Data sheet

LD5QUGWGB0 5000001-A / 07.03.2024

Q gateway 5

The Q gateway 5 is a powerful device that enables the monitoring of all measuring devices and network nodes of a property through automatic remote data transmission.

It captures the consumption data from up to 2,500 measuring devices from 5 networks* and transmits it via encrypted 2G / 3G / 4G mobile radio transmission to the QUNDIS smart metering platform Q SMP. From there, all data is automatically transmitted via email or SSH FTP.

The device is equipped with a SIM card at the factory. The configuration of the Q gateway 5 can be done via the Q SMP.

Q gateway 5 of the type RNG5 xxxR 3xxx are battery-operated.
The mains-powered version RNG5 xxxR 1xxx is available for daily readout.

In addition to a variant for indoor use, QUNDIS offers a variant for weather-protected outdoor areas with protection rating IP65.

* Details according to the service descriptions for gateway services

Features and functions

The Q gateway 5 combines automated secure internet connection via 2G / 3G / 4G mobile radio and secure bidirectional radio networking in the smart meter subsystem.

The storage of consumption data and status data, intelligent management and control of measuring devices, configuration and diagnosis of the Q gateway 5 are cloud-based and controlled via the Q SMP. Only a web browser is required for use.

By using high-performance batteries and extremely low power consumption, gateways of the type RNG5 xxxR 3xxx achieve a service life of up to 10 years. This makes the Q gateway 5 the ultimate solution for applications and projects that require complete energy autonomy.
The system contributes to significant savings in time, effort and costs, and the quality of the service leads to increased customer satisfaction.

- Wireless M-Bus 868 MHz
- excellent ISM radio reception
- 2G / 3G / 4G mobile transmission
- secure mobile data transfer in the ISM band and via mobile radio
- highest possible wireless connectivity through national and international roaming
- automatic selection of the optimal network guarantees maximum operating time
- Battery operation, designed for up to 10 years - depending on the operating scenario, 5 years guaranteed in accordance with the Terms and Conditions QUNDIS Gateway Service Description (GSD-II valid from 01.01.2020)
- integrated GSM and ISM antennas
- pre-installed SIM card and independent configuration of key parameters
- wall mounting indoors
- simple installation at the site
- management via Q SMP (QUNDIS Smart Metering Platform)

Type overview

Type*	Power supply
RNG5 xxxR 3xxx	Battery
RNG5 xxxR 1xxx	Mains connection

Type*	Housing variant
RNG5 xx2R xxxx	Indoor
RNG5 xx1R xxxx	for extended ambient conditions

* x = variable option code

General information and user interfaces

- LC display
- Two-colour optical LED display (red/green)
- Buzzer: 4 kHz, 75 dB

Technical data

CE

QUNDIS GmbH hereby declares that the Q gateway 5 complies with Directives 2014/53/EU (RED) and 2011/65/EU (RoHS). The full text of the EU declaration of conformity is available at the following internet address: www.qundis.com

Ambient conditions

Protection rating	RNG5 xx2R xxx RNG5 xx1R xxx	IP42 according to EN 60529 IP65 according to EN 60529
Protection class	RNG5 xxxR 3xx RNG5 xxxR 1xx	III according to EN 61140 II according to EN 61140
Transport		-25 °C ... 70 °C, < 95 % r.F. (without condensation)
Storage		-5 °C ... 45 °C, < 95 % r.F. (without condensation)
Usage	IP42 IP65	-5 °C ... 55 °C, < 95 % r.F. (without condensation) -20 °C ... 55 °C, < 95 % r.F. (without condensation)

Standards

Interference resistance and interference emission	EN 301 489-1, EN 301 489-3
Security	EN 62368-1, EN 62311
RoHS compliant	EN IEC 63000

ISM version

Wireless M-Bus - supported mode	S-Mode, EN 13757-4
Output power	max. 14 dBm
RSSI signal strength measurement	yes
Encryption	Security Mode 5 according to EN 13757-7, Security Profile A according to OMS specification
Radio frequency	EN 300 220-2 S-Mode (868,3 +/- 0,3) MHz

2G / 3G / 4G version

Radio frequency	Maximum output power
2G 900 MHz; 1800 MHz	Class 4 (33 dBm +/- 2 dB)
3G 900 MHz (B8); 2100 MHz (B1)	Class 3 (24 dBm + 1/-3 dB)
4G 700 MHz (B28A); 800 MHz (B20); 900 MHz (B8); 1800 MHz (B3); 2100 MHz (B1); 2600 MHz (B7)	Class 3 (23 dBm +/- 2 dB)
GSM and ISM antennas	fully integrated high-performance GSM and ISM antennas

Supply type RNG5 xxxR 3xxx

Battery type	Lithium metall (non-rechargeable)
Nominal voltage	3,0 V
Battery life	designed for up to 10 years - depending on the operating scenario, 5 years according to QUNDIS gateway service service agreement. description (GSD-II valid from 01.01.2020) guaranteed

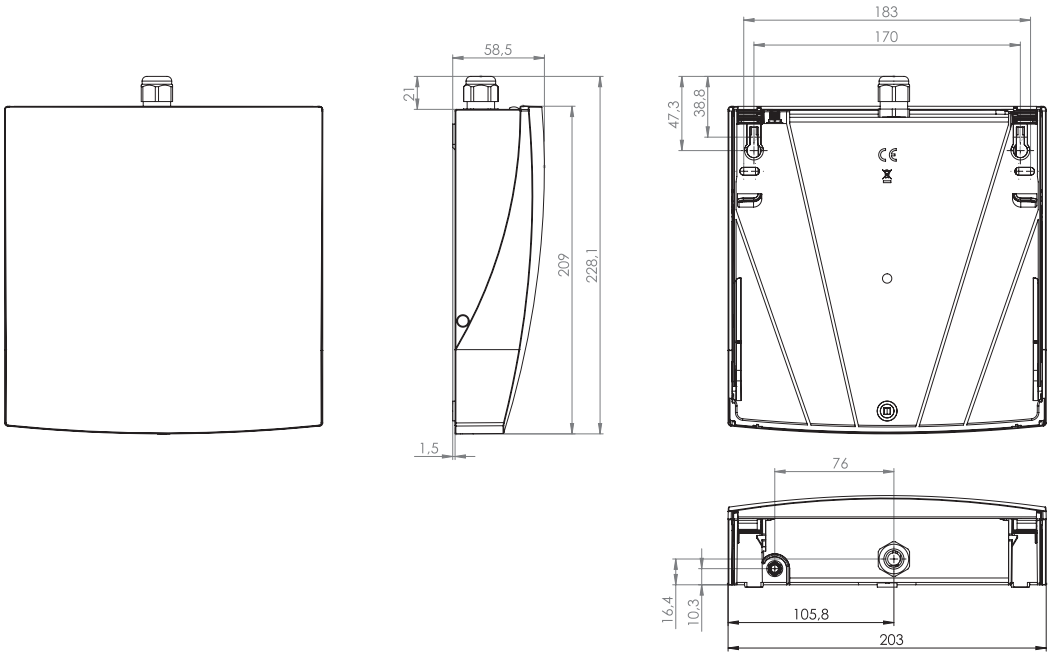
Supply type RNG5 xxxR 1xxx

Nominal voltage	AC 100..240 V 50/60 Hz

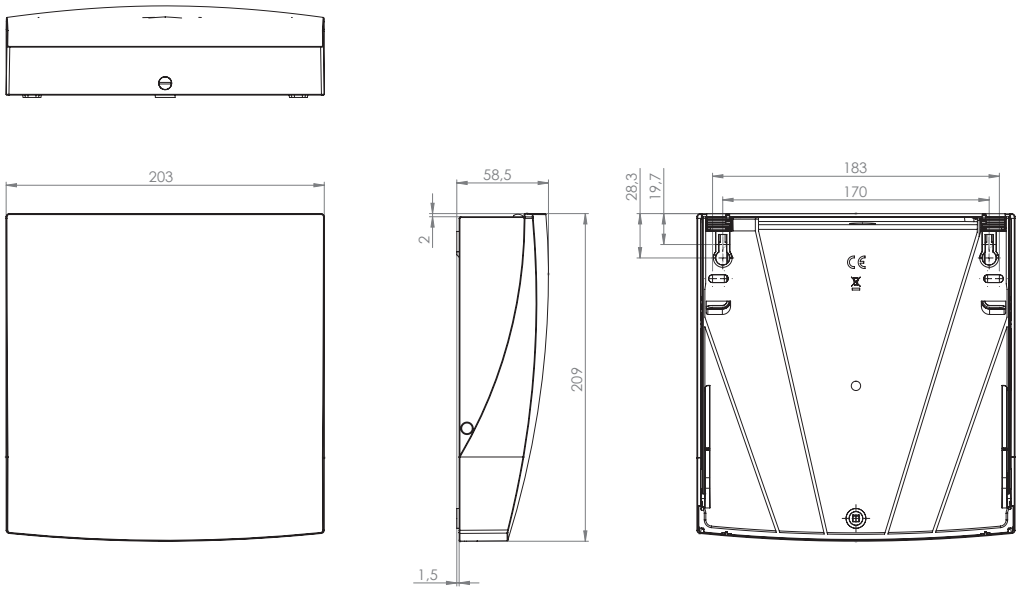
Material

Dimensions (WxHxD)		203 mm x 209 mm x 58,5 mm
Weight	RNG5 xxxR 3xxx RNG5 xxxR 1xxx	867 g 691 g
Housing material		Polycarbonat (PC) + ABS plastic
Mounting material		2 dowel S6 2 Torx 20 screws 4.0 mm x 40 mm 1 Seal

Dimensional drawings type RNG5 xxxR 1xxx



Dimensional drawings type RNG5 xxxR 3xxx



QUNDIS GmbH
Sonnentor 2
99098 Erfurt, Germany
+49 (0) 361 26 280-0
+49 (0) 361 26 280-175
info@qundis.com
www.qundis.com