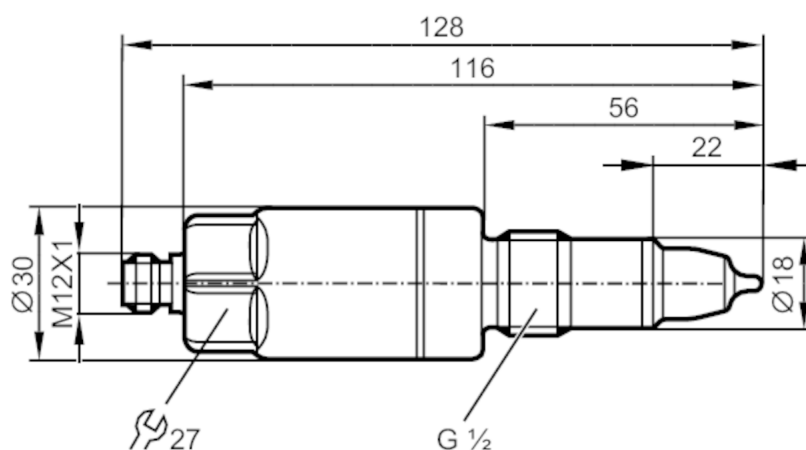# LDL100

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.

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

Outputs

Total number of outputs	1
Output signal	analogue signal; IO-Link

LDL100

Conductive conductivity sensor

Output function		analogue output; scalable; selectable conductivity / temperature
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		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	**Type of operation**	**DeviceID**
	default	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)

LDL100

Conductive conductivity sensor

COND CONDUCTIVITY HYG G1/2

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	

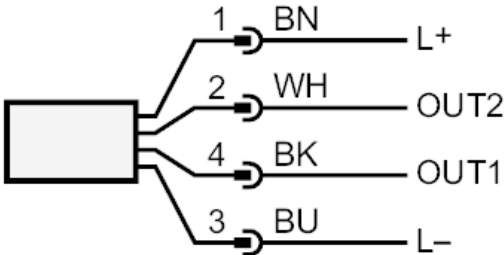| Mechanical data		
Weight	[g]	270.5
Materials		stainless steel (316L/1.4404); PEEK; PEI; FKM
Materials (wetted parts)		PEEK; stainless steel (316L/1.4404)
Process connection		threaded connection G 1/2 external thread sealing cone

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