



FM-Pro4
FM-Pro4 3G

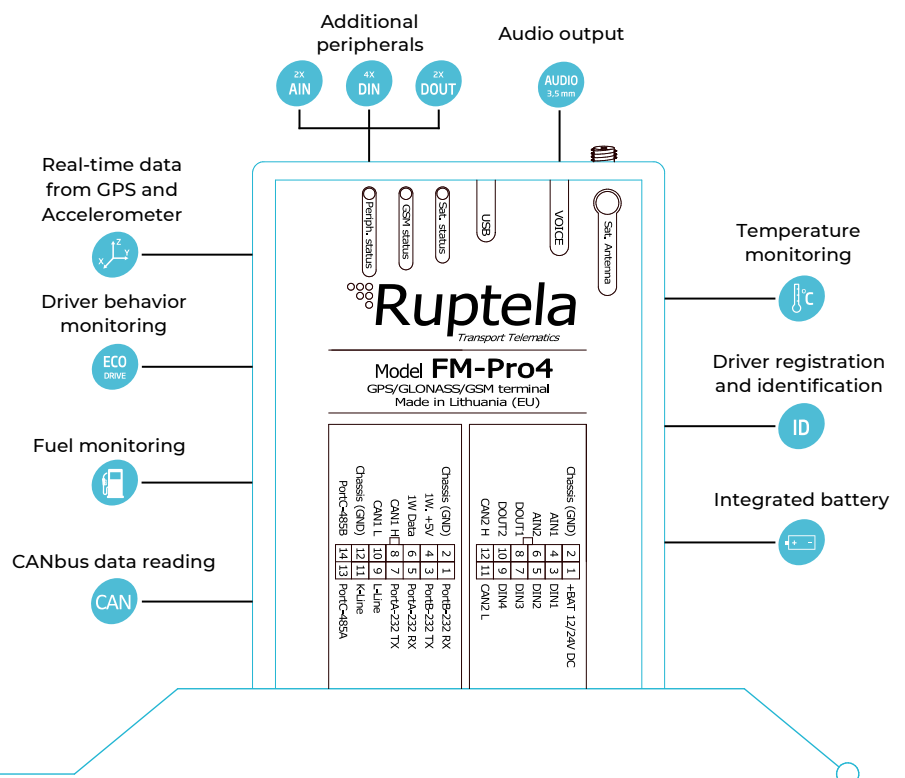
FM-Pro4

FM-Pro4 is a GPS tracking device for heavy vehicles. This device is designed for vehicle tracking and monitoring tasks and can obtain information from standard CANbus protocols such as FMS, J1708 and J1939.

The device communicates using GSM (2G) networks, and it is also available in a version that supports UMTS (3G) – **FM-Pro4 3G**.

Applications

- Monitor vehicles and increase fuel efficiency
- Reduce operational costs and increase productivity
- Enhance your fleet with driver monitoring
- Car rental and sharing solutions



Detailed specifications

FM-Pro4

FM-Pro4 3G

Environmental specifications

Temperature	Operating: -35 to +70 °C Storage: -40 to +70 °C Battery charging: 0 to +45 °C Battery discharging: -20 to +60 °C Battery storage: -20 to +70 °C
Relative humidity	0% to 95% Non-condensing

Electrical specifications

Power supply range	10 ÷ 32 V DC	
Power supply voltage	12 / 24 V DC	
Maximum voltage ratings	50 V @ 60 s 72 V @ 0.1 s	
Maximum current rating	250 mA @ 12 V DC	300 mA @ 12 V DC
Internal battery	LiPo 3.7 V 1050 mAh	
Protections	Battery and 1-Wire power line short circuit protection Reverse polarity protection Electrostatic discharge protection on USB and 1-Wire data line Overcurrent protection on 1-Wire power line ESD protection on SIM card slot (can be ordered) Charging protection	

Power consumption @ 12 V DC

Operating (battery fully charged)	Idle mode:	52.6 mA	Idle mode:	67.5 mA
	Active mode (peak @ GSM):	78.5 mA	Active mode (peak @ GSM):	102.0 mA
	Sleep mode:	17.3 mA	Sleep mode:	24.2 mA
	Deep sleep mode:	6.0 mA	Deep sleep mode:	6.2 mA

Connectivity

GSM/UMTS	Modem: Quectel M95 Antenna: Internal (Quad-band) Frequency band @ GSM: 850/900/1800/1900 MHz (GPRS multi-slot class 12)	Modem: Quectel UG96 Antenna: Internal (Quad-band) Frequency band @ UMTS: 800/850/900/1900/2100 MHz Frequency band @ GSM: 850/900/1800/1900 MHz (GPRS multi-slot class 33)
GNSS (GPS, GLONASS) module	Modem: U-blox EVA-M8M Antenna: External Augmentation system: QZSS, SBAS (WAAS, GAGAN, EGNOS) Frequency: 1575.42 MHz (GPS); 1602 MHz (GLONASS) Channels: 72 Tracking sensitivity: -164 dBm (GPS); -163 dBm (GLONASS) Reacquisition sensitivity: -159 dBm (GPS); -156 dBm (GLONASS) Cold start duration: < 30 s Navigation update rate: 10 Hz Horizontal position accuracy: 2.5 m (CEP, 50%, 24 hours static, -130 dBm, > 6 SVs)	

Detailed specifications

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Interfaces		
4 x Digital inputs	Voltage range: 0 - 30 V DC Voltage threshold: 4 V DC (Low: 0 - 1.8 V, High: 3.3 - 30 V)	
2 x Invertible digital inputs	Invertible via configuration (DIN3/DIN4) Voltage threshold: 250 mV DC	-
2 x Analog inputs	Voltage range: 0 - 30 V DC Resolution: 12 bit	
2 x Digital outputs	Maximum voltage: 32 V DC Maximum current: 1A @ 25 °C	
2 x CAN interfaces	FMS, HCV CAN data reading	
1-Wire interface	Power output: 200 mA @ 5 V DC Maximum cable capacitance: 4 nF iButton DS1990A, DS1971, DS18B20 temperature sensors	
Serial ports	2 x RS232 (DFS, refrigerators, transparent channel, Garmin, RFID) 1 x RS485 (DFS, transparent channel, J1708 data reading)	
User interfaces	Mini USB interface 3 x Indication LEDs 3.5 mm audio interface	

Features

Internal storage	4 MB (max. 30000 records)
External storage	Up to 32 GB
Accelerometer	Built-in 3-axis (auto-calibrating, impact detection, motion sensing, tilt detection, g-force up to 4 g)

Certifications and ratings

Certifications	E-mark, CE, RoHS	E-mark, CE, RoHS, FCC Part 15
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Physical properties

Dimensions	111 x 75 x 25 mm
Weight	134 ± 10 g
Housing	Plastic

Ordering information

FM-Pro4	Pro4 for heavy commercial vehicles with GSM (2G)
FM-Pro4 3G	Pro4 for heavy commercial vehicles with UMTS (3G)

Contact information:

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