SIEMENS

Meters and Energy Cost Allocation

Add-on radio module

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

Use

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.

Functions

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 ACT50-MODULE can read and/or configure the following parameters via the IrDA interface located directly on the module:

Readout only

General

- Serial number
- Installation location
- SW version
- Commissioning date
- Battery life
- Stock number
- Device date
- Error date
- Error code
- Water meter data
  - Serial number
  - Medium

Device information

- Device name

Meter states

- Current meter state
- Last cut-off date
- Meter count at the last cut-off date
- Next cut-off date

Statistic values

- 15 monthly values

Wireless settings

- RF mode
- RF system
- Walk-by readout
- Walk-by delayed transmission
- Walk-by transmission period
- Walk-by transmission-free days

Parameterize

General

- Installation location

Due day

- Next cut-off date

Device information

- Device name
- Device password

Water meter data

- Serial number
- Medium
- Counter value

Wireless settings

- RF mode
- RF system
- Walk-by readout
- Walk-by delayed transmission
- Walk-by transmission period
- Walk-by transmission-free days

Wireless technical features in S-mode

Add-on radio module in S-mode has the following properties:		
RF system	Parallel transmission of data telegrams	• AMR • Walk-by
Transmission delay (offset)	Time delay for sending out telegrams after the cut-off 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 days of the week can be defined from Friday, Saturday, and Sunday as transmission-free days. A minimum of 1 day of the week must be set (default = Sunday)	

Transmission behavior		
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 am to 6 pm)	
	Read type	Monthly: 4 readout days from the first of each month Annually: 48 readout days, once a year after the cut-off date
	Transmission-free days	Monthly: Saturday and Sunday Annually: Sunday
	Only present consumption values and 15 statistic values	

Wireless technical features in C-mode

Add-on radio module in C-mode has the following properties:		
RF system	Parallel transmission of data telegrams	• OMS • Walk-by
	Increased RF output (typically 10 dBm)	

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

Change of mode

The ACT50 (V2.4.0 or higher) on the Infrared read head WFZ.IRDA-USB can switch between S-mode and C-mode at any time.

Type summary

The following functions are available:

Type	Order number	Designation
Add-on radio module Cut-off date: 31-Dec. 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

Scope of delivery

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

Mounting instructions are included in each packaging unit in various languages as well as sealing labels and mounting screws.

Accessories

Type	Order number	Designation
Readout tool RF 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

Equipment 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 meters 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 °C	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“, Application range 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
Mobile data collector set	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 add-on radio module is maintenance free.

Disposal

The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.

- Dispose of the device through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.
- Dispose of empty batteries in designated collection points.

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.

Technical data

Power supply	
Type of batteries	Lithium metal CR2/3AA (cannot be replaced)
Battery voltage	DC 3 V
Battery life	12 years + reserve

Communication	
RF ● S-mode ● C-mode	At < 1 % of duty cycle 868.3 MHz 868.95 MHz
Transmitting power	Typically 10 dBm
RF protocol	Wireless M-bus per EN 13757-4
Pulse valency	1 liter

Housing	
Protection class	III
Degree of protection	IP68

Environmental conditions			
	Operation EN 60721-3-3	Transport EN 60721-3-2	Storage EN 60721-3-1
Climatic conditions	3K4	2K3	1K3
Temperature	5...40 °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)
Mechanical conditions	3M2	2M2	1M2
Max. elevation	Min. 700 hPa, corresponds to max. 2000 m above sea level		

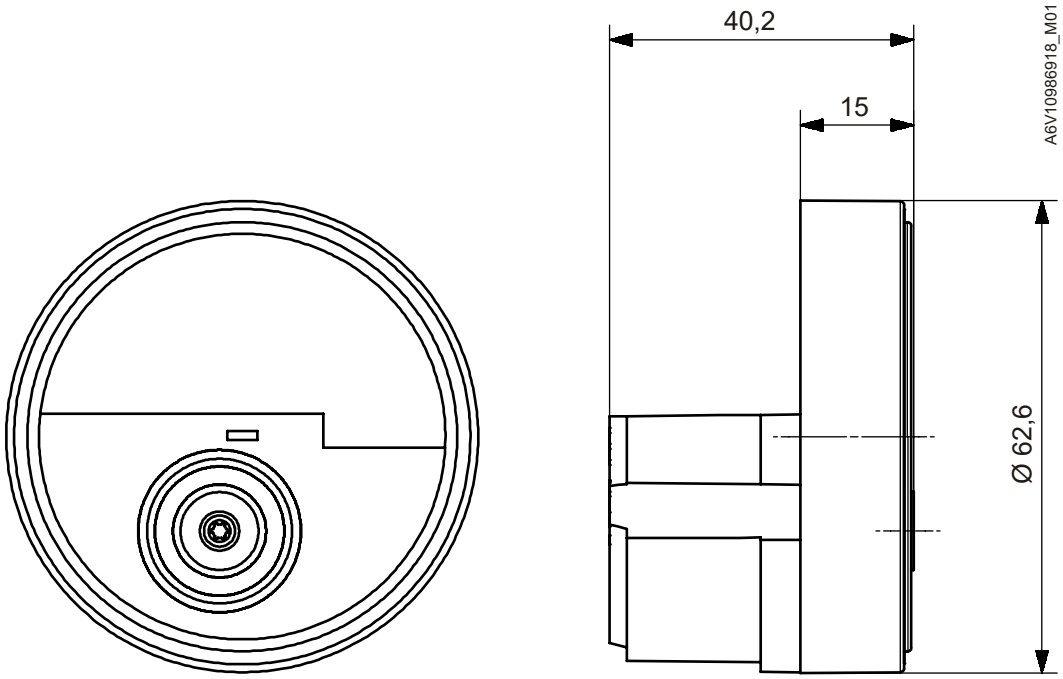
Standards, directives and approvals	
EU conformity (CE)	A5W00027596 [1)]
Product standard	EN 60950-1
[1)] Documents can be download at http://www.siemens.com/bt/download	

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 download at http://www.siemens.com/bt/download

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

Dimensions

Dimensions in mm



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