SIEMENS

Meters and Energy Cost Allocation

M-bus RF gateway

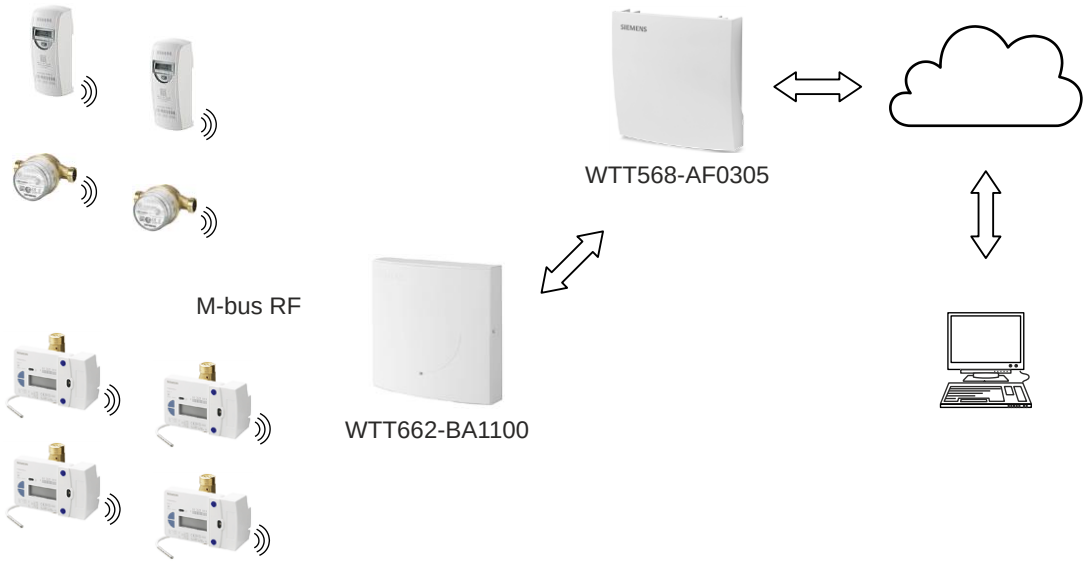
WTT568-AF0305

The M-bus RF gateway collects meter data from an RF network and periodically transmits it via mobile 2G, 3G, and 4G to the portal. The data is automatically transmitted from there to the appropriate customers.

- Easy commissioning
- Autonomous operation over 5 years (battery-powered and communication via 2G, 3G, and 4G mobile transmission)
- One-time cost for gateway and communications
- SIM card preinstalled
- Readout 4 times a month
- 12 individual readouts per year
- Monitors all meters and network nodes
- Reads a total of max. 2500 meters per gateway

CE

Features



The M-bus RF gateway WTT568-AF0305 collects consumption data from the entire network and transmits a maximum of 4 times a month via the portal to a defined client.

The gateway can also be individually read out up to 12 times a year.

A max. of 2,500 meters can be read per gateway.

Meter data is securely transmitted to the portal in the GSM/UMTS band. Data transmission via 2G, 3G, and 4G (Quad-Band 900, 1,800 and 2,100 MHz) as well as connectivity through national and international roaming transmits data to the corresponding service throughout Europe at no extra charge.

Battery-powered means no additional installation required (service life of 5 years) and 2G, 3G and 4G mobile communication.

Application

The M-bus gateway WTT568-AF0305 is a component of an M-bus RF network. It is used to conveniently read out meter data from a remote location.

The gateway periodically (max. 4 times a month) reads consumption data from the network node and transmits it without delay. As a result, no data is stored on the gateway.

The gateway purchase price is not limited to the product (hardware), but also includes communication (roaming fees) between the gateway and portal for 5 years.

Functions

Communication

One gateway can read and manage up to 5 networks with up to 500 meters each.

Data security – network

An individual log in and password protect each network from unauthorized access.

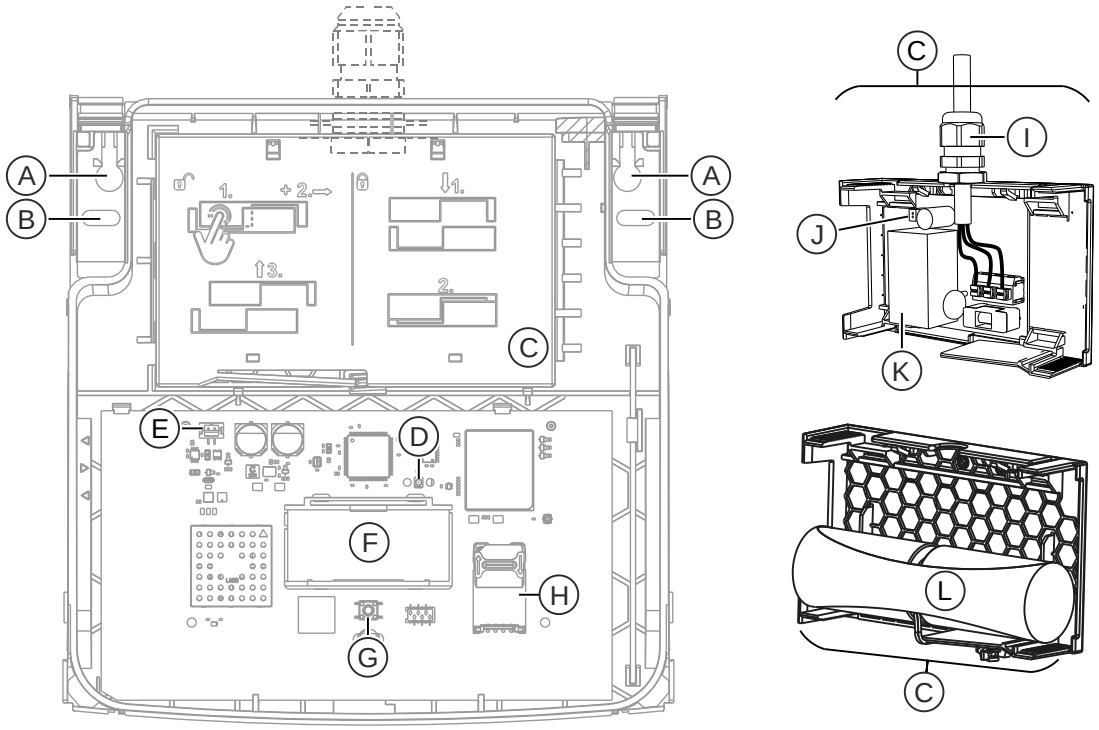
Data security – 2G, 3G, and 4G transmission

Secure mobile data transmission between the gateway and the mobile provider's Access Point (APN) thanks to TLS 1.2 encryption between the gateway and portal.

Technical design

The gateway consists of two housing components: The base for wall mounting and a hinged cover.

Mechanical design



A	Bore hole for standard mounting	G	Function button
B	Alternative bore hole (device replacement)	H	SIM card holder
C	Battery / power supply compartment (including cover)	I	Cable gland (WTX568.. only)
D	LED	J	Plug for internal connecting cable (WTX568.. only)
E	Power supply pin connector	K	Power supply (WTX568.. only)
F	Display	L	Battery (WTT568.. only)

The gateway has no local interface.

The gateway is fully configured via the portal.

Display

The gateway features an LCD to display various parameters and error codes.

Type summary

2 types of gateways are available:

- For medium to large plants with up to 2,500 wireless meters Meter data are compiled in a gateway via network nodes (Repeater).
- For smaller plants up to max. 400 wireless meters. The meters communicate directly with the gateway and are therefore within the direct reception range of the gateway.

NOTICE	
!	All gateways operate at least 5 years. The costs of communication can be paid in advance either annually or for the entire 5 years.

NOTICE	
!	After a communications period of 5 years, the contract can be extended each time based on data level and number of meters for a period of 12 additional months.

Gateways for mid to large-size plants

The following products are available:

Designation	Ordering number	Type
Battery operated gateway, 4 readings per month, including communication for 5 years. Read out of max.2,500 meters (5 networks of 500 meters each)	S55563-F164	WTT568-AF0305

Additional gateways are available upon request:

Operation	Readout	Data exchange	Payment method	Order number	Type
Battery	Meters via network nodes	4 readouts per month, max. 12 individual readouts per year	Includes the first 12 months Extended in advance for 12 months	JXF:WTT568-AF0315	WTT568-AF0315
AC 230 V		Daily readout	Including 5 years of communi-cation	JXF:WTX568-AF0305	WTX568-AF0305
AC 230 V			Includes the first 12 months. Extended in advance for 12 months	JXF:WTX568-AF0305	WTX568-AF0305

WT.568.. gateways can read the following meters:

(The actual meters communicate in S or C mode.)

- Impeller heat and heat/cooling energy meter set WF.6..
- Heat cost allocators WHE5.. / WHE6..
- Electronic water meter WF.636..
- Add-on modules for WFZ66 heat and water meters.
- Pulse adapter AEW36.2

Gateways for small plants

A simpler version of the gateway can be used where just a few (max. 400) unidirectional M-bus wireless meters are readout in C mode (including wM bus-compatible third-party devices in T-mode) and the meters are within the direct reception range of the gateways:

Operation	Readout	Data exchange	Payment method	Order number	Type
Battery	Direct from the meter	4 readouts per month, max. 24 individual readouts per year	Including 5 years of communi-cation	JXF:WTT768-CF0304	WTT768-CF0304
Battery			Includes the first 12 months Extended in advance for 12 months	JXF:WTT768-CF0314	WTT768-CF0304
AC 230 V		Daily readout	Including 5 years of communi-cation	JXF:WTX768-CF0304	WTX768-CF0304
			Includes the first 12 months Extended in advance for 12 months	JXF:WTX768-CF0304	WTX768-CF0304

The following meters can be readout directly in C mode by the gateway:

(meters must be set to C mode readout.)

- Impeller heat and heat/cooling energy meter set WF.6..
- Heat cost allocators WHE5.. / WHE6..
- Electronic water meter WF.636..
- Add-on modules for WFZ66 heat and water meters.

Scope of delivery

A brief introduction (in section "Product documentation [▶ 6]". as well as two Torx 20 screws (4.0 x 40 mm), 2 dowels, and a safety seal are included with the gateway. In addition on the WTX568.. Cable gland MBF (M16x1.5 mm).

A replacement battery is available for battery-powered gateways.

Equipment combinations

The WT.568.. gateway is compatible with the following products:

Type	Designation
WTT561-AA1100	Battery-powered network node
WTT662-BA1100	Battery-powered network node
WTT16	Battery-powered network node (version 2.0 or higher)
WTT16.232	Battery-powered network nodes and RS-232 interface (version 2.0 or higher)
WTX16	Mains-powered network node (version 2.0 or higher)
WTX16.232	Mains-powered network nodes and RS-232 interface (version 2.0 or higher)

Product documentation

The following product documentation is available:

Topic	Title	Document ID
Operating and installation instructions	Operating and Installation Instructions M-bus RF gateway WTT568../WTX568..	A6V13340228
Getting started (product insert)	Product accompanying document M-bus RF gateway WTT568.. / WTX568..	A6V13340219
User's guide	SGCP user's guide	A6V10897380

User's operating and installation instructions can be downloaded from the following Internet address:

https://www.siemens.com/btproduct? WTT568-AF0305

Languages

The operating and installation instructions are available 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:

https://siemens.com/bt/download

Notes

Commissioning

Firmware - updates, reading of meter data, or configuring gateways occurs exclusively via the portal.

Maintenance

The device 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. For additional details, refer to www.siemens.com/bt/disposal.

Warranty service

The application-specific technical data is guaranteed only in combination with the Siemens products listed in the 'Device combinations' section. If third-party products are used, any guarantee provided by Siemens will be invalidated.

Power supply	
Battery type	Lithium battery pack, 4x D cells Battery type: Friemann+Wolf, 2x D cells (exchangeable)
● Lithium content of the battery pack	7.2 g
● Battery voltage	3.0 V
● Battery life	At least 5 years
Mains voltage ● Rated voltage	 AC 100…240 V, 50/60 Hz

Display	
Display	LCD

Mechanical design

ISM/SRD version	
Wireless M-bus (supported mode) ● Readout via network nodes ● Readout directly from the meter	 S-mode C/T mode
Output ● Readout via network nodes ● Readout directly from the meter	 Max. 14 dBm None
Measurement of RSSI signal strength	Yes
Frequency band ● Readout via network nodes ● Readout directly from the meter	 (868,3 +/- 0.3) MHz (868.95 +/- 0.25) MHz

Mobile 2G, 3G, and 4G transmission	
Frequency bands	700 / 800 / 900 / 1800 / 2100 / 2600 MHz
Frequency range maximum HF output power	
● 2G: GSM EDGE	900 / 1800 MHz Class 4 (33 dBm ±2 dBm)

Mobile 2G, 3G, and 4G transmission	
• 3G: WCDMA	900 (B8)/2100 (B1) MHz Class 3 (24 dBm +1/-3 dB)
• 4G: LTE-FDD	700 (B28A)/800 (B20)/900 (B8)/1800 (B3)/ 2100 (B1) and 2600 MHz (B7) Class 3 (23 dBm ±2 dB))
GSM and ISM antenna	Fully integrated, high-performance ISM and GSM antennas

Safety class and degree of protection	
Housing degree of protection (per EN60529)	IP42 (IP65 by request)
Device degree of protection (per EN61140)	III

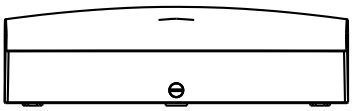
Ambient conditions			
	Operation	**Transportation**	**Storage**
Temperature	-5…+50 °C -20…+55 °C (IP65)	-40…+70 °C	-40…+70 °C
Humidity	<95% r.h. (non-condensing)	<95 % r.h. (non-condensing)	<95 % r.h. (non-condensing)

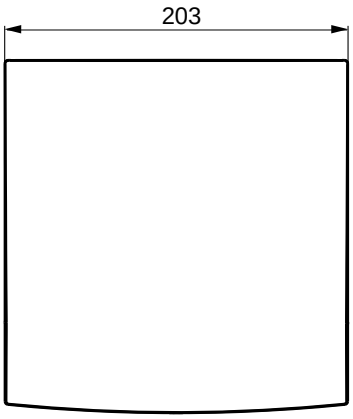
Standards, directives and approvals	
Product safety	EN 62368-1 Information Technology Equipment
EU conformity (CE)	See EU declaration of conformance *)
The product environmental declaration contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal)	See Product Environmental Declaration *)
*) Documents can be downloaded at https://siemens.com/bt/download.	

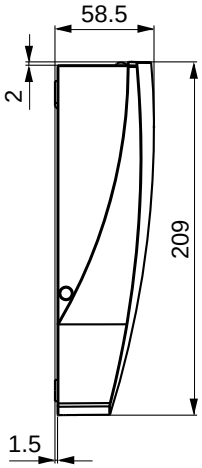
External features	
Dimensions	203 x 209 x 58 mm (see 'Dimensions')
Housing material	ABS + PC V1 plastic
Housing color	RAL9016 (traffic white)
Weight ● - with battery ● - with power supply	 1327 g (including package inserts) 773.4 g (including product inserts)

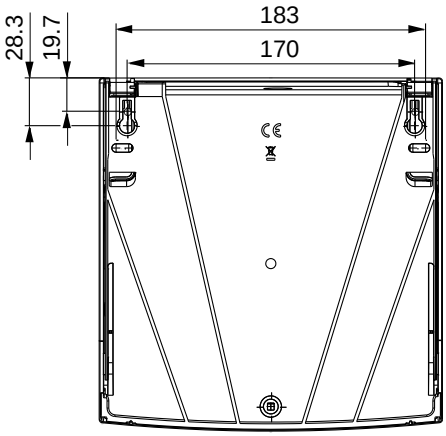
Dimensions

with battery

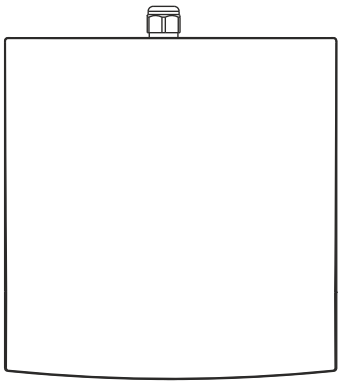


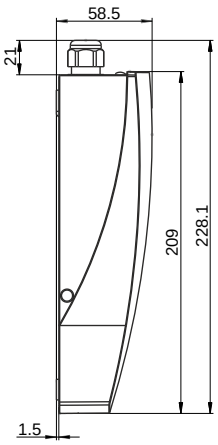


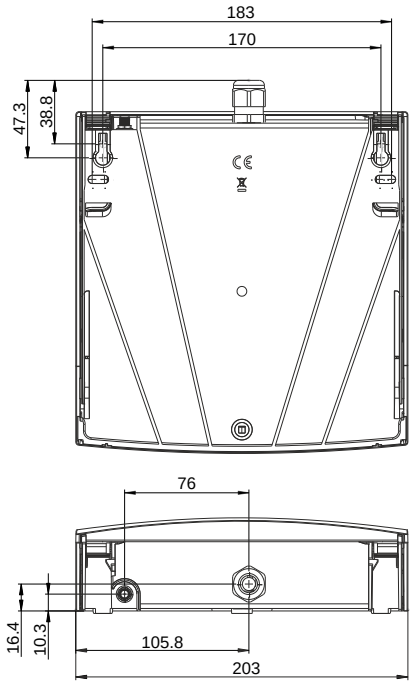




with power supply







Dimensions in mm

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