

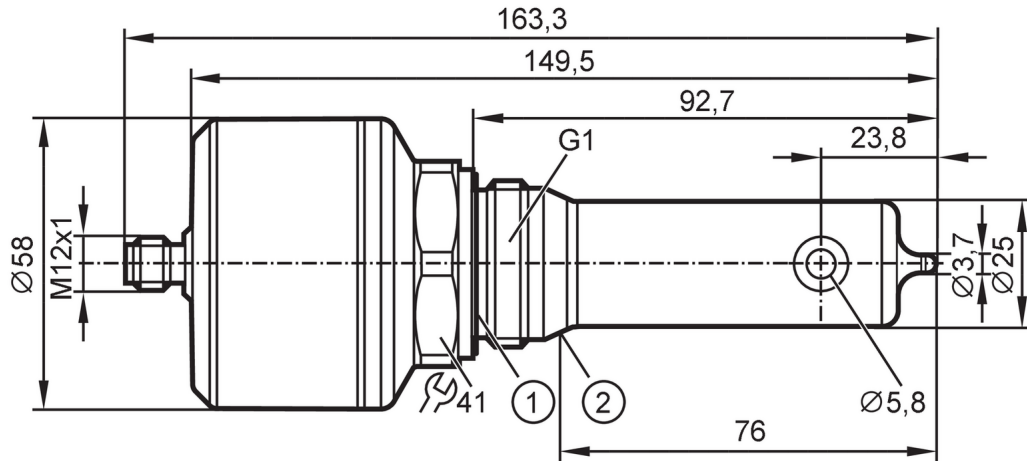
# LDL201



## Inductive conductivity sensor

IND CONDUCTIVITY HYG ASF-V 077

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
- 2 sealing edge



EC 1935/2004

EHDG Certified



### Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1
Process connection	G 1 external thread Aseptoflex Vario

### 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	14 bar   1.4 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
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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 [ $\mu\text{S}/\text{cm}$ ]	100...1000000	
Resolution [ $\mu\text{S}/\text{cm}$ ]	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 $\mu\text{S}/\text{cm}$
Drift [%/K]	0,1 %/K MW $\pm$ 25 $\mu\text{S}/\text{cm}$
Repeatability	1 % MW $\pm$ 25 $\mu\text{S}/\text{cm}$
Long-term stability	0,5 % MW $\pm$ 25 $\mu\text{S}/\text{cm}$
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 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> 922

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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)
MTTF	[years]	129
UL approval	File number UL	E364788
Mechanical data		
Weight	[g]	749.7
Materials		stainless steel (316L/1.4404); PEEK; PEI; FKM
Materials (wetted parts)		PEEK
Process connection		G 1 external thread Aseptoflex Vario
Surface characteristics Ra/Rz of the wetted parts		Ra ≤ 0.8 µm
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		
		

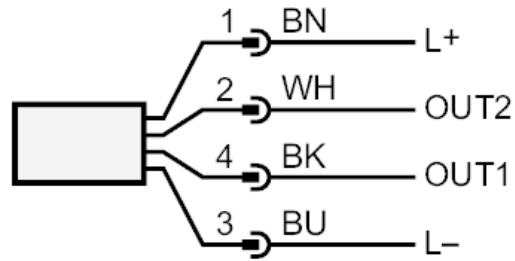
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### Connection



OUT1            IO-Link  
OUT2            analogue output  
                  colours to DIN EN 60947-5-2  
                  Core colours :  
BK =            black  
BN =            brown  
BU =            blue  
WH =            white