium temperature [°C]	-40...100; (Applications according to the German Federal Water Act (WHG) 0...100 °C)
Medium temperature short time [°C]	-40...150; (1 h; Applications according to the German Federal Water Act (WHG): 0...100 °C)
Water	
Medium temperature [°C]	-40...85; (Applications according to the German Federal Water Act (WHG): 0...85 °C)
Medium temperature short time [°C]	-40...150; (1 h; Applications according to the German Federal Water Act (WHG): 0...100 °C)
Electrical data	
Operating voltage [V]	18...30 DC
Current consumption [mA]	< 50
Protection class	III
Reverse polarity protection	yes
Measuring principle	capacitive
Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 2
Outputs	
Total number of outputs	2

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LMACE-A12E-QPKG-2/US

Output signal	switching signal; IO-Link
Electrical design	PNP
Number of digital outputs	2
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Measuring/setting range

Factory setting	water-based media

Reaction times

Response time [s]	< 0.5

Interfaces

Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification
SIO mode	yes
Required master port class	A
Process data analog	1
Process data binary	2
Min. process cycle time [ms]	2.3

Supported DeviceIDs	Type of operation	DeviceID
	default	449

Operating conditions

Ambient temperature [°C]	-40...85
Note on ambient temperature	Medium temperature 100...150 °C
	-40...60 °C
Storage temperature [°C]	-40...85
Protection	IP 68; IP 69K

Tests / approvals

Approval	WHG; General building authority approval; overflow prevention	
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-4	open tanks
	DIN EN 61000-6-3	closed tanks
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF [years]	223.21	
UL approval	UL approval number	H001

Mechanical data

Weight [g]	217

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Level sensor for limit detection with overspill protection (German Federal Water Act)

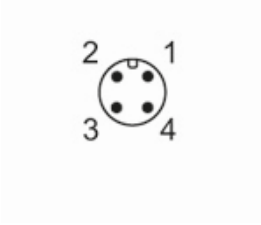| Material	stainless steel (1.4404 / 316L); PEEK; PEI; FKM
Materials (wetted parts)	PEEK; surface characteristics: Ra < 0,8 / Rz 4
Process connection	threaded connection G 1/2 sealing cone

Displays / operating elements

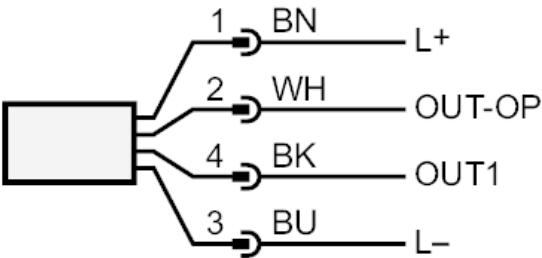| Display	Switching status	LED, yellow
	operating status	LED, green

Remarks

Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated

Connection

OUT1:	Switching output
OUT-OP	Switching output overflow prevention to the German Federal Water Act (WHG)
	Colors to DIN EN 60947-5-2
	Core colors :
BK =	black
BN =	brown
BU =	blue
WH =	white