Ethanol Analyzer

NOVELLUS
engineering services

Description:

The Ethanol Analyzer can be placed inline and will read the percent ethanol and temperature of the fuel. The values will be output over high speed CAN and CAN FD networks.

Basic Operation:

The tool determines the percent ethanol content of the fuel by utilizing the well defined functions of ethanol's permittivity and conductivity with relation to temperature. This information along with the fuel's temperature is then broadcast over the CAN network at the rate of 100ms by default. The CAN network speed, addresses and update rates can be adjusted to meet the customer's requirements. With the provided DBC (CAN data-base file), this information can be viewed, recorded and correlated to other engine events. The system is powered by vehicle power (+7 to +20 VDC). The system comes with analyzer, harness and sensor. The CAN output cable and power cables are 6' in length and the sensor cable is 15' in length. The power cable comes with banana jacks and the CAN cable is a DB 9 with standard pins 2 & 7 outputs.

Custom cables are available upon request.

Pinouts:

(1) NC

(2) +12VDC out to sensor

(3) PWR GND

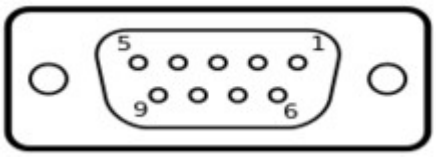
(4) CAN low

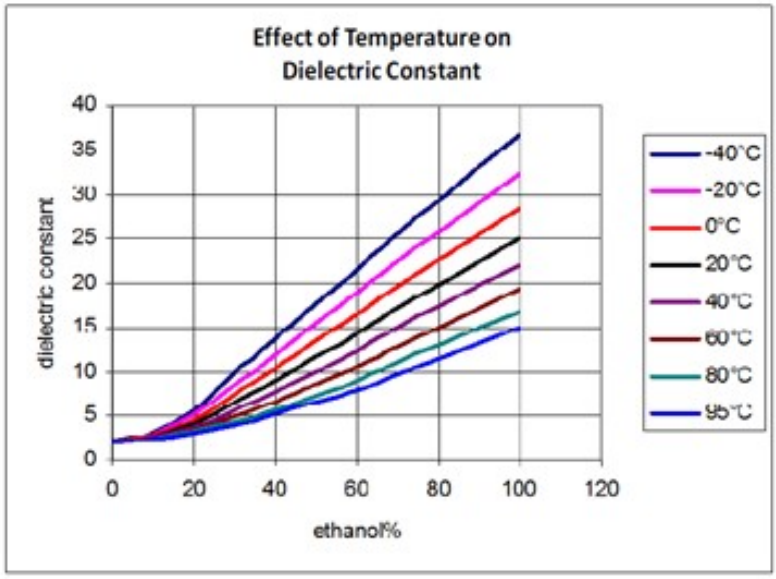
(5) Sensor Signal

(6) +12VDC PWR input

(7) NC

(8) CAN High





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Signal Specification:

Signal Name	Pin Number	Signal Description
+12V	2 & 6	Supply voltage, typically battery voltage +7 VDC to +20 VDC
GND	3 & 9	Ground
Sensor Output	5	Sensor output
N\C	1 & 7	No Connection
CAN Low	4	CAN Low Output
CAN High	8	CAN High Output

Electrical Specifications:

Signal	Minimum	Typical	Maximum
Input Supply Voltage	+7.0 VDC	+12.7 VDC	+20 VDC
Input Supply Current		30 mA	100 mA
Operational Temperature (Analyzer)	-40ºC		+85ºC
Operational Temperature (Sensor)	-40ºC		+85ºC
Sensor Supply Output Voltage	+9 VDC	+12.7 VDC	+18 VDC
Sensor Supply Current			25 mA

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