Wireless communication interfaces

Wireless M-Bus Modem

ARF868 Modem

The solution for

> Industry
> Building
> Infrastructure
> Local authority

Function

Wireless M-Bus Modem
Wireless M-Bus AMR (Automatic Meter Reading) plug-and-play modems automatically collect energy data from water and gas meters. They autonomously read data (index) from water and gas meters.
100% compatible with the Wireless M-Bus standard (EN13757-3 and EN13757-4), device open protocols ensure full interoperability with other Wireless M-Bus products on the market.

ARF868 wireless modem
ARF868 wireless modems convert data from a serial link into a wireless frame to send to a similar device in the frequency range 863-870 MHz. The power and sensitivity allow the data to be transmitted over distances of up to 20 km.

Strong points

Wireless M-Bus Modem
> Battery life
> Ease of installation
> Long range
> 2 pulse inputs
> Transmitter
> Repeater
> Receiver

ARF868 wireless modem
> Sensitivity, transmission/reception quality
> Ease of installation
> Long range
> Several types of communication

Advantages

Wireless M-Bus Modem
Battery life
• Runs on battery for up to 12 years.
Ease of installation
• Factory pre-programmed.
• Quick installation.
• Robust IP65.
Long range
• Up to 1 km. Range can be increased by installing repeaters.
2 pulse inputs
• A single transmitter can handle two meters.
• Compatible with all water and gas meters.
Transmitter
• Wireless transmission of metering data (consumption) every 10 minutes (10s or 12hrs optional).
Repeater
• Wireless M-Bus wireless relay of metering data (consumption).
• Multiple repeaters can be used to extend the range.
Receiver
• Wireless M-Bus metering data (consumption) wireless receiver.
• RS485, RS232 or USB serial port.
• Remote antenna.

ARF868 wireless modem
Sensitivity, transmission/reception quality
• Power 25 mW or 500 mW at 868 MHz.
• Licence-free frequencies on European bands (863 - 870 MHz) or frequencies subject to license (410 - 470 MHz).
Ease of installation
• Quick installation.
• User-friendly and configuration with intuitive software.
• The product can be configured as a transmitter, receiver or repeater.
Long range
• 1 to 20 km.
Several types of communication
• RS485, RS232 or USB serial port.

Expert Services

> Study, definition, advice, implementation, maintenance and training... Our experts "Expert Services" offer complete support for the success of your project.

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Accessories

- 1-, 3- and 5-metre remote antenna.
- Antenna mount & adaptor.
- Power supply unit + connector (required).
- TNC converter pack.
- Sub D9 connector.
- IP53 and IP67 ingress protection rating.

Specifications

	Modem ARF868 (transmitter/repeater/ receiver model)	Wireless M-Bus transmitter modem: Water/Gas	Wireless M-Bus transmitter modem: Temperature	Wireless M-Bus repeater modem	Wireless M-Bus receiver modem
Scope	Up to 1/4/7/20 km according to model	Up to 1000 m	Up to 1000 m	Up to 1000 m	
Wireless frequencies	863-870 MHz	863-870 MHz	863-870 MHz	863-870 MHz	863-870 MHz
Interfaces					
Inputs	-	2 pulse inputs	2 temperature inputs: - 1 pre-equipped input - 1 free input	-	-
Communication	RS232 - RS485 - USB optional	-	-	-	RS232 - RS485 - USB
Alerts	-	Leak detection - Fraud detection - Battery spent	-	-	-
Storage capability	-	Index bufferisation (consumption history)	-	-	-
Compatibility	-	Sappel Izar, Itron Cyble, Itron Gallus 2000, Elster BK	-	-	-
General characteristics					
Dimensions W x H x D	135 x 75 x 35 mm	210 x 103.1 x 37.2 mm	210 x 103.1 x 37.2 mm	210 x 103.1 x 37.2 mm	210 x 103.1 x 37.2 mm
Operating temperature	-30 … +70°C	-40 … +85°C	-40 … +85°C	-40 … +85°C	-40 … +85°C
Power supply	4.5 … 36 V	3.6V Li-SOCl2 battery. Battery life up to 12 years guaranteed	3.6V Li-SOCl2 battery. Battery life up to 12 years guaranteed	3.6 V. Power supply block supplied, model with battery optional	4.5 … 36 VDC
Protection degree	IP53, IP67 (optional)	IP65	IP53	IP65	IP65
Standards	EN300-220 V2010 / EN301-489 / EN 60950				

References

Wireless M-Bus modem

	Reference
Wireless M-Bus Modem - Water	4854 **0054**
Wireless M-Bus Modem - Gas	4854 **0055**
Wireless M-Bus Modem - Temperature	4854 **0056**
Wireless M-Bus receiver modem – RS232	4854 **0057**
Wireless M-Bus receiver modem – RS485	4854 **0058**
Wireless M-Bus receiver modem – USB	4854 **0059**
Wireless M-Bus repeater modem	4854 **0060**

ARF868 wireless modem

	Reference
Modbus wireless modem, distance 20 km	4854 **0050**
Modbus wireless modem, distance 7 km	4854 **0051**
Modbus wireless modem, distance 4 km	4854 **0052**
Modbus wireless modem, distance 1 km	4854 **0053**
List of accessories for ARF868 wireless modem	**Reference**
Power supply (mandatory)	4854 **0202**
RS232/USB cable (mandatory to configure ARF868 wireless modems)	4854 **0400**
RS485 connector (mandatory for use with RS485)	4700 **9993**
0.5 dB remote antenna + 1 m extension	4854 **0121**
0.1 dB remote antenna + 3 m extension	4854 **0122**
1.5 dB remote antenna + 5 m extension	4854 **0123**
Wall bracket for remote antenna	4854 **0124**
IP53 protection	4854 **0300**
IP67 protection	4854 **0301**