

Multilogger



Multilogger

The Multilogger is designed for the measurement and recording of physical and electrical parameters, with adjustable logging intervals from 1 second up to 24 hours.

4 inputs

All models feature four input connectors for external probes or signals. Depending on the model, these can be complemented with an internal atmospheric pressure sensor and/or an internal CO₂ sensor.

Evaluation of up to 16 variables

From the four connected probes or sensors, the Multilogger can process and display up to 16 variables, including both measured and calculated values.

Calculated values include:

- Advanced humidity parameters, such as: dew point temperature, absolute humidity, specific humidity, mixing ratio, specific enthalpy
- Inter channel calculations, for example the difference between two connected temperature probes

Alarm limits

For each channel (measured or calculated), two independent alarm limits can be configured.

Alarm indication is available via:

- Acoustic alarm (built in beeper)
- Optical indication (3 LEDs)
- Alarm output and E-mail notification
- An upper and lower limit, or two limits exceeding in the same direction.

Power supply

The Multilogger is powered by an external AC adapter. In addition, operation of the device (excluding the Ethernet interface) is supported by replaceable batteries. The unit can be used as a permanently installed or portable device. Batteries can be charged using the AC adapter or replaced with standard AA alkaline batteries. Typical battery life is several months, depending on usage.



The integrated Ethernet interface enables:

- Sending email notifications when an alarm starts or ends
- Use of DATALINK to display current values or download logged data to a PC
- Viewing current measurements via a web browser
- Access by third party applications using SNMPv1 and XML protocols
- Transmission of data to OnlineSensor, providing tools for data analysis, graphs, tables, and statistics



Multilogger models



Terminals



MiniDIN



Thermocouple

The Multilogger series is available in nine different models to suit a wide range of measurement applications.

Model	Input 1	Input 2	Input 3	Input 4	Internal sensor
EML-01	MiniDIN	MiniDIN	MiniDIN	MiniDIN	-
EML-02	Thermocouple	Thermocouple	Thermocouple	Thermocouple	-
EML-02E	Thermocouple	Thermocouple	Thermocouple	Thermocouple	-
EML-03	MiniDIN	MiniDIN	Thermocouple	Thermocouple	-
EML-04	MiniDIN	MiniDIN	Terminals	Terminals	-
EML-05	MiniDIN	MiniDIN	Terminals	Terminals	Barometric pressure
EML-06	MiniDIN	MiniDIN	Terminals	Terminals	CO ₂
EML-07	MiniDIN	MiniDIN	Terminals	Terminals	Barometric pressure + CO ₂
EML-08	Terminals	Terminals	Terminals	Terminals	-
EML-09	Ext. probe of CO2	MiniDIN	MiniDIN	MiniDIN	-

* The EML-02E does not support Ethernet communication.
This model is supplied with alkaline batteries and without an AC adapter.

Specifications of internal sensors

Selected models are equipped with integrated internal sensors for additional measurement capabilities

Internal barometric pressure sensor	
Range	600 hPa to 1100 hPa
Accuracy	± 1.3 hPa at 23 °C

Measured atmospheric pressure values can be converted to sea level pressure.

Internal CO2 concentration sensor	
Range	0 to 2000 ppm*
Accuracy	± (50 ppm + 2 % of MV) at 23 °C and 1013 hPa

* Custom range 10 000 ppm.

Alarm output	
Type of output	600 hPa to 1100 hPa
Max. switching current	± 1.3 hPa at 23 °C
Max. voltage on output	12 V
Auxiliary voltage at terminal	+5 V (only when the mains supply is present)



Specification of **input**

MiniDIN input allows connection of:

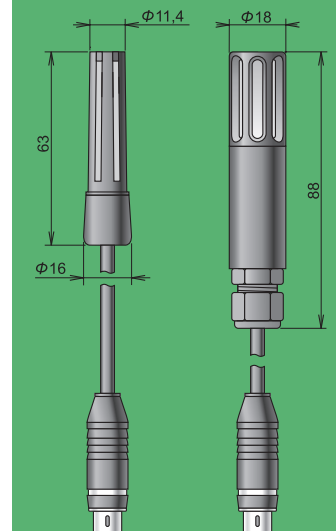
Pt1000 temperature probes with built-in configuration memory (series xxx/M).

Range	-200 to 600 °C
Accuracy	± 0.2 °C up to 100 °C and ±0.2 %MV above 100 °C (without probe)

Type of probe	DigiS/M	DigiL/M
Temperature measurement range	-10 to 60 °C	-30 to 105 °C
Temperature measurement accuracy	± 0.4 °C	± 0.4 °C
Relative humidity measurement range (without condensation)	0 to 95 %RH	0 to 100 %RH
Relative humidity measurement accuracy	± 2.5 %RH	± 2.5 %RH
Probe cover / sensor cover	IP30 / -	IP65 / IP40

The probes are supplied with a calibration certificate and are available in a short version with connector for direct device connection, or with cable lengths of 1, 2, 5, 10 or 15 metres.

TRHD-103D TRHD-102D



Thermocouple input allows connection of:

Thermocouple probes, type: J, K, S, B, T, N

Type of thermocouple	K	J	S	B	T	N
Range	-200 to 1300 °C	-200 to 750 °C	-200 to 1700 °C	-100 to 1800 °C	-200 to 400 °C	-200 to 1300 °C
Accuracy	± (3 % of MV +1.5 °C)					

Direct input of bipolar voltages with range up to -60 to +140 mV

Sensors with voltage input		
Range	-60 to 140 mV	-18 to 18 mV
Accuracy	±100 uV	± 20 uV

Removable terminal block allows connection of:

Sensors with voltage output

Range	0 V to 10 V	Range	0 mA to 20 mA	Potential - less contact
Accuracy	± 10 mV	Accuracy	± 20 uA	Voltage signal 0 - 30 V

Two state signals can only be connected to inputs 3 and 4, Pulse signals can only be connected to input 4

External CO2 probe for EML-09

External probe PRB-CO2-10K		External probe PRB-CO2-50K	
Range	0 to 10000ppm	Range	0 to 50000ppm
Accuracy	± (110 ppm + 2 % of MV) at 23 °C and 1013 hPa	Accuracy	± (110 ppm + 2 % of MV) at 23 °C and 1013 hPa

Optional cable extensions can be ordered separately: 1, 2, and 4 metres

Supported probes and input signals

Pt1000 temperature probes	Temperature / relative humidity probes with digital output (TRHD-102D/103D)	Probes are interchangeable without recalibration, independent of cable length. Available cable lengths: 1, 2, 5, 10, and 15 metres
Thermocouples: K, J, S, B, T, N	Sensors with bipolar voltage output -60 to +140 mV (e.g. heat flux sensors)	Thermocouple inputs with cold junction compensation
Devices with two state (binary) outputs (e.g. machine status, door open/close)	Devices with pulse output (e.g. gas and water meters, production counters)	Sensors with analogue outputs: Voltage: 0–10 V (0–5 V, 0–1 V) Current: 0–20 mA (4–20 mA)

Measured values can be recalculated directly within the device using linear conversion, for example converting a 4–20 mA current loop into a defined temperature range. Sensors with voltage or current outputs must be powered from an external power source.





Your distributor

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