gOMS II - Datasheet
gO Measurement-System II

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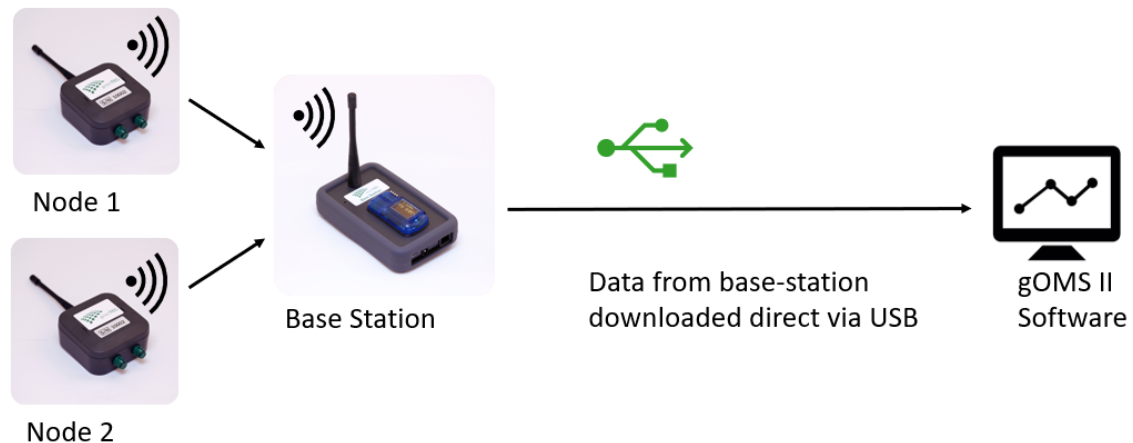
gO Measurement-System II

For the assessment of U-value and R-Value

gOMS II is a portable, robust, and weather-proof measurement system which has been specially designed for temporary measurements under difficult circumstances. gOMS II can have up to 10 measurement-nodes per base station, which are connected via a sub-GHz radio link (868/915 MHz). Measurement data is stored on the base station.

The Plug and Play configuration of gOMS II makes it the perfect solution for quick and accurate measurements over several days to months with the possibility of real-time monitoring.

Areas of application

- U-value measurement in compliance with ISO 9869
- R-Value measurement in compliance with ISO 9869
- Monitoring of heat flux, surface temperature and ambient temperature on a chosen surface (Inside and Outside use).

Node 1

Node 2

Base Station

Data from base-station downloaded direct via USB

gOMS II Software

Overview of measuring nodes and sensor configurations

gOMS II has one standard node, which can be set to two configurations depending on the sensors connected.

Measurements can be taken every 1 minute or every 10 minutes. This can be changed by the user.

Node Configuration 1

1x combined heatflux / surface temperature sensor

1x ambient air temperature sensor

Node Configuration 2

1x surface temperature sensor

1x ambient air temperature sensor

Typical applications and measuring configurations

Application	Required no. base station	Required no. sensor nodes type 1	Required no. sensor nodes type 2
U-value assessment under ISO 9869 compliance (1 building element)	1	1 (Inside)	1 (Outside)
R-value assessment under ISO 9869 compliance (2 building elements)	1	1 (Inside)	1 (Outside)

Any personalised combination of up to ten nodes per base station is possible.

Base Station

- Compact form factor
- Internal data storage
- Real-Time Status Indicator for data measurements
- Connection with up to 10 measuring nodes
- 2 days battery life for backup (rechargeable)

Product name	Base Station
Article number	A-258621
Dimensions (l x w x h) [mm x mm x mm]	120 x 75 x 25 (excluding Antenna)
Antenna Height [mm]	85
Weight [g]	ca. 205
Operational temperature range [°C]	-20 to +65
Battery Autonomy	2 days autonomous battery life (internal battery)
Power supply	12V Wall Adapter included with initial purchase
Wireless connection to the measuring nodes	Sub-Ghz-link (868 / 915 MHz)
Internet connection	Via WiFi connection
Memory Capacity	Over 1,000,000 measured values
LED:	Blue – Data Recording Yellow – Charging

Measuring Node

- Up to 2 years battery life
- Compatible with all gOMS II sensors
- Portable and Wireless
- Good wireless range
- Weatherproof
- Robust enclosure

Product name	Sensor node	
Article number	A-258634	
Sensor type	• combined heat flux / surface temperature sensor • ambient air temperature sensor	• surface temperature sensor • ambient air temperature sensor
Dimensions (l x w x h) [mm x mm x mm]	75 x 75 x 35 (without antenna)	
Antenna Height [mm]	85	
Weight [g]	ca. 140	
IP-Rating (enclosure)	IP67 (weatherproof, splash water)	
Operational temperature range [°C]	-20 to +50	
Battery Autonomy	2 years battery life (internal battery)	
Battery Type	Non-rechargeable Battery – 3.6V Primary Lithium-Thionyl Chloride	
Measurement Frequency [1 \ min]	1 min / 10 mins	
Wireless connection to the base station	Sub-Ghz-link (868 / 915 MHz)	
Sensor inputs	2 (factory-configured)	

Ambient air temperature sensor

- Highest accuracy
- Robust steel case
- Simple mounting per clip
- Very low energy consumption

Product name	Digital ambient air temperature sensor
Article number	A-258647
Material	Chromium-Nickel-Steel
Dimensions covering (d x l) [mm]	5 x 50
Cable length [mm]	500
IP-Rating (enclosure)	IP67
Operational temperature range [°C]	-40 to +80
Accuracy [°C]	+/- 0.1
Resolution [°C]	0.01

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Surface temperature sensor

- Highest accuracy
- Robust, low-noise design
- Simple removable mounting
- Very low energy consumption

Product name	Digital surface temperature sensor
Article number	A-258647
Material	Thermally conductive polymer
Dimensions (l x w x h) [mm]	30 x 30 x 3.3
Cable length [mm]	500
IP-Rating	IP67
Operational temperature range [°C]	-40 to +80
Accuracy [°C]	+/- 0.1
Resolution [°C]	0.01

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Combined heat flux and surface temperature sensor

- High-resolution heat flux measurement
- Highest accuracy
- Robust, low-noise design
- Simple removable mounting
- Very low energy consumption
- Integrated surface temperature sensor

Product name	Combined heatflux / surface temperature sensor
Article number	A-258641
Material	Thermally conductive polymer
Dimensions (l x w x h) [mm]	30 x 30 x 3.3
Cable length [mm]	500
IP-Rating	IP67
Operating temperature range [°C]	-40 to +80
Accuracy temperature measurement [°C]	+/- 0.1
Resolution temperature sensor [°C]	0.01
Accuracy heatflux measurement [%]	+/- 3
Resolution heatflux sensor [W/m^2]	0.09
Measurable heatflux range [kW/m^2]	+/- 1.6

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Analysis and control software

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<u>Overview main functions and features</u>

- Real time data monitoring

- Real-time status indicator of the measuring nodes on Base Station

- U-value and R-value assessment

- Automated compliance check for ISO-9869

- All measurement data is presented in a structured report

- csv-measurement data can be downloaded