

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**.

Our Wireless M-Bus solution ensures **full compatibility** with EN 13757-4: 2005 standard.

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

References

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

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