



AW875

- Double Euro Form Factor (2 - 100mmx20Pins)
- Optional plug-in terminals or edge connector
- 4 SPDT Relays w/LED status - 10A
- 4 SPST NO Relays w/LED status – 10A
- Power In: 12/24VAC or 13-32 VDC
- 5.0 and 12.0 VDC regulated peripheral power
- Clock Calendar w/Super Cap or Battery
- RS-485 w/optional 2nd serial CAN Bus
- Power Line Filter against flyback transients
- In-Circuit Programming
- SD Card Memory For Massive Data Logging
- 10 LED's at 45 or 90 degrees
- PIC18F66J11 w/Flash Memory
- 7 Analog In @ 10 Bit Resolution
- 5 General Purpose Ac or DC Inputs
- 3 Configuration Jumpers for option selection
- User Interface connection w/2x5 or mini-usb
- Size: 8.070"x 4.124"x 0.925"



FUNCTIONAL DESCRIPTION

This highly flexible control is designed to provide a complete solution for OEM applications such as refrigeration, heating, and process control. This is the third generation of this platform and has a long history of successful operation in the most demanding environments. Like all Acuwatt products, many optional configurations are available and the design offers maximum flexibility. The processor is from the Microchip PIC18F87J11 family (64 pin versions) with up to 128K of program memory running the super efficient PIC instruction set. The 7 analog inputs are available with up to 4 configured for thermistor probes and up to 3 configured as 4-20mA general purpose inputs. The A/D converter provides 10 bits of resolution with a 3.3V reference. All analog inputs can also be used as DC inputs. 5 inputs are dedicated to AC/DC inputs with pull-ups to support dry contact and clamping circuits to provide protection and operational reliability.

Up to 8 relays with LED indicators are provided. 4 relays are wired for SPDT and 4 are wired for SPST with the normally open contact made available. The contacts are rated at 10A.

Two serial communications ports are available with one configured as RS-485 and the other as CAN. These ports support a full range of data rates and can be used in many ways including process monitoring, user interface support, expansion boards and networking.

The SD card provides what is effectively unlimited data logging (currently up 32GB in SDHC) in files that can be directly read by Windows programs such as Excel. This is a very powerful tool. The SD card is carried by a push-pull receptacle.

A dedicated port is provided to a user interface. Two connector options are available that provide a framework for anything from a basic display with a couple of buttons up to a graphic LCD with touch screen. A 5VDC supply is dedicated to this port.

A 12VDC @ 1A supply is provided to run peripheral hardware such as sensors and expansion boards. The supply is protected against abuse by a self-resetting fuse. A 5VDC @ 1A supply is provided for the user interface port. All internal operations are powered by a 3.3VDC power supply.

10 indicator LEDs are arranged along one edge and can be mounted at 45 degrees to support applications where the control is mounted above head height. The standard mounting is at 90 degrees.

Connections are made through two 20 pin plug-in screw terminals (40 pins total) or optionally can be plugged into a standard dual width (40 pin) 100mm card rack. The card rack option uses gold plated fingers in place of the screw terminals.

The AW875 control is designed and manufactured in the USA. Support including customer service and customized software or hardware is readily available. Free software and custom design are available to qualified OEM customers. Code support is available at no charge to all developers.

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