

## TS100 Series Sensor

### *Self-Contained Interoperable Controller Model UCP-1*

SUPERSEDES: January 11, 2011

EFFECTIVE: June 11, 2012

Job: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Rep: \_\_\_\_\_  
Date: \_\_\_\_\_ Tag/Item #: \_\_\_\_\_

## TS100 SERIES WALL SENSORS

iWorx® TS100 Series Sensors are a family of wall-mounted thermistor type 10K Ohms temperature sensors. Each model measures room temperature and provides the measurement as input information to a controller such as the iWorx® ZXU1 and BZU2.

### Overview

Available in three models, these iWorx® TS100 Series Sensors measure the room temperature and provide that information to the controllers. The TS101 and TS103 offer a thermistor without temperature display.

The TS102 offers a thermistor with a liquid crystal display (LCD) which features an easy-to-read 3.5 digit display and wide operating range. The LCD requires a 24 VAC power supply and is easy to incorporate with the controller power supply. This unit is available in either degrees C (Celsius) or degrees F (Fahrenheit).

The TS103 has a thermistor and sliding local setpoint adjustment without temperature display. It allows for local setpoint adjustment using a sliding linear 3K potentiometer in series with the thermistor to allow an offset from the controller setpoint. The local setpoint adjustment provides a local setting of Cool | Warm with an average of  $\pm 5^\circ$  from controller setpoint.

### Features

- Contemporary, low-profile styling.
- Three models.
- 2" x 4" J-box or drywall mount.
- Local slide setpoint adjustment (TS103).
- Output: 10K Ohm @ 77° F.
- 24 VAC LCD digital display (TS102) - specify C or F.
- Decorative white color.

## SPECIFICATIONS

### Sensor

#### Temperature Sensor (TS100 Series)

- Type: Precision thermistor 10K Ohm @ 77°F (25°C)
- Accuracy:  $\pm 0.36^\circ\text{F}$  (0.2 °C)
- Range: 32 to 122 °F (0 to 50 °C - limited by enclosure temperature tolerance)

- TS103 with 3K potentiometer: Available offset:  $\pm 5$  @ 65 to 75° F (Offset is skewed when used outside this range)
- Humidity: 0 to 90% RH, non-condensing

#### Inputs

- TS102 with LCD: 24 VAC, 4mA, Class 2 power supply
- 2-wire (TS101/103) or 4-wire (TS102) 18-22 AWG recommended

## General

#### Enclosure

- Dimensions: 4 1/2 H x 2 3/4 W x 1 1/8 D in (114 x 70 x 29 mm)

#### Weight

- Controller Weight: 3 ounces (0.085 kilograms)
- Shipping Weight: 1.0 pounds (0.46 kilograms)

#### Wiring Terminals

- Two (2) screw terminals for TS101 and TS103. Four (4) screw terminals for TS102.
- AWG #18 to #24 (0.823 mm<sup>2</sup> maximum) wire

#### Wire Length

- 500 feet max. (152.4 meters) between sensor and controller

#### Units

- °F or °C, specify F or C model when ordering TS102

## CONTROLS MADE EASY®

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