Electronic Control Unit TAG-400N (NASCAR)

The TAG-400N is a compact, self-contained engine management system and data logger for race engines up to eight cylinders. The unit is complete with integrated ignition and injection drivers and so needs no external units to run an engine.

The TAG-400N exploits Freescale Power architecture technology to provide a powerful and flexible platform for extracting the optimum performance from an engine. Turnkey systems or customer prepared applications are both supported.

Large internal data logging memory and data analysis tool licence included.

Security protection features for mandated software applications and code verification/checking tools available as standard.

Race-proven single-series pedigree.

In Detail

Application

- Control and monitoring of engine and/or gearbox.

Electrical

- Supply Voltage 7.9 to 16.0V DC
- Supply Voltage not to exceed 17V continuous (the unit is protected against transients and reverse polarity)
- TAGOS 32-bit Real Time Operating System
- Data logging memory capacity 256Mbyte

Mechanical

- Case material hard anodized aluminum
- Weight 22 ounces

Other Features

- Status LEDs included for ease of use.

- One System Monitor configuration tool software licence supplied per team purchasing TAG-400Ns.

Environmental

- Splash resistant to standard motorsport fluids
- Lids sealed with o-rings and screws sealed with silicone rubber
- Maximum humidity 100%
- Minimum operating temperature 14°F
- Internal temperature not to exceed 160°F as measured by internal diagnostic sensors
- Storage temperature 14 to 185°F
- Vibration 100 to 1000Hz, all axes, 24hrs

Electro Magnetic Compatibility

- Complies with the essential protection requirements of 89/336/EEC

Connection Definition

- Integral, sealed, military-standard connectors.

Sensor Inputs

- Two Inductive Speed Sensors (Crank)
- Four HE Speed Sensors (Cam + spares)
- 22 Analog (0 to 5V)
- Four Pt1000 Temperature Sensors (configurable as analogs in software)
- Three NTC Temperature Sensors (configurable as analogs in software)
- Two Wideband Lambda
- Three switches to GND
- One lap trigger

Outputs

- Eight high-voltage (30V) switched mode, current controlled injector drive stages
- Eight inductive ignition drive stages
- Two low side drivers
- Two high side drivers (can be software configured as one 16kHz H-bridge driver)
- Five high side drive stages
- Two Lambda heaters (5A)
- Two Tacho/Speedo outputs
- Four 0-5V Gauge Drivers
- External sensor supplies

Communications

- One Ethernet
- Two CAN 2.0B bus (up to 1Mbps)
- One RS232 (up to 222kbps

Data logging

- 256Mbyte

Diagnostics

- Sensor readings are checked for out of range and open circuit

  Board temperatures

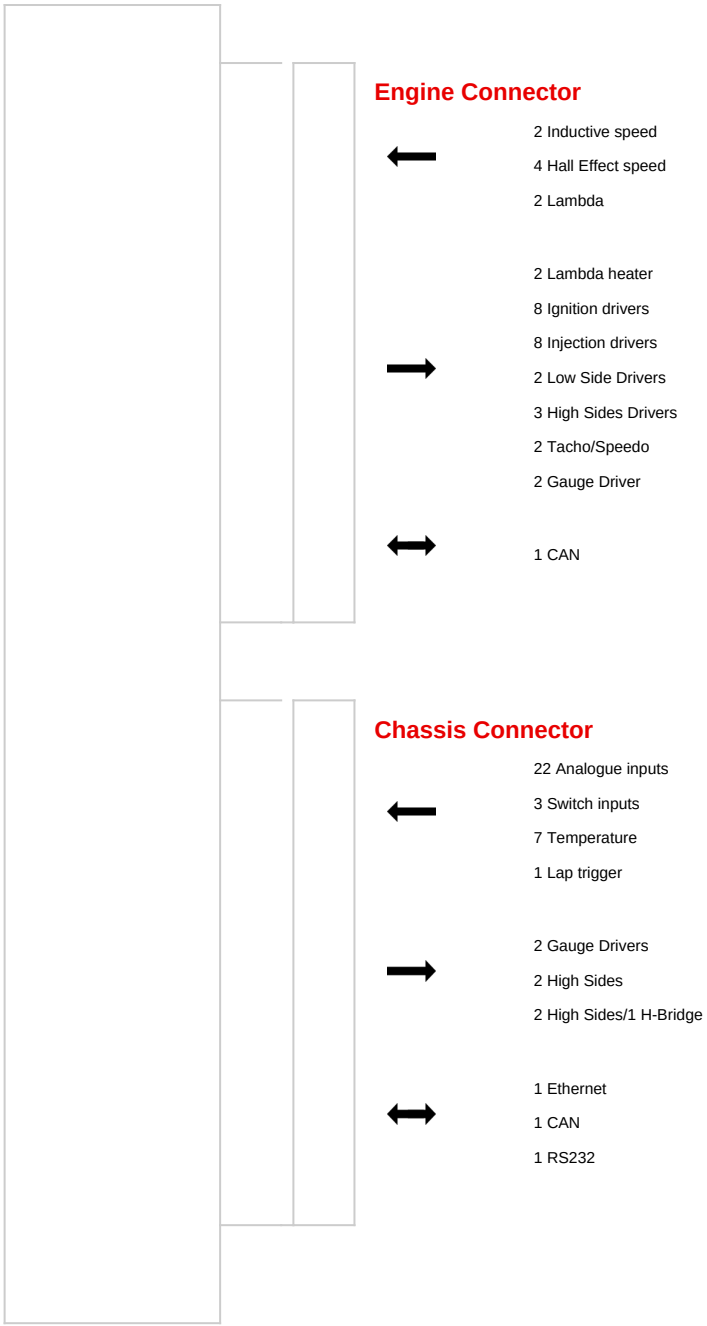
  Unit supply voltages

Images/Diagrams

S 030 012 011 009

Connector Diagram

Connector Details



Ordercodes

Description	Ordercode
TAG-400N	**S 030 012 011 009**