

TLOGWLS

Lithium Kit Integrated battery 24 bit
Wireless



Wireless heat flux meter for transmittance measurements

TLOGWLS heat flux meter for transmittance measurements is characterized by the maximum accuracy in the data acquisition (24 bit resolution) as well as its great versatility and simple operation. Thanks to the use of four probes (for the measure of the contact temperature) and one heat flux plate connected to the main TLOGWLS unit through proper wireless connection (made up of some completely independent and proper remote units for the acquisition and transmission of data), instrument takes the measurement of transmittance values on opaque walls of whole buildings, as specifically required by the most recent normative regarding energy-saving.

Recording modalities can be set by using the software in a very intuitive and quick way, in order to carry out monitoring with maximum accuracy and easiness. TLOGWLS heat flux meter is also arranged for medium and long-term acquisitions and it is suitable for the measure of environmental parameters both on site and in laboratory. Unit can also manage one optional couples of remote transmitting units TLW2; TLW3 in order to perform recording of the transmittance parameters in 2 different measurement areas in the same building at same time. All data acquired are downloaded on PC and processed by GTLAB software (provided with the equipment) for the direct calculation (through progressive average method) of K coefficient (transmittance) and parameters related to the thermal insulation of tested building. Instrument complies with ISO 9869 standard

Fields of use: Acquisition of environmental parameters both on existing buildings (pre-restoration) in order to know the actual need of insulation necessary to comply with the parameters expected by the normative, and also on new building (post-restoration) in order to value the quality in terms of insulation of the work it has been carried out.

Accessories included:

- n.1 TLW2 - Wireless unit (2 channels)
- n.1 TLW3 - Wireless unit (3 channels)
- n.3 AL52100 - USB Power supply unit
- n.1 CUMAUMB1M - micro USB cable
- n.2 CUMAECM1M - TLW2, TLW3 charging cable
- n.1 GTLAB - Processing software
- n.1 VMP342912TLG - Transport case for TLOGWLS and tablet
- n.1 VMM423412TLG - Transport case for TLW2 and TLW3
- n.1 SDMHC8- 8 Gb micro SD memory

- n.1 Heat sink compound
- n.1 Android terminal

Methodologies

Measure of thermal flow

General

Number of channels	5
Power supply	internal lithium ion battery pack 11,1V - 10,4Ah/115W, predisposition for external power supply unit
Acquisition medium power consumption	30 mA
Average autonomy	16 hours
Environmental conditions	Temperature (°C) 0 to 60
Connections	Wi-Fi
Data storage	micro SD 8 Gb removable memory
Data format	TSV, BMP
GPS	No
Case	Aluminium wall mount
Dimensions	L190 mm x P110 mm x H60 mm
Weight	0,6 kg
Reference legislation	ISO 9869

Acquisition

A/D converter resolution	24 bit
Maximum distortion	0.0005%

General

Maximum range of input signal	+/- 2.5V
Sampling interval	from 1s to 12h
Clock	integrated with backup battery
Measure options	relative or absolute

Radio

Protocol	IEEE802.15.4
Frequency	2.4 GHz
Transmission power	0dBm (14dBm optional)
Receiver sensitivity	-96 dBm
Outdoor range	300 m (1000 m with 14 dBm power)
Indoor range	40 m



