



EMS Brno

Data Acquisition Environment
Hardware – Software – Cloud application
www.emsbrno.cz

Minikin RTHi/QTHi



Main features:

- Built-in sensors for air temperature, humidity and radiation (global or PAR)
- Infrared wireless data access
- High accuracy
- Glass optics
- Long lasting battery
- Completed with radiation shield
- Watertight sturdy design
- Advanced Windows® software including basic statistics, regression analysis and user programmable calculation



Specifications:

- Temperature accuracy ± 0.15 °C
- Radiation accuracy $\pm 5\%$
- Relative humidity accuracy $\pm 2\%$
- Non-volatile memory, typically 100,000 readings
- Operating range:
 - Temperature from -40 to 60 °C
 - Relative humidity from 0 to 100 %

Minikin RTHi /QTHi

Minikin RTHi and QTHi are small dataloggers with built-in sensors for the measurement of air temperature, humidity and radiation (global or PAR). They are intended for long-term monitoring. The measuring accuracy, memory size and the overall design overruns most of the similar products.

Glass optics of radiation sensor ensures long-term stability and minimal need for calibration.

Sensors are mounted in radiation shield. Radiation shield prevents direct and reflected sunrays from heating the temperature sensor, shelters humidity sensor from adverse weather and allows adequate airflow to ventilate the sensor.

The datalogger case is made from stainless steel and polyethylene terephthalate (PETE).

The non-volatile data memory can store typically 100,000 measured values what is enough for more than four years of storing of three measured variables in hourly intervals. According to measuring mode, the new data may be either overwritten on top of oldest data in the memory or the measurement stops when the memory is full.

The long-lasting primary cell assures more than two-year measurement of three variables in 10-minutes interval. The battery can be replaced directly by user.

As each EMS system, the datalogger is supported with sophisticated Mini32 software with many advanced features including file linking up and statistics.

Specification

Memory size	256 kB
Resolution	16 bits
Clock accuracy (-10 to 40 °C)	better than ± 15 sec/month
Measuring intervals	3 sec to 4 hrs
Storing intervals	3 sec to 4 hrs
Memory capacity (measuring: 10 min; storing: 1 hour)	ca 4 years
Battery lifetime with (measuring: 10 min; storing: 1 hour)	ca 2 years (ca 4 years*)
Temperature accuracy	± 0.15 °C
Radiation accuracy	$\pm 5\%$
Relative humidity accuracy	$\pm 2\%$ RH
Protection rating	IP63
Size (diameter x length)	120 x 200 mm
Weight	685 g
Operating temperature range	-40 to 60 °C
Operating humidity range	0 to 100%
Battery	SAFT LS14250CNA

* Note: Sensors with serial number A22121245 and higher respect the humidity measurement setting only in the averaging interval. As a result, the battery lasts significantly longer due to the high power consumption of the humidity measurement.

Software: Mini32 universal software 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.

QTHi – Quantum sensor characteristics:

