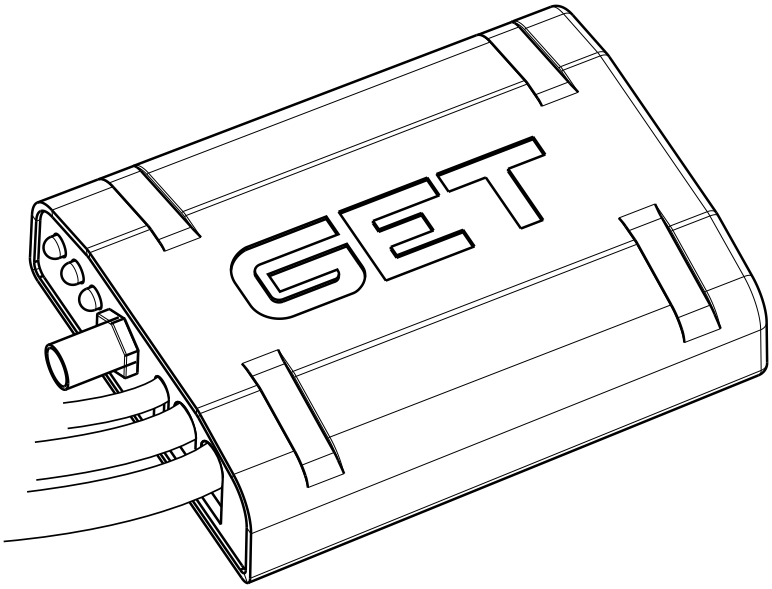
# SL1

## DATA ACQUISITION SYSTEM




**SL1** is the brand new GET Data Acquisition System, designed to expand standard data loggers' connectivity and to increase position accuracy, thanks to a built-in GPS and Sensor Fusion Technology.

CAN-BUS communication enables data flow from ECU and/or sensors with only two wires, while BLE allows wireless logging of biometric sensors such as Heart Rate.

Thanks to the WiFi connection, device configurations and data download can be done fast and easily.

It is robust, lightweight, and compact. The case is IP67 protection grade for the toughest riding conditions.

**KEY FEATURES**

- 2 CAN-BUS 2.0
- Built-in GPS and WiFi modules
- Expandable IC and AN input
- Water and dust resistant



Via delle Albere, 13 - 36045 Alonte (VI) - Italy
Tel. +39 0444.72.72.72 - athena.industries

# / HARDWARE FEATURES

## ELECTRICAL CHARACTERISTIC

| | |
|---|---|
| Main Power Supply | 9-18V, typ. 12V |
| Auxiliary Power Supply | 5V, mini USB port |
| Output Voltage | 5V at 70mA max |
| Battery | 3,7V Rechargeable LiOn |
| Current Consumption | typ. 120mA@12V |

## MECHANICAL CHARACTERISTIC

| | |
|---|---|
| Dimensions | 21mm x 62mm x 79mm (without harness and GPS connector) |
| Weight | Approximately 170g |
| Housing materials | PA6-GF30 (30% Glass Reinforced, Heat Stabilized, Flame Retardant) |
| International Protection Code | IP67 |

## TEMPERATURE RANGE

| | |
|---|---|
| Operating Temperature | -10°C / +60°C |



Via delle Albere, 13 - 36045 Alonte (VI) - Italy
Tel. +39 0444.72.72.72 - athena.industries

## DATA LOGGING & BUILT-IN PERIPHERALS

| | |
|---|---|
| Memory | 8GB |
| Logging capacity | 35kB/s |
| Analog Inputs channels | 3x single-ended |
| | voltage range: 0V-5V |
| | resolution: 12bit (SAR) |
| Digital Inputs channels | 1x (max. input frequency 20KHz) |
| | 1x logic state input (beacon mode)* |
| Output channels | 1x low side power switch (3A max) |
| GNSS | GPS, Galileo, GLONASS, BeiDou |
| | Sensitivity: 167dB |
| | Update rate: 10Hz with external active antenna |
| IMU | 9-axis Bosch BNO055 |
| RTC | Real Time clock |
| System monitoring | 3x device status LEDs |

*not implemented yet or not manageable by end user.



Via delle Albere, 13 - 36045 Alonte (VI) - Italy
Tel. +39 0444.72.72.72 - athena.industries

## COMMUNICATIONS PORTS

| | |
|---|---|
| CAN | 2x CAN 2.0A/B (up to 1 Mbits/s) without termination |
| Serial | 1x RS232* |
| | 1x K-line* |
| WiFi | 1x IEEE802.11b/g/n |
| Bluetooth | 1x v4.0 Dual Mode Module* |
| USB2.0 | 1x Mini type connector |

## STANDARD HARNESS AND CONNECTORS

| | |
|---|---|
| Main cable (MAIN) | 9 poles HRS connector (DF62W-9EP-2.2C) |
| Expansion cable (EXP) | 8 poles JST connector (08T-JWPF-VSLE-D) |
| USB cable | Sealed Mini USB connector |
| GPS antenna | SMA type connector |

*not implemented yet or not manageable by end user.



Via delle Albere, 13 - 36045 Alonte (VI) - Italy
Tel. +39 0444.72.72.72 - athena.industries

## OTHER FEATURES

| | |
|---|---|
| Logged data conversion format | WinTAX |
| | BLF* |
| | CSV* |
| | MDF* |
| | MDF4* |
| | Vector ASCII* |
| Supported CAN Protocols | Broadcast |
| | UDS* |
| | XCP* |
| Supported CAN configuration file | .dbc file (import only) |
| User configurable channels | Broadcast/imported CAN channels |
| | Analog channels |
| | Digital channels |
| | Digital Out channel |
| Built-in channels | GNSS channels |
| | IMU channels |
| | BLE Heart Rate channel* |
| WiFi mode | Access Point or Client mode |

*not implemented yet or not manageable by end user.



Via delle Albere, 13 - 36045 Alonte (VI) - Italy
Tel. +39 0444.72.72.72 - athena.industries

# / LIST OF SENSORS SUPPORTED

| TEMPERATURE |
| --- |
| NTC sensors |
| K-Type sensors |
| IR-Sensors |

| POSITION |
| --- |
| Resistive linear sensors |
| Magnetostrictive linear sensors |
| Rotary sensors |

| PRESSURE |
| --- |
| Relative piezoresistive pressure sensors |

| FREQUENCY/SPEED |
| --- |
| Proximity sensors |

| FORCE |
| --- |
| Strain sensors |

| EXHAUST GAS |
| --- |
| Wide band Lambda system (sensor and conditioning module) for petrol engines |

| SIGNAL CONDITIONING |
| --- |
| Inductive RPM sensor |
| Pick-up frequency sensor |
| K-Type thermocouple conditioning module |
| Analog signal differential amplifier |



Via delle Albere, 13 - 36045 Alonte (VI) - Italy
Tel. +39 0444.72.72.72 - athena.industries