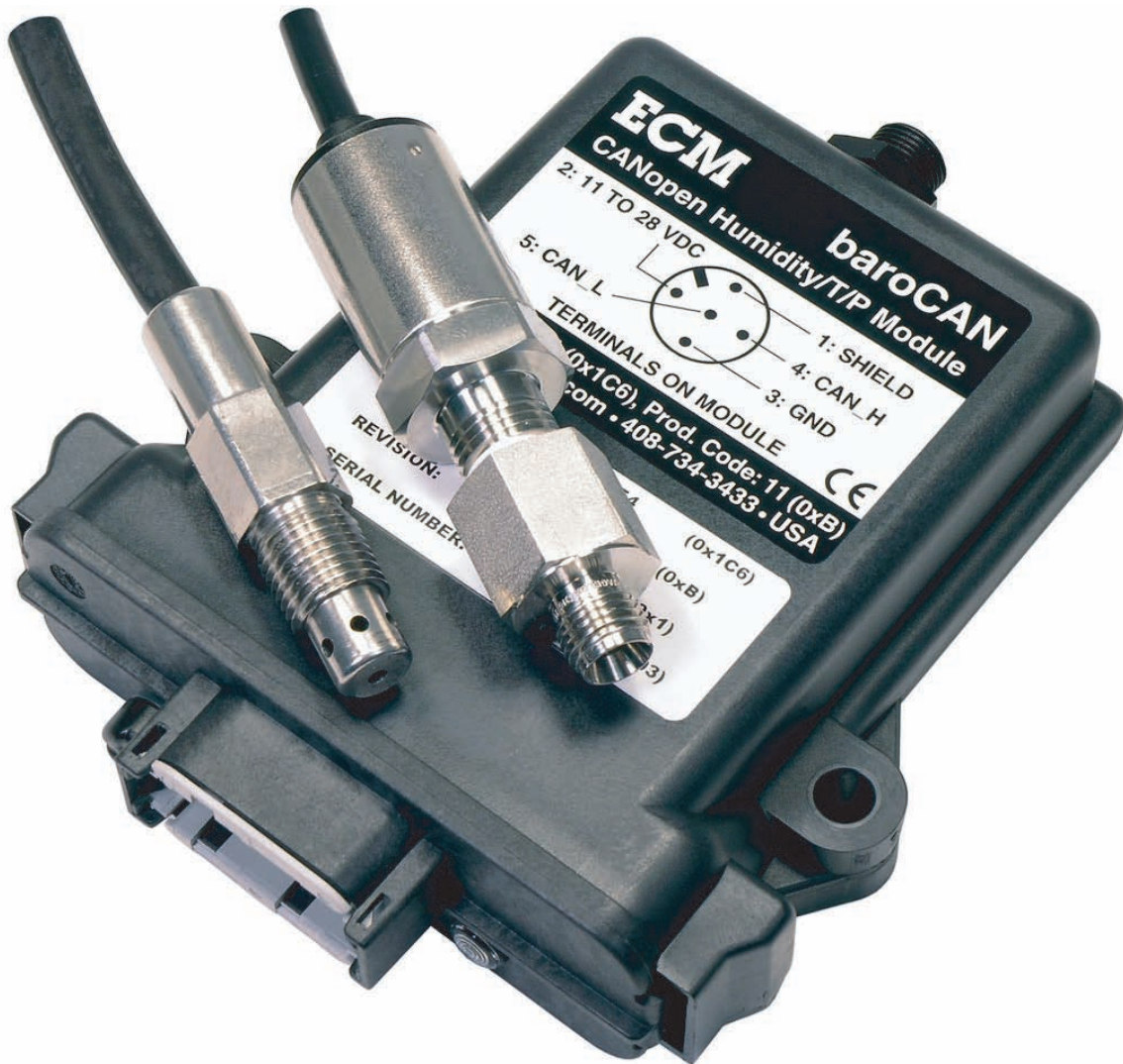


# LABCELL LTD

## ENGINE TEST INSTRUMENTATION

### **ECM** baroCAN Ambient, Intake Air, and Cabin Air Module

- Humidity
- %O<sub>2</sub>
- Dew Point
- Temperature
- Pressure



The performance of all air-breathing engines is highly dependant on intake air conditions. Engine testing and calibration that ignores intake air conditions will be biased by the ambient conditions of that particular day of testing. This is most evident with on-the-road testing where ambient conditions cannot be controlled and are most extreme. As a result, the test results or calibration will have a random effect due to weather, and sub-optimal emissions and fuel economy may result. As emissions and fuel economy regulations get more severe, this randomness in test and calibration quality cannot be tolerated. ECM's baroCAN module is a compact and rugged measurement system that provides all the important air conditions: humidity, %O<sub>2</sub>, dew point, water vapor pressure, temperature, and absolute pressure. These parameters are available in all known units via CAN communication. By including these parameters in the test data set, correction of the test data and modification of the calibration can be performed resulting in better optimized engine operation. baroCAN's sensors can be easily mounted in a variety of locations and contain calibration memory chips. PC software to set-up CAN communication, view and log data, and calibrate the sensors is included. An optional remote display is available (dashCAN). Although primarily intended for intake air use, baroCAN can be used for ambient air and cabin air applications in single and multi-module arrangements.

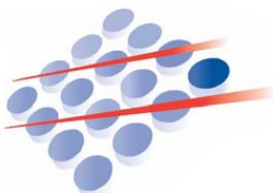
## Specifications

<b>Inputs</b>	1 RH & Temperature Sensor 1 Pressure Sensor			
<b>Ranges</b>	<b>RH</b>	0 to 100%	<b>Dew Point</b>	0 to 125°C
	<b>Temperature</b>	-40 to 125°C	<b>%O<sub>2</sub></b>	0 to 20.946%
	<b>Pressure</b>	0 to 500 kPa Absolute		
<b>Accuracies</b>	<b>RH</b>	±2%	<b>Dew Point</b>	±0.88°C
	<b>Temperature</b>	±0.3°C	<b>%O<sub>2</sub></b>	±0.02%
	<b>Pressure</b>	±0.2 kPa		
<b>Response Time</b>	1 sec (RH, Temperature, Dew Point, %O <sub>2</sub> ), 25 msec (Pressure)			
<b>CAN</b>	High Speed according to ISO 11898			
<b>Configuration</b>	Via CAN Bus with Configuration Software. Programmable Node ID.			
<b>Size &amp; Weight</b>	145mm x 120mm x 40mm (4.75" x 1.5" x 5.75"), 234 gm (8.25 oz)			
<b>Environmental</b>	IP67, -55 to +125°C, 100% humidity, environmentally sealed			
<b>Sensor Cables</b>	0.6m (sensor), 1m (standard extension), 2m (optional extension)			
<b>Power</b>	6 to 32 VDC, (optional AC/DC supply available)			
<b>Sensor Mounting</b>	1/4" NPT/ISO (RH & Temperature) 1/4" NPT/ISO (Pressure)			

## Ordering Information

**baroCAN-USA Kit**      Includes: module, all sensors, cables.  
**baroCAN-MET Kit**      Includes: module, all sensors, cables. Metric.

**P/N 10-32**    Optional 2m Extension Cable  
**P/N 04-01**    Optional AC/DC Power Supply  
**P/N 01-04**    Optional dashCAN Display



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