SIEMENS

M-bus add-on module for water meters   WFZ31

The M-bus add-on module 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 an M-bus system. It 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 WZF31 module acquires the information from the water meter and passes it on to the M-bus system.

Readout parameters

The M-bus module can read out the following parameters:
- Addressing (primary/secondary address)
- Identification of manufacturer
- Current consumption values (hot or cold water)
- Current time of day/date
- Due date
- Due date value
- 12 monthly values including monthly due date
- Device number, 8 digits (production number)
- Medium
- Device generation

Type summary

The following add-on module is available:

Description	Stock number	Product number
M-bus add-on module for water meters	S55563-F136	WFZ31

Ordering

When ordering, please give quantity, description, stock number and product number.

Product number	Stock number	Designation
ASN	SSN	Product designation
WFZ31	S55563-F136	M-bus add on module

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).

Languages

The Operating and Mounting Instructions are supplied in 18 languages:
Bulgarian, Croatian, Czech, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Lithuanian, Norwegian, Polish, Slovakian, Slovenian, Spanish and Turkish.

Equipment combinations

The M-bus add-on module can be used in connection with the following components:

Description	Product number	Documentation
Mechanical water meters	WFK30... WFW30...	CE1N5326
Measuring cell water meter	WMK10.D WMW10.D	CE1N5327

Technical design

Detection of reverse flow

The WFZ31 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.

Tamperproof

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

Parameterization

Using readout software, the following parameters can be set on the module:

- Primary address from 0 to 250
- Secondary address (any 8-digit number)
- Current meter reading
- Medium (cold water/hot water)
- Next due day

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Mounting	When mounting the add-on module, proceed as follows: 1. Remove the interface cover from the water meter 2. Fit module and secure it with the screw 3. Connect module to the M-bus system (stranded wires can be interchanged) 4. Place the adhesive seal on the screw

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

1. Remove the interface cover from the water meter
2. Fit module and secure it with the screw
3. Connect module to the M-bus system (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 the M-bus.
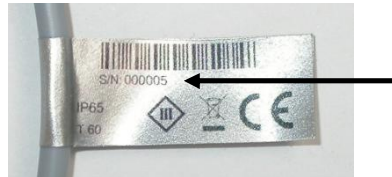
The module's label shows the respective M-bus default secondary address.

The supply voltage required for operation is provided by the M-bus system. The module's backup battery ensures that no data will be lost should the M-bus system's power supply break down.

The module has no impact on the acquisition of consumption 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 devices are considered electronics devices for disposal in terms of European Directive 2012/19/EU and may not be disposed of as domestic waste.
- Dispose of the device via the channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.
- Dispose of empty batteries at designated collection points.

Warranty

User-related technical data are only guaranteed in connection with the products listed in this Data Sheet.
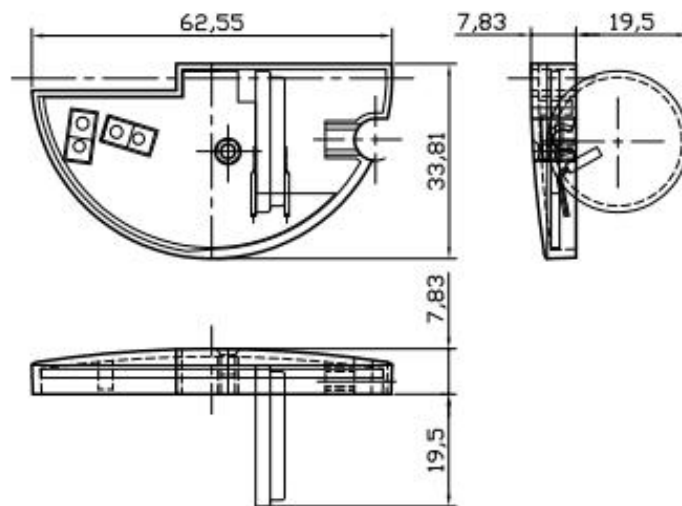
If the add-on module is used in connection with 3rd-party devices not explicitly mentioned, correct functioning must be guaranteed by the user. In such cases, Siemens does not provide any field or warranty services.

Technical data

Power supply	Battery type	Lithium battery CR AA (cannot be replaced)
	Battery voltage	3 V
	Battery life with power supply via M-bus	≥ 12 years with backup
	Battery life without power supply via M-bus	≤ 2 years

M-bus	M-bus slave interface	As per EN 13757-2/-3
	Standby current	≤1.5 mA
	Standard load	1.5 mA
	Max. telegram length receiving	0.17 s at 2'400 baud
		1.3 s at 300 baud
	Max. telegram length sending	0.7 s at 2'400 baud
		5.6 s at 300 baud
	Addressing	Primary or secondary
	Baud rate	300 or 2'400 Baud
	Polarity	Optional
	Galvanic separation	Per module interface
	Cable length	2.0 m
	Cross-section connecting cable	2x 0.25 mm^2
	Safety class	III
	Degree of protection	IP65

Ambient conditions		Operation EN 60721-3-3	Transport EN 60721-3-2	Storage EN 60721-3-1
	Climatic conditions	Class A		
	Temperature	5...55 °C	-20...60 °C	-20...60 °C
	Humidity	<93% r.h. at 25 °C (non-condensing)		
	Mechanical conditions	Class M2		
Norms and standards	EU Conformity (CE)	CE1T5303xx [*]		
Environmental compatibility	The product environmental declaration CE1E5303en contains data about environmentally friendly product design and evaluation (RoHS conformity, substances used, packaging, environmental benefits, disposal)	CE1E5303en [*]		
Housing	Material	Polylac PA 747		
	Color	RAL 9005 (black)		
Weight	Module packed complete with accessories 62 g			

*) The documents can be downloaded from http://siemens.com/bt/download.

Dimensions

62,55   7,83   19,5

33,81

7,83

19,5

Dimensions in mm

Subject to change

Siemens
Building Technologies

M-bus add-on module for water meters

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