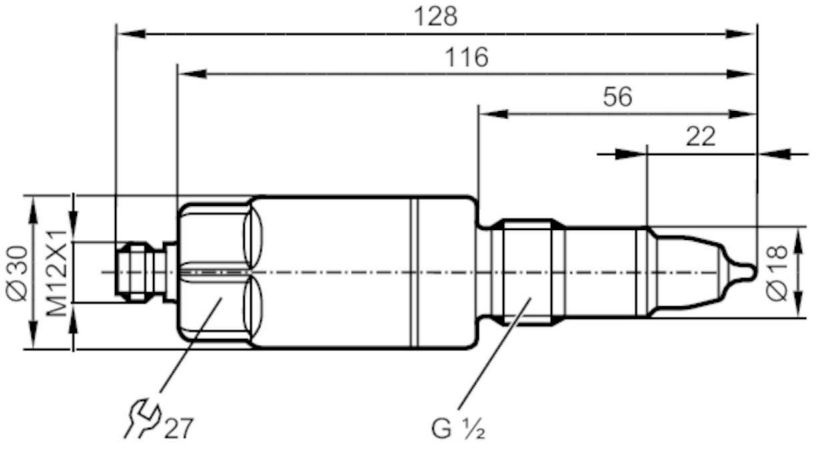
# LDL100

## 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.




3A CE c UL us LISTED EC 1935/2004 EHEDG Certified FCM FDA IO-Link UKCA

| | | |
|---|---|---|
| **Product characteristics** | | |
| Number of inputs and outputs | | Number of analog outputs: 1 |
| Process connection | | threaded connection G 1/2 external thread sealing cone |
| **Application** | | |
| System | | 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 analog outputs: 1 |
| **Outputs** | | |
| Total number of outputs | | 1 |
| Output signal | | analog signal; IO-Link |

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| | | |
|---|---|---|
| Output function | | analog output; scalable; selectable conductivity / temperature |
| 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 ± 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;<br>-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 | | Measuring Sensor, Identification and Diagnosis |
| SIO mode | | no |
| Required master port class | | A |
| Process data analog | | 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) |

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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 | |

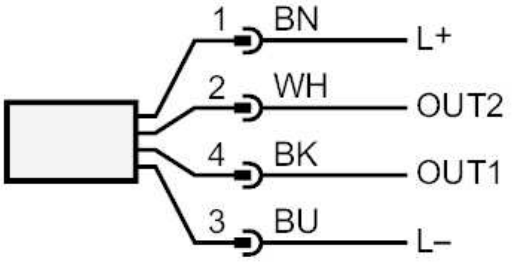
| Mechanical data | | |
|---|---|---|
| Weight | [g] | 270.5 |
| Material | | stainless steel (1.4404 / 316L); PEEK; PEI; FKM |
| Materials (wetted parts) | | PEEK; stainless steel (1.4404 / 316L) |
| Process connection | | threaded connection G 1/2 external thread sealing cone |

| 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: 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 |