EngineReader

DATASHEET

ER V9

Real time monitoring

Always know if your asset is used inappropriately - by receiving real-time text message or email if, for example, asset is generating too much power or working with too low frequency.

Completely autonomous

Device can work without external power supply for exceptionally long time, because of its large battery capacity and improved sleep mode feature.

Smart algorithms

When monitored asset is inactive, device will send location only once in 8 hours and it will not drain the external battery by automatically disconnecting from the asset once it's battery is bellow 50%.

Connectivity

Device can connect to and read data from any field equipment via extra serial ports - RS-232, RS-485, CAN bus and multiple onboard I/O ports.

Fuel control

Receive alarms of fuel thefts and monitor fuel consumption to improve assets efficiency.

Next generation communication

The device supports future-proof 4G (LTE Cat M1) communication standard with fallback to 2G (GPRS). Improved signal strength with optional external antennas.

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Technical Specification

Power supply

Description	min	typ	max	Unit
Supply Voltage	8		32	V DC
Current Consumption @+12V, charging battery			700	mA

Internal Battery

Description	min	typ	max	Unit
Capacity		2800		mAh
Chemistry	Li-Ion			

Digital Input

Description	min	typ	max	Unit
Number of Input			5	pcs
Input impedance			10	kΩ
Input voltage	1		36	V DC
Input voltage threshold			1	V DC

Digital Output

Description	min	typ	max	Unit
Open-drain output			2	pc
Voltage level			42	V DC
Current			3	A

Analog Input

Description	min	typ	max	Unit
Input voltage range	0		36	V DC
Input impedance	60			kΩ

Physical Interfaces

Description	min	typ	max	Unit
CAN Bus			2	pcs
RS232			1	pc
RS485			1	pc
UART (+3V3 logical level)			1	pc
1-Wire			1	pc

Supported Protocols: MOSBUS-RTU, CANBUS, CANOpen, ISO J1939, DS.

GPRS/LTE

Description	Details
GSM/GPRS Protocol Stack	3GPP Release 99
GSM/GPRS Power Class	Class 4 (+33dBm) for 850/900 Band Class 1 (+30dBm) for 1800/1900 Band Class 3 (+23dBm) for LTE Cat M1
Supported Bands	GSM 850MHz E-GSM 900MHz DCS 1800MHz PCS 1900MHz LTE Band 2 1900MHz LTE Band 3 1800MHz LTE Band 4 1700MHz LTE Band 5 850MHz LTE Band 8 900MHz LTE Band 12 700MHz LTE Band 13 750Mhz LTE Band 20 800MHz
Antenna	internal/external

External Antenna can be connected with SMA (Male) connector.

GNSS

Description	min	typ	max	Unit
Supported GNSS	GPS, SBAS, QZSS, GLONASS			
Receiver Sensitivity			-166	dBm
Number of Receiver Chanels			72	pcs
Possition update rate			1	Hz
Antenna	internal/external			

External Antenna can be connected with SMA (Male) connector.

Environment

Description	min	typ	max	Unit
Operating temperature	-20		+60	°C
Environment Protection			IP44	