CATTRON

# Messenger BLE

## INTEGRATED TELEMETRY SYSTEM

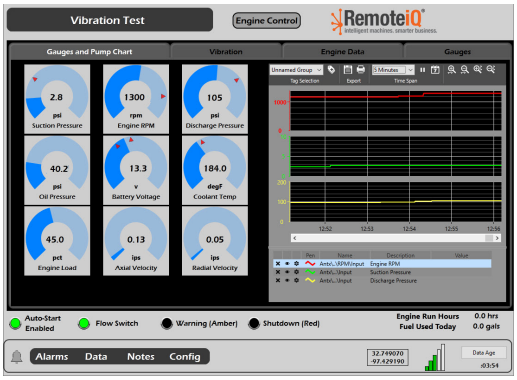

### TWO-WAY COMMUNICATION ON REMOTE EQUIPMENT

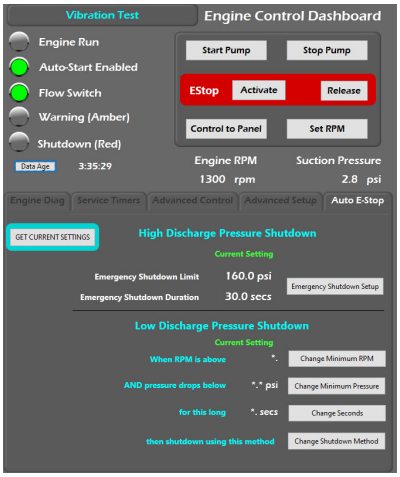
## FEATURES

- The unit 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
- The Satellite modem option enables coverage in hard-to-reach areas around the globe
- Easily activate and link to your BLE with the RemoteIQ™ Messenger BLE app from any mobile device

## APPLICATIONS

- Diesel engines
- Generators
- PLCs
- Smart controllers



# TECHNICAL DATA AND SPECIFICATIONS

| | | |
|---|---|---|
| Non-CANbus Conditions | GPS coordinates for location<br>General purpose or pulse closure-to-ground inputs<br>Analog inputs for external sensors<br>Geo-fencing | |
| Pre-Configured CANbus Parameters From One or More ECUs | Engine hours<br>RPM<br>Battery voltage<br>Oil pressure, temp and level<br>Fuel level<br>Coolant level and temperature<br>Odometer<br>Throttle and accelerator position<br>Air filter differential pressure | Ambient conditions<br>Diagnostic messages reported via DM1<br>Fault conditions<br>OEM-specific parameters<br>Daily fuel usage and hours<br>Trip fuel usage and hours<br>Idle time-limit exceeded<br>Max and Min on monitored conditions<br>Hard acceleration and braking |
| Cellular | North America: LTE CATM1, CAT1 or Satellite<br>Worldwide: LTE CAT1 or Satellite | |
| Serial Ports | 2 RS485<br>PPP connection for connection to Internet for PCs or display devices<br>Support Modbus Slave and Master protocol<br>External modems via pass-thru<br>Support OEM-specific communication | |
| General Purpose Inputs | Up to 4 digital (closure to ground or powered) inputs<br>3 Analog inputs - voltage, ma<br>2 Relay outputs (1A @ 12 VDC) | |
| Accelerometer | 3-axis | |
| Electrical | Operating power: 6-36 VDC<br>Sleep mode - less than 15 mA @ 12 VDC Monitoring mode - 40 mA @ 12 VDC LTE transmit mode - 400 mA peak @ 12 VDC | |
| Physical Characteristics | 5.00" x 4.63"<br>2 8-pin M12 (1 male, 1 female) connectors for power and I/O<br>Industrial temperature range -40°C to +85°C<br>Watertight industrial enclosure | |
| Power Management | Extreme low power mode for battery-powered applications<br>Internal power for last-gasp reporting and power up through short brown outs | |
| Geofencing | Automatically placed when stationary, radius-based or rectangular | |
| Certifications | FCC, IC, PTCRB and ATT approvals for end-user applications RoHS compliant | |


Satellite modem


Messenger BLE

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