DATA SHEET
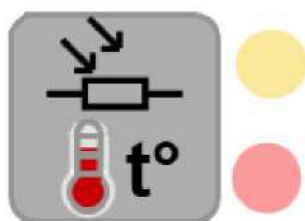

rH-T1X1

Battery module for temperature and brightness
measurement with external temperature sensor

of the F&Home RADIO system.

The rH-T1X1es measures ambient temperature and light intensity and sends results to the system. Communication with the server is done by radio. The light intensity sensor is located inside the casing and the temperature sensor is led out on a cable. Measurement of light intensity is carried out through a hole in the casing. Measurement of temperature is laden with time lag because of the casing. The temperature reading is sent at defined intervals or when a certain temperature change occurs. The rH-T1X1es module is particularly suitable for supporting the room temperature control system and for controlling the automatic lighting by measurement made on the outside of the building. Measuring at the output of the module is the approximate value of light intensity in lux. The output can be used for determining the brightness thresholds needed in the control rooms SX550 and SX553.

The rH-T1X1es module is represented by an object, which consists of one temperature output and one light intensity output.
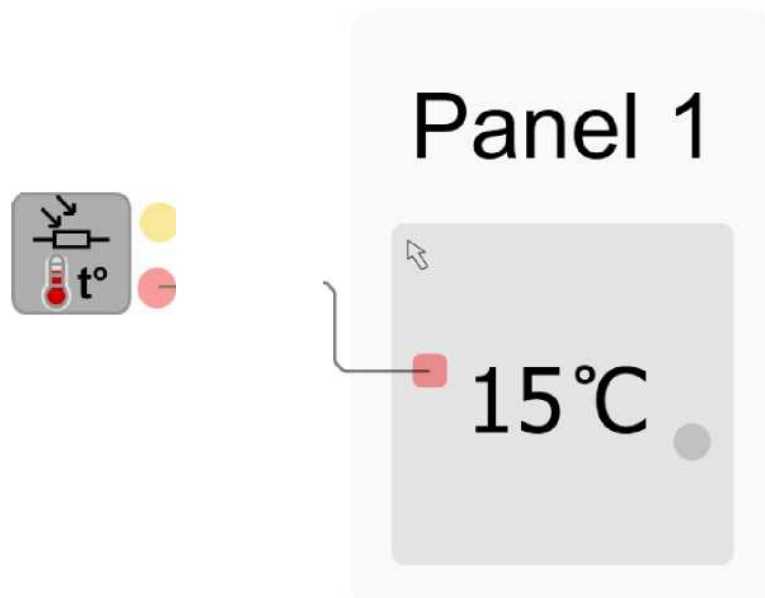
OUTPUTS

Figure	Name	Type
	Measured light intensity	Light intensity
	Measured temperature	Temperature

Installer settings in the configuration program

Feature name	Description	Range	Unit / Description
Connection monitoring	Sets action in case of loss of connection to the server (information about the modules out of reach).	Standard module	Information on the standard output SX 752
		Alarm module	Information on the alarm output SX 752
		Unmonitored module	No connection correctness control
The delay in signaling a lack of coverage	Sets the delay after which the module is reported that it is beyond the coverage range of the server	1 - 5	
Temperature calibration	Adjusts the measured actual temperature	-50.0, +50.0	$0.1\,^{\circ}C$
Light intensity calibration	Adjusts the measured actual light intensity	-3, +3	approximately 5%
Update of the output after the time	Sets the time after which the measured temperature is updated. PLEASE NOTE! Frequent updates shorten battery life.	5-30	second
Update of the temperature output for a change by	Sets the magnitude of the change in temperature after which the temperature on the output of the object will be updated (no more than every 15 seconds)	0-50	$0.1\,^{\circ}C$
Update of the light intensity output for a change by	Sets the magnitude of the change in lightning after which the lightning on the output of the object will be updated	0 - 100	percentage

A simple way to display the temperature measured by the module is to create a panel with the icon 706: Temperature display.

Brightness-type output can easily be used by comparing the value with different value (for example a constant). You can use the 571 comparator - at its output we get the binary state of 0 or 1.
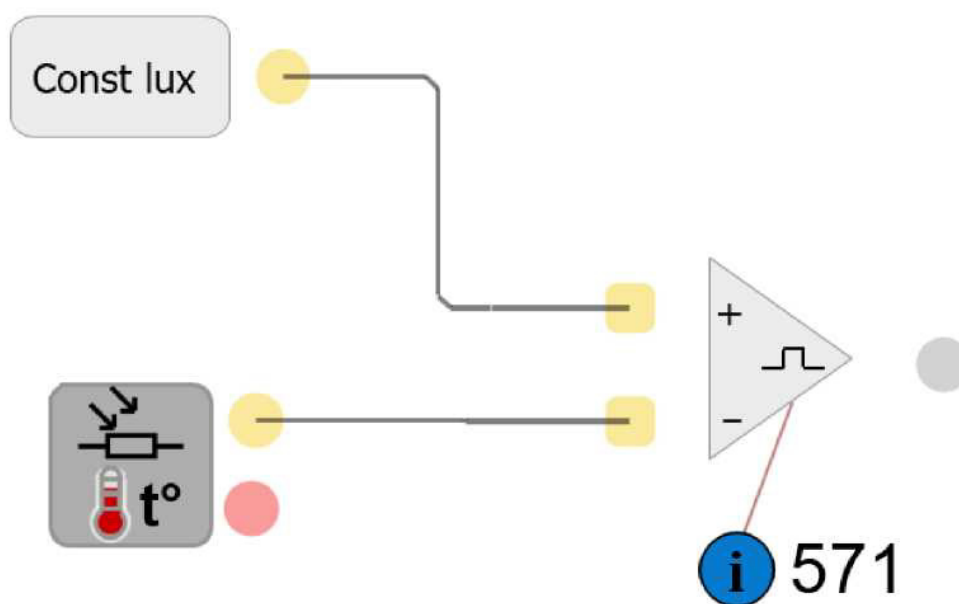
Technical specifications table	
Battery	CR123 (lithium) or SL861/S
Battery operating time	12 - 36 months (depending on the battery)
Supply voltage range	2.5 - 3.5 V
Radio link (operation frequency)	868 MHz
Signal strength	9 mW
Transmission type	One-way with confirmation
Coding	Yes
Range in open space	100 m
Period of logging in the system	Up to 5 minutes
Temperature measuring range	$-20^{O}C$, $+45^{O}C$
Temperature measuring resolution	$0.1^{O}C$
Temperature measuring accuracy	$+/- 0.5^{O}C$
Storing temperature	$-20^{O}C$ to $+50^{O}C$
Working temperature	$+10^{O}C$, $+40^{O}C$ for battery CR123A $-30^{O}C$, $+40^{O}C$ for battery SL861/S
Humidity	<=85% (without condensation and aggressive gases)
Dimensions	51 x 37 x 20 mm
Ingress protection	IP20
Operating position	any
Enclosure type	in-wall
Battery monitoring	yes

- Insert the batteries according to shown polarity and mount the housing of the module.
- If there are uninsulated wires in the installation box, then disconnect the power supply circuit, make sure using the appropriate device if there is no voltage on the supply lines and perform adequate insulation.
- Close the housing of the module.
- Place the antenna of the module parallel to one of the antennas of the server and move it away as far as possible from other wires.
- The module registers itself at once after inserting the battery.

WARNING

The connection method is specified in this manual. Any activities related to installation, connection and regulation should be carried out by persons with electrical qualifications who are familiar with this manual and features of the module. Manner of transport, storing and using the module affects its proper operation. Installation of the module is not recommended in the following cases: missing components, damage to the module or its deformation. In case of malfunction the module should be returned to the manufacturer.