

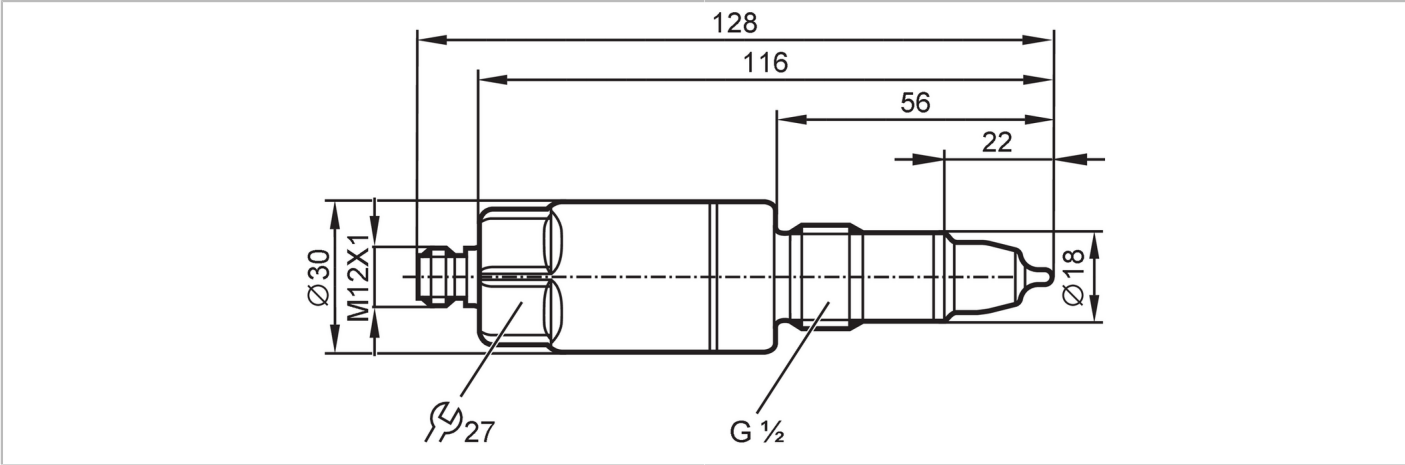
LDL100



Conductive conductivity sensor

COND CONDUCTIVITY HYG G1/2

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



Product characteristics

Number of inputs and outputs	Number of analog 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 analog outputs: 1
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Outputs

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

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Number of analog outputs		1
Analog 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
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

Reaction 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	Measuring Sensor
	Common - I&D	Identification and Diagnosis
SIO mode	no	
Required master port class	A	
Process data analog	1	
Min. process cycle time	[ms]	6.4
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)	

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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	
Material	stainless steel (1.4404 / 316L); PEEK; PEI; FKM	
Materials (wetted parts)	PEEK; stainless steel (1.4404 / 316L)	
Process connection	threaded connection G 1/2 external thread sealing cone	
Surface characteristics Ra/Rz of the wetted parts	Ra ≤ 0.8 µm	

Remarks		
Remarks	MW = Measured value	
Notes	Digital meets analog: integrating modern IO-Link sensors the analog way. The EIO104 allows you to realize two analog 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	IO-Link	
OUT2	analog output	
	Colors to DIN EN 60947-5-2	
	Core colors :	
BK =	black	
BN =	brown	
BU =	blue	
WH =	white	