

Datasheet

The „all-in-one“ product from one of the IoT world market leader for direct connection of Modbus devices via Narrowband IoT & LTE-M to your cloud.



Product-Modules



Hardware

The CE-certified and in-house developed gateway with Modbus RTU master is suitable for DIN rail mounting and can be connected through a serial RS-485 2-wire interface. The integrated mobile radio modem (Nordic nRF9160) and the enclosed antennas take care of receiving and sending data via mobile radio.



Self-Service Portal

To facilitate device management, a self-service portal (backend & frontend) is included. This includes configuration of Modbus RTU devices as well as bus systems, an online live monitor and flexible data connection through provided cloud adapters (MQTT, HTTP).



Connectivity

The product includes a factory-installed and tested Vodafone Global SIM card (chip) to enable data transmission via Narrowband-IoT (NB-IoT) and LTE-M already in over 25 countries. The necessary data plan for connectivity tariffs is also included to directly take advantage of LPWA (low-power-wide-area) network technologies.



Support

Initial support for commissioning (device onboarding) with a personal contact person makes it easier to get started. In addition to the self-service portal as a low-code application, permanent support with a service desk and ticket system is also available for operating the solution.



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Product details

Interface	Modbus RTU (RS-485, 2 wire) Interface max. 32 Modbus-Devices (BUS-Members); up to 1200 m line length; adjustable baud rate and parity NB-IoT/LTE-M Modem (Nordic nRF9160 SiP) Power supply (pluggable terminal strip 3-pole*)
Serial data rate	Max. 115 kbps
LED	1 x LED for status display
Supply	5-24 V (DC)
Power consumption	1,5 W
Network/Frequency band	LTE Cat M1/Cat NB1 B8, B20: 23 dBm
Operating temperature	-20 °C - +55 °C
Storage temperature	-25 °C - +60 °C
Housing	PC (Polycarbonate)
Dimensions (B x H x T)	18 x 90 x 58 mm
Weight	41 g without Antenna
Mounting	Mounting on DIN-Rail
SIM-Card	Vodafone Global IoT MFF2 SIM
Protection class	IP20
Humidity	max. 95 % r. H. (non-condensing)
Antenna*	2 Versions (2 m line length): <ul style="list-style-type: none"> • Rod antenna with magnetic base • Flat antenna with adhesive base

Ports

Modbus	(PIN A+B)
Connector*	FMC 1,5/ 3-ST-3,5 pluggable terminal strip 3-pole
Conductor cross-section	0,14 - 0,5 mm2 AWG 26 - AWG 20
Modem	1x SMA Antenna socket
Power Supply	(PIN VDC/GND)
Connector*	FMC 1,5/ 3-ST-3,5 pluggable terminal strip 3-pole
Conductor cross-section	0,14 - 0,5 mm2 AWG 26 - AWG 20

Order no. Products

Gateway	MOC-GW1
Rod antenna with magnetic base	MOC-AN1
Flat antenna with adhesive base	MOC-AN2
Connector	MOC-ST1

Installation/Onboarding/Configuration

Installation

The device may only be connected or installed by a qualified electrician. Onboarding is performed by scanning the QR code on the device in the Self-Service Portal (account required).

Onboarding/configuration

The self-service portal for all onboarding and configuration options can be reached at www.modbuscloudconnect.net. If you have any questions or problems, you can reach our service desk at <https://service.grandcentrix.net>.

Norms and Standards



RED 2014/53/EU
IEC62368-1
RoHS

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