



RNN5

Network node for AMR systems

APPLICATION

The Honeywell Home RNN5 network node collectors are designed to receive and store the data transmitted within the AMR System (Automatic Metering Readout System) of the associated devices (Heat Cost Allocators, Heat- and Water-Meters and associated RF-modules)

They are available as battery powered or 230 V powered variants.

All RNN5 node collector communicate data with each other units if they are in the same network. This means that AMR data from all associated devices can be read from any RNN5 collector within the system.

The RNN5 are normally operating with the RNG5 gateway for wireless data readout from different devices within the AMR system. Up to 5 AMR networks can operate within one RNG5.

The RNN5 can also be used with the WFZ.R5RC (Radio Unit Receiver) for wireless data readout from the associated AMR devices. This WFZ.RM5C receiver is measuring as well the radio signal strength and so enable the installer to select the optimum position for the network node in any AMR system.

The RNN5 are equipped as well with a standard plug connector for M-Bus service connection.

The RNN5.USB-1 USB adaptor allows firmware reprogramming and reading of node and network.

The RNN5 network node's powerful radio system works well in complex buildings even when there are fire doors and glass walls.

Typical applications include:

- Apartment blocks
- Office buildings
- Business Centres

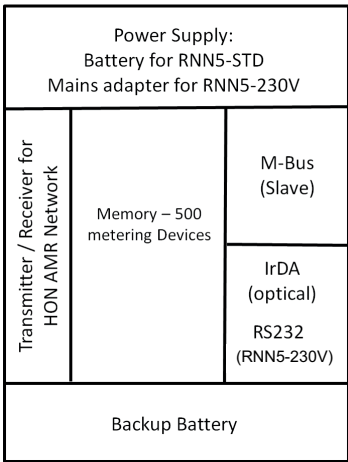


SPECIAL FEATURES

- Receives and stores data transmitted by AMR devices
- AMR technology allows reliable and fast data collection with no disturbance to the client
- Allows building services companies to monitor heat consumption without disturbing customers
- Automatic setup of up to 12 nodes in the same network – with a maximum of 500 AMR devices per RNN5 and up to 2500 devices in total
- 868 MHz radio communications
- S-Mode wireless Data Transfer (Safe data exchange through AES encryption)
- M-Bus connection and IrDA interface
- RNN5-230V: RS232 interface
- Backup battery for ten years
- Data stored and protected in the event of battery failure or replacement
- RNN5-STD: Five year main battery life
- Software suite (Honeywell Home HSMP) allows simple product setup and data recording
- Meets all necessary European standards for wireless AMR systems

TECHNICAL DATA

Specifications	
Main battery:	Rated at 3.6 V (service life: 5 years with factory settings)
Backup battery:	Rated at 3.6 V (service life: 10 years)
Radio Frequency:	868.00 MHz to 870.00 MHz
Transmitter Power:	< 14 dBm
Duty Cycle:	< 1 %



Ambient Conditions	
During Transport :	Non-Ventilated Containers: -25 °C to +70 °C Maximum Humidity: 95 % RH at 40 °C
During Storage:	-5 °C TO +45 °C Maximum Humidity: 95% RH
During Operation:	+5 °C TO +55 °C Maximum Humidity: 95 % RH

Dimensions	
Dimensions:	See Dimensional Drawings
Weight:	RNN5-STD: Gross: 0.760 kg Nett: 0.648 kg RNN5-230V: Gross: 0.745 kg Nett: 0.633 kg

CE Norms and Standards	
Protection Rating:	IP20
Protection class:	
RNN5-230 V:	II
RNN5-STD:	III
Interference Resistance:	EN 301 489-1/3/7
Emitted interference:	EN 300 220-1
Security of IT Equipment:	EM60950
RoHS:	EN 50581

CONSTRUCTION

Overview	Components	
<p>The diagram shows the RNN5 network node from a top-down perspective. The main unit is a rectangular device with a top panel featuring several connectors and a display. Below the top panel, there are two circular buttons labeled 'MODE' and 'DISPLAY'. A small rectangular display is located between the buttons. The extension module is shown below the main unit, connected to it. It has an RS232 interface and a connector for voltage supply.</p>	<p>1 Plug connector for M-Bus service connection</p> <p>2 Plug connector for extension module:</p> <p>3 Plug connector for electrical 3.6 VDC supply</p> <p>4 LED for network voltage display with external supply (only lit during when mains is connected)</p> <p>5 Plug connector for backup battery 3.6 VDC</p> <p>6 Display</p> <p>7 Serial number</p> <p>8 Recessed Reset Key</p> <p>9 Connector outlet</p> <p>10 Display switchover key – DISPLAY – Blue</p> <p>11 IrDA optical interface point</p> <p>12 Operating mode key – MODE – Red</p>	
	M-Bus extension module	
	<p>13 RS232 interface</p> <p>14 Connector to the main board at pos. 2</p> <p>15 Connector for voltage supply DC 3.6 V at pos. 3</p>	

TECHNICAL CHARACTERISTICS

Setup requirements

Location

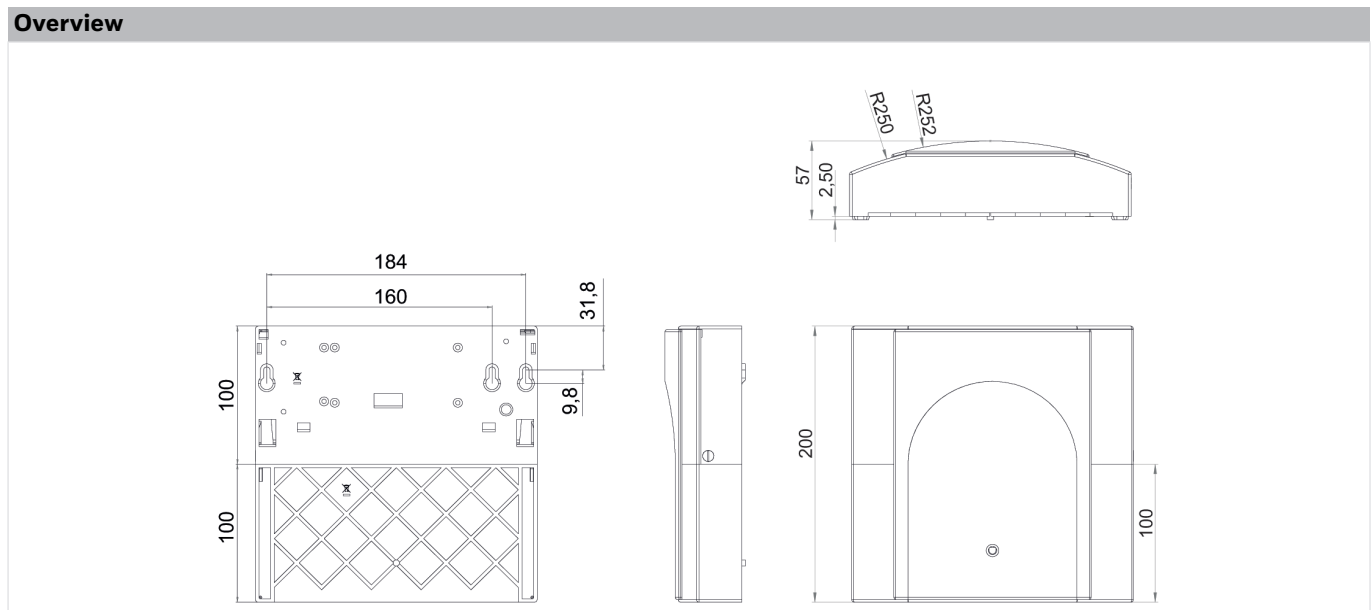
RNN5 Network nodes should be located centrally within the building or an individual floor of a building. Care should be taken to ensure that the radio signal strength is adequate to give reliable service. The RF signal strength can be checked using the WTZ.RM5S Data collector set.

Mounting

The back panel has a choice of mounting holes which allow a drilling distance of 160 mm or 184 mm. The RNN5 will fit onto the same mounting holes used for previous versions (RNN4) of Honeywell Home nodes.

DIMENSIONS

RNN5-STD / RNN5-230V



TECHNICAL DESIGN

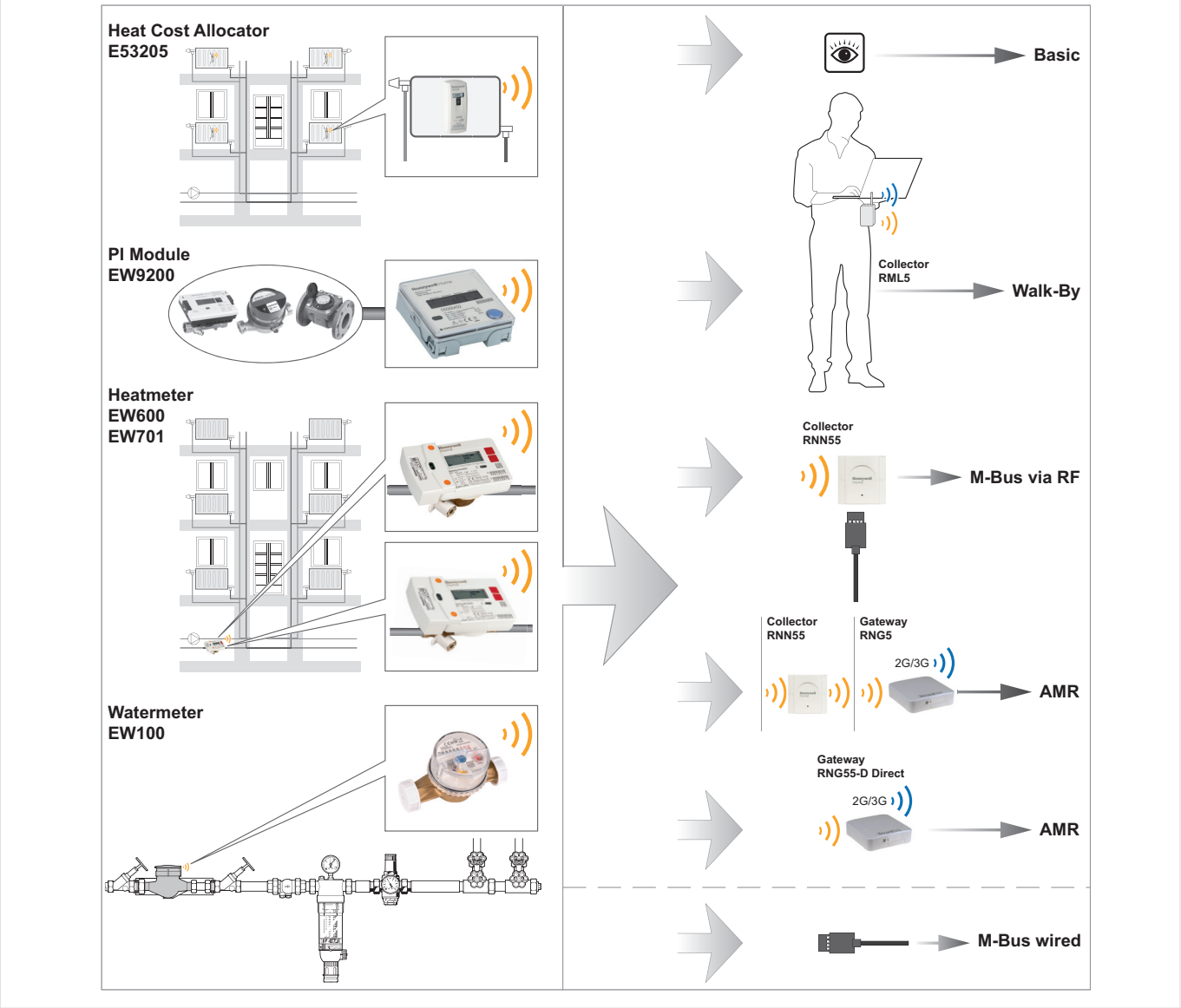
The transmitter and receiver are used to record and transmit data from the AMR devices and then to forward this data to other nodes in the same network. Because of the intercommunication between the RNN5 nodes, the data memory contains the measured consumption data gathered from all of the AMR devices within the system. The data is protected against loss from the memory by the backup battery.

Setup / Configuration

For configuration of the RNN5 you need the actual software ACT26. All software can be downloaded from <https://homecomfort.resideo.com/sites/Europe/en-gb/Solutions/Metering>

SYSTEM OVERVIEW

The RNN5 can be integrated into various type of system. For further variants of systems pls 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

OS-No.:	Description:	EAN Code:
RNN5 - STD	NETWORK NODE G5 - BATTERY POWERED	4029289081612
RNN5-230V	NETWORK NODE G5 - 230V	4029289083043

Associated Products

	OS.-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
	RNG5-STD	Network Gateway 2G/3G - Battery powered	4029289081605
	RNG5-230V	Network Gateway 2G/3G - 230V	4029289083050

For more information

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