

NEW

APECS® 4500

The APECS 4500 electronic controller provides maximum control and optimal engine performance. By adjusting the fuel control lever with a Woodward proportional actuator the 4500 system controls and limits engine speed. By adjusting to load, temperature and fuel quality it optimizes your engine's operating efficiency.



Features:

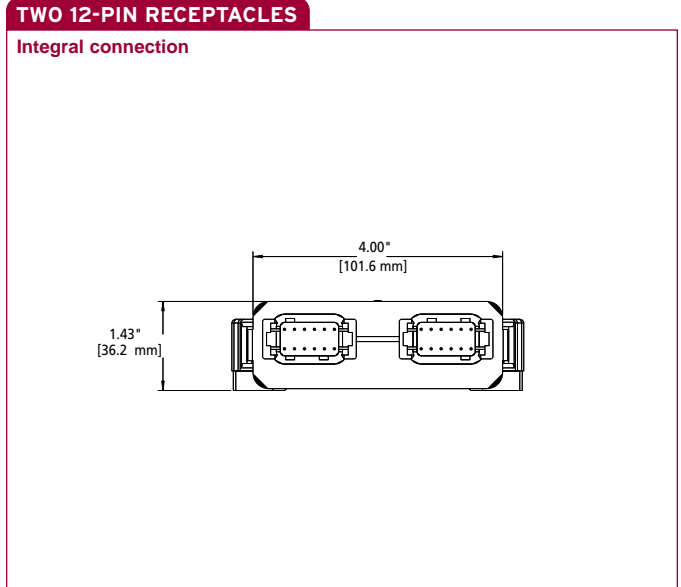
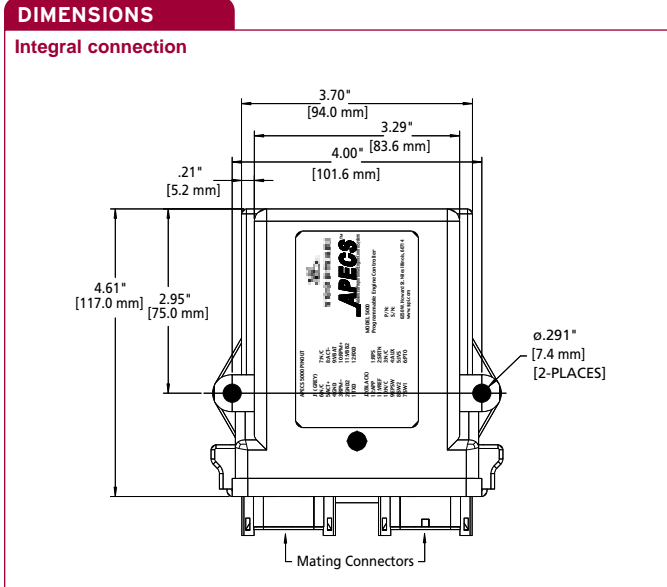
- Control capabilities include engine/ ground speed control, rate of acceleration control, drive-by-wire operation, variable speed operation, and power take-off operation.
- Two user-selectable auxiliary outputs can be configured for glow plug control, autocrank control, engine shutdown, remote diagnosis, and mode lamp.
- Calibration is simple using ACT, Woodward's proprietary software. The controller can be calibrated on any IBM-compatible PC, allowing for easy customization and re-programmability.
- Universal speed input permits use with magnetic pickups, coil-type spark ignition systems, magneto spark ignition systems, and Hall Effect sensors.
- Internal diagnostics monitor engine operation and the status LED indicates malfunctions through coded flashing. Built-in engine protection capability can monitor engine coolant and oil pressure.
- Sealed, waterproof connectors assure reliability in harsh environments.

Order Information:

SA-4489	APECS 4500 Controller
SA-4490	Deutsch Connector Kit
SA-4488	ACT Kit (All-purpose Calibration Tool)

Dimensions:

APECS 4500 has two 12-pin Deutsch connectors labeled J1 (grey) and J2 (black). Deutsch part numbers are DTM06-12SA (J1 grey) and DTM06-12SB (J2 black).



Programmable Features:

- Analog speed setpoint input is suitable for use with a potentiometer or an accelerator pedal position sensor (idle verification available).
- Actuator current protection protects actuator from burning out.
- Autocrank permits remote operation of engines.
- Two auxiliary outputs drive a lamp or relay.
- Glow plug control
- Droop governing allows non-isochronous speed governing.
- Engine protection input protects against adverse conditions such as loss of engine oil pressure or excessive coolant temperature.
- Engine start calibration expedites special startup operations such as warm-up speed, reduced governor gains, missing speed signal
- Overspeed/underspeed protection
- PID gain adjustment allows governor response to be adjusted by user.
- PTO switch input permits selection between analog speed setpoint input and switched speed setpoint inputs in mobile applications.
- Switched speed setpoint inputs allow multiple speed settings using switches. This feature can be configured together with the analog input (speed pot) for a variety of speed select options.

Specifications:

Power Input	9-32 VDC, reverse polarity protected
EMI Immunity	(ISO 14982:1998/E) 30 V/M 20 MHz to 1000 MHz
Output to Actuator	Pulse width modulated, 6 amps max.
Auxiliary Outputs	200 mA maximum (sinking)
Operating Temperature	-40° F to +185° F (-40° C to +85° C)
Vibration	6 G's from 40 Hz to 2000 Hz
Calibration	Requires interface adapter and software for calibration
Enclosure	Deutsch PCB enclosure EEC-325X4 with two 12-pin receptacles
Weight	Approx. 0.6 lb (0.27 kg)