HCA UNITY1
AMR - Wireless M-Bus

Highlights

- W-MBus Heat Cost Allocator
- Range up to 300m
- Low cost
- Plug & Play installation
- AES128 encryption compliant OMS mode 5
- Up to 11 years of autonomy

The «HCA UNITY1» from Adeunis RF is a ready-to-use Heat Cost Allocator allowing to calculate the energy supplied by heaters and transmit these data by radio.

Using the unity scale method, the calculation is performed by measuring the difference between the surface temperature of the radiator and the ambient room temperature.

This difference is used to calculate consumption units, allowing billing of the actual energy consumption in collective buildings.

The radio transmission of the data is performed using the Wireless M-Bus protocol protected by AES128 encryption. The statement of consumption is done remotely without going into homes.

The lithium battery allows 11 years guarantee of autonomy with a periodicity of sending one measurement every 4 minutes.

The HCA UNITY1 transmitter is equipped with an LCD, displaying the real-time estimation of the accumulated energy (provided) by the radiator and this over a period of up to 15 years.

Connection to heaters is simple via a universal mounting system allowing a significant reduction of implementation and deployment costs.


Performances
RF radiated power: 3dBm (2mW)
Range: up to 300m
Frequencies: 868.95MHz and 868.3MHz
Wireless M-Bus Modes T1 and S1
RF data rates: 100kbps and 32.768kbps

Firmware
Measured temperature: from 5° to 95°C (EN834)
Measures history (management)
Transmission period: adjustable
AES128 encryption compliant OMS mode 5

Warnings
Fraud detection (product opening)
Battery end of life

Consumption & needs
Max TX consumption: 35mA
Operating voltage: de 2 à 3.3 V
Power supply: Li-MnO2 battery
Lifespan: 1 year of storage and 11 years of operation

General information
Operating temperature: -40°C / +85°C
Dimensions: 78 x 39 x 30 mm
Standards: EN300-220, EN301-489, EN834 V2013, EN13757-4:2005, OMS 3.0.1

References
- ARF8050AA HCA UNITY1 COMPACT
- ARF8051AA HCA UNITY1 REMOTE SENSOR