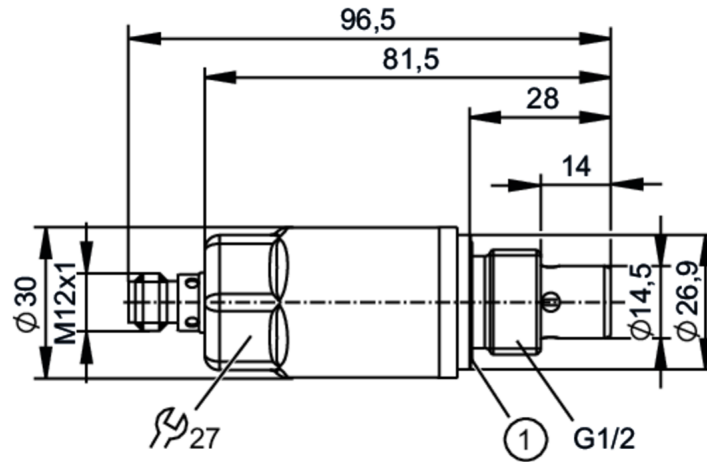


# LDH112



## Oil humidity sensor

OIL HUMIDITY SENSOR IO-LINK



1 Sealing



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 1
Process connection	threaded connection G 1/2

### Application

Special feature	Gold-plated contacts
Media	mineral oils; synthetic esters; biodegradable oils
Cannot be used for	See operating instructions, chapter "Intended use".
Medium temperature [°C]	-40...120
Pressure rating [bar]	50
Vacuum resistance [mbar]	-1000

### Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 50
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	2
Max. current load total [A]	0.065

### Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1
------------------------------	------------------------------

### Outputs

Total number of outputs	1
Output signal	IO-Link
Number of digital outputs	1

### Measuring/setting range

Measuring range [% RH]	0...100
Temperature measurement	
Measuring range [°C]	-40...120

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Accuracy / deviations		
Accuracy		$\pm 3$ ; ( $\pm 5$ % in the range $< 10$ %, $> 90$ %)
Repeatability		$\pm 0,5$ %
Resolution	[%]	0,1; (process value)
Temperature measurement		
Accuracy	[K]	$\pm 1$
Repeatability	[K]	$\pm 0,5$
Resolution	[K]	0.1
Response times		
Response time	[s]	oil: T09 $< 30$
Temperature measurement		
Response time	[s]	oil: T09 $< 30$
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles		Identification and Diagnosis (0x4000), Measurement Data Channel (0x800A)
SIO mode		no
Required master port type		A
Process data analogue		5
Min. process cycle time	[ms]	4.5
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	1249
Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...85
Max. relative air humidity	[%]	100
Protection		IP 68; IP 69K; (7 days / 3 m water depth / 0.3 bar: IP 68)
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-4	
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]	284
UL approval	File number UL	E364788
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight	[g]	117
Materials		stainless steel (316L/1.4404); PEI; Sealing: FKM
Materials (wetted parts)		stainless steel (316L/1.4404); PA6 GF50; epoxy resin; Sealing: NBR
Process connection		threaded connection G 1/2

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### Remarks

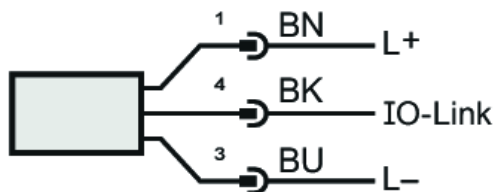
Remarks	accuracy values expressed in percent refer to the measuring span
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12 (EN 61067-2-101); coding: A; Contacts: gold-plated



### Connection



	colours to DIN EN 60947-5-2
BK=	black
BN=	brown
BU=	blue