

# Transmitter DULCOMETER® DMTa

The compact 2-wire transmitter – the link to the PLC and DULCOMETER®

**ProMinent®**



The 2-wire transmitter DMTa converts the following sensor signals into an interference-insensitive 4-20 mA analogue signal: pH, ORP, temperature, chlorine and conductivity.

It is fed via the 2-wire analogue input of a PLC or via a 2-wire analogue input of a ProMinent controller. The 4-20 mA analogue current proportional to the measured value is transmitted via the same two lines.

The DMTa offers an on-site calibration option of the sensor and galvanic separation between the sensor input and measured value output.

## Your benefits

- Flexibility in the choice of measured variable with pH, ORP and temperature.
- Excellent operational safety, thanks to sensor monitoring (pH).
- Galvanic isolation between the sensor and supply.
- Always the optimum measured value resolution by autoranging with conductivity measurement.
- Safety through sensor monitoring of pH for glass breakage and line breakage.
- Various installation options: wall-mounted, installation on an upright or in a control cabinet.

## Field of application

Measuring technology in water treatment in the following sectors:

- Processes and process technology
- Food and beverage industry
- Chemical industry
- Pharmaceuticals
- Waste water treatment
- Power station technology



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## Technical Data

<b>Measuring range</b>	pH - 1.00 ... 15.00 - 1200 ... +1200 mV ORP voltage 0.01 ... 50.0 mg/l chlorine -20 ... +150 °C 1 µS/cm ... 200 mS/cm (autoranging), corresponding to cell constant
<b>Cell constant</b>	0.006 ... 12.0/cm for conductivity
<b>Resolution</b>	0.01 pH 1 mV 0.1% from measurement range for chlorine 0.1 °C Conductivity 1/1000 of display value (min. 0.001 µS/cm)
<b>Accuracy</b>	0.5% from measurement range
<b>Measurement input</b>	mV terminal (pH, ORP); input resistance > 5 x 10 <sup>11</sup> Ω Chlorine terminal (DMT chlorine sensors) Pt 100/1000 terminal Conductivity terminal (2 or 4 wire connector)
<b>Correction variable</b>	Temperature via Pt 100/1000 (pH, chlorine, conductivity)
<b>Correction range</b>	Chlorine: 5 ... 45 °C, pH: 0 ... 100 °C, conductivity: 0 ... 100 °C
<b>Current output</b>	4...20 mA
<b>Fault current</b>	23 mA
<b>Feed voltage</b>	2-wire transmitter, 16 ... 35 V DC, nominal 24 V PROFIBUS® -DP version, 16 ... 30 V DC, nominal 24 V
<b>Communication interface</b>	PROFIBUS® -DP (wall-mounted version only)
<b>Permissible ambient temperature</b>	0...55 °C
<b>Climate</b>	Relative humidity up to 95% (non-condensing)
<b>Enclosure rating</b>	IP 65 (wall/pipe mounted) IP 54 (control panel installation)
<b>Display</b>	graphical display
<b>Housing material</b>	PPE
<b>Dimensions H x W x D</b>	135 x 125 x 75 mm
<b>Weight</b>	0.45 kg

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