

Pulse RF

Radio Module for Remote Meter Reading

Key Features

- ▶ Connectable to any pulse emitting meter
- ▶ Ease of installation
- ▶ Consistent reliability



Radio Reading

The Pulse RF module has been designed to fulfil the requirement to connect easily any meter with pulse output to the Actaris remote meter reading system. With this module all types of water meters can be integrated into the Actaris radio reading system.

It also opens the possibility to multi energy applications by connecting the Pulse RF module to gas, electricity or heat meters.

Benefits of Wireless Solution

- Radio meter reading increases the reading speed.
- The data reliability is improved significantly by avoiding typing or writing errors.
- The radio reading also opens the accessibility to all meters even if the customer is absent or the meters are installed in hard to read locations.

Pulse RF Working Technology

- Based on the proven design of Cyble RF the Pulse RF works reliably even in harsh environment.
- It counts, memorises and transmits on request, the consumption pulses of any meter.
- The Pulse RF is listing every 2 seconds if the data should be transmitted to the hand held terminal. Only when the correct unique module number has been received, the module will send its data.
- With a battery lifetime of 15 years Pulse RF offers enhanced additional data such as 13 monthly fixed date readings and leakage detection.
- The Pulse RF is compatible to the open RADIANT radio protocol.

Ease of Installation

Thanks to the special design the Pulse RF can be easily fixed on the piping or screwed on the wall.

The cable connection to the pulse emitter can be easily done on site and it is protected by a cover.

Advanced Functions

In addition to the actual index Pulse RF provides also all the same powerful enhanced functions like the Cyble RF radio module.

These functions add more value to remote meter reading.

- 13 monthly fixed date readings to allow precise billing even when for e.g. the apartment owner has changed.
- Leakage detection with 13 monthly records is adding value to the utilities customers.
- End of battery lifetime indicator.
- Tampering alarm to monitor the condition of the pulse emitter connection.

Consistent Reliability

With the long experience in battery powered metering products, Actaris knows that reliability is key for customer satisfaction.

- The enhanced power management allows 15 years of field use.
- With the IP 68 protection the device can even be installed in flooded pits.
- Special electronic design ensures long communication range even in very dense populated and RF perturbed areas.
- The Pulse RF case is made of extra robust plastic material which makes it resistant to shocks and UV-lights.

Technical Characteristics

Radio Frequency Features

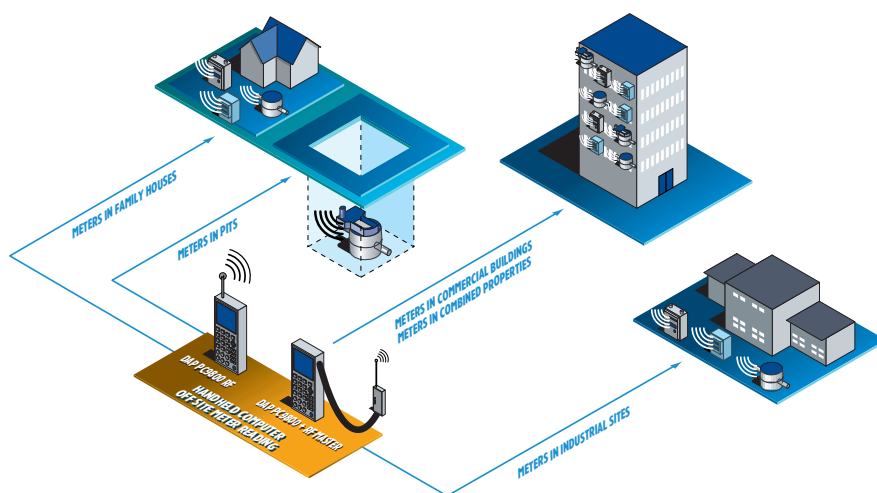
Protocol	Radian
Modulation	Frequency Shift Keying
Frequency carrier	433.82 MHz
Radiated power	< 10 mW
Transmission	Symmetrical 2 way communication
Input Pulse characteristics (reed or equivalent open collector contact)	$R_{on} \leq 1 \text{ k}\Omega$ with $R_{off} \geq 2.2 \text{ M}\Omega$ or $R_{on} \leq 50 \Omega$ with $R_{off} \geq 1 \text{ M}\Omega$ $f_{max} \leq 10\text{Hz}$, $t_{pulse} \geq 6\text{ms}$
Alarm contact (tampering of cable cut detection depending on type of pulse emitter)	Pulse length $\geq 2 \text{ s}$ (normally closed) $f_{max} = 0.1 \text{ Hz}$, $R_{on} \leq 1 \text{ k}\Omega$ with $R_{off} \geq 1 \text{ M}\Omega$

Functional Specifications

Dimensions	148 x 60 x 45 mm
Power source	Lithium batteries
Battery lifetime	15 years (reception mode 12h per day, 6 days per week and 1 reading per day)
Case protection	IP 68 submersible
Relative humidity	0 to 100%
Operating temperature	-10°C to +55°C
Accidental temperature	-20°C to +70°C
Conformity	CE certified in accordance with the European R&TTE directive (1999/5/EC)

Application

The Pulse RF is designed to integrate all types of water, heat, gas and electricity meters into the Actaris Radio system.



For more information, please contact your local agency.

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