

Model 805 Controller Information

Serial Number(s): _____
DOM: _____
Fused for operation at: _____ Fuse installed: _____
* Order Number: PWMC-805- _____ - _____
Operational Mode Configured:
____ Proportional Control ____ Peak and Hold ____ Manual
Output Current Range: ____ 2A ____ 4A ____ 6A
Analog Input Type: ____ 0 to 5V ____ 0 to 10V ____ 4 to 20mA

The order number defines hardware characteristics of the Model 805 delivered. These characteristics may also be displayed using the Model 805 GUI program under the Program | Device Information selection of the program menu bar. The current range and analog input type may not be changed in software by configuration.

* contact APM, Inc. at time of order for Model 805 units pre-configured to your specifications

Support

Support for your application is available by contacting APM, Inc.
Web: www.appliedprocessor.com
Email: support@appliedprocessor.com
Phone: 716-741-1141



Applied Processor and Measurement, Inc.

NOTICE !

Read This Before Proceeding

INSTALLATION GUIDE

MODEL 805 PWM PROPORTIONAL AND PEAK AND HOLD DRIVER

The purpose of this guide is to ensure proper usage and installation of the Model 805 unit for your application.

This guide will:

- describe what you need to control your device with the Model 805
- describe configuration of your PWMC 805 unit and refer you to the Graphical User Interface (GUI) Software
- illustrate how to connect the Model 805 for PWM Proportional Control or Peak and Hold Control applications

What you will need to set up your application with the Model 805:

- your device to be driven by the Model 805
- a power supply capable of providing the voltage and current necessary to drive your device and power the Model 805 unit
- wire – 18 or 16 AWG preferred
- a PC and the APM GUI software for configuration of the Model 805 unit
- for proportional (current) control: a setpoint control source (analog signal or USB command)
- for peak and hold control: a trigger control signal

General Description:

The Model 805 PWM Driver functions:

- current controlled proportional driver
- current controlled peak and hold driver

The Model 805 is highly configurable with respect to its operation and setpoint sources, operating in a computer / PLC / data system environment or stand-alone. Refer to the Datasheet and User's Guide on our website for detailed information on the operation of the unit. The Model 805 is configurable using the User Interface (GUI) software, also available on our website.

Connection

A typical installation using the Model 805 is shown at right. The signal source may be a PLC, PC data acquisition and control system, or any signal source. The Model 805 may also be manually operated from the analog and digital inputs as well as the USB interface. Finally, depending on the application, the Model 805 may also be configured for stand-alone operation.

Internal

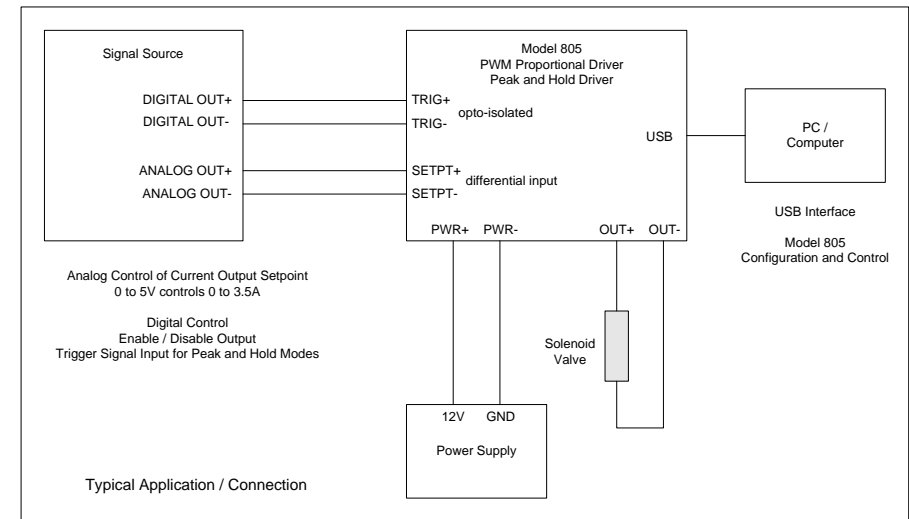
The Model 805 has an internal output fuse, and an internal back emf protection output diode. The internal output fuse and output diode may be accessed by removing the cover on the unit to expose the top of the Model 805 circuit board (fuse and diode jumper at bottom left corner of board). The fuse (F1) is a replaceable cartridge type fuse (Littelfuse series R451) used to protect the output MOSFET. The circuit board contains a standard 1N4001 diode across the output. For coils with built-in diodes, or to use your own output diode configuration, the Model 805 output diode may be removed from the circuit by removing the jumper at JP1.

Setup and Configuration

Set-up and configuration involves selecting the control source and configuring the Model 805 unit for your application. In general, the output current source may be analog input controlled, set manually, or may be computer controlled. The operation of the unit is configured using the GUI software. Parameters may be set and saved in EEPROM for later use.

Note that the Model 805 may be configured using USB power only. USB power will not drive the PWM control output.

Typical Connections



User Interface Software (GUI) Start-up

Download and unzip the GUI software from our website to a directory on your PC. Connect the PC USB interface to the Model 805 unit and start the GUI software. Use Program | Connect to begin communicating to the unit. The screen will populate configuration settings based on the saved operational mode (Proportional, Peak and Hold, Manual). The operational mode may be changed using the Program | Operation Mode menu bar selection. Controls not available will be grayed out on the screen. After parameters are set, the settings may be saved in EEPROM for the next power-on.

General Setup for Proportional (Current) Control Applications

- set the PWM frequency
- select the proportional current setpoint source (analog or USB)
- enable or disable the external enable input

General Setup for Peak and Hold Control Applications

- set the peak current value and peak timeout time
- set the hold current and hold PWM frequency
- select the hold current setpoint source (analog or USB)
- for general applications, the external trigger mode is used

Refer to the help guide for detailed information on operation options, configuration and available settings.