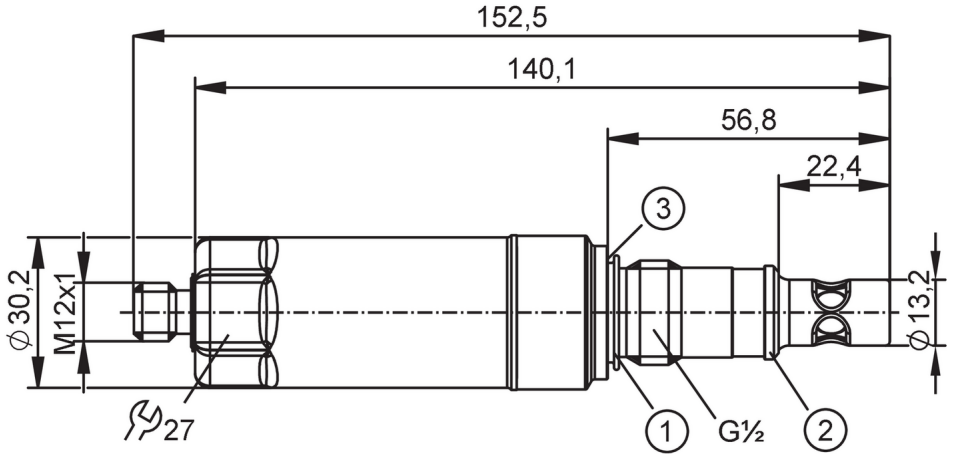
LDL101

Conductive conductivity sensor

COND CONDUCTIVITY UPW 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.



1 Gasket FKM (for sealing on the back - not pressure resistant) / removable
2 pre-mounted PEEK sealing ring (removable) / metallic sealing area
3 groove for sealing ring DIN 3869-21

EC 1935/2004 EHEDG Certified FCM CN FCM JP 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 optional:hygienic PEEK gasket according to EHEDG	
Application			
Special feature		Gold-plated contacts	
Media		conductive liquids	
Note on media		ultra-pure water	
Cannot be used for		See the operating instructions, chapter "Function and features".	
Medium temperature	[°C]	-25...100; (< 1 h: 150)	
Pressure rating		35 bar	3.5 MPa
Vacuum resistance		-1000 mbar	-0.1 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 analogue outputs: 1	
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	

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Analogue current output	[mA]	4...20	
Max. load	[Ω]	500	
Measuring/setting range			
Conductivity measurement			
Measuring range	[µS/cm]	0.04...1000	
Resolution	[µS/cm]	0...9,999	0.001
		10...99,99	0.01
		100...1000	0.1
Temperature measurement			
Measuring range	[°C]	-25...150	
Accuracy / deviations			
Conductivity measurement			
Accuracy (in the measuring range)		3 % MW ± 0,03 µS/cm	
Drift	[%/K]	0,1 %/K MW	
Repeatability		1 % MW ± 0,010 µS/cm	
Long-term stability		1,5 % MW ± 0,015 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		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	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	1455
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]	173	
UL approval		File number UL	E364788

Mechanical data		
Weight	[g]	346.8
Materials		stainless steel (316L/1.4404); PEI; FKM
Materials (wetted parts)		stainless steel (316L/1.4435); PEEK
Process connection		threaded connection G 1/2 external thread sealing cone optional:hygienic PEEK gasket according to EHEDG
Surface characteristics Ra/Rz of the wetted parts		Ra ≤ 0.8 µm

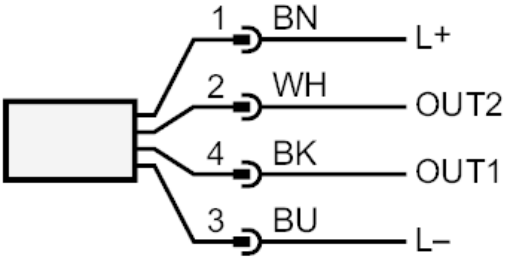
Remarks	
Remarks	MW = measured value
Notes	Digital meets analogue: integrating modern IO-Link sensors the analogue way. The EIO104 allows you to realise two analogue signals from intelligent IO-Link sensors with several process values.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12 (EN 61067-2-101); coding: A; Contacts: 4, 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