ECM CO/CO_2CAN CO and CO_2 CAN Module

Enables Low-Cost gmCO_2/mile Measurements

- 0 to 20% CO range
- 0 to 20% CO_2 range
- 0.4 to 25 Lambda range
- 0 to 25% O_2 range
- CAN Communication
- Can be Recalibrated (Zero, Span)
- Sensor with Memory Chip
- Optional Pressure Compensation
- Optional Display Heads
- Environmentally Sealed

The ECM CO/CO_2CAN is a versatile and highly integratable CO, CO_2, AFR, Lambda, and O_2 reporting device. The CO/CO_2CAN uses a ceramic sensor that is mounted in the exhaust of the engine and communicates %CO, %CO_2, AFR, Lambda, %O_2, and all sensor parameters via its CAN port. Although designed as a measurement tool, the CO/CO_2CAN can be easily integrated into an engine or aftertreatment control strategy. The CAN node identification can be programmed by the user allowing multiple modules on the same bus. Fuel H:C, O:C, and N:C ratios can be programmed. CO/CO_2 sensors used with the module have memory chips in their connector where calibration information is stored. This allows the sensors to be recalibrated (zero, span) in a central location and distributed to users, ensuring consistent results throughout a large test facility. PC software to set-up, control, calibrate, and view outputs and sensor parameters is included (requires CAN adapter, available). For high-pressure applications, a pressure compensation kit is available. Two optional displays, one with programmable analog outputs, are available. These displays can be used with one or two modules.

Specifications

Inputs	1 Ceramic CO/CO_2 Sensor 1 Pressure Sensor (optional)
Ranges	**%CO, %CO_2** 0 to 20 **λ (Lambda)** 0.40 to 25, **AFR** 6.0 to 364 **%O_2** 0 to 25
Accuracies	**%CO, %CO_2** ± 0.15% (absolute) **λ, AFR, φ** ± 0.6% (at stoichiometric), ± 0.9% (average, elsewhere) **%O_2** ± 0.1% (absolute)
Response Time	Less than 200 ms
Fuel Type	Programmable H:C, O:C, N:C ratios, and H_2
CAN	High Speed according to ISO 11898
Configuration	Via CAN Bus with Configuration Software. Programmable Node ID.
Module	145mm x 120mm x 40mm, Environmentally Sealed
Environmental	-55 to +125°C, IP67 module, 950°C (maximum continuous) NOx sensor
Sensor Cable	+1m (standard), +2m (optional)
Power	11 to 28 VDC, AC/DC Supply (optional)
Sensor Mounting	18mm x 1.5mm

Ordering Information

CO/CO_2CAN CO/CO_2CAN Kit (module, harness, sensor)

/P	Optional Pressure Compensation Kit
05-12	Spare CO/CO_2 sensor
10-02	1m CO/CO_2 sensor extension cable
10-03	2m CO/CO_2 sensor extension cable
01-05	Optional One/Two-Channel Programmable Display Head with Analog Outputs (dashCAN+)
01-04	Optional One/Two-Channel Programmable Compact Display Head (dashCAN)
12-01	Optional Rackmount Panel for up to four Display Heads (3.5", 89mm)
04-01	Optional AC/DC Supply supporting two Modules and one Display Head
13-02	CAN Adapter (required to use supplied PC Configuration Software)

ECM ENGINE CONTROL AND MONITORING
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