

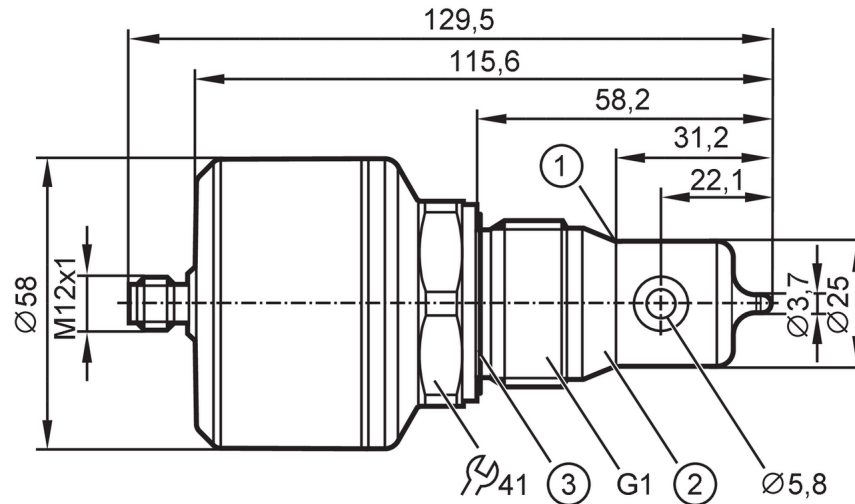
# LDL210



## Inductive conductivity sensor

IND CONDUCTIVITY HYG G1 SC

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.



- 1 sealing edge
- 2 Attention: The unit must only be installed in a process connection for G1 sealing cone. The G1A sealing cone of the unit is only suited for adapters with metal end stop.
- 3 Sealing



EC 1935/2004

EHEDG Certified

FCM



### Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1
Process connection	threaded connection G 1 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	-1000 mbar   -0.1 MPa
MAWP for applications according to CRN	12 bar   1.2 MPa

### Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 100
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	2
Measuring principle	inductive

### 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	
Number of analogue outputs	1	
Analogue current output [mA]	4...20	
Max. load [ $\Omega$ ]	500	
Measuring/setting range		
Conductivity measurement		
Measuring range [ $\mu\text{S/cm}$ ]	100...1000000	
Resolution [ $\mu\text{S/cm}$ ]	0...10.000	1
	10.000...100.000	10
	100.000...1.000.000	100
Temperature measurement		
Measuring range [ $^{\circ}\text{C}$ ]	-25...150	
Accuracy / deviations		
Conductivity measurement		
Accuracy (in the measuring range)	2 % MW $\pm$ 25 $\mu\text{S/cm}$	
Drift [%/K]	0,1 %/K MW $\pm$ 25 $\mu\text{S/cm}$	
Repeatability	1 % MW $\pm$ 25 $\mu\text{S/cm}$	
Long-term stability	0,5 % MW $\pm$ 25 $\mu\text{S/cm}$	
Temperature measurement		
Accuracy [K]	20...50 $^{\circ}\text{C}$ : $< \pm 0,2$ 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]	$< 25$ ; (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	Measuring Sensor
	Common - I&D	Identification and Diagnosis
SIO mode	no	
Required master port type	A	
Process data analogue	1	
Min. process cycle time [ms]	6.4	

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Supported DeviceIDs	Type of operation	DeviceID
	default	922

### 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)	

### Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	in a closed metal tank
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
UL approval	File number UL	E364788

### Mechanical data

Weight	[g]	736.5
Materials	stainless steel (316L/1.4404); PEEK; PEI; FKM	
Materials (wetted parts)	PEEK	
Process connection	threaded connection G 1 external thread sealing cone	
Surface characteristics Ra/Rz of the wetted parts	Ra ≤ 0.8 µm	

### Remarks

Remarks	Attention: The unit must only be installed in a process connection for G1 sealing cone. The G1A sealing cone of the unit is only suited for adapters with metal end stop. 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



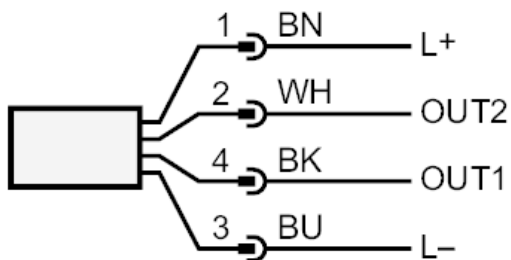
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### Connection



OUT1  
OUT2

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

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