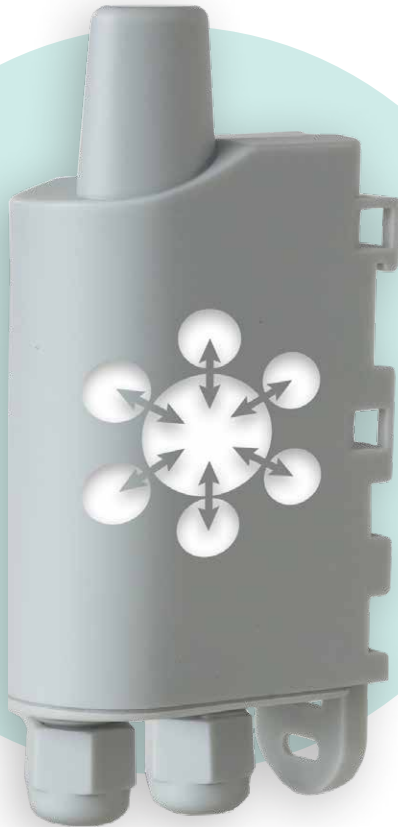


# MODBUS

Query, write and read one or more registers  
on one or more Modbus slaves.



**ALERT**

Report faults and alerts from  
MODBUS slaves :

- Min/max thresholds



**MEASURE**

Provide feedback about measuring  
data from Modbus slaves



**ACT**

- Read a slave's registers from  
the network
- Write to a slave's registry from  
the network



Additional features:

- Periodic/event transmission (up to 6 frames with different frequencies)
- Slave management: read and write
- Error/fault management: product error warning, configuration error
- Alarm repetition in case of persistent event
- Indicator lights for installation assistance
- Network Quality Test at start-up (LoRaWAN)



Make your thermal energy meters  
communicate.



Broadcast information on PLC.



# TECHNICAL SPECIFICATIONS

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## LoRaWAN ARF8240AA | Sigfox ARF8240CA

### Mechanical specifications

|                 |  |
|-----------------|--|
| Weight          | 97 g   |
| Dimensions      | 105 x 50 x 27 mm   |
| Enclosure       | IP67, EMERGE™ PC 8731HH grey resin (casing), EMERGE™ PC 8430-15 transparent resin (sole) |
| Mounting        | DIN Rail, Tube, Wall, Collar   |
| Cable length    | 2 cable of 6 wires (70 cm + 10 stripped wire)  |
| Modbus Protocol | Remote Terminal Unit (RTU)   |

### Operating conditions

|             |                              |
|-------------|------------------------------|
| Temperature | -25°C / +70°C                |
| Humidity    | 0 to 85% RH (non-condensing) |

### Device Power Supply

|                                    |                                  |
|------------------------------------|----------------------------------|
| Alimentation                       | External supply 6-30V continuous |
| Slave supply management            | Monitor the supply of the slave  |
| Current max returned to the sensor | 500 mA                           |

### Device configuration

|  |   |
|--|---|
| Local device configuration                     | IoT Configurator                                  |
| Test Read and Write into slaves                | Advanced mode of the IoT Configuration            |
| Configuration and firmware update from the air | KARE+ compatible                                  |
| Remote device configuration                    | Downlink via the network or via the KARE platform |
| Security                                       | PIN/PUK Code protection                           |

### Radio/Wireless

|                            |   |
|----------------------------|---|
| Supported regions          | LoRaWAN EU863-870 / Sigfox RC1            |
| Wireless Security          | AES-128 data encryption (LoRaWAN only)    |
| Class                      | LoRaWAN: Class A or C   Sigfox: Class 0   |
| Supported LoRaWAN features | OTAA, ABP, ADR, adaptive channel setup    |
| RF transmit power          | 14 dBm                                    |
| Sensitivity                | -137 dBm LoRaWAN @SF12<br>-124 dBm Sigfox |

### Regulations and certifications

|          |                            |
|----------|----------------------------|
| Standard | Directive 2014/53/UE (RED) |
|----------|----------------------------|

### RS232 Link

|                           |  |
|---------------------------|--|
| Signals                   | RX, TX, Ground (RTC and CTS are not handled) |
| Voltage of inputs/outputs | +/- 5V typ, +/- 15V max                      |

### RS485 Link

|                            |                               |
|----------------------------|-------------------------------|
| Signals                    | TX-, RX-, RX+; TX+, Ground    |
| Voltages on inputs/outputs | +/- 1.5V typ, 3V differential |
| Polarization resistors     | 560 Ohms                      |
| Termination resistor       | 120 Ohms                      |

