

MLD-35 Series Continuous Level Sensors are intended for level measurement of liquid and bulk solids in tanks, vessels sumps or silos, hoppers, etc. They are comprised of a housing with electronic module and a electrode that converts a capacitance signal to a current signal of 4-20mA or voltage signal (0-10V) output. The MLD series incorporates a Teflon® encapsulated measuring electrode making it suitable for corrosive chemicals and sticky polymers.



FEATURES

- Continuous Level Measurement of Liquids or Bulk Solids up to 10 feet
- 4-20mA Loop Powered
- Teflon® Coated Electrode
- Excellent Chemical Resistance
- Visual indication of Function and Status of Level via two LED Lights located on housing
- Wide Selection of Electrical Connections
- Heavy Duty Design

BASIC TECHNICAL DATA

| | | |
|---|---|--|
| Supply voltage | MLD - 35_ _ _ _ -I MLD - 35_ _ _ _ -U | 9 - 34VDC 12 - 34VDC |
| Current output Voltage output | | 4 - 20mA (2-wire) 0 - 10V (3-wire) |
| Power consumption | MLD-35_ _ _ _ -I MLD-35_ _ _ _ -U | 3,75 - 20.5mA 5mA (voltage output open circuit) |
| Accuracy | | ±1% |
| Temperature error | | max. 0.05% K |
| Voltage error for current and voltage output | | max. 0,3 µA V and 0,1 mV/V |
| Leakage resistance electrode - housing dielectric strength | | 1 MΩ 200VDC |
| Coupling capacity (housing - power) dielectric strength | | 50 nF 500VAC |
| Coupling capacity (electrode - power) dielectric strength | | 47 nF 500VAC |
| Ambient temperature range: | | -40 – +85 °C |
| Protection | type MLD-35_ _ _ -C- _ _ type MLD-35_ _ _ -A(B,V,H)- _ _ | IP67 IP68 |
| Maximum load resistance for current output (at U = 24 V) | | R _{max} = 700 Ω |
| Weight (excluding electrode and cable) | performance N performance NT | approx. 0.3 kg approx. 0.6 kg |
| Cable (version with cable glands) | | PVC 2 x 0.75 mm ² or 3 x 0.5 mm ² (according to design) |

Basic Technical Data

| part of sensor | type | standard material | optional (on request) |
|--------------------|-----------------|-------------------|--|
| Housing | All types | 304 SST | Stainless Steel W.Nr. 1.4571 (AISI 316 Ti) |
| Rod Electrode | All types | 304 SST | Stainless Steel W.Nr. 1.4571 (AISI 316 Ti) |
| Insulating Bushing | MLD - 35_ _ -31 | PTFE (TEFLON®) | - |
| Electrode Coating | MLD - 35_ _ -31 | FEP (TEFLON®) | - |

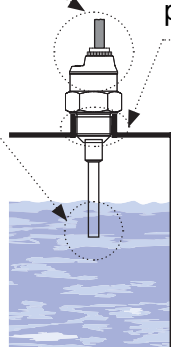
Temperature and Pressure Resistivity

| Design variant | Temperature tp | Temperature tm | Temperature ta | Max. Operating Pressure for Temperature | | | | |
|----------------|------------------|------------------|-----------------|---|---------|----------|----------|----------|
| | | | | to 30°C | to 85°C | to 120°C | to 150°C | to 200°C |
| Housing | -40°C ... +85°C | -40°C ... +200°C | -40°C ... +85°C | 5 MPa | 2,5 MPa | – | – | – |
| Rod electrode | -40°C ... +200°C | -40°C ... +200°C | -40°C ... +85°C | 5 MPa | 2,5 MPa | 1,5 MPa | 1 MPa | 0,5 MPa |

ta – ambient temperature
(housing with electronic module)

tp – temperature with
process connection

tm – media
temperature
(at electrode)



Order Code

MLD-35 E Cable - cable length in m

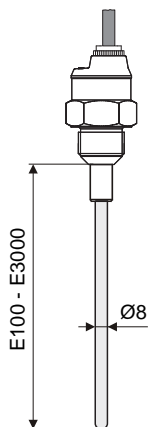
electrode length in inches

connection method: **A** – stainless steel gland (+ cable length)
B – plastic threaded cable gland (+ cable length)
C – connector (socket not included with sensor, recommended type)
V – plastic cable gland with spiral relief (+ cable length)
H – plastic cable gland for protective hose (+ cable length)

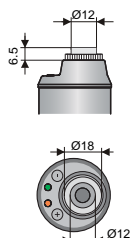
type of output: **I** – current (4 ... 20mA)
U – voltage (0 ... 10V)

N – non-explosive areas
NT – high temperature performance

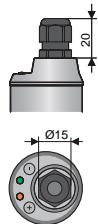
Dimensional Drawings



Design "A" with short stainless steel gland



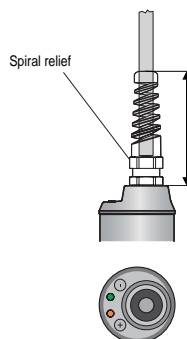
Design "B" with plastic threaded cable gland



Design "C" with connector M12



Design "V" with plastic cable gland with spiral relief – in case of increased mechanical wear on the cable.



Design "H" with cable gland for protected hoses – for using in an outdoor environment or in an area with increased moisture.

