

# Messenger BLE

## INTEGRATED TELEMETRY SYSTEM

### TWO-WAY COMMUNICATION ON REMOTE EQUIPMENT

#### FEATURES

- The unit (formerly Antx Messenger BLE) works with electronic engine controllers, ECU's, devices on a CANbus, devices connected via Modbus RTU and direct connections to digital and analog signals
- Pre-configured to monitor and report standard CANbus engine messages
- Daily fuel rate, maximum and minimum values of all engine parameters are automatically reported
- Engine diagnostics are filtered to eliminate excessive reporting on intermittent faults
- Supports multiple CANbus speeds, multiple devices on a single CANbus and reading and writing (for OEMs)
- Supports up to four digital inputs for detecting on/off conditions or used as pulsing inputs (e.g. flow meters)
- Three analog inputs for current or voltage inputs, reported as raw data or converted to engineering units
- Two output relays controlled manually or automatically based on analog values exceeding thresholds or digital inputs changing state
- Independent Modbus master and slave communication over two serial ports
- Supported Modbus functions include 16-bit and 32-bit versions of: register, coil, float and packed-digital reads and writes
- Backend reporting via UDP or TCP using proprietary protocol

#### APPLICATIONS

- Diesel engines
- Generators
- PLCs
- Smart controllers





## TECHNICAL DATA AND SPECIFICATIONS

Non-CANbus Conditions	GPS coordinates for location General purpose or pulse closure-to-ground inputs Analog inputs for external sensors Geo-fencing	
Pre-Configured CANbus Parameters From One or More ECUs	Engine hours RPM Battery voltage Oil pressure, temp and level Fuel level Coolant level and temperature Odometer Throttle and accelerator position Air filter differential pressure	Ambient conditions Diagnostic messages reported via DM1 Fault conditions OEM-specific parameters Daily fuel usage and hours Trip fuel usage and hours Idle time-limit exceeded Max and Min on monitored conditions Hard acceleration and braking
Cellular	North America: LTE CATM1 or CAT1 Worldwide: LTE CAT1	
Serial Ports	2 RS485 PPP connection for connection to Internet for PCs or display devices Support Modbus Slave and Master protocol External modems via pass-thru Support OEM-specific communication	
General Purpose Inputs	Up to 4 digital (closure to ground or powered) inputs 3 Analog inputs - voltage, ma 2 Relay outputs (1A @ 12 VDC)	
Bluetooth	Bluetooth Low Energy Bluetooth 5.0 compatible	
Accelerometer	3-axis	
Electrical	Operating power: 6-36 VDC Sleep mode - less than 3 mA @ 12 VDC Monitoring mode - 40 mA @ 12 VDC LTE transmit mode - 400 mA peak @ 12 VDC	
Physical Characteristics	5.00" x 4.63" 2 8-pin M12 (1 male, 1 female) connectors for power and I/O Industrial temperature range -40°C to +85°C Watertight industrial enclosure	
Power Management	Extreme low power mode for battery-powered applications Internal power for last-gasp reporting and power up through short brown outs	
Geofencing	Automatically placed when stationary, radius-based or rectangular	
Warranty	One-year limited warranty	
Certifications	FCC, IC, PTCRB and ATT approvals for end-user applications RoHS compliant	

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