

RNG5

Network Gateway for AMR Systems

Application

The Resideo RNG5 gateway collects the consumption data remotely from the associated RNN55 node (collector) stations within the AMR System (Automatic Metering Readout System) and transmitting the data via mobile 2G/3G/4G to a centralized server. The data is sent from the server in an encrypted format to the customer via email.

The RNG5 gateway works with the RNN55 (or RNN5 and RNN4) nodes for wireless data readout from different devices within the AMR system. A RNG5 can read out up to 5 networks up to a total of 2.500 measuring devices (Heat Cost Allocators, Heat-and Water-Meters and RF-Modules - in total up to 500 units per RNN5/RNN55 and network) can be recorded and integrated with one single RNG5 gateway.

Typical applications for the RNG5 are:

- Apartment blocks
- Office buildings
- Business Centres

Special Features

- Wireless M-Bus S-Mode (868.3 +/- 0.3) MHz
- Excellent ISM radio sensitivity
- 2G/3G/4G mobile transmission
- Safe mobile data transfer in the ISM and 2G/3G/4G bands
- Highest possible wireless connectivity by national and international roaming
- Automatic selection of the optimum network guarantees maximum battery service life
- Battery power supply, for 5 years (depending on set operation scenario).
- Device-integrated GSM & ISM antennas
- Pre-installed SIM card and self-configuration of key-parameters
- Indoor wall-mount
- Simple on-site installation
- Management via cloud based HSMP (Honeywell Home Smart Metering Platform) software



General information & User interfaces

- RNG5-STD: Battery power supply
- RNG5-230V: 230 V AC power supply
- LC display
- LED bi-colour optical indicator (red/green)
- Buzzer:
4 kHz, 75 dB

Technical Data

ISM Performance		
Wireless M -Bus - supported mode:	S mode (EN13757-4)	
RSSI signal strength measurement:	yes	
AES encryption:	128 bit	
Output power:	+ 14 dBm	
Mobile 2G / 3G / 4G Performance		
Radio frequency maximum output power		
2G	900 MHz	1.800 MHz Class 4 (33 dBm +/- 2 dB)
3G	900 MHz (B8)	2.100 MHz (B1) Class 3 (24 dBm + 1/-3 dB)
4G	700 MHz (B28A)	2.600 MHz (B7) Class 3 (23 dBm +/- 2 dB)
	800 MHz (B20)	
	900 MHz (B8)	
	1800 MHz (B3)	
	2100 MHz (B1)	
GSM and ISM Antenna:	Fully integrated high performance ISM and GSM antennas	
Power supply and battery life time		
Type RNG5N00R007x		
Power supply:	3.0 V battery, replaceable	
Battery service life:	5 years (depending on set operation scenario)	
Type RNG5N00R107x		
Rated voltage:	100..240 V AC 50/60 Hz	
Dimensions		
Dimensions:	203 mm x 209 mm x 58.5 mm	
Weight:		
RNG5-STD:	867 g	
RNG5-230:	691 g	
Housing:	ABS + PC plastic material	
Installation:	wall mount with 2x ø 4 mm screws and dowels	
Ambient conditions		
Operating:	-5 °C to +55 °C	
Humidity:	max. 95 % without condensation	

CE Norms and Standards

EU conformity:	Yes
Protection Rating:	IP42
Protection class:	
RNG5-STD:	III
RNG-230V:	II
Electromagnetic compatibility:	EN 301 489-1 EN 301 489-3

Fully type approved conforming with Directives 2014/53/EU (RED) and 2011/65/EU (RoHS).

Construction

Overview		
1	Cable gland	only RNG5-230V
2	Connection for external GSM antenna	
3	Drill hole for standard mounting	
4	Alternative drilling opening (device exchange)	
5	Battery/power supply compartment (incl. cover)	
6	GSM antenna	
7	SIM card holder	
8	LED	
9	Function keys	
10	Display	
11	Connector for power supply	
12	Connector for internal power cable	only RNG5-230V
13	Power supply unit	only RNG5-230V

Method of Operation

RNG5 gateway should be installed centrally within the building or an individual floor of a building. Care should be taken to ensure that the received mobile and via the gateway signal strength are adequate to give reliable service.

Service Period

RNG5-STD:

- Read-Out Tariff: 4 times per month
- Operating time: 5 years (depending on set operation scenario)
- After that period the RNG5-STD unit has to be replaced

RNG5-230V:

- Read-Out Tariff: Daily
- Operating time: 5 years
- After that period the RNG5-STD unit has to be replaced

Transportation and Storage

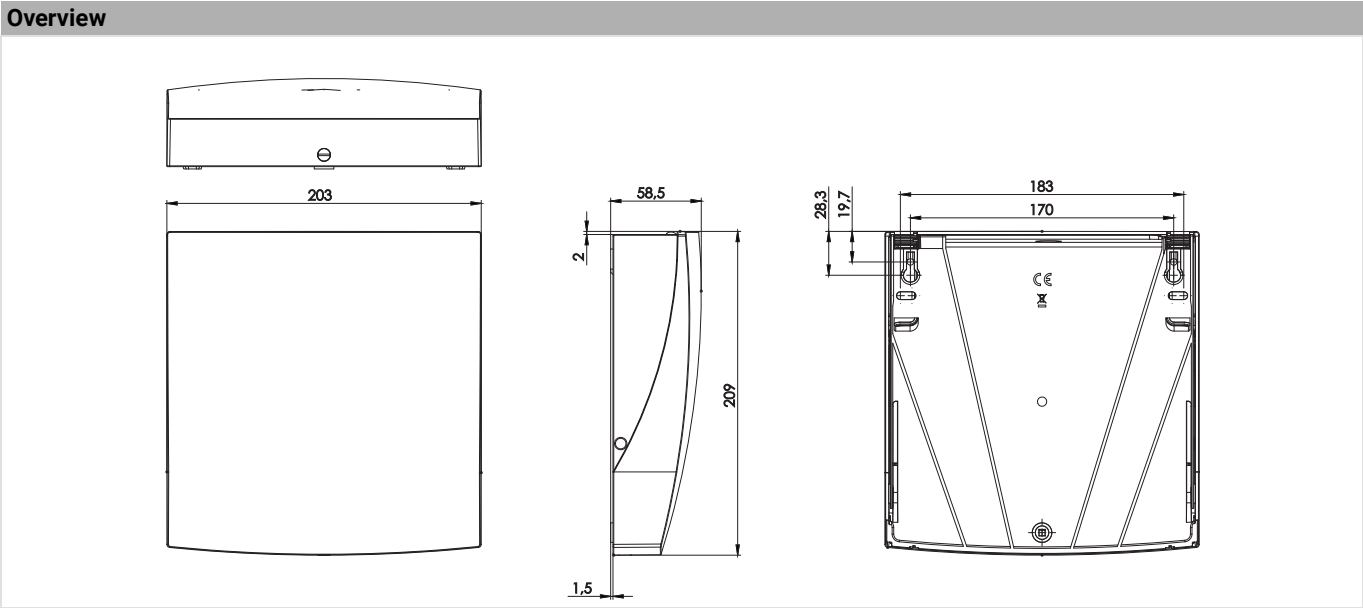
Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

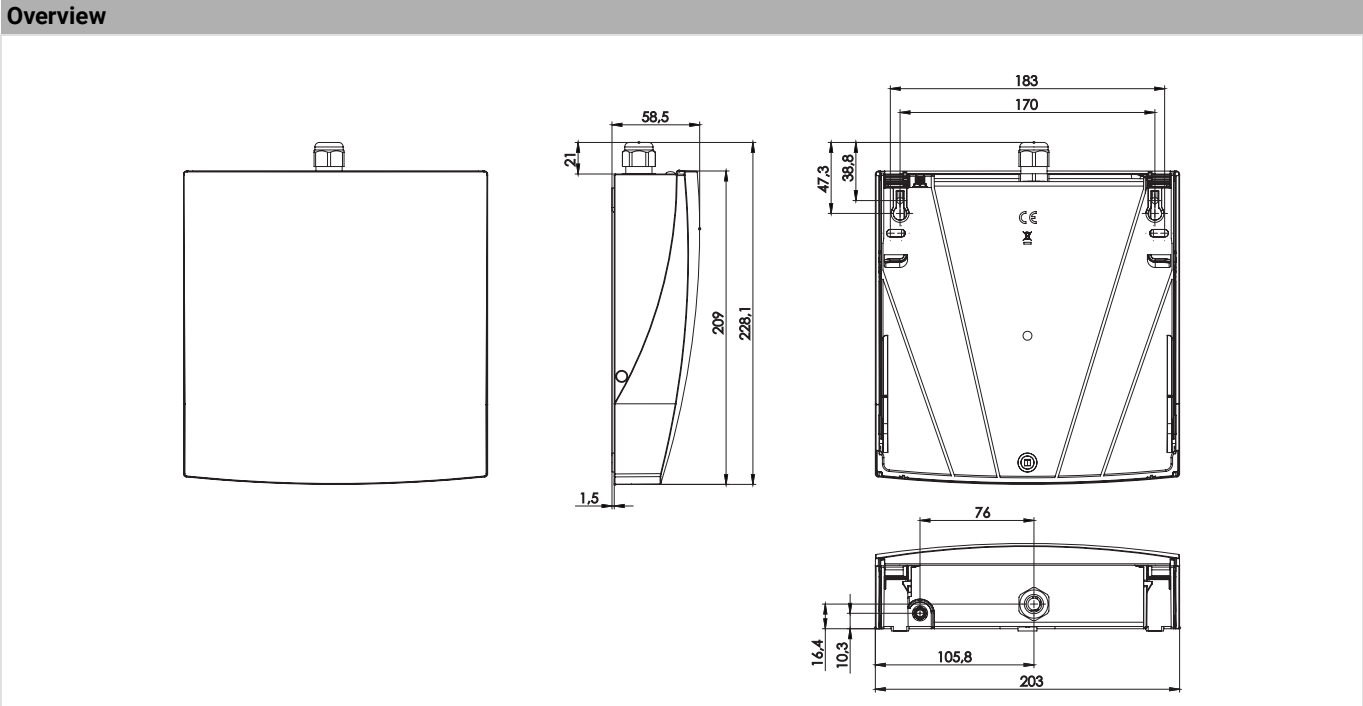
Parameter	Value
Environment:	clean, dry and dust free
Transport:	-25 °C to +70 °C
Storage:	-5 °C to +45 °C
Relative air humidity:	max. 95 % without condensation

Dimensions

RNG5-STD



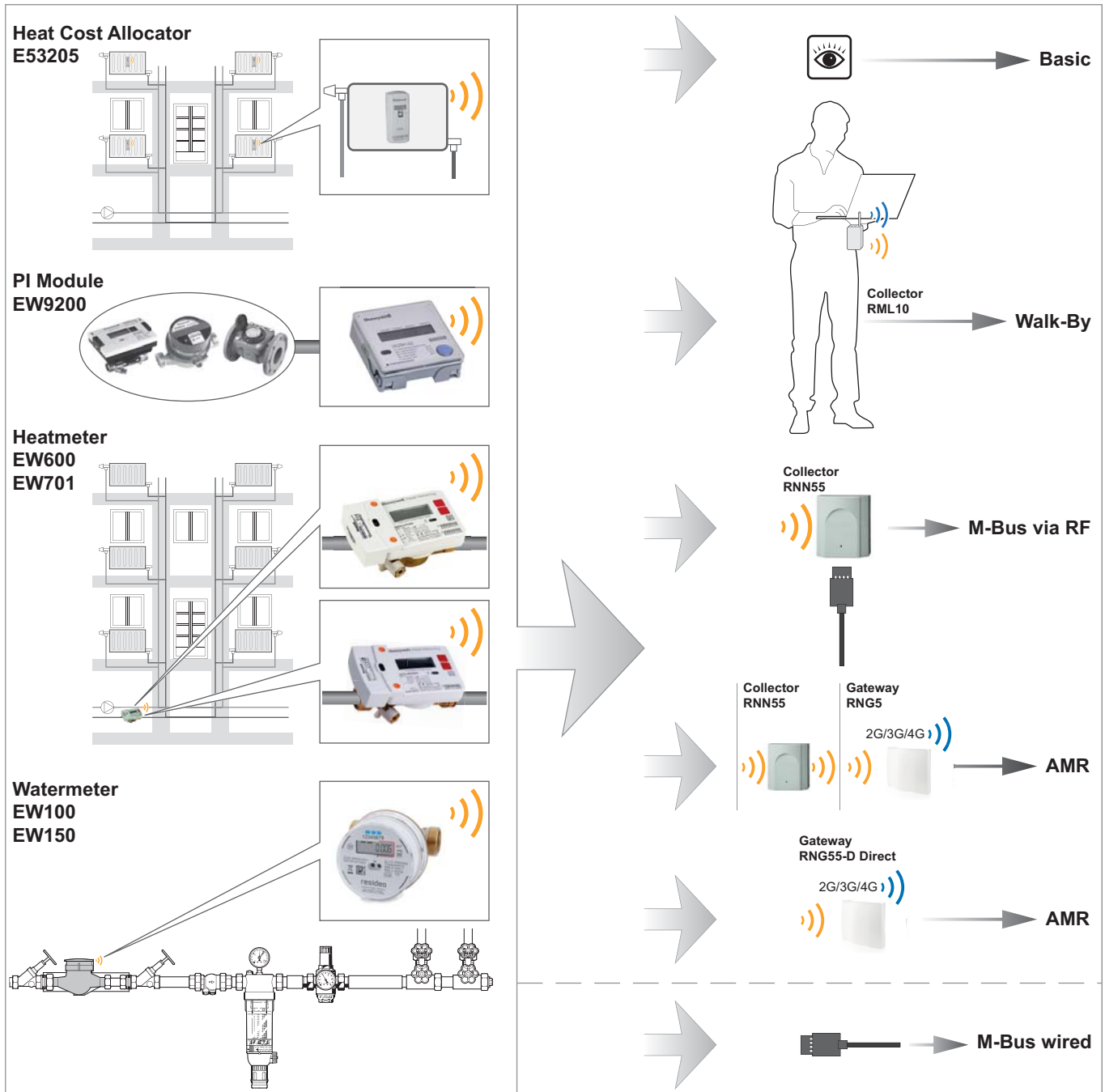
RNG5-230V



System Overview

The RNG5 can be integrated into various type of system.

For further variants of systems please contact your account manager.



Ordering Information

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

Item No.:	Description:	EAN Code:
RNG5-STD	NETWORK GATEWAY 2G/3G - BATTERY POWERED	4029289081605
RNG5-230V	NETWORK GATEWAY 2G/3G - 230V	4029289083050
Associated Products		
RNN55-STD	NETWORK NODE G5.5 C/S - STD	5059087001740
RNN55-230V	NETWORK NODE G5.5 C/S - 230V	5059087001733

Accessories

	Item No.:	Description:	EAN Code:
	RNN5.USB-1	USB Adaptor for RNN5 Network Node	5025121381383
	WTZ.RM5S	Data Collector set for G5 AMR systems Including:	4029289081667
	WFZ.PS	RF Activator	4024627093999
	WFZ.R5DS	Radio Unit (Emitter)	4029289081629
	WFZ.R5RC	Radio Unit (Receiver)	4029289081636