

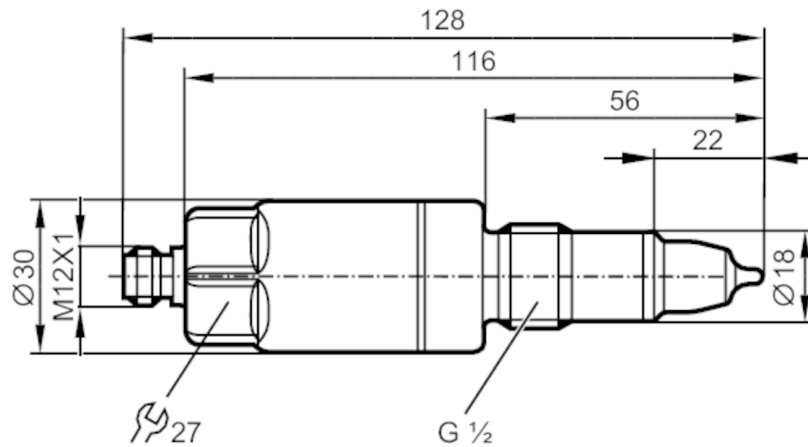
# LDL100



## 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



IO-Link



### 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 [bar]	16
Vacuum resistance [mbar]	-1000

### 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

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Output function	analogue output; scalable; selectable conductivity / temperature	
Number of analogue outputs	1	
Analogue current output [mA]	4...20	
Max. load [ $\Omega$ ]	500	

### Measuring/setting range

Conductivity measurement		
Measuring range [ $\mu\text{S}/\text{cm}$ ]	100...15000	
Resolution [ $\mu\text{S}/\text{cm}$ ]	1	
Temperature measurement		
Measuring range [ $^{\circ}\text{C}$ ]	-25...150	

### Accuracy / deviations

Conductivity measurement		
Accuracy (in the measuring range)	10 % MW $\pm$ 25 $\mu\text{S}/\text{cm}$	
Drift [%/K]	0,2 %/K MW $\pm$ 25 $\mu\text{S}/\text{cm}$	
Repeatability	5 % MW $\pm$ 25 $\mu\text{S}/\text{cm}$	
Long-term stability	1 % MW $\pm$ 25 $\mu\text{S}/\text{cm}$	
Temperature measurement		
Accuracy [K]	20...50 $^{\circ}\text{C}$ : $< \pm 0,5$ K; -25...150 $^{\circ}\text{C}$ : $< \pm 1,5$ 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	Measuring Sensor, Identification and Diagnosis	
SIO mode	no	
Required master port type	A	
Process data analogue	1	
Min. process cycle time [ms]	5.6	
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	921

### Operating conditions

Ambient temperature [ $^{\circ}\text{C}$ ]	-40...60	
Storage temperature [ $^{\circ}\text{C}$ ]	-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

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

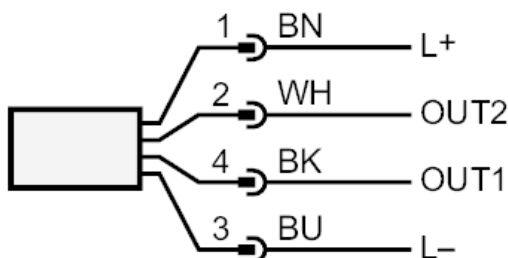
Remarks	
Remarks	MW = measured value
Notes	Digital meets analogue: integrating modern IO-Link sensors the analogue way. The EIO104 allows you to realise two analogue signals from intelligent IO-Link sensors with several process values.
Pack quantity	1 pcs.

### Electrical connection

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



### Connection



OUT1            IO-Link  
 OUT2            analogue output  
                   colours to DIN EN 60947-5-2  
                   Core colours :

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