

Uponor

RADIANT HEATING
SYSTEMS

THERMAL ACTUATOR

TECHNICAL BULLETIN



Application

The Uponor Thermal Actuator (four-wire) is a thermally activated, slow-opening operator that provides individual flow control (per loop) on a multi-zoned manifold (manifold serving more than one zone).

Part Number

A3010522

Voltage

24VAC +/-10%

Current Drain

70mA/2w (brown and blue leads)
3.5VA

End Switch

Maximum 2A/24V dry contact
(green leads)

Installation

The Thermal Actuator mounts directly onto Uponor brass valved manifolds (manifold must be mounted in the return position). The quick-release feature of the actuator enables balancing of the manifold valves at any time. Refer to the Uponor Radiant Floor Heating Installation Handbook for valve balancing instructions.

Refer to the following instructions to install the Thermal Actuator.

1. Secure the green ring onto the manifold valve (hand tighten only).
2. Attach the actuator to the ring by pressing the buttons on the sides of the actuator.
3. Push the actuator onto the ring and release the buttons.
4. Connect the 24-volt electrical wiring.
5. Initialize the actuator (see Initialization section).

Initialization

Since the actuator ships in a partially open position to protect it during shipment, the actuator needs to be fully cycled (opened and closed) to operate. This also closes the end switch in a powered-down state.

Refer to the following instructions to initialize the Thermal Actuator.

1. Power up the system.
2. Turn up the thermostat to create a call for heat. This will fully open the valve. You will hear a click on the first open cycle. This first cycle may take six to 10 minutes.
3. Turn down the thermostat.
4. The actuator is now ready for normal operation.

Note: Failure to initialize the actuator may result in a continuous call for heat because the end switch is closed in the powered-down state.

Maximum Number of Thermal Actuators

12 Thermal Actuators — 50VA
19 Thermal Actuators — 75VA
25 Thermal Actuators — 100VA
(Computed with a 10% line loss)

