Programmable Twin Turbo Speed Analyzer (PTTSA)

NOVELLUS engineering services

Description:

The analyzer monitors the speed of two turbo chargers using a screw-in sensor that analyzes the rate of rotation. Buttons on the front of the device are used to for configuration. The speed analyzer allows for a wide range of sensors including, but not limited to, Picoturn, Jaquete, and custom. The analyzer has dual channel capability with output options of analog and/or CAN.

Basic Operation:

The PTTSA* works in junction with any data acquisition system that will accept any analog inputs or CAN messages. This information is viewed on the PTTSA display while being recorded via the analog outputs or CAN messages. Through the use of the five buttons on the front the channels can be configured individually based on the sensor type being used, the number of fins on the turbo, and the maximum RPM. The analog outputs can be configured for 0-5V and 0-10V that is proportional to the turbo speed. The CAN output address can be configured as well as the CAN update rate.

*The PTTSA includes one processor unit, two sensors, & power, analog output and CAN cable.

Other Uses:

Fan speeds

Drive shaft speeds

Pulley speeds

Linear Speeds

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DB9 Connector Pinouts:

(1) NC

(2) CAN FD_LOW_OUT

(3) GND

(4) HSCAN_HIGH_OUT

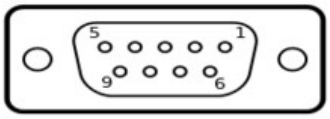
(5) NC

(6) GND

(7) CAN FD_HIGH_OUT

(8) HSCAN_LOW_OUT

(9) NC



DB15 Input Connector Pinouts:

(1) +12 V_IGN

(2) NC

(3) +12 V_IGN_1

(4) SIGNAL_IN_A

(5) GND

(6) A_OUT

(7) GND

(8) GND

(9) SEN_SUP_A

(10) SEN_SUP_B

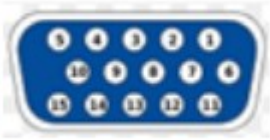
(11) NC

(12) SIGNAL_IN_B

(13) B_OUT

(14) NC

(15) GND



DB9 Signal Specification:

Signal Name	Pin Number	Signal Description
N\C	1, 5, & 9	Not Connected
CAN FD_L_OUT	2	CAN FD Low output
GND	3 & 6	Ground
HSCAN_H_OUT	4	High Speed CAN High output
CAN FD_H_OUT	7	CAN FD High output
HSCAN_L_OUT	8	High Speed CAN Low output

DB15 Signal Specification:

Signal Name	Pin Number	Signal Description
12V_IGN	1	+12V Input
N\C	2, 11, & 14	Not Connected
12V_IGN_1	3	+12V Input
SIGNAL_IN_A	4	Input Signal A
GND	5, 7, 8, & 15	Ground
A_OUT	6	Output A
SEN_SUP_A	9	Sensor Supply A
SEN_SUP_B	10	Sensor Supply B
SIGNAL_IN_B	12	Input Signal B
B_OUT	13	Output B

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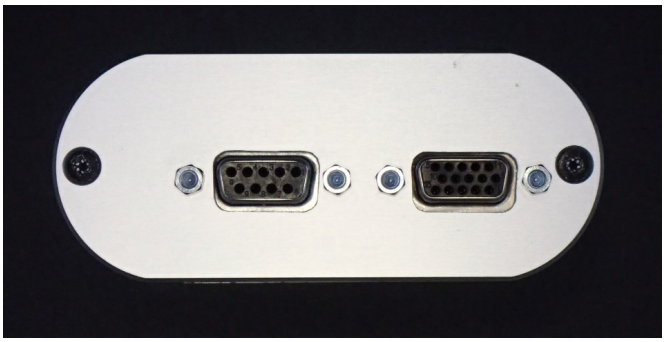
Electrical Specifications:

Signal	Minimum	Typical	Maximum
Input Supply Voltage	+ 7 VDC	+12 VDC	+20 VDC
Input Supply Current		30 mA	100 mA
Operational Temperature (Sensor)	-40º		+85º
Operational Temperature (Processor)	-40º		+85º
Sensor Supply Output Voltage		+5.0 VDC	
Sensor Supply Current		20 mA	



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