



FM-Eco4 light+ RS T
FM-Eco4 light+ 3G RS T
FM-Eco4+ E RS T
FM-Eco4+ 3G E RS T

FM-Eco4 RS T Series

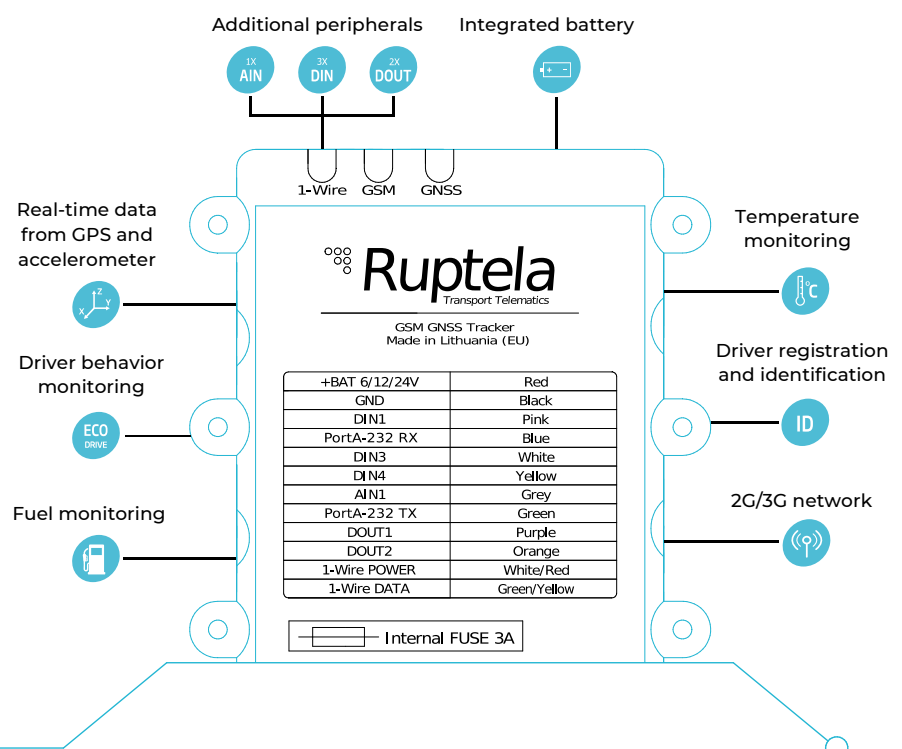
FM-Eco4+ light RS T is a tracking device (3G/2G) with a regular small size housing and internal antenna.

FM-Eco4+ 3G E RS T is a tracking device (3G/2G) with rugged IP67 certified housing and an external antenna, which allows the device to be installed in areas that are hard to find and access.

The RS232 serial port allows to connect digital fuel level sensors for accurate and reliable fuel level monitoring. It also improves safety on the roads: fatigue sensors allow detecting and informing the driver when they are tired, distracted or not focused on the road. Alcohol sensor will send an alert or block the vehicle if the driver is intoxicated.

Applications

- Fuel monitoring
- Driver behavior monitoring
- Safety & security
- Fleet management
- Logistics
- Automotive OEM
- Trailer tracking
- Rental and leasing
- Corporate fleets



Detailed specifications

FM-Eco4 light+ RS T
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Environmental specifications

Temperature	Operating:	-20 to +60 °C
	Storage:	-20 to +60 °C
	Battery charging:	0 to +45 °C
	Battery discharging:	-20 to +60 °C
Relative humidity	5% to 95% Non-condensing	

Electrical specifications

Power supply range	6 ÷ 31.5 V DC
Maximum current rating	500 mA @ 6 V DC
Internal battery	LiPo 3.7 V 190 mAh
Protections	Battery short circuit protection Reverse polarity protection Overcurrent protection on 1-Wire power line

Power consumption @ 12 V DC

Operating (battery fully charged)	Idle mode:	33 mA
	Active mode (peak @ GSM):	138 mA
	Sleep mode:	11 mA (for 3G variations – 12 mA)
	Deep sleep mode:	4 mA

Connectivity

GSM modem (only 2G options)	Modem: Quectel M95 Antenna: Internal (Quad-band) Frequency band @ GSM: 850/900/1800/1900 MHz
GSM/UMTS modem (only 3G options)	Modem: Quectel UG96 Antenna: Internal (Quad-band) Frequency band @ 2G (GSM): 850/900/1800/1900 MHz Frequency band @ 3G (UMTS): 800/850/900/1900/2100 MHz
GNSS module	Module: U-blox EVA-M8M Antenna: Internal or external (Eco4+ RS E T and Eco4+ 3G RS E T only) Positioning systems: GPS, GLONASS, Galileo Augmentation systems: QZSS, SBAS (WAAS, GAGAN, EGNOS, MSAS) Aided start services: AssistNow Online Frequency: 1575.42 MHz (GPS, Galileo); 1602 MHz (GLONASS) Tracking sensitivity: -154 to -164 dBm Reacquisition sensitivity: -152 to -160 dBm Cold start duration: < 30 s Aided start duration: As low as 3 s

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Interfaces

3 x Digital inputs	Voltage range: 0 - 30 V DC Voltage threshold: 4 V DC Invertible inputs: 2 (DIN3/DIN4) Voltage threshold when inverted: 250 mV DC
Analog input	Voltage range: 0 - 30 V DC Resolution: 12 bit
2 x Digital outputs	Maximum voltage: 32 V DC Maximum current: 1 A @ 25 °C
1-Wire interface	Power output: 0 mA @ 4.3 V DC Power output: 80 mA @ 3.77 V DC Maximum cable capacitance: 4 nF
Serial ports	RS232 (DFS, transparent channel, RFID, Digital fuel level sensors, Fatigue sensors, Alco sensors)
User interfaces	Mini USB interface 3 x Indication LEDs

Features

Internal storage	4 MB (max. 30000 records)
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, FCC, RoHS, WEEE, EAC	
IP Rating	–	IP67

Physical properties

Dimensions	65 x 61 x 22 mm	95 x 77 x 29 mm	
Weight	65 ± 5 g	148 ± 5 g	185 ± 5 g
Housing	Plastic		

Ordering information

FM-Eco4 light+ RS T	Eco4 light Third Edition with battery and RS232 interface
FM-Eco4+ E RS T	Eco4 Third Edition with battery, RS232 interface, IP67 housing and external GNSS antenna
FM-Eco4 light+ 3G RS T	Eco4 light Third Edition with battery, RS232 interface and 3G (UMTS)
FM-Eco4+ 3G E RS T	Eco4 Third Edition with battery, IP67 housing, RS232 interface, external GNSS antenna and 3G (UMTS)

Contact information:

Perkūnkiemio g. 6
LT-12130 Vilnius, Lithuania
Phone: +370 520 451 88
Web: www.ruptela.com

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