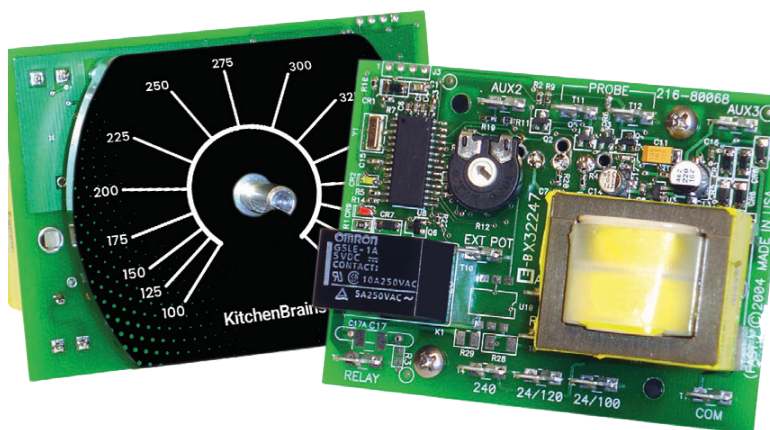# Mustang Thermostat

PRECISION TEMPERATURE CONTROL FOR ENHANCED PERFORMANCE AND REDUCED COSTS

The Mustang Thermostat is a high-performance, cost-effective temperature control solution designed for various commercial kitchen appliances, including fryers, ovens, and holding cabinets. This advanced thermostat leverages a long-life microprocessor for precise temperature control and features a compact design for easy integration. Key features include DIP switch configurability to reduce SKUs, EU60730 compliance, and the ability to connect to IoT dashboards (using an optional LoRa wireless module and gateway). With its intuitive interface, robust construction, and advanced features, the Mustang Thermostat empowers OEMs to enhance appliance performance, reduce manufacturing costs, and improve customer satisfaction.

Innovative Temperature Control Design

- Non-mechanical temperature control provides superior accuracy, performance and reliability.
- Ability to connect to IoT dashboards, enabling advanced remote monitoring and control.

Streamlines Manufacturing & Reduces Costs

- Minimizes costs through DIP Switch reconfigurability simplifying production and reducing SKU count.
- Enhanced serviceability, improved reliability, and simplified field adjustments minimize downtime and reduce service calls and support costs.

Improves Customer Satisfaction

- Accurate and reliable temperature control ensures consistent food quality and enhances the overall user experience.

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Commercial Kitchen Intelligence

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Features & Benefits

Innovative Thermostat Technology

- Long-life microprocessors provide precise temperature control and accuracy with superior performance and reliability compared to traditional mechanical thermostats.

- Ability to connect to IoT dashboards (using an optional LoRa wireless module and gateway) enables remote monitoring, data collection, and predictive maintenance.

- Configurable for on/off, melt cycle, or special proportioning to meet diverse application requirements.

- Duty cycle option — user controls temperature rate increase

- Local or remote temperature adjustment (thermistor and RTD sensors).

Versatility

- Mounting footprint compatible with popular mechanical thermostats

- Compatible with a wide range of appliances, including fryers, ovens, holding cabinets, and more.

Performance & Reliability

- Onboard diagnostic LEDs enhance field service effectiveness by providing valuable troubleshooting information.

- Dependable SMT devices minimize downtime and do not require recalibration.

- Simple offset temperature pot allows for easy field adjustments, reducing the need for service technicians.

- 158°F (70°C) ambient temperature rating allows for reliable operation in demanding kitchen environments.

Safety & Compliance

- EU60730 compliance ensures safety and adherence to industry standards.

- RoHS compliance reduces hazardous substances and meets all domestic and international standards.

Manufacturing Flexibility and Cost Optimization

- DIP switch configurability simplifies customization and reduces SKU count, streamlining inventory and logistics.

- Easy-to-use dial setpoint simplifies production and reduces assembly time.

- New scales created via software eliminate the need for costly hardware redesigns.

- Tab-selectable supply voltage reduces SKU count and inventory costs.

- Compact footprint saves valuable space within the appliance, optimizing manufacturing and installation processes.

Empowering OEMs to deliver high-performance, reliable, and cost-effective appliances.

Specifications

- Input Voltage: Frequency: 24, 100, 120, 208, 240VAC; 50/60 HZ; 0.250 inch tab selectable

- Power Consumption: Less than 1.4VA

- Temp Probe (Analog) Inputs: Single input
  - e5: Thermistor (30K, 91K, 100K Ohm, factory programmable)
  - e6: 1K Ohm RTD

- Outputs / Type, One or the Other: 24-240VAC @ 10 A SPST relay, life - 100,000 cycles OR 24-265VAC @100 ma triac

- Temp Control Range: Preprogrammed from 60-660°F (15.5- 348.8°C)

- Temp. Offset: +/- 20°F (-6.6°C) (onboard pot)

- Temperature Control Type: ON/OFF

- Hysteresis: -3° to 0°F (-19.4 to -17.7°C)

- Temperature Accuracy: 3% of range

- User Interface: Setpoint adjustment pot

- Diagnostics: (2) tri-color diagnostic LEDs on back of board

- Noise Spike Protection: 4000 volt minimum (on timers and all properly installed controls)

- Environmental Operating Conditions: Ambient 158°F/70°C, 95% noncondensing humidity 70ºC)

Shipping Weight

- Each unit weights approx. 1/2 lb. (0.22 Kg) (standard package quantities are 24 or 48, depending on mounting style)

Mounting Options

- Bracket mounted or Open board mounts on standoffs. Note: Bracket requires use of part no. 150-10218 screws. (#6 x 3/8" Phillips Pan Head self-tap machine screws, stainless steel)

Bracket Mount
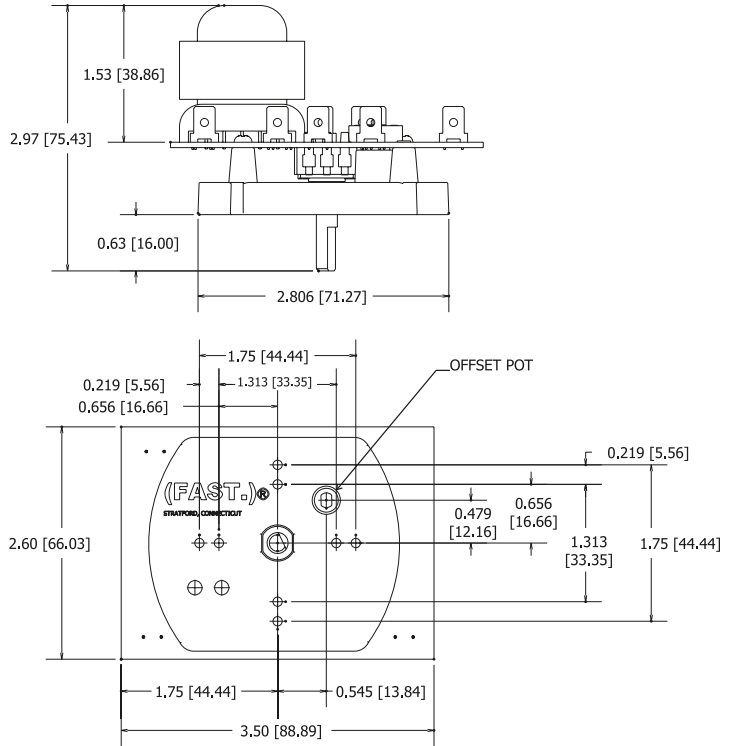
Open Mount
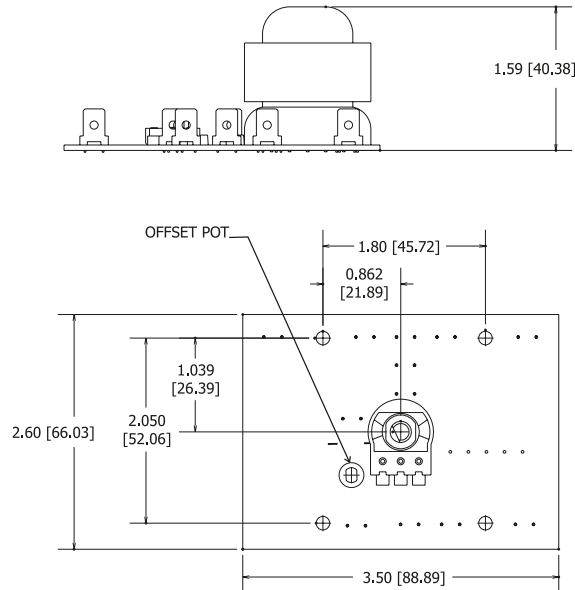
Order Info

Part Number	Description	Case Qty
E5AA00B301	e5 with pot/bracket range 150-375°F	24
E5AA00B303	e5 with pot/bracket range 150-550°F	24

Consult factory for other ranges

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Digital E5/E6 assembly with onboard temperature adjustment pot

VIEWED FROM REAR
(POT ON OPPOSITE SIDE)

208/240 VAC
120 VAC
24 VAC
100 VAC

COM   24/100   24/120   240   RELAY
RELAY
AUX 1
EXT POT
AUX 3   PROBE   AUX 2

LOAD
NORMALLY OPEN
RELAY @ 10a OR TRIAC @ 0.1A

PROBE (THERMISTOR OR RTD)
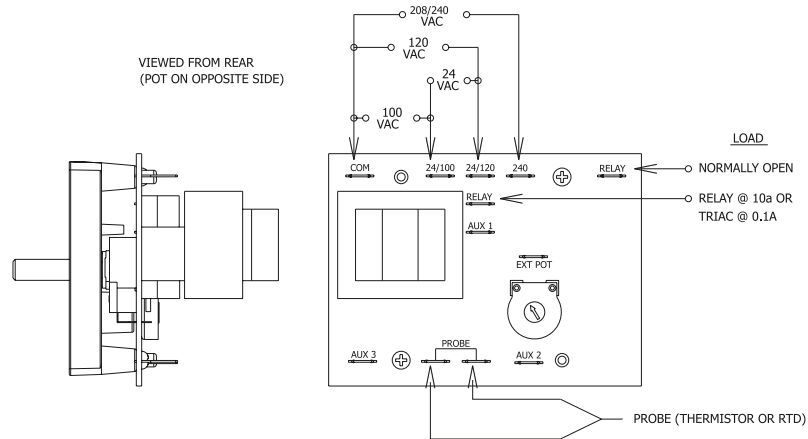
Digital E5/E6 assembly with external temperature adjustment pot

VIEWED FROM REAR
(POT ON OPPOSITE SIDE)

208/240 VAC
120 VAC
24 VAC
100 VAC

COM   24/100   24/120   240   RELAY
RELAY
AUX 1
EXT POT
AUX 3   PROBE   AUX 2

VIO   YEL   ORG

LOAD
NORMALLY OPEN
RELAY @ 10a OR TRIAC @ 0.1A
VIO
YEL
ORG
CW
POTENTIOMETER

PROBE (THERMISTOR OR RTD)
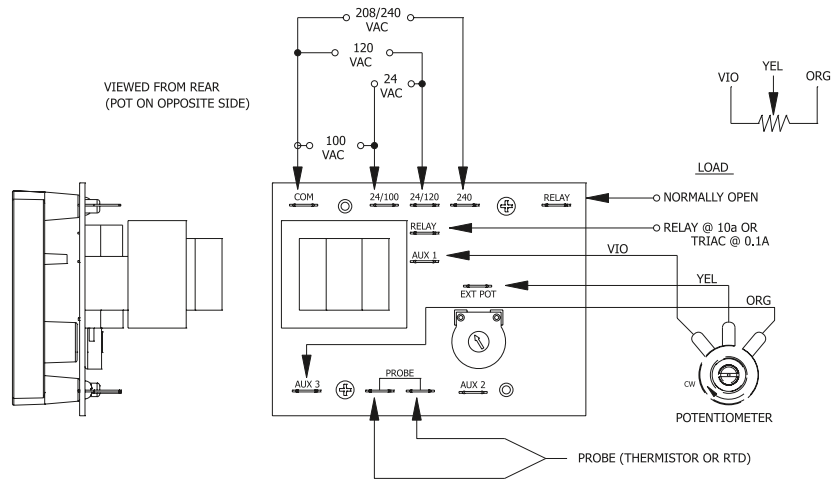
Digital E5/E6 assembly with onboard temperature adjustment pot and optional power level pot

VIEWED FROM REAR
(POT ON OPPOSITE SIDE)

208/240 VAC
120 VAC
24 VAC
100 VAC

COM   24/100   24/120   240   RELAY
RELAY
AUX 1
EXT POT
AUX 3   PROBE   AUX 2

VIO   YEL   ORG

LOAD
NORMALLY OPEN
RELAY @ 10a OR TRIAC @ 0.1A
VIO
ORG
YEL

OPTIONAL POWER LEVEL POTENTIOMETER

PROBE (THERMISTOR OR RTD)

RoHS COMPLIANT

CE

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