

# Temperature Controllers

## T775 Series 2000 Special Stand-Alone Controllers



**T775 electronic remote temperature controller, is the next generation in commercial/agricultural control - capable of remote sensing temperature, humidity, pressure, etc., and providing switched and/or proportional outputs to various types of loads.**

- Universal model (T775U) can control pressure, humidity, or any variable analog input.
- Special boiler model (T775P) for boiler control.
- Special Staged Sequencing Model (T775L) for sequence staging of relays with one or two setpoints.
- Special Expansion Model (T775S) for staging up to 12 relays with two setpoints (each T775S provides 4 relays).
- Save time on installations with the easy-to-use graphical Interface, large display, and the intuitive programming.
- Use the time clock scheduler or digital input to control the setback and disable output options to help save energy.
- Provide very fast or very fast response times on modulating outputs by adjusting the integral and derivative times (PI or PID).
- Configure models with reset in a few easy steps.
- Eliminate the need for a separate time delay device and protect equipment with the minimum off time option.
- Use the T775L and T775P to stage up to 12 relays (with optional T775S) from two independent heat or cool setpoints.
- Support for digital output alarm on the T775P configurable based on minimum, maximum, or differential temperature.

**Analog Output:** 4-20 mA; 0-10 Vdc; 2-10 Vdc; Electronic Series 90

**Voltage:** 24 Vac or 120/240 Vac

**Frequency:** 50 Hz; 60 Hz

**Relay Contact Ratings:** 24 Vac – 10.0A resistive; 120 Vac – 1/2 hp; 9.8 AFL, 58.8 ALR, 125 VA Pilot Duty; 240 Vac – 1/2 hp; 4.9 AFL, 29.4 ALR, 125 VA Pilot Duty

**Approximate, Dimensions:** 8 5/32 in. high x 4 13/32 in. wide x

2 15/16 in. deep (207.1 mm high x 112.1 mm wide x 74 mm deep)

**Sensor Element:** 1097 ohms PTC at 77°F (25°C)

**Setpoint Temperature Range:** -40°F to 248°F (-40°C to 120°C)

**Operating Temperature Range:** Ambient – -40°F to 125°F @ 50 Hz; -40°F to 140°F @ 60 Hz (Ambient – -40°C to 52°C @ 50 Hz; -40°C to 60°C @ 60 Hz)

**Accuracy:** ±1°F at 77°F (±1°C at 25°C)

**Throttling Range:** 1°F to 150°F (0.5°C to 66°C)

**Differential Temperature:** 1°F to 150°F (0.5°C to 66°C)

**Expandable:** T775L or T775P - Add 1 or 2 T775Ss (4 relays ea)

**Replaces:** T775U2006/U can be used to replace H775A1006; H775A1022; H775A1048; H775A1063; H775B1005; H775C1004; H775D1003; or H775E1002

**Approvals, Canadian Underwriters Laboratories Inc.:** Approved

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**Approvals, Others:** IP65: Approved

**Approvals, CE:** Approved

**Approvals, C-Tick:** Approved

### Accessories:

**107324A/U** – Capillary Holder Assembly, 8 3/8 in. long

**H7655A1001/U** – Wall Humidity Sensor, 5% RH, 0-10 Vdc fixed output

**H7655B2014/U** – Duct Humidity Sensor, 5% RH, Selectable 4-20mA or 0-5/10Vdc, with 20K ohm temp

**P7640A1000/U** – Panel Differential Pressure Transmitter, 0-.1", 0-.25", 0-.5", 0-1" Selectable

**P7640A1018/U** – Panel Differential Pressure Transmitter, 0-.1", 0-.25", 0-.5", 0-1" Selectable

**P7640A1026/U** – Panel Differential Pressure Transmitter, 0-1", 0-2.5", 0-5", 0-10" Selectable

**P7640A1034/U** – Panel Differential Pressure Transmitter, 0-1", 0-2.5", 0-5", 0-10" Selectable

**P7640B1008/U** – Duct Differential Pressure Transmitter, 0-.1", 0-.25", 0-.5", 0-1" Selectable

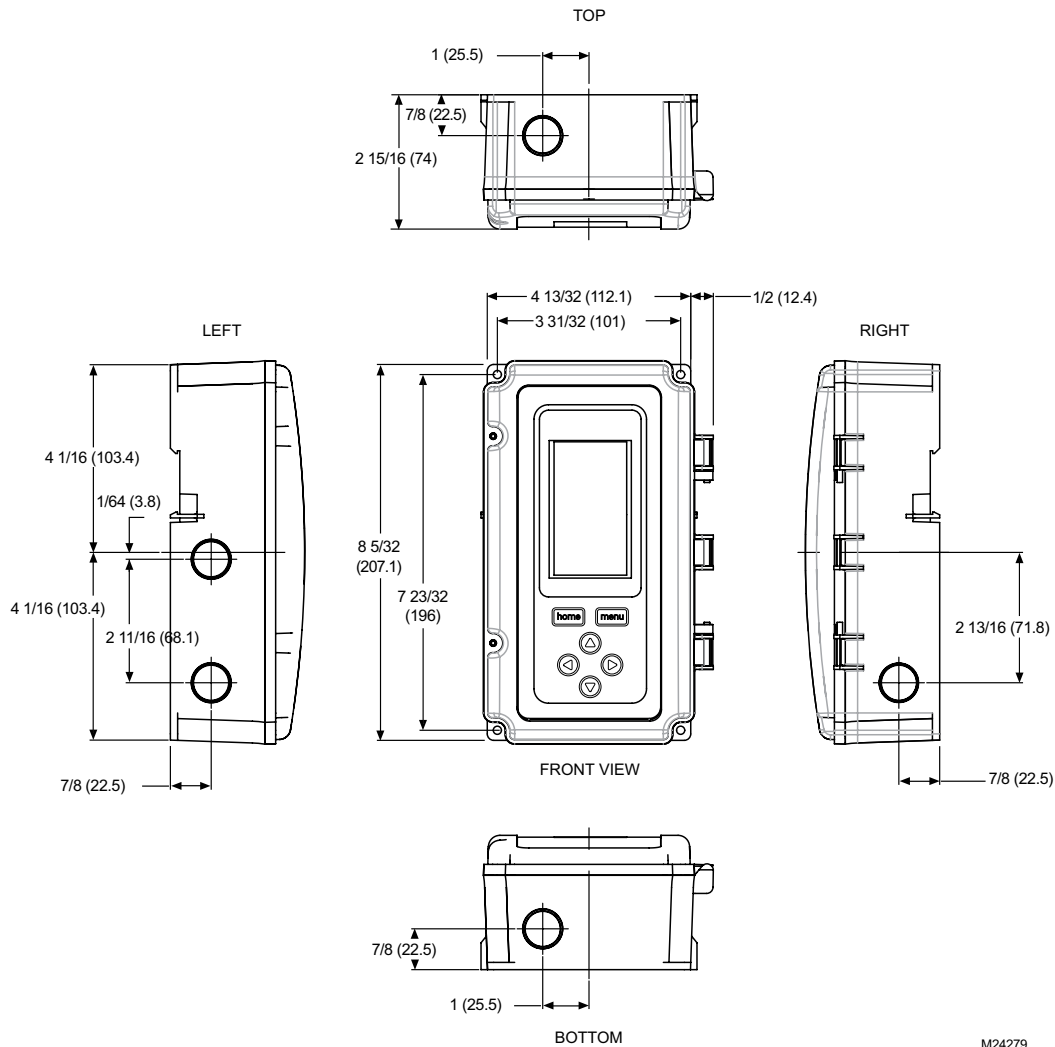
**P7640B1016/U** – Duct Differential Pressure Transmitter, 0-.1", 0-.25", 0-.5", 0-1" Selectable

**P7640B1024/U** – Duct Differential Pressure Transmitter, 0-1", 0-2.5", 0-5", 0-10" Selectable

**P7640B1032/U** – Duct Differential Pressure Transmitter, 0-1", 0-2.5", 0-5", 0-10" Selectable

Material Number	Application	Type	Stages Loop Control	Output	Bulb Size	Relay Outputs	Sensor Included	Digital Output Alarm Ratings	Sensor Inputs
T775L2007/U	Sequence staging of relays with one or two setpoints	Stage Sequencer with Reset Option-NEMA 1	Yes	relay w/ RESET	1/4 in. diameter x 2 in. long (6.35 mm diameter x 50.8 mm)	4 SPDT	50021579-001 (1)		2 (max distance 1,000 ft [304 m])
T775P2003/U	Boiler Control	Special Boiler with Reset-NEMA 1	Yes	relay w/ RESET	1/4 in. diameter x 2 in. long (6.35 mm diameter x 50.8 mm)	4 SPDT	50021579-001 (3)	AC – 30 Vac RMS; 1.5 A steady 3A inrush P.F. 0.45 N.C.; 20 Vac RMS; 100 mA minimum load on N.O. and N.C. contacts, DC – 1 mA at 100 mV DC minimum load	3 (max distance 1,000 ft [304 m])
T775S2008/U	Staging up to 12 relays with two setpoints	Relay Expansion Module-NEMA 1				4 SPDT	None		
T775U2006/U	Control pressure, humidity, or any medium with an analog input	Universal - Humidity, Pressure, etc.-NEMA 1		relay w/ RESET		2 SPDT	None		2 (Sensor B used for reset only) (max distance 1,000 ft [304 m])
T775U2016/U	Control pressure, humidity, or any medium with an analog input	Universal - Humidity, Pressure, etc.-NEMA 1		relay w/ RESET		2 SPDT	None		2 (Control to Sensor A (Universal Input) or Sensor B (temp) Independently) (max distance 1,000 ft [304 m])

Dimensions in inches (millimeters)



M24279

## T915 Proportional Temperature Controller



**Application:** Used with Series 90 Modutrol Motors for proportional control of valves and dampers

**Type:** Remote bulb

**Output:** analog

**Approximate, Dimensions:** 5 1/2 in. high x 4 1/2 in. wide x 2 3/4 in. deep (140 mm high x 114 mm wide x 70 mm deep)

**Proportional (135 ohm) remote bulb controllers for ducts, tanks, boilers, pipes and other heat exchangers.**

- Provide proportioning control of three-wire, low-voltage valve or damper motors.
- Used to regulate temperatures of either air or liquids.
- All models ambient compensated. Ambient temperature compensation provides good temperature control. Refer to T775 Electronic Remote Temperature Controller where more exact control is required and/or remote controller location is preferred.
- Temperature setting scale markings in both Fahrenheit and Celsius. Steel case has a clear plastic cover to make setting readily visible.
- Surface mount using two screws through back of case.

**Sensor Inputs:** 1

**Bulb Size:** 1/2 in. diameter x 4 in. long (13 mm diameter x 102 mm long)

**Color:** Gray

Material Number	Setpoint Temperature Range	Operating Temperature Range	Throttling Range	Capillary Length	Analog Output	Sensor Element
T915C1407/U	15°F to 90°F (-10°C to +32°C)	200°F Maximum (93°C Maximum)	7°F to 38°F (3.9°C to 21.1°C)	20 ft (6.1 m)	One 135 Ohm Potentiometer	Copper bulb, fade-out fill
T915C1928/U	80°F to 210°F (27°C to 99°C)	230°F Maximum (110°C Maximum)	6°F to 32°F (3.3°C to 17.8°C)	5 ft (1.5 m)	One 135 Ohm Potentiometer	Copper bulb, high temperature fill
T915C1936/U	80°F to 210°F (27°C to 99°C)	230°F Maximum (110°C Maximum)	6°F to 32°F (3.3°C to 17.8°C)	20 ft (6.1 m)	One 135 Ohm Potentiometer	Copper bulb, high temperature fill