

# MT 1000 Datasheet

## MULTI-PARAMETRIC CONTROL INSTRUMENT WITH ISOLATED MEASUREMENT AND GRAPHIC DISPLAY SUITABLE FOR COMPLEX WATER-TREATMENT APPLICATIONS

### General Information

The MT 1000 Series is a dedicated multi-parametric control instrument for water-treatment processes requiring a number of chemical parameters to be checked simultaneously.

Alongside probe quality checking and data logging capability, the unit features: independent proportional control output measures; four programmable frequency outputs; RS485 serial port with Modbus communication protocol; four powered output relays and two dry contact relays; a map configuration function to assign the mechanical relays; frequency output; and mA outputs.

Power supply: 100-240 Vac 50/60 Hz, 15 Watt (Class 1)

Operating temperature: 0 to 40°C, RH 0 to 95% (without condensation)

Data display: Graphic display 240X128 pixel / LCD white backlight

Keyboard: 7-key membrane

Cable connections: Dual row connectors

Six relays: 4 x 100 - 240Vac powered relays and 2 x dry contact relays

Output modules associated with chemical measurements

Four 4-20 mA current output channel, 500 ohm maximum load

Four frequency output channel (open collector NPN/PNP) 1 - 120 pulses/min

Flow rate control through the input for reed sensor

Hold function by voltage input (15-30 Vdc)

Internal power supply for chlorine sensor (24 Vdc @30mA)

RS485 serial port Modbus standard communication protocol up to 115200 baud rate

PT100 temperature probe input for measure compensation

Integrated modules technology with chlorine measure for water-treatment applications and swimming pools.

Full Mode function allows to set the free-viewing configuration to the end user (only FM model)

Preset function to assign a viewing configuration to the specific application (only FM model)

Clock module with backup battery

Enclosure box in wall mounting, ABS material, IP65 Full Box (L: 278 x H: 285 x D: 139.5)



### Applications

- Wastewater treatment
- CIP
- Fish farming
- Drinking water
- Cooling towers
- Boilers
- Reverse osmosis
- Galvanic industry
- Irrigation

## Available measures



Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 2,000 mV	± 1 mV
Electrical conductivity	0.054 – 200,000 µS	± 2 %
Dissolved oxygen	0 – 20 ppm	± 2 %
Flow rate	0 – 99,999 l/s	± 0.5 Hz
Chlorine	0 – 200 ppm	± 0.01 ppm
Peracetic acid	0 – 99,000 ppm	± 0.01 ppm
Hydrogen peroxide	0 – 99,000 ppm	± 0.01 ppm
Bromine	0 – 10 ppm	± 0.01 ppm
Ozone	0 – 99,000 ppm	± 0.01 ppm
Turbidity	0 – 4,000 NTU	± 2 %
Temperature	0 – 100°C	± 0.2°C

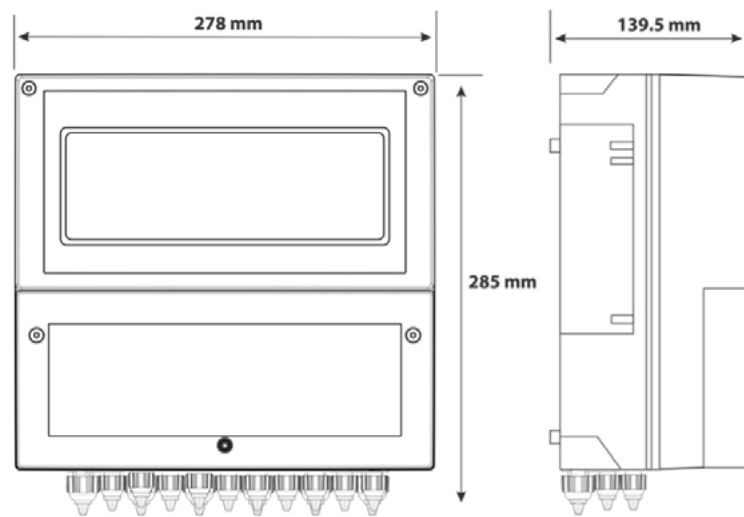
## Technical features

Features	Description	
Multiple measure	Combination from the above list	Multiple measurement channel
Calibration	Single or double point	Wizard calibration routine
Temperature measure	Compensation of measurement or activation of an output	PT100 sensor
Voltage input	Hold function	24 Vac
Reed input	Hold function	Dry contact
Serial port	RS485 protocol	Modbus RTU/ASCII
Six output relays	Normally-open status	4 are dry contact 5A - 250V 2 powered up to 10A
Four solid state relays	Output frequency signal	1 - 120 pulses/minute
Four 4 - 20 mA outputs	Output current analogue signal	500 ohm max load
Display	Backlit LCD graphic display	240 x128 pixels (White background/blue font)
Power supply	100 - 240 Vac	CE Class I (earth connection required)
Enclosure box	278 x 285 x 140 mm	Wall mounting with bracket - IP65

## Operating Specifications

	pH	Redox	EC - Conductivity	Amperometric Chlorine	Potentiostatic Chlorine	Turbidity	Temperature
MTX00G2WM000	•	•		•			•
MTX00G6WM000	•	•		•		•	•
MTX00GFWM000	•	•	•	•	•	•	•

## General arrangements drawing



## Measure Range

pH	0-14 pH	± 0.01 pH
Redox	± 1.500 mV	± 1 mV
Conductivity	0.054 - 200.000 µS	± 2%
Dissolved Oxygen	0 - 20 ppm	± 2%
Flow Rate	0-99.999 l/sec.	± 0.5 Hz
Chlorine	0 - 200 ppm	± 0.01 ppm
PAA	0 - 99.000 ppm	± 0.01 ppm
H2O2	0 - 99.000 ppm	± 0.01 ppm
Bromine	0 - 200 ppm	± 0.01 ppm
Ozone	0 - 99.000 ppm	± 0.01 ppm
Turbidity	0-4.000 NTU	± 2%
Temperature	0-100 °C (-32 - 212 °F ± 1.8°F)	± 0.2 °C

## MT1000 series key code

