

APECS® 2000

The powerful microprocessor-based controller of the APECS (Advanced Proportional Engine Control System) monitors the actual speed of the engine through a speed sensor, compares the actual speed with the desired speed, then sends a pulse width modulated signal to the precision proportional actuator to maintain the desired speed.



Features:

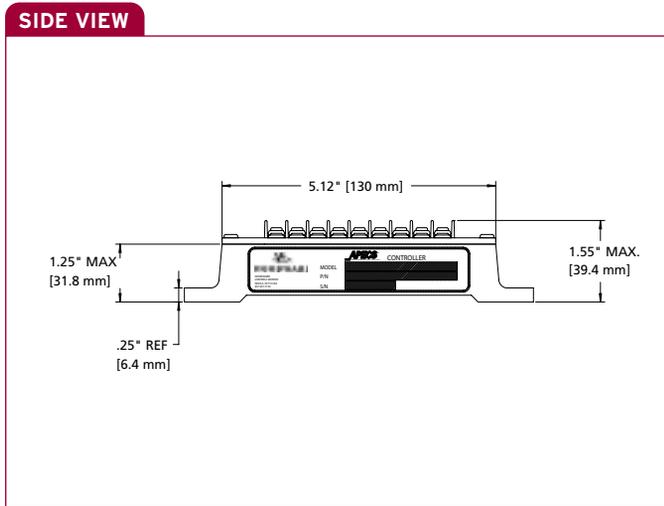
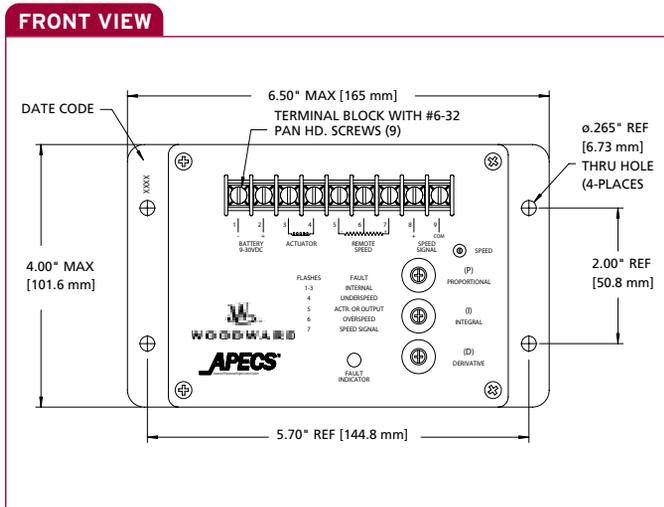
- Proportional, Integral and Derivative control (PID)
- Isochronous governing ± 0.25% (20 turn setpoint)
- Remote speed setpoint (± 10% speed change or 0-100% of internal setpoint)
- Surface mount technology
- Signal source: magnetic pickup
- Electrostatic discharge protection
- Reverse polarity protection
- Protection against miswiring
- Diagnostics for broken wire, overspeed, and internal component check
- Engine compartment mountable and can be used with all sizes of APECS actuators
- Rugged case potted for environmental protection

Order Information:

ORDER NO.	Model
SA-4389	2000

E.E.C. Directive Compliance: All parts supplied by Woodward are classified as components, and therefore are not "CE" marked. Please contact factory direct for details on specific product compliance with 89/336/EEC and 89/392/EEC directives.

Dimensions:



Electrical Specifications:

Operating Voltage	9-30 VDC (wide range)
Overspeed Protection	Automatic shutdown at 125% of setpoint speed
Speed Input Signal	250 Hz to 10,000 Hz (5 ranges)
Signal Input Minimum	2 VRMS at cranking
Output	PWM up to 8 A

Mechanical Specifications:

Operating Temperature	-40°F to 185°F (-40°C to 85°C)
Vibration	6 G's from 20 to 500 Hz
Shock	4 foot drop test
Protection	Potted electronics for environmental protection
Terminals	Nickel plated, humidity and salt spray resistant
Weight	1.4 lbs (0.6 kg)

APECS® Controllers

Specifications are for reference only.



WARNING: An overspeed shutdown device, independent of the APECS system, should be provided to prevent loss of engine control that may cause personal injury or equipment damage.