

Item no.: FMM230

FMM230 - Waterproof LTE Cat. M1 Terminal with Flexible Inputs Configuration

59,78 EUR

Item no.: FMM230
shipping weight: 0.20 kg
Manufacturer: Teltonika



Product Description

FMM230 - Waterproof LTE Cat. M1 Terminal with Flexible Inputs Configuration

FMM230 is water and dust resistant real-time tracking terminal with LTE Cat. M1 network coverage including 2G (GSM) fallback compatibility. It comes equipped with internal GNSS, LTE antennas, configurable digital, analog, negative and impulse inputs, three DOUT outputs, Bluetooth connectivity, and backup battery. The device has an integrated possibility to enable Impulse Input for precise fuel flow meter data reading. Impulse based fuel usage monitoring is much more accurate than a different type of fuel metering sensors and it makes the FMM230 a perfect solution for high fuel usage machines like cranes, construction vehicles, mining machines, agriculture equipment. Additionally, the FMM230 device has an IP67 certified casing which provides a total protection against dust and resistance to water in a depth of up to 1 meter for at least 30 minutes. As a result, FMM230 can be used in agriculture, construction and mining or any other fleet where harsh tracking conditions exists.

Module

- Name: FMM230-Q31B0: Quectel BG95-M3 with Teltonika TM2500
- Technology: LTE Cat. M1/NB-IoT/GSM/GPRS/GNSS/Bluetooth

GNSS

- GNSS: GPS, GLONASS, GALILEO, BEIDOU, QZSS, AGPS
- Receiver: Tracking: 33
- Tracking sensitivity: -165 dBm
- Position accuracy: < 2.5 CEP
- Velocity accuracy: < 0.1 m/s (within +/- 15% error)
- Hot start: < 1 s
- Warm start: < 25 s
- Cold start: < 35 s

Cellular

- Technology: LTE Cat. M1/NB-IoT/GSM
- 2G bands: BG95-M3: B2/B3/B5/B8
- 4G bands: BG95-M3: LTE-FDD (Cat. M1): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85; LTE-FDD (Cat. NB2): B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85 GSM: 850/900/1800/1900
- Data transfer: BG95-M3: LTE: Max. 588 Kbps (DL)/max. 1119 Kbps (UL); GPRS: Max. 107 Kbps (DL)/max. 85.6 Kbps (UL)
- Transmit power: Class 4 for GSM850/900: 23 ± 2 dBm; Class 1 for GSM1800/1900: 20 ± 2 dBm; Class 3 for LTE-TDD: 23 ± 2.7 dBm; Class 3 for LTE-FDD: 23 ± 2.7 dBm
- Data support: SMS (text/data)

Power

- Input voltage range: 10 - 30 V DC with overvoltage protection
- Internal back-up battery: 170 mAh Li-Ion battery 3.7 V (0.63 Wh)
- Internal fuse: 3 A, 125 V
- Power consumption: At 12 V < 3 mA (Ultra Deep Sleep); At 12 V < 5 mA (Deep Sleep); At 12 V < 11 mA (Online Deep Sleep); At 12 V < 18 mA (GPS Sleep); At 12 V < 34 mA (nominal with no load); At 12 V < 2 A max. (with full load/peak)

Bluetooth

- Specification: 4.0 + LE
- Supported peripherals: Temperature and humidity sensor, OBDII dongle, Inateck barcode scanner, universal BLE sensors support

Physical specification

- Dimensions: 70,5 x 67,0 x 25,6 mm (L x W x H); 85,0 x 67,0 x 25,6 mm (L x W x H, length with connector socket)

Operating environment

- Operating temperature (without battery): -20°C to +85°C
- Storage temperature (without battery): -20°C to +85°C
- Operating temperature (with battery): -20°C to +40°C
- Storage temperature (with battery): -20°C to +45°C
- Operating humidity: 5% to 95% non-condensing
- Ingress protection rating: IP67
- Battery charge temperature: 0°C to +45°C
- Battery discharge temperature: -20°C to +60°C

Interface

- Digital inputs: 3
- Negative inputs: 1 (digital input 2)
- Impulse inputs: 2 (digital input 1, digital input 2)
- Digital outputs: 3
- Analog inputs: 2
- CAN adapter inputs: 1
- 1-wire: 1
- GNSS antenna: Internal high gain
- Cellular antenna: Internal high gain
- USB: 2.0 Micro-USB
- LED indication: 2x status LED lights
- SIM: Micro-SIM
- Memory: 128 MB internal Flash memory

Certification & Approvals*

- Regulatory: CE-RED, E-mark, RCM, Anatel, Reach, RoHS, TRA, CITC

* in progress

Specifications

**Scan this QR code to
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All details, up-to-date
prices and availability

