

Add-on radio module for water meters

WFZ661



The add-on radio module WFZ661 records and processes the counting pulses of mechanical water meters prepared for wireless transmission and transmits the data to a readout system. It can be configured via an optical interface.

- Parallel transmission of AMR and walk-by data telegrams in S-mode or from OMS and walk-by data telegrams in C-mode
- Communication in S-mode or C-mode
- The module can be upgraded at any time
- Backflow recognition
- Pulse valency: 1 liter

Application

The WFZ661 add-on radio module is a component of the RF network. It reads mechanical, non-communicating cold and hot water meters via wireless transmission.

Features

It records and saves counting pulses via inductive sampling for the mechanical water meter by the add-on radio module.

The stored meter information is transmitted to a reader as per the configuration.

Backflow recognition

The add-on module detects when water flows in the wrong direction and the water volume is deducted from overall volume flow. The meter and module operate synchronously.

Technical design

Readout parameters

The following parameters can be read out and/or configured using the ACT50-MODULE via the IrDA interface:

Readout only

General

- Serial number
- Mounting place
- SW version
- Commissioning date
- Battery life
- Order number
- Device date
- Error date
- Error code
- Water meter data
 - Serial number
 - Medium

Device information

- Device name

Meter states

- Current meter state
- Last due date
- Meter state on last due date
- Next due date

Statistical values

- 15 monthly values

RF settings

- RF mode
- RF system
- Walk-by readout type
- Walk-by transmission delay
- Walk-by transmission timeframe
- Walk-by transmission-free days

Parameterize

General

- Mounting place

Due date

- Next due date

Device information

- Device name
- Device password

Water meter data

- Serial number
- Medium
- Counter value

RF settings

- RF mode
- RF system
- Walk-by readout type
- Walk-by transmission delay
- Walk-by transmission timeframe
- Walk-by transmission-free days

RF features in S-mode

RF add-on module in S-mode have the following features:		
RF system	Parallel transmission of data telegrams	• AMR • Walk-by
Transmission delay (Offset)	Time delay for sending out telegrams after the due date Time delay for sending out telegrams after the start of the month in days (Default = 0 days)	
Transmission-free days	A maximum of 2 weekdays – selected from Friday, Saturday and Sunday – can be defined as transmission-free days. At least 1 day of the week must be set (default = Sunday)	

Transmission response		
AMR telegrams	Every 4 hours, 24 hours a day, 365 days a year Data telegrams or consumption values only	
Walk-by telegrams	Every 128 seconds, 10 hours a day (from 8:00 am to 6:00 pm)	
	Readout type	Monthly: 4 reading days from the first of each month Annually: 48 reading days, once a year by due date
	Transmission-free days	Monthly: Saturday and Sunday Annually: Sunday
	Only present consumption values and 15 statistical values	

RF features in C-mode

RF add-on modules in C-mode have the following features:		
RF system	Parallel transmission of data telegrams	• OMS • Walk-by
	Increase RF output (typically 10 dBm)	

Transmission response	
OMS telegrams	Every 7.5 hours, 24 hours a day, 365 days a year Present consumption values only
Walk-by telegrams	Every 112 seconds, 10 hours a day (from 8:00 am to 6:00 pm) 365 days a year
	Only present consumption values and 15 statistical values

Change of mode

You can switch between S-mode and C-mode any time with the help of the ACT50 (V2.4.0 or higher) and the infrared read head WFZ.IRDA-USB.

Type summary

The following device types are available:

Type	Order number	Designation
Add-on radio module Due date: 31.12. Transmission delay: 0 days Walk-by parameters: • Readout: Annually, • Transmission-free day: Sunday, • Transmission period: 8 am - 6 pm • Communication: S-mode	S55563-F147	WFZ661

Delivery

The RF add-on module is delivered in packages of 10 items (1 packaging unit).

Installation instructions are supplied with each packaging unit in various languages as well as adhesive seals and mounting screws.

Accessories

Type	Order number	Designation
Triggering tool for radio telegrams	JXF:WFZ.PS	WFZ.PS
Readout software ≥ Version 1.8	JXF:ACT46.PC	ACT46.PC
Torque screwdriver "Torx Plus"	JXF:FZ201-009	FZ201-009

Device combinations

The add-on radio modules can be used with the following water meters:

Options	Order number	Type
Cold water meters Q3 = 2.5 m3/h, installation length 80 mm, connection G ¾", application range to 30 °C	S55560-F100	WFK30.D080
Cold water meters Q3 = 2.5 m3/h, installation length 110 mm, connection G ¾", application range to 30 °C	S55560-F101	WFK30.D110
Cold water measuring capsule meter Q3 = 2.5 m3/h, G 2", application range to 30 °C	JXF:WMK10.D	WMK10.D
Cold water meters Q3 = 4 m3/h, installation length 130 mm, connection G 1", application range to 30 °C	JXF:WFK30.E130	WFK30.E130
Hot water meters Q3 = 2.5 m3/h, installation length 80 mm, connection G ¾", application range to 90 °	S55560-F102	WFW30.D080
Hot water meters Q3 = 2.5 m3/h, installation length 110 mm, connection G ¾", application range to 90 °C	S55560-F103	WFW30.D110
Hot water measuring capsule meters Q3 = 2.5 m3/h, G 2", up to 90 °C	JXF:WMW10.D	WMW10.D
Hot water meters Q3 = 4 m3/h, installation length 130 mm, connection G 1", application range to 90 °C	JXF:WFW30.E130	WFW30.E130

The add-on radio module communicates with the following products:

Options	Order number	Type
Mobil Data Logger	JXF:WTT665-BD5000	WTT665-BD5000
Network nodes	S55563-F137	WTT561-AA1100

Product documentation

Topic	Title	Document ID
Device mounting, commissioning	Mounting and commissioning instructions	A6V10986921

Languages

The mounting instructions are included in the following languages:

Bulgarian, German, English, Finnish, French, Greek, Italian, Croatian, Lithuanian, Dutch, Norwegian, Polish, Romanian, Slovakian, Slovenian, Spanish, Czech, Turkish, and Hungarian.

Related documents such as environmental declarations, CE declarations, etc., can be downloaded at the following Internet address:

<http://siemens.com/bt/download>

Notes

Safety

 CAUTION	
	National safety regulations Failure to comply with national safety regulations may result in personal injury and property damage. Observe national provisions and comply with the appropriate safety regulations.

Maintenance

The radio add-on module is maintenance free.

Disposal

 	This symbol or any other national label indicate that the product, its packaging, and, where applicable, any batteries may not be disposed of as domestic waste. Delete all personal data and dispose of the item(s) at separate collection and recycling facilities in accordance with local and national legislation. See Siemens disposal information for additional information.
--	--

Warranty

Technical data on specific applications are valid only together with Siemens products listed under "Equipment combinations". Siemens rejects any and all warranties in the event that third-party products are used.

Power supply	
Battery type	Lithium CR2/3AA (can not be exchanged)
Battery voltage	DC 3 V
Battery life	Up to 12 years ¹ + reserve
¹ Battery life up to 12 years as of commissioning. Actual battery life depending on operating state and external factors.	

Communications	
Radio frequency	With < 1 % duty cycle
• S-mode	868.3 MHz
• C-mode	868.95 MHz
Transmitter power	Typical 10 dBm
RF protocol	Wireless M-bus per EN 13757-4
Pulse value	1 liter

Protection degree of housing	
Protection class	III
Degree of protection	IP68

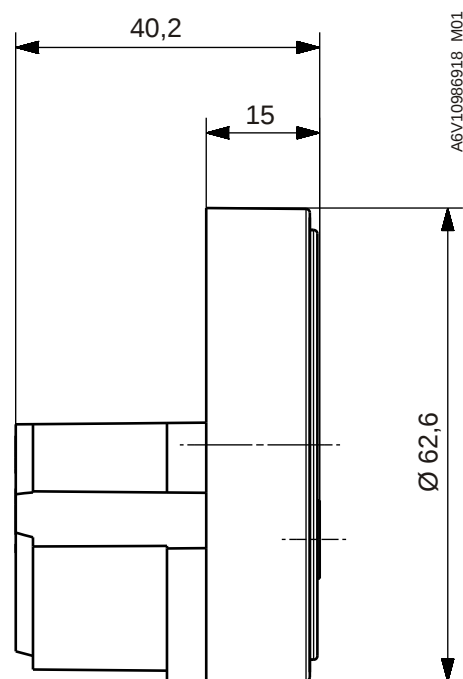
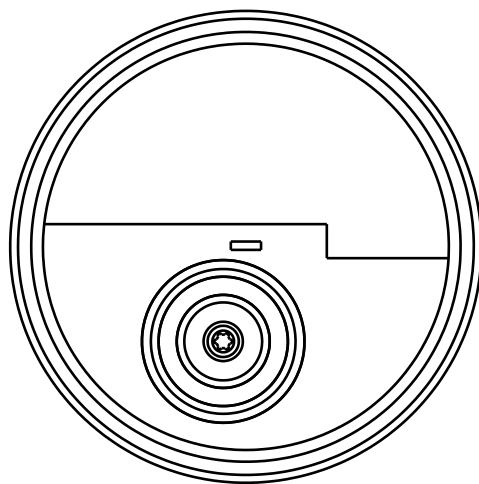
Environmental conditions			
	Running	Transportation	Storage (packaged)
Temperature	+5...+55 °C	-25...+70 °C	-5...+45 °C
Humidity	<93% r.h. at 25 °C (non-condensing)	<93 % r.h. at 25 °C (non-condensing)	<93 % r.h. at 25 °C (non-condensing)
Max. altitude	Min. 700 hPa, corresponding to max. 2000 m above sea level		

Standards, directives and approvals	
EU conformity (CE)	A5W00027596 ¹⁾
Product standards	EN 60950-1
¹⁾ Documents can be downloaded at https://www.siemens.com/bt/download	

Environmental compatibility
The product environmental declaration A5W00005718 ¹⁾ contains data on environmentally compatible product design and assessments (RoHS compliance, material composition, packaging, environmental benefit, and disposal).
¹⁾ Documents can be downloaded at https://www.siemens.com/bt/download

Material	
Dimensions (D x H)	Ø 62.6 x 40.2 mm - See Dimensions
Device weight packed with attachments	0.075 kg
Housing material	Polycarbonate (PC)
Housing colors	Transparent

Dimensions in mm



A6V10986918_M01

Issued by
Siemens Switzerland Ltd
Smart Infrastructure
Global Headquarters
Theilerstrasse 1a
CH-6300 Zug
+41 58 724 2424
www.siemens.com/buildingtechnologies

© Siemens 2016
Technical specifications and availability subject to change without notice.

Document ID A6V10986918_en--_c
Edition 2024-12-20