

5.6 DULCOMETER® Transducers DMT

5.6.1 Measured Variables: pH, Redox, Temperature, Conductivity

DULCOMETER® DMT type transmitters are compact 2-wire transmitters for measured variables pH, redox, chlorine, conductive conductivity, temperature.

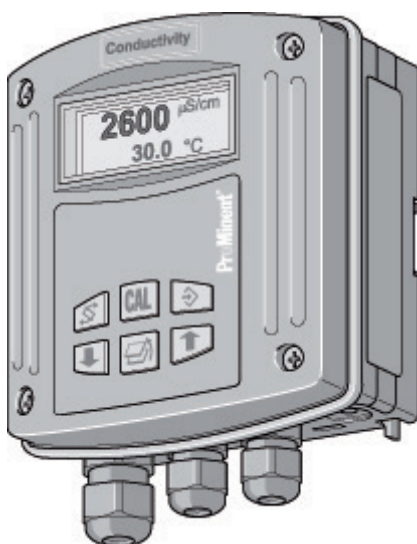
Easily combined with programmable memory controllers.

Summary of advantages:

- Reliable measurement due, e.g., to symmetrical input for pH/redox signals
- High level of operating safety, e.g. probe monitoring (pH), electrical isolation
- Simple flexible installation
- Full text user guidance
- Automatic buffer recognition (pH)
- Autoranging (conductivity)
- Compact design
- Switch between pH, redox and temperature

Applications:

- process control in
- food and beverage industry
- chemical and
- pharmaceutical industries
- water treatment
- waste water treatment
- power stations



pk_5_001

Technical Data	
Measurement range:	pH -1.00...15.00 -1200...+1200 mV redox voltage 0.01...50.0 mg/l chlorine -20...+150 °C 1 µS/cm...200 mS/cm (autoranging)
Cell constant:	0.006...12.0/cm for conductivity
Resolution:	pH 0.01 1 mV 0.1 % from measurement range for chlorine 0.1 °C Conductivity 1/1000 of display value (min. 0.001 µS/cm)
Reproducibility:	0.5 % from measurement range
Measurement input:	mV terminal (pH, redox); input resistance >5 x 10 ¹¹ Ω Chlorine terminal (DMT chlorine probes) Pt 100/1000 terminal Conductivity terminal (2 or 4 wire connector)
Correction variable:	Temperature via Pt 100/1000 (pH, chlorine, conductivity)
Current output:	4...20 mA, fault current 23 mA
Supply voltage:	16...35 V DC (nominal 24V)
Communication interface:	Profibus DP (wall-mounted version only)
Ambient temperature:	-5...+55 °C
Climatic conditions:	up to 95 % relative humidity (non-condensing)
Enclosure rating:	IP 65 (wall/pipe mounted) IP 54 (control panel installation)
Display:	graphical display
Housing:	PPE
Dimensions:	125 x 135 x 75 mm (WxHxD)
Weight:	approx. 450 g

Sensors see section 6.

In-line probe housings, signal cables, see section 6/16

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5.6.2 Identity Code Ordering System For DMT

DMT DULCOMETER® Transducers

A Version

Installation:

- S Control panel mounted¹
- W Wall mounted (also column mounted)

Version:

- 0 With ProMinent® logo

Electrical connection:

- 9 Loop powered 4-20 mA (2 wire, auxillary power 16 ... 40 v DC) standard
- 5 Profibus DP version 24 v DC² nominal

Communication interface:

- 0 None-
- 4 Profibus® DP³ (Assembly type W only)

Measured variable 1:

- P pH
- R Redox
- T Temperature
- C Chlorine
- L Conductivity

Measured variable 2 (Correction variable)

- 0 None (for measured variable T)
- 1 Temperature Pt 1000/Pt 100

Enclosure rating:

- 0 Standard

Language:

- E English

The final 4 digits in the identity code give the software presettings, e.g. cell constant at conductivity.
 0 = standard settings
 Presetting options available on request.

Note:

- 1) The panel mounted version does not include the rear housing.
- 2) Choose the 24 V DC electrical connection with the Profibus DP
- 3) Wall-mounted version only

Note:

Power Supply if required
 24Volt DC up to 1 amp

MP3494

DMT A W 0 9 0 P 1 0 E 0 0 0 0