

Metering

M-bus Add-on Module for water meters

WFZ311



The M-bus add-on module WFZ311 acquires and processes the information delivered by a mechanical water meter. The data are read out by the M-bus master via M-bus.

- Detection of reverse flow
- Backup battery for data security
- Module can be retrofitted at any time

Use

The M-bus add-on module is used to integrate a mechanical water meter in a M-bus system. The module can be retrofitted at any time:

Functions

The M-bus add-on module is fitted to a mechanical water meter which has an opening to accommodate the module and is then secured with a screw. The module acquires the information from the meter and passes it on to the M-bus system.

Readout parameters

The following parameters can be read out from the M-bus module:

- Addressing (Primary + secondary address)
- Identification of manufacturer
- Current consumption values (hot or cold water)
- Current time of day/date
- Due date
- Due date value
- 13 monthly values including monthly due date
- Cumulative reverse flow
- Fault state
- Device number, 12 digits (product number)
- Medium

Technical design

Detection of reverse flow

The add-on module is capable of detecting flow passing through the water meter in the wrong direction.

Any reverse flow is subtracted from the current cumulated value. The volume is also saved to a separate register.

Tamper proof

Since the module captures the water meter's data optically, tampering with an external magnet is not possible.

Parameterization

The following parameters can be set with the help of M-bus software on the add-on module:

- Primary address of 0 to 250
- Fabrication number (any 12-digit number, e.g. serial number of an assigned water meter)
- Counter value
- Medium (cold water/hot water)
- Next due date
- Device time
- Due date period (1 to 12 months)

Type summary

The following add-on module is available:

Designation	Order number	Type
M-bus add-on module for water meters	S55563-F158	WFZ311

Ordering

Please specify the quantity, order number, and type when ordering.

Scope of delivery

The add-on module is supplied complete with Mounting Instructions in several languages and the necessary mounting material (countersunk-head screw 2.2x13 mm and adhesive seal).

Equipment combinations

The M-bus add-on module can be used together with the following components.

Designation	Type	Documentation
Mechanical water meters	WFK30.. WFW30..	CE1N5326
Measuring cell water meter	WMK10.D WMW10.D	CE1N5327

Product documentation

Topic	Title	Document ID
Mounting Instructions	M-bus add-on module	A6V11718175

The mounting instructions can be downloaded on the Internet (Siemens Download Center) at:

<http://www.siemens.com/btproduct?WFZ311>.

Languages

The Installation Instructions are supplied in the following languages:

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

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

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

Mounting

When mounting the add-on module, proceed as follows:

1. Remove interface cover from the water meter
2. Plug in the add-on module and secure it with the screw.
3. Connect the module to the M-bus system (the stranded wires can be interchanged).
4. Place the adhesive seal on the screw.

Shortly after installation, the add-on module automatically identifies the water meter's scanning disc. It cannot acquire the initial meter reading and the water meter number (address). These variables can be parameterized via M-bus.

The M-bus system provides the supply voltage. The module's backup battery ensures that no data is lost due to a power outage to the M-bus system.

Once commissioned (configured/read out), the module saves data for up to three months without power via M-bus.

The modules do not affect acquisition of consumption data and can therefore be retrofitted at any time.

Sealing

When the module is fitted, its fixing screw must be sealed with an adhesive sticker to ensure protection against tampering (observe national regulations).

Maintenance

The add-on 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 service

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	
Battery type	Lithium battery CR2032 (cannot be replaced)
Battery voltage	3 V
Battery life <ul style="list-style-type: none"> with power supply via M-bus and not started 	≥11 years with backup
Battery life <ul style="list-style-type: none"> without power supply via M-bus 	Ca. 3 months

M-bus	
M-bus slave interface	Per EN 13757-2 / -3
Standby current	≤1.5 mA
Standard load	1.5 mA
Maximum pulse frequency	10 Hz (equal to ≤25m³/h)
Address	Primary or secondary
Baud rate	300, 2400 (default) or 9600 baud
Polarity	Any
Galvanic isolation	Per module interface
Cable length	1.0 m
Connecting cable cross section	2x 0.25 mm²
IP class	III
Protection class	IP68

Ambient conditions	Operation EN 60721-3-3	Transportation EN 60721-3-2	Storage EN 60721-3-1
Climatic conditions	Class A		
Temperature	5...55 °C	-20...+70 °C	5...45 °C
Humidity	<95% r.h. (non-condensing)		
Mechanical conditions	Class M2		

Standards, guidelines	
EU conformity (CE)	CE1T5303xx *)

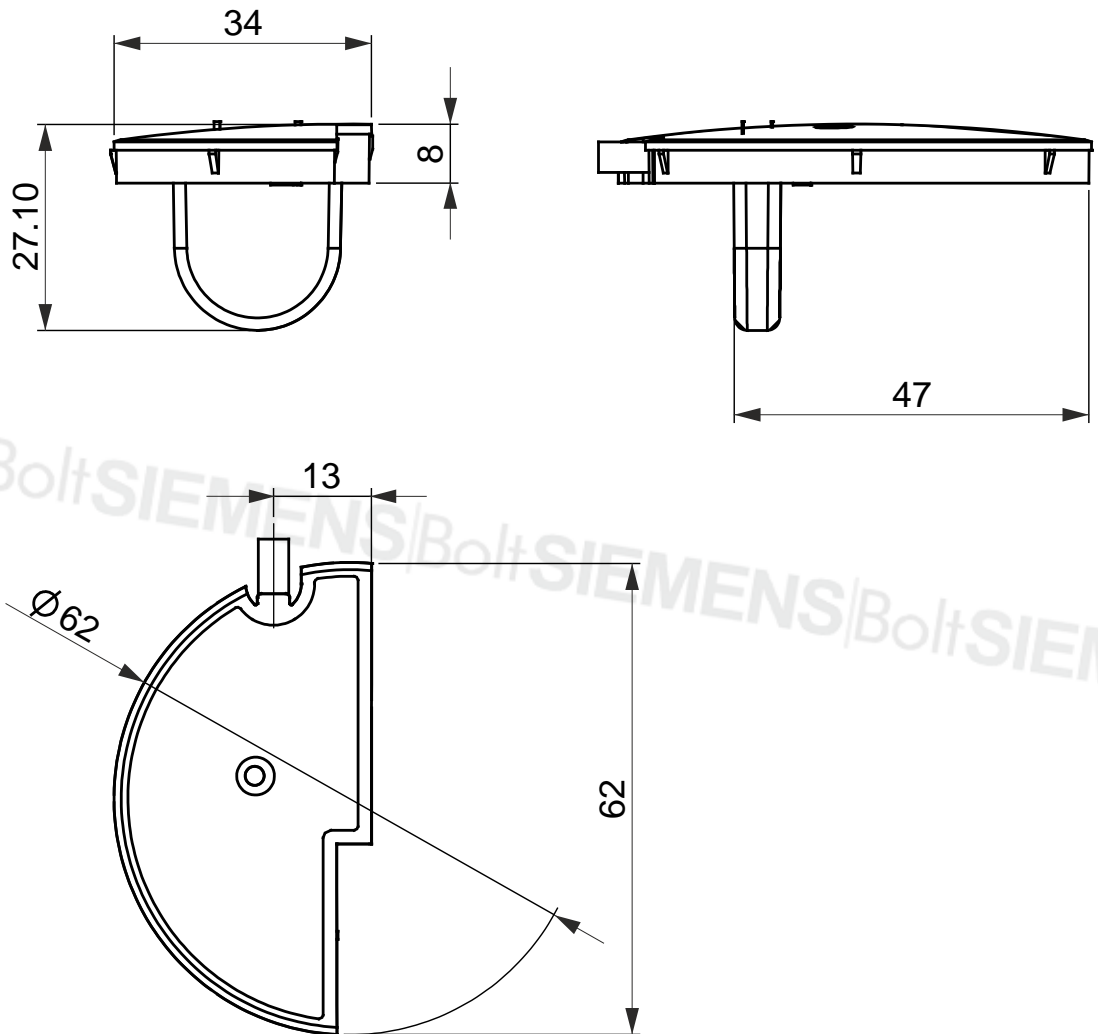
Environmental compatibility	
The product environmental declaration CE1E5303 contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal)	CE1E5303 *)

Housing	
Material	ABS DAFNELAC FXC
Color	RAL 9003 (signal white)

Weight	
Device packed complete with inserts	46 g

*) The documents can be downloaded at <http://siemens.com/bt/download>.

Dimensions



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