

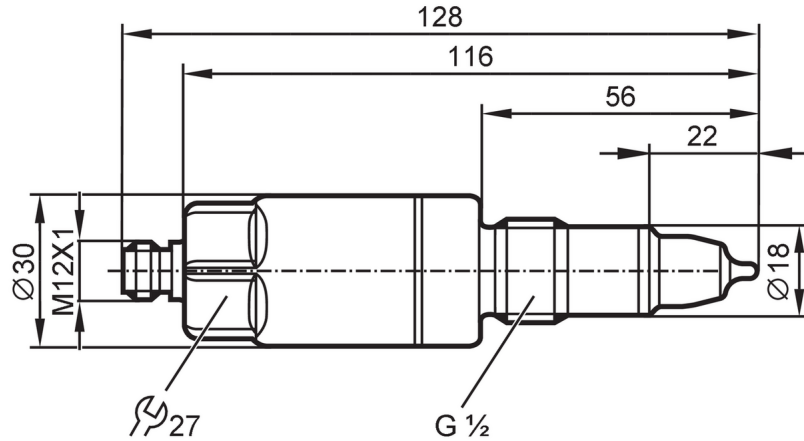
# LDL100



## Conductive conductivity sensor

COND CONDUCTIVITY HYG G1/2

Digital meets analogue: integrating modern IO-Link sensors the analogue way. The EIO104 allows you to realise two analogue signals from intelligent IO-Link sensors with several process values.



EC 1935/2004

EHEDG Certified

FCM



### Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1
Process connection	threaded connection G 1/2 external thread sealing cone

### Application

Special feature	Gold-plated contacts
Media	conductive liquids
Note on media	water
	milk
	CIP liquids
Cannot be used for	See the operating instructions, chapter "Function and features".
Medium temperature [°C]	-25...100; (< 1 h: 150)
Pressure rating	16 bar   1.6 MPa
Vacuum resistance [mbar]	-1000
MAWP for applications according to CRN	16 bar   1.6 MPa

### Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 60
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	2
Measuring principle	konduktiv

### Inputs / outputs

Number of inputs and outputs	Number of analogue outputs: 1
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### Outputs

Total number of outputs	1
Output signal	analogue signal; IO-Link
Output function	analogue output scalable; selectable conductivity / temperature

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Number of analogue outputs		1
Analogue current output	[mA]	4...20
Max. load	[Ω]	500

### Measuring/setting range

Conductivity measurement		
Measuring range	[μS/cm]	100...15000
Resolution	[μS/cm]	1

Temperature measurement		
Measuring range	[°C]	-25...150

### Accuracy / deviations

Conductivity measurement		
Accuracy (in the measuring range)		10 % MW ± 25 μS/cm
Drift	[%/K]	0,2 %/K MW ± 25 μS/cm
Repeatability		5 % MW ± 25 μS/cm
Long-term stability		1 % MW ± 25 μS/cm

Temperature measurement		
Accuracy	[K]	20...50 °C: < ± 0,5 K; -25...150 °C: < ± 1,5 K
Repeatability	[K]	0,2
Resolution	[K]	0.1

### Response times

Conductivity measurement		
Response time	[s]	< 2; (T09; Damping = 0)

Temperature measurement		
Response time	[s]	< 9; (T09)

### Interfaces

Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles	Smart Sensor - SSP 3.1 Common - I&D	Measuring Sensor Identification and Diagnosis
SIO mode		no
Required master port type		A
Process data analogue		1
Min. process cycle time	[ms]	6.4
Supported DeviceIDs	<b>Type of operation</b> default	<b>DeviceID</b> 921

### Operating conditions

Ambient temperature	[°C]	-40...60
Storage temperature	[°C]	-40...85
Protection		IP 68; IP 69K; (7 days / 3 m water depth / 0.3 bar: IP 68)

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### Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
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]		172
UL approval	File number UL	E364788

### Mechanical data

Weight [g]	270.5
Materials	stainless steel (316L/1.4404); PEEK; PEI; FKM
Materials (wetted parts)	PEEK; stainless steel (316L/1.4404)
Process connection	threaded connection G 1/2 external thread sealing cone
Surface characteristics Ra/Rz of the wetted parts	$Ra \leq 0.8 \mu m$

### Remarks

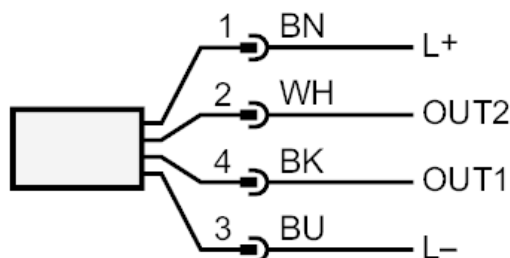
Remarks	MW = measured value
Notes	Digital meets analogue: integrating modern IO-Link sensors the analogue way. The EIO104 allows you to realise two analogue signals from intelligent IO-Link sensors with several process values.
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12 (EN 61067-2-101); coding: A; Contacts: 4, gold-plated



### Connection



OUT1  
OUT2

IO-Link  
analogue output  
colours to DIN EN 60947-5-2  
Core colours :

BK = black  
BN = brown  
BU = blue  
WH = white