

RTU for Cellular Telemetry with MQTT Protocol

GRD - MQ



The equipment allows a direct connection with an MQTT broker through the mobile network, supporting TLS 1.2 encryption to make communication secure.

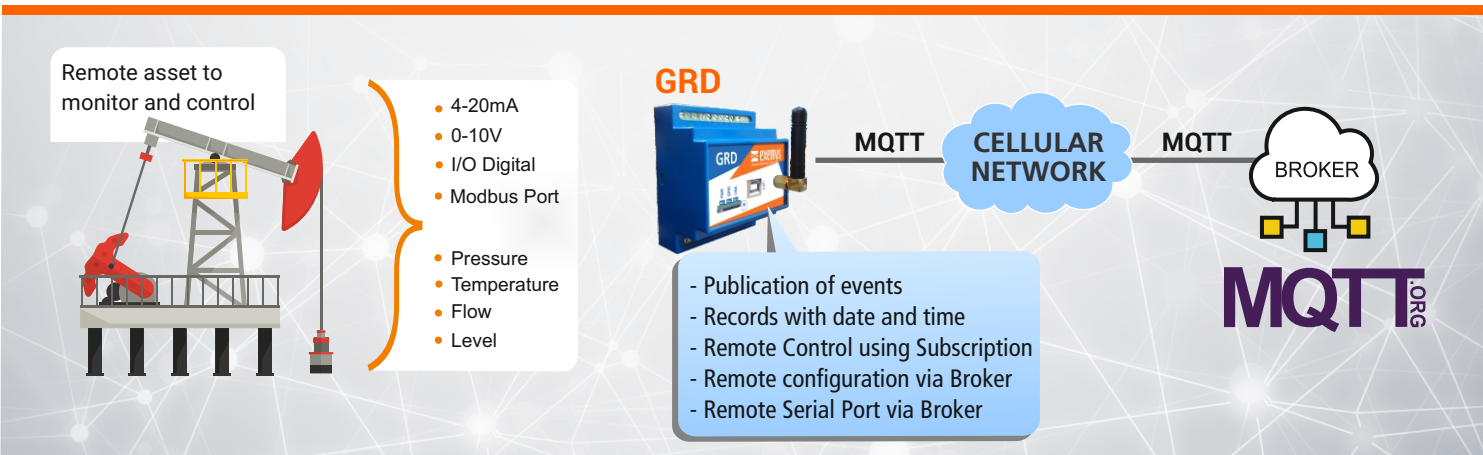
In addition to their own inputs / outputs, all GRD-MQ models can take information from Modbus slaves connected to their serial port. GRD-MQs include unique features in industrial MQTT equipment such as the ability to function as a datalogger. It has internal memory and allows adding date-time to publications so as not to lose any event if the equipment was off-line.

Automation can also be carried out locally by scripting and configuring the equipment remotely by MQTT via broker.

The GRD-MQ family allows perform cellular telemetry using the MQTT protocol, widespread in the Industry 4.0

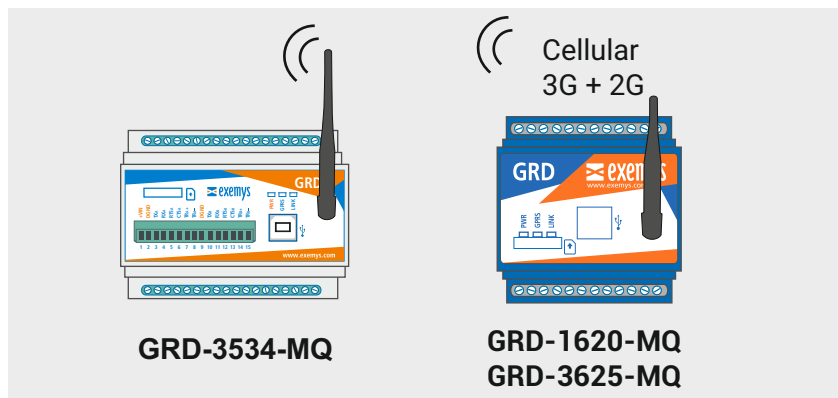
- Publication of events
- Records with date and time
- Remote Control using Subscription
- Remote configuration via Broker
- Remote Serial Port via Broker

★ OPERATION SCHEME



★ FEATURES

- MQTT Client
- 3G + 2G Cellular Communication
- American and European bands
- 4-20mA and 0-10V Inputs
- Digital Inputs
- Pulse Counter Inputs
- Digital Outputs
- Serial Ports



TECHNICAL SPECIFICATIONS

RF Wireless

- Protocol: 2G GSM, 2.5G EDGE, 3G UMTS (Automatic)

Frequency:

- Quad-Band GSM / GPRS / EDGE (850/900/1800/1900MHz)
- Hexa-Band UMTS WCDMA FDD (800MHz-B19, 850MHz-B5/B6, 900MHz-B8, 1900MHz-B2, 2100MHz-B1)
- MICRO SIM Card: Supports all providers
- Antenna: 0dBi SMA Connector (other antennas, optional)
- Cellular module certification: FCC, CE, RyTTE, PTCRS, ATyT

General

- Led Lights: GSM / GPRS / Link
- Enclosure: Industrial, DIN Rail
- Dimensions: 70 x 90 x 65 mm / 150 x 90 x 65 mm (width x high x Depth) Depending on model.
- Operation Temperature : -20°C a +65°C
- Warranty: 1 year

Power

- Power Input: +10Vdc min. to +30 Vdc max.
- Average Consumption: 150mA at 12Vdc, 100mA at 24Vdc

Communications

- Serial Port: 2 ports. 1x RS232 and 1x Rs485 2 ports Rs232/485 (Depending on model).

MQTT

- Encryption TLS 1.2: CA signed server certificate / CA certificate only / Self signed certificates.
- Publication of events and records with date and time.
- Remote Control using Subscription.
- Configuration and remote serial port via broker.
- Protocols: Modbus Master, NMEA, Modbus Slave and others by scripts programming.
- USB port: 1 Port for configuration.
- Configuration: Local by USB or remote by MQTT

Inputs and Outputs

- Analog Inputs: 0-10V, 4-20mA (Software configuration)
 - Analog Inputs 0-1Vdc: Precision 0,1mV
 - Analog Inputs 0-10Vdc: Precision 1mV
 - Analog Inputs 4-20mA: Precision 1uA, Surge protected input
- Digital Inputs and Outputs:
 - Inputs:
 - Up to 16 to Transistor (Depending on model)
 - Outputs:
 - Up to 8 to Transistor Open collector (Depending on model)

Counting and Recording of Events

- Counting Input:
 - Frequency Input: 45Hz / 1 Khz (Depending on model)
 - Pulse Input: 10ms min. / 0.5ms min (Depending on model)
- Recording Events:
 - With Real Time Clock (RTC)
 - Can register without Cell Signal (Offline)



IEC 60950-1:2005+A1

MANAGEMENT
SYSTEM ISO 9001:2015



GESTION
DE LA CALIDAD

RI-9000-6174

Acreditado por OAA



✓ FUNCTIONALITY

- MQTT Client to connect with broker.
- Modbus Master protocol in port RS232/485 for expansion I/O or control of external modules.
- Modbus Slave protocol for local access to I/O.
- Script based programming logic.
- Alarms and Control by SMS messages.
- Event Registration On Line (GPRS signal) and Off Line (no GPRS signal).
- Remote control of outputs via subscription.
- Over the air Firmware Update.
- Remote Serial Port Mode via MQTT

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AVAILABLE MODELS

MODEL	Serial Port	I/O Discretes	Analog Inputs	I/O Modbus Expansion
GRD1620-MQ-3G	1 RS232 + 1 RS485	---	---	YES
GRD3625-MQ-3G	1 RS232 + 1 RS485	6 Configurables 6 DI pulses 45 Hz	4 0-10V / 4-20mA	YES
GRD3534-MQ-3G	2 x RS232/RS485	16 inputs 8 outputs 8 DI pulses 1 KHz	8 0-10V / 4-20mA	YES



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