Ruptela
Transport Telematics

FM-Pro4

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 version that supports UMTS (3G).

Key features

- Real-time data from GPS and Accelerometer
- Driver behaviour monitoring (Eco-Drive)
- CANbus data reading (FMS, J1708 and J1939)
- Temperature monitoring
- Driver registration and identification
- Remote ignition blocking
- Fuel monitoring
- Internal Geozones
- Jamming detections
- Commands and configuration via SMS
- Supports additional sensors

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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	350 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	Idle mode: 52.6 mA Active mode: 78.5 mA Sleep mode: 17.3 mA Deep sleep mode: 6.0 mA	Idle mode: 67.5 mA Active mode: 102.0 mA Sleep mode: 24.2 mA Deep sleep mode: 6.2 mA
Operating while charging battery	Idle mode: 167.5 mA Active mode: 176.0 mA Sleep mode: 130.9 mA Deep sleep mode: 119.3 mA	Idle mode: 172.4 mA Active mode: 211.4 mA Sleep mode: 127.7 mA Deep sleep mode: 114.1 mA
Connectivity		
GSM	Modem: Quectel M95 Antenna: Internal (Quad-band) Frequency band @ GSM: 850/900/1800/1900 MHz	Modem: Quectel UG96 Antenna: Internal (Quad-band) Frequency band @ UMTS: 800/850/900/1900/2100 MHz Frequency band @ GSM: 850/900/1800/1900 MHz

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GNSS module	Modem: U-blox EVA-M8M Antenna: External Positioning systems: GPS, GLONASS, Galileo Augmentation systems: QZSS, SBAS (WAAS, GAGAN, EGNOS, MSAS) Frequency: 1575.42 MHz (GPS, Galileo); 1602 MHz (GLONASS) Tracking sensitivity: -164 dBm Reacquisition sensitivity: -160 dBm Cold start duration: < 30 s Aided start: 3 s	
Interfaces		
4 x Digital inputs	Voltage range: 0 - 30 V DC Voltage threshold: 4 V DC Invertible via configuration: DIN3/DIN4 Voltage threshold: 250 mV DC	Voltage range: 0 - 30 V DC Voltage threshold: 4 V DC Invertible via configuration: None
2 x Analog inputs	Voltage range: 0 - 30 V DC Resolution: 12 bit	
2 x Digital outputs	Maximum voltage: 32 V DC Maximum current: 1 A	
2 x CAN interfaces	FMS, HCV CAN data reading	
1-Wire interface	Power output: 200 mA @ 5 V DC iButton DS1990A, DS1971, DS18B20 temperature sensors	
Serial ports	2 x RS232 (DFS, 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	3-axis auto-calibrating; 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)

Warnings

All internal components including the battery must be replaced only by the manufacturer! Any self-willed attempt to repair or change any components will void the warranty.

Caution! The devices are shipped to the users with partially charged batteries. After the first power up the device must not be used with the battery. It must be connected to an external power source until the battery is fully charged. Once charging is complete, the device can begin its normal operation.

Caution! There is a risk of explosion if the battery is replaced with a battery of an incorrect type. Dispose of used batteries according to environmental requirements.

Waste equipment should not be disposed of with your other household waste. The product must be taken to separate collection points at the product's end-of life.

Document application

Given parameter values and various characteristics within this document apply only to the most recent device hardware version.

Legal information

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