PECoS Model 50

Description (*DRAFT*)

The PECoS 50 is an easy to use, small, economical yet robust 32-bit digital engine controller. This device will give you precise control as well as a multitude of programmable features in a small package. The serial RS-232 interface allows the user to customize this controller to their needs for many engine control applications. There is a speed sensor input for monitoring and controlling engine speed from a magnetic pickup. spark signal or transformer. This PECoS 50 also includes three analog connections for monitoring sensors and discrete inputs. A low side drive output is also available to drive relays for autostart and other functionality.

The PECoS 50 can be used as shipped or calibrated using PG's programming tools.

The following contains all the features and data that are available in this package. PG will customize this controller and its software to fit the needs of your application.

Features

12 Volt DC power systems

Small form and factor

Reverse polarity protected

Short circuit protected

Configurable PID actuator control loop

Speed sensor (e.g. magnetic pick-up, ignition)

Overspeed and underspeed control

Auto-Start capability

Warm-up speed and time

RS-232 optical communication

3 configurable analog or discrete inputs

1 Low side dedicated 1A output

Up to 4 adjustable set speed selects

Drive-By-Wire (DBW)

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Specifications

Mechanical

Operating Temp   -40 to 85°C

                               -40 to 185°F

Inputs

Power Supply   8-18 VDC

Speed Sensor   +/-100 V AC/DC

                               15 kHz max

Analog   0-20V

Discrete   0-30V pull-down

Outputs

Governor   6A continuous

                               Short circuit protected

Discrete   1A open drain

Communication
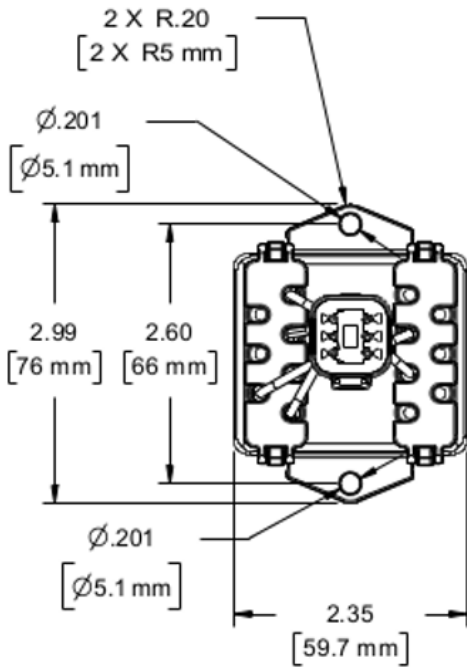
RS-232   57.6K baud

                               8 data bits

                               No parity

                               1 stop bit

                               No flow control

Data

Pin Out

Pin	Function	Description
#1	Ground	Controller Ground
#2	Power	Controller Power +12/24V (Reverse Polarity Protected)
#3	Actuator +	Actuator Control Wire Positive
#4	Actuator -	Actuator Control Wire Negative
#5	Speed Input +	Speed Sensor Positive
#6	Speed Input -	Speed Sensor Negative
#7	Analog 1	Configurable analog input for sensor or discrete input reading
#8	Analog 2	Configurable analog input for sensor or discrete input reading
#9	Analog 3	Configurable analog input for sensor or discrete input reading
#10	Auxiliary 1	Low side output driver for driving relays, choke or other applications
Serial 1	Com Tx	RS-232 IR Transmission LED
Serial 2	Com Rx	RS-232 IR Receiver Collector

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Mechanical

Reference

Part Number:

9781-<u>N06</u>-XX

↑Connector

Connector Type

Code	Connector
N05 – N14	Wires Only
D06	Deutsche Header: 6 Position
D08	Deutsche Header: 8 Position
D10	Deutsche Headers: 6 Position & 4 Position
P08	Delphi Packard Header: 8 Position