LABORATORY: CNR-ISPC

NAME OF THE INSTRUMENT

IoT Heat Flux Measuring system

GENERAL DESCRIPTION

Heat flux meter for measuring the transmittance of opaque components in compliance with ISO 9869, completely wireless, with very high resolution (24 bit). The data detected are particularly accurate and reliable and are sent and stored on an SD Card or transferred to any device equipped with Bluetooth. Each module is equipped with an NB-IoT modem, for remote control of the measurements made, essential for evaluating the extension of the monitoring period.

The equipment allows to measure 4 points simultaneously with 4 independent heat flow meters.

TECHNICAL DETAILS

Each HFM has:

- n°1 HFM 2 Ch Wireless 868 Mhz module, integrated modem (NB-IOT standard) powered by 3.6V high capacity Type C battery, Bluetooth Low Energy, Integrated 8 Gb micro-SD card, including 1 flow plate and 1 probe temperature gauge PT1000;

- n°1 HFM 2 Ch Wireless 868 Mhz module, integrated modem (NB-IOT standard) powered by 3.6V high capacity Type C battery, Bluetooth Low Energy, Integrated 8 Gb micro-SD card including 2 PT1000 temperature probes;

- n°1 WMS-Monitor - Management software with U-Value module for calculating transmittance on site in accordance with ISO 9869 and for compiling the instrumental report (Windows OS) - Rigid suitcase Dimensions: 270 x 215 x 165 m;

- Fix-Probe system for indoors and outdoors, consisting of 2 rods with sheath and arm system with probe pusher (also suitable for other heat-flow meters) h max 450cm.





Referent: Filippo Calcerano (filippo.calcerano@cnr.it)