



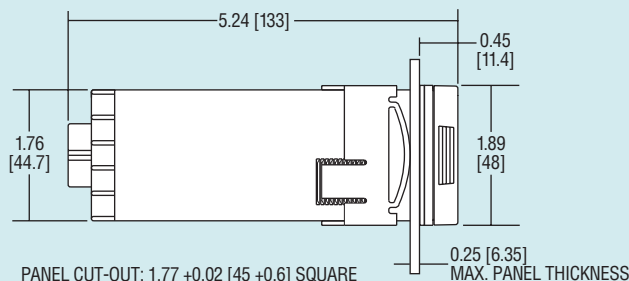
Series  
16A

# Temperature Controller/Process

1/16 DIN, Universal Input, Fuzzy Logic, Self-Tune® PID



16A2 above,  
16A3 at right



**Latest microprocessor** based technology affords full programmability with complete array of features in compact ultralow cost unit. 16A Series Temperature/Process Controller features universal input, Self-Tune® PID, Fuzzy Logic, and dual four-digit LED displays for process and set point value. Selectable inputs can be thermocouple, RTD, current or voltage. Available outputs are solid-state relay, relay, pulsed voltage, or proportional current. Programmable alarm (optional) can be reset automatically or manually. Front panel is waterproof and corrosion resistant (UL type 4-X), making it ideal for sanitary applications. Replace electronics without wiring changes (via removable front panel). Self diagnostics, nonvolatile memory and selectable control modes are all designed for greater productivity. Four security levels are password protected. On-off, P, PI or PID manual tune control functions can be selected or the controller will Self-Tune® automatically for best PID control.

The 16A2 offers the best value in Standard Features in a Process and Temperature control. In addition to the features listed above, the 16A2 offers Peak/Valley indication, Percent Output indication, Digital Input Filter, and a host of others.

The enhanced 16A3 models offer additional features including 16 segment Ramp/Soak and Auto/Manual station with front panel activation.

## SPECIFICATIONS

**Selectable Inputs:** Thermocouple, RTD, DC Voltage, or DC Current (See Input Ranges).

**Display:** Two four-digit LED displays, 0.3 in (7.62 mm) high.

**Display Resolution:** 1 degree or 0.1 degree (sensor dependent), or 1 count.

**Accuracy:**  $\pm 0.25\%$  of span  $\pm 1$  least significant digit.

**Supply Voltage:** 100 to 240 VAC nominal, +10% -15%, 50 to 400 Hz single phase; 132 to 240 VDC +10% -20%.

**Operating Temperature:** 14 to 131°F (-10 to 55°C).

**Power Consumption:** 5 VA maximum.

### Control Output Ratings:

**SSR:** 2.0 A at 240 VAC resistive at 77°F (25°C). De-rates to 1.0 A at 130°F (55°C). Minimum load of 100 mA. **DC SSR:** 1.75 A at 32 VDC maximum. **Relay:** SPST, 3A at 240 VAC resistive, 1.5 A @ 240 VAC inductive. Pilot Duty rating: 250 VA, 2 A @ 120 VAC, 1 A @ 240 VAC. **Alarm Relay:** SPST, 3 A @ 240 VAC resistive; 1.5 A @ 240 VAC inductive. Pilot Duty Rating: 240 VA, 2 A @ 120 VAC or 1 A @ 240 VAC. **Switched Voltage:** 15 VDC at 20 mA.

**Proportional Current:** 0 to 20 mADC, scalable, into 600 ohms maximum.

**Weight:** 8 oz (227g).

**Agency Approvals:** UL E83725, CE.

**Front Panel Rating:** Type 4X (IP66).

**Serial Communications (Optional):** RS-232 or RS-485 with either LoveLink™ or Modbus® RTU protocol.

## OPTIONS

**924\*\***, Analog Remote Set Point. 0 to 10 VDC

**926\*\***, Analog Remote Set Point. 0 to 20 mADC

**928\*\***, Analog Remote Set Point. 0 to 10,000 ohms

**934\*\***, Process Signal Output, PV or SV.

Isolated 0 to 20 mADC

**936\*\***, Process Signal Output, PV or SV.

Isolated 0 to 10 VDC

**948**, 4 Stage Set Point

**992\*\***, RS 485 Computer Compatible Control

Lovelink™ Protocol

**993\*\***, RS 232 Computer Compatible Lovelink™ Protocol

**995\*\***, RS 232 Computer Compatible Control.

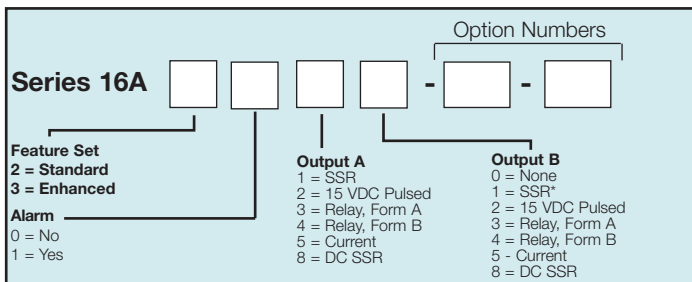
Modbus® Protocol

**996\*\***, RS 485 Computer Compatible Control.

Modbus® Protocol

**9502**, 12-24 VDC/VAC power input

\*\* This options may not be combined with each other.



## STOCKED MODELS in bold

MODEL NO.	MODEL NO.	ALARM	OUTPUT A	OUTPUT B
16A2111	<b>16A3111</b>	Yes	SSR	SSR
16A2151	<b>16A3151</b>	Yes	Current	SSR
16A2133	<b>16A3133</b>	Yes	Relay	Relay
16A2130	<b>16A3130</b>	Yes	Relay	None
16A2020	<b>16A3020</b>	No	15 VDC	None
16A2110	<b>16A3110</b>	Yes	SSR	None
16A2150	<b>16A3150</b>	Yes	Current	None