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

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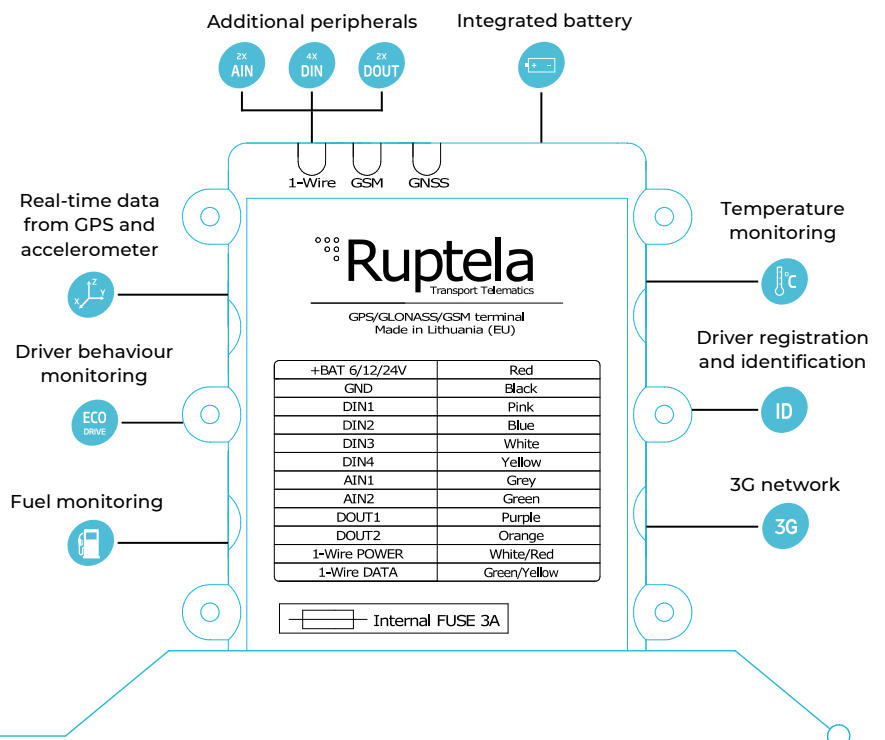
FM-Eco4+ light 3G T is a tracking device (3G/2G) with regular housing, small size and internal antennas.

FM-Eco4+ 3G T is a tracking device (3G/2G) with rugged IP67 certified housing that can be installed outside the cabin and successfully resist environmental factors such as water and dirt.

FM-Eco4+ 3G E 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.

Applications

- **Safety & security**

- **Driver behaviour monitoring**

- **Fuel monitoring**

- **Fleet management**

- **Logistics**

- **Automotive OEM**

- **Trailer tracking**

- **Rental and leasing**

- **Corporate fleets**

Additional peripherals

Integrated battery

2X AIN   4X DIN   2X DOUT

1-Wire   GSM   GNSS

Real-time data from GPS and accelerometer

Temperature monitoring

Driver behaviour monitoring

ECO DRIVE

Driver registration and identification

ID

Fuel monitoring

3G network

3G

Ruptela
Transport Telematics

GPS/GLONASS/GSM terminal
Made in Lithuania (EU)

+BAT 6/12/24V	Red
GND	Black
DIN1	Pink
DIN2	Blue
DIN3	White
DIN4	Yellow
AIN1	Grey
AIN2	Green
DOUT1	Purple
DOUT2	Orange
1-Wire POWER	White/Red
1-Wire DATA	Green/Yellow

Internal FUSE 3A

Detailed specifications

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

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: 6.3 mA Deep sleep mode: 4 mA

Connectivity

GSM/UMTS modem	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 (FM-Eco4+ 3G 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 Navigation update rate: 10 Hz Horizontal position accuracy: 2.5 m (CEP, 50%, 24 hours static, -130 dBm, > 6 SVs)

Detailed specifications

	FM-Eco4 light+ 3G T	FM-Eco4+ 3G T	FM-Eco4+ 3G E T
Interfaces			
4 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		
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 @ 25 °C		
1-Wire interface	Power output: 0 mA @ 5 V DC Power output: 100 mA @ 4.67 V DC Maximum cable capacitance: 4 nF		
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+ 3G T	Eco4 light Third Edition with battery and 3G (UMTS)
FM-Eco4+ 3G T	Eco4 Third Edition with battery, IP67 housing and 3G (UMTS)
FM-Eco4+ 3G E T	Eco4 Third Edition with battery, IP67 housing, external GNSS antenna and 3G (UMTS)