FMB930

Small and smart tracker with optimized power consumption
and 10-90 V power supply range

10 - 90 V POWER SUPPLY

Ensures smooth use of
tacker in E-motorcycles,
E-mopeds, E-rickshaws,
and other EVs

POWER OFF SLEEP MODE

Allows to power off
module to reduce power
consumption in sleep
mode

BLUETOOTH® TECHNOLOGY

Bluetooth® LE for external
devices and sensors

BACK-UP BATTERY

Allows device to work
without external power
source

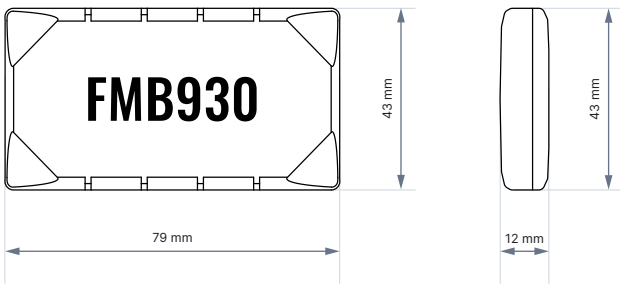**E-motorcycles**   **E-mopeds**   **E-richshaw**   **Light vehicles**   **Rental and leasing**

FMB930 is a slim design easily fitted tracker with GNSS/GPS internal antennas, flash memory, integrated backup battery, accelerometer, input/output and various Bluetooth® connectivity sensors and beacons support and a 10-90 V power supply range for integration variety. Thanks to a rich feature set, this BASIC category tracker delivers unquestionable value for the GPS telematics service providers and end-users. The model has been specifically designed for E-motorcycles, E-mopeds, E-rickshaws tracking in insurance telematics, rental and E-mopeds sharing, recovery of stolen vehicles, public safety and courier delivery services, taxi, corporate fleets, etc. The capability to disconnect from the external power source and save the external power source battery creates additional value without draining the vehicle battery.
Specially designed hardware saves even more power when the device is in special Power Off Sleep Mode, which is the lowest possible power consumption mode. The device allows power off the module and reduces power consumption to less than 1mA in a sleep mode.

Module

Name	FMB930-TAIB0: Teltonika TM2500
Technology	GSM/GPRS/GNSS/BLUETOOTH® LE

GNSS

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

Cellular

Technology	GSM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B
Data support	SMS (text/data)

Power

Input voltage range	10 - 90 V DC
Back-up battery	170 mAh Li-Ion battery (0.63 Wh)

BLUETOOTH® technology

Specification	4.0 + LE
Supported peripherals	EYE beacon and sensor sensor, Headset, OBDII dongle, Inateck Barcode Scanner, Unversal Bluetooth® LE beacons and sensors support

Physical specification

Dimensions	79 × 43 × 12 mm (L x W x H)
Weight	54 g

Interface

Digital Inputs	1
Digital Outputs (up to 40V)	2
GNSS antenna	Internal High Gain
Cellular antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM
Memory	128MB internal flash memory

Operating environment

Operating temperature (without battery)	-40 °C to +85 °C
Storage temperature (without battery)	-40 °C to +85 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP54
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +35 °C for 1 month -20 °C to +30 °C for 6 months

Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth® wireless technology)
SMS	Configuration, Events, DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time Synchronization	GPS, NITZ, NTP
Fuel monitoring	OBDII dongle
Ignition detection	Digital Input 2, Accelerometer, External Power Voltage, Engine RPM (OBDII dongle)
Power off sleep mode	Allows to power off module to reduce power consumption to less than 1mA in a sleep mode

Certification & Approvals

Regulatory	CE-RED, E-mark, Reach, RoH