

PRESS RELEASE

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The On Engine Actuator Controller features two control inputs, CAN communications and one current controlled output to drive actuator coils up to 3A. It allows for flexible use of sensor inputs wired directly or coming from the CAN network. It is suitable for mounting in a high temperature location up to 125°C and can be utilized in rugged equipment end uses such as a fuel line control system, control of viscous clutches or other position control applications including hydraulic valve controls. Control logic was developed using Simulink® models, which enables collaboration with users for application of special algorithms.

Features:

The inputs include a universal input and a frequency input. The universal input can be configured to voltage, current, frequency, PWM, and digital types. Any of these two inputs can be used as feedback in a closed-loop configuration of the controller. In both open-loop and close-loop configurations, SAE J1939 CAN messages drive the output. The proportional current output can be set up to drive current up to 3A in an open-loop or closed-loop configuration. There are a number of built-in protection features that can shut off the outputs in adverse conditions. They include hardware shutoffs to protect the circuits from being damaged as well as software shutdown features that can be enabled in safety critical systems. The embedded firmware was developed using Simulink®. All setpoints are user configurable using the Axiomatic Electronic Assistant® (EA). The controller and Windows based EA communicate with each other via CAN J1939. The unit is rated as IP67 against dust/water ingress and is designed for withstanding shock and vibration. It is suitable for mounting in high temperature locations up to 125°C, including installations under the hood in on-highway trucks or off-highway equipment.

Applications:

The controller is designed to meet the rugged demands of on-highway or off-highway machine control applications with SAE J1939 networks. These applications include, but are not limited to:

- Off-Highway and On-Highway Truck actuator drives
- Agricultural equipment viscous clutch control
- Machine electrohydraulic position control

Axiomatic designs and manufactures electronic machine controls, power converters, gateways and motor controls for the off-highway, on-highway, bus, electric vehicle, military, power generation, material handling, industrial and alternate energy equipment markets. We provide efficient, innovative solutions that focus on adding value for our customers.

Notes:

Electronic Assistant® is a registered US trademark of Axiomatic Technologies Corporation.
Simulink® is a registered trademark of The Mathworks, Inc.

Contact: Amanda Wilkins, Marketing Manager, 1-905-602-9270x224, amanda.wilkins@axiomatic.com

In Europe:
Axiomatic Technologies Oy
Höytämöntie 6
33880 LEMPÄÄLÄ - Finland
Tel. +358 3 3595 600
Fax. +358 3 3595 660
www.axiomatic.fi

In North America:
Axiomatic Technologies Corporation
5915 Wallace Street
Mississauga, ON Canada L4Z 1Z8
Tel. 1 905 602 9270
Fax. 1 905 602 9279
www.axiomatic.com