

## For Residential and Light Commercial Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Thermal Actuator Control

## 4 and 6 Zone Master/Slave Expandable Modules

Zone valve actuator controls are designed to operate zone valves or circuit thermal actuators. Master controls are equipped with valve and thermostat terminals, incoming 24 VAC power connection and two 8 amp, dry contact terminals for pump and boiler operation. The use of Slave units allows the control of more zones utilizing the same pump and boiler. Up to two Slave units can connect to a Master, allowing for a maximum of 18 separate zones or thermostat connections. No more than three 2.5 VA actuator valves can be connected to any single zone terminal block.

### Specifications

Each control is expandable by simply connecting one control to another with a maximum of three controls connected.

An external, 24/120VAC transformer is required to operate the controls (not included with controls). A 40 VA transformer can handle a maximum of 12 actuators, while a 60 VA can handle up to 18.

Item	Feature/Capacity
Max VA/Terminal Block	7.5 VA
Max Amp/Terminal Block	0.3 A
Max Number of Actuators/ Terminal Block	3
Max Number of Actuators	18
4 Zone Size	6-3/4" x 3-1/2"
6 Zone Size	8-3/4" x 3-1/2"

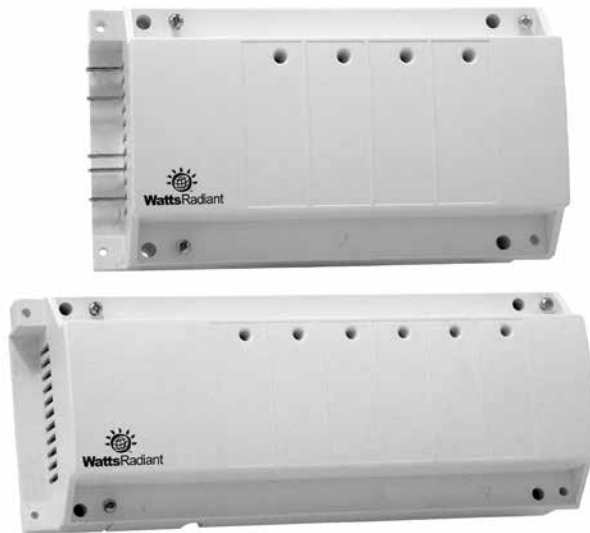
### Features

This control system has been designed for use with Watts' DualTemp (3 or 4 wire) series or any two-wire thermostats with internal battery power. Two-wire thermostats which consume power should not be used as damage to either the thermostat or controller may occur.

Watts' thermal actuators wire directly to the control and can be grouped to operate up to 3 actuators per thermostat. If more actuators are needed a jumper is required to connect the next terminal block and group of 3 actuators.

#### ⚠ CAUTION

This Engineering Sheet is not intended to provide full installation instructions and safety information. In order to avoid property damage or injury, please refer to the complete installation manual and product safety information provided with the product.



Four and six zone controls modules.

### Features

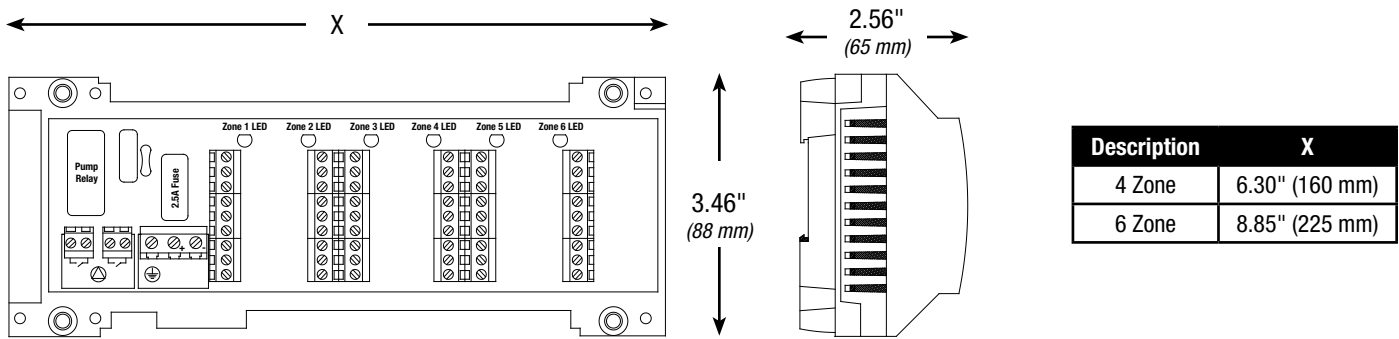
- 4 and 6 Zone formats with expansion capability
- 120/24 Volt power compatible
- 2 dry contacts to operate boilers, circulators, or other
- Dry contact and powered thermostat compatible
- 2 wire thermal actuator compatible  
*(does not accept end-switch connection on actuator)*

✓	Order #	Description
	81005192	Master, 4 Zone Control
	81005190	Master, 6 Zone Control
	81009509	60 VA Transformer
	81005246	Slave, 4 Zone Control Extension
	81005191	Slave, 6 Zone Control Extension

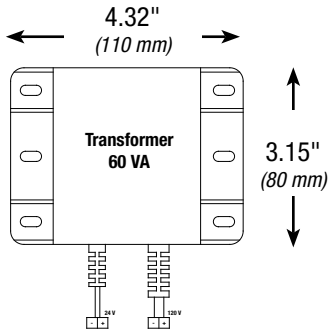
#### ⚠ WARNING: General Safety Instructions

1. THIS UNIT SHOULD BE INSTALLED ONLY BY QUALIFIED PERSONNEL!
2. Disconnect all power from the control before opening the front cover plate.

# Typical Dimensions



Description	X
4 Zone	6.30" (160 mm)
6 Zone	8.85" (225 mm)



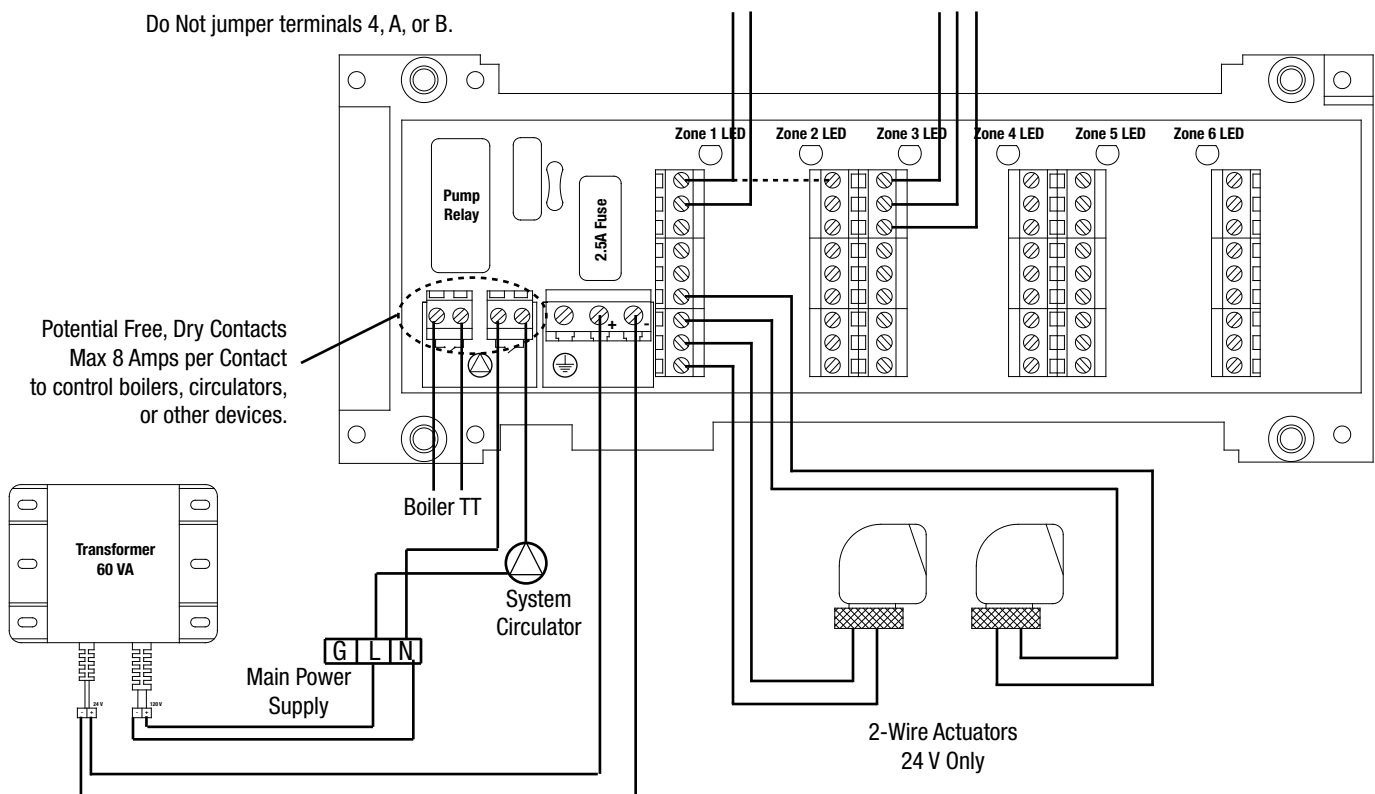
### CAUTION:

- Never connect a power consuming 2-wire thermostat to the control as damage to the thermostat and/or control may occur.
- The maximum total load per terminal block is 0.3 A, or 7.5 VA, and/or 3 actuators.
- External 24/120 VAC 60 VA transformer (81009509) is recommended for all applications.
- Never jumper terminal points 4, A or B on the zone terminal blocks as this may cause damage to the thermostat, the controller or both.
- Control does not use the end-switch wires of a 4-wire actuator.

Jumpers need to be ran from terminal 1 to 1 to allow a single thermostat to control multiple actuators as a single zone.

Do Not jumper terminals 4, A, or B.

2-Wire Thermostat Dry Contact Connections      3-Wire Thermostat With 24 VAC Power



Potential Free, Dry Contacts  
Max 8 Amps per Contact  
to control boilers, circulators,  
or other devices.

