Honeywell | Heat Metering

RNG5

Network Gateway for AMR Systems

APPLICATION

The Honeywell RNG5 gateway collects the consumption data remotely from the associated RNN5 node (collector) stations within the AMR System (Automatic Metering Readout System) and transmitting the data via mobile GPRS / EDGE 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 RNN5 (or RNN4) nodes for wireless data readout from different devices within the AMR system. Up to 5 AMR networks can operate within one RNG5. 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 node) can be recorded and integrated with one single RNG5 gateway.

The RNG5 gateway operates within the HSMP Portal (HONEYWELL Smart Metering Platform). This HSMP Portal compiles the data received from the AMR network. It provides options and choices for transfersing the data to the customer, the functionality for setup of gateway parameters and coordinates the different gateways in various customer locations.

Typical applications for the RNG5 are:

- Apartment blocks
- Office buildings
- Business Centres

SPECIAL FEATURES

- Highest possible wireless connectivity by national and international roaming
- Safe mobile data transfer in the ISM and GSM bands
- Integrated GSM & ISM antennas
- Quad-band GSM/GPRS/EDGE (850, 900, 1800 and 1900 MHz)
- Automatic selection of the optimum network guarantees maximum battery service life
- Pre-installed SIM card and self-configuration of keyparameters
- Management via HSMP (HONEYWELL Smart Metering Platform)
- Wireless M-Bus 868 MHz
- Simple on-site installation
- Indoor wall-mount
- Tamper detection and alarming
- High-precision temperature-compensated RTC with calendar, deviation < 2 ppm

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GENERAL INFORMATION & USER INTERFACES

- RNG5-STD Battery power supply
- RNG5-230V 230 VAC power supply
- LC display
- LED bi-colour optical indicator (red/green)
- Push button with cap
- SIM card holder:
- hinged, 8-waySIM card detection switch
- SIM card type:
- Mini SIM DATA transfer enabled
- Tamper contact
- Buzzer: 4 kHz, 75 dB

TECHNICAL DATA

ISM/SRD Performance		Power supply	
Wireless M -Bus - supported	S, T and C mode (EN13757 - 4: 2012)	RNG5-STD:	Power supply 3,6 V battery, not rechargeable
Selectivity and blocking	at 32K - 100K kcps baud rate	RNG5-230V:	230VAC Power supply
performance:	-108 dBm	Dimensions	
Output power:	+ 14dBm (25mW)	Dimensions:	203 mm x 203 mm x 58 mm
Mobile GSM/GPRS/EDGE Performance		Weight:	930 g
Frequency bands:	850/900/1800/1900 MHz	Housing:	ABS + PC V1 plastic material
GSM/DCS output:	for GSM 850 and E - GSM: Class 4 (2W)	Installation:	wall mount with 4x ø 3mm screws and dowels
	for DCS and PCS: Class 1	Operating temperatures	
	(1W)	Operating temperature:	-20 °C to +60 °C
GPRS:	GPRS multi - slot class:	Storage temperature:	-20 °C to +60 °C
	10, multi - slot class 12	Temperature Humidity:	90% RH @ 60°C
	supported PBCCH support: Yes	CE Norms and Standards	
EDGE:	coding schemes: US1 to US4	EU confirmity:	Yes
	E - GPRS multislot class:	Protection Rating:	IP30
	supported	Protection class:	
	PBCCH support: Yes	RNG5-STD:	III
	coding schemes: MCS5 to	RNG-230V:	II
	MCS9	Electromagnetic	EN 301 489-1
GSM & ISM Antenna:	Fully integrated high	compatibility:	EN 301 489-3
	performance ISM and GSM		EN 301 489-7
	antennas	Fully type approved conformi	ing with R&TTE directive.

CONSTRUCTION

RNG5-STD



RNG5-230V

Overview



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 GPRS and AMR network 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 service contract has to be replaced

Components

- 1 LED
- 2 Display
- 3 Red button 230VAC
- 4
- 5 SIM card holder 6 Opening detection
- 7 Buzzer

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
Min. ambient temperature:	-20 °C
Max. ambient temperature:	0°C
Ambient temperature:	90 % RH @ 60°C

DIMENSIONS

RNG5-STD

Overview



RNG5-230V



AMR SYSTEM OVERVIEW

The EW100 Water Meter, the EW600 Heat Meter and the E5353205 Heat Cost Allocator can be integrated into various type of system.

For example the AMR Network is illustrated down below.

For further variants of systems (M-Bus etc.) pls contact your HON 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:		
RNG5-STD	RNG5 Gateway (Battery supply)	40 29289 08160 5		
RNG5-230V	RNG5 Gateway (230VAC supply)	40 29289 08305 0		
Associated Products				
RNN5-STD	G5 Network node (Battery supply)	50 25121 38142 0		
RNN5-230V	G5 Network Node (230VAC supply)	40 29289 08304 3		

Environmental & Energy Solutions

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