

## **Data Acquisition Environment**

Hardware – Software – Cloud application www.emsbrno.cz

# Datalogger MicroLog T3

#### Main features:

- Small datalogger primarily intended for soil temperature measurement with three Pt1000 A-class sensors
- High accuracy
- Water sealed case
- Infrared data access without opening the enclosure
- Manufactured by EMS





### **Specification:**

- Three sensors connected
- Temperature range -40 to +60 °C
- Temperature measurement accuracy ± 0.15 °C
- Memory capacity 100,000 readings (2 years when measuring each hour)
- Battery capacity more than 5 years (when measuring each hour)
- Fully watertight IP 68 rating
- Working range -40 to 60 °C
- High density Polyethylene case
- Size D70 x 40 mm (without connectors)



## MicroLog T3

MicroLog T3 is a small three-channel water-sealed datalogger designed for the temperature measurement with accurate Pt1000 temperature sensors. It is mainly intended for measurement of the soil temperature in different points or depths.

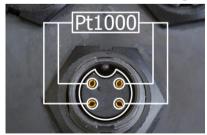
The datalogger case is watertight, made from high-density polyethylene terephthalate (PETE) allowing its long-term leaving in soil.

The non-volatile data memory can store typically 100,000 measured values what is enough for more than 2 years of storing of all measured variables in hourly intervals (3 x Pt1000 temperature sensors).

#### **Specification**

Memory size	256 kB
Resolution	16 bits
Measuring range	-40 to 60 °C
Accuracy	± 0.15 °C
Acceptable sensors	RTD Pt1000 A-class
Excitation current	ca 200 µA
Measuring signal wave form	square wave, symmetrical
Clock accuracy (-10 to 40 °C)	better than ±15 sec/month
Measuring intervals	5 min to 4 hrs
Storing intervals	5 min to 4 hrs
Memory capacity with measuring interval 1 hr	ca 2 years
Battery lifetime with measuring interval 1 hr	ca 5 years
Sensor connection	4-pin Switchcraft EN3 P4 connector female
Protection rating	IP68
Size (diameter x length)	70 x 52 mm (incl. connectors)
Weight (incl. battery)	110 g
Operating environment temperature	-40 to 60 °C
Operating environment humidity	0 to 100%
Battery	SAFT LS14250CNA

#### **Panel connector wiring**



**Software:** Mini32 universal software is running under Windows® 7, 8 and 10. The software assures all necessary operations – system setup, data downloading and processing. Its data processing part is made for work with large and long-time data series. It offers exceptionally sophisticated visualization and data manipulation, it includes basic statistic features, creates and prints graphs and exports data to different file formats.