

**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

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

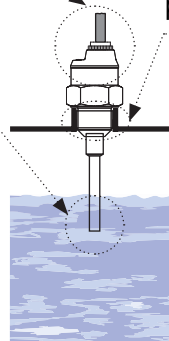
### Temperature and Pressure Resistivity

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

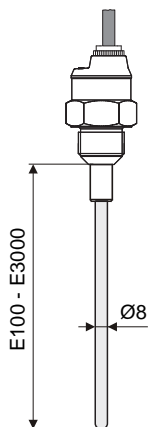
electrode length in inches

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)

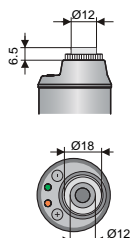
type of output: **I** – current (4 ... 20mA)  
**U** – voltage (0 ... 10V)

**N** – non-explosive areas  
**NT** – high temperature performance

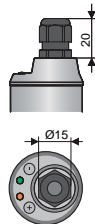
### Dimensional Drawings



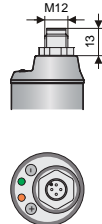
Design "A" with short stainless steel gland



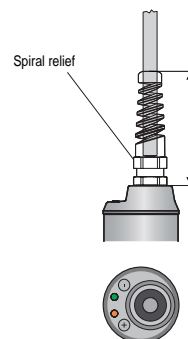
Design "B" with plastic threaded cable gland



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.

