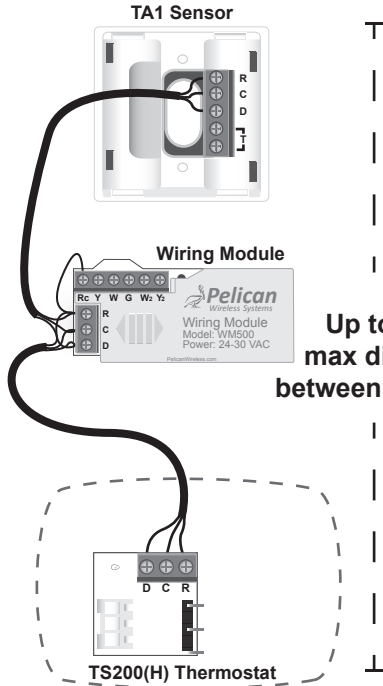# Alternate Limited Wiring Option

Some installations may have limited in-wall wiring. Use this configuration if no Data Wire or Common Wire is available. A common application would be to monitor supply air temperature with limited wires.

TA1 Sensor

Wiring Module

Up to 500' max distance between devices.

TS200(H) Thermostat

❶ Remove Wiring Module from the TS200(H) thermostat. Install Wiring Module inside of the air handler.

Refer to page 4 of a TS200(H) Installation Guide.

❷ Connect the R, C, and D terminals from the Wiring Module to matching terminals on the TS200(H).

❸ Connect the R, C, D terminals from the Wiring Module to the matching terminals on the TA1 sensor.

Note: The sensor can then be used for any one of the three examples shown on page 3.

Configuration

Login to your Pelican Site Manager Web Application. Select Admin > Thermostat Setup for the thermostat which has the newly attached TA1. Scroll down until you see a category labeled "Wired Sensor"

Select the correct Function for your TA1 sensor:

– "Temperature" to use the TA1 sensor instead of the thermostat's internal temperature sensor or to allow averaging between the TA1 sensor's temperature sensor and the thermostat's temperature sensor.

– "Alarm" to use the TA1 sensor as an interface for a Dry Contact alarm input. Select whether a notification should be sent when the contact is opened or closed.

– "Temp Monitor" use the TA1 sensor as a stand alone temperature monitoring device. (ie. supply air temperature or outside air temperature monitoring).

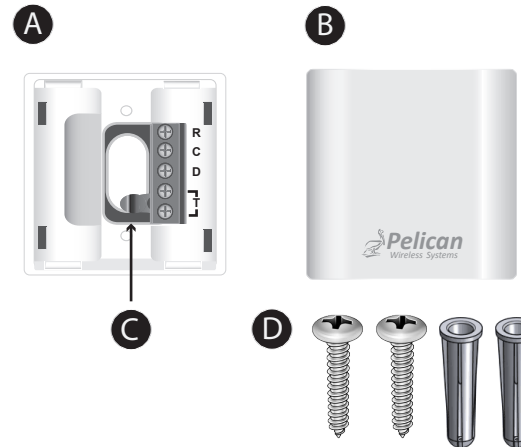For additional assistance visit www.PelicanWireless.com to request support.

Pelican *Wireless Systems*

Installation Guide
TA1 Temperature and Alarm Sensor

The Temperature and Alarm sensor is an add-on accessory to the Pelican TS200 and TS200H Thermostats.

Uses:

1. External Temperature Sensing
2. Refrigeration Monitoring & Control
3. Dry Contact Alarm Interface

Caution

Failure to follow these instructions can damage the product or cause a hazardous condition. Disconnect power during the installation of this product. All wiring must conform to local codes and ordinances. The TA1 sensor is designed for use with 24VAC Pelican thermostats only. After installation, if the TA1 Sensor does not show up on your Pelican Site Manager you will need to contact Pelican Wireless Support and request a thermostat software upgrade.

Ⓐ **Ⓑ** **Ⓒ** **Ⓓ**
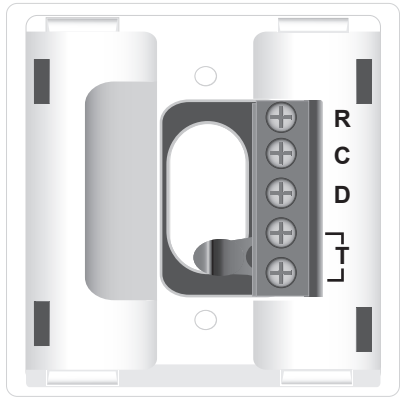
Hardware Provided

Ⓐ Wall Mounted Back Plate

Ⓑ Front Cover

Ⓒ Internal Temperature Sensor

Ⓓ Mounting Hardware

Wall Mounting

Mount the back plate of the TA1 sensor to a flat surface. Position it so that wires can be fed through either the oval opening in the back or the small opening on the bottom of the TA1 sensor. Drill 3/16" holes into the wall at the provided mounting locations on the TA1 sensor. Insert anchors into the wall and attach the back plate to the wall using the included mounting screws. Follow the wiring instructions on page 2.

After the TA1 sensor is mounted simply line up the front cover to the back cover and snap into place. To remove the front cover from the back plate, use a flat head screw driver and lightly twist in the provided slots on each side of the TA1 sensor.
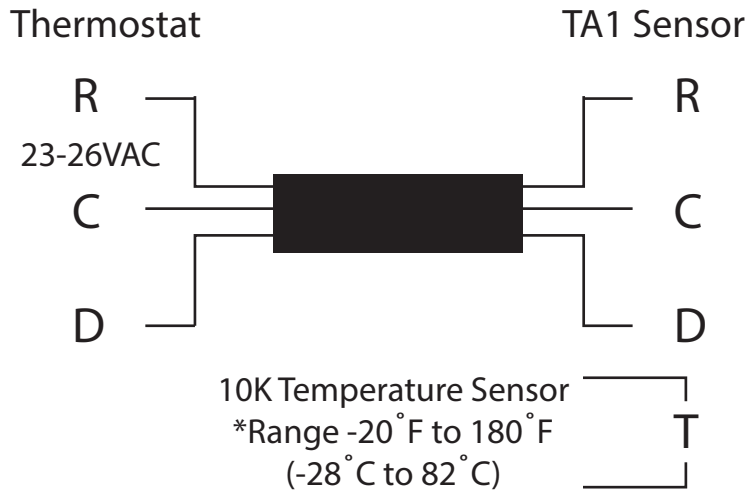
Terminal Designations

R – 24 VAC Power

C – Common 24 VAC

D – Data Line

T – 10K Temperature Sensor

Wiring Diagram

Thermostat   TA1 Sensor

R ————————————————— R

23-26VAC

C ————————————————— C

D ————————————————— D

10K Temperature Sensor
*Range -20°F to 180°F
(-28°C to 82°C)   T

Note:

The TA1 sensor requires 3-wires for power and communication with a TS200(H); as shown in the diagram above. In many situations you will be able to simply mount the TA1 sensor on a wall and use the provided 10K internal temperature sensor to detect the temperature at the desired location.
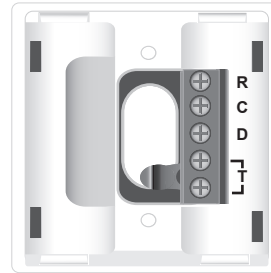
Follow the guide on page 3 for alternate installation options for the TA1 sensor. The TA1 sensor can be installed at a maximum distance of 500' from a TS200(H). A 10K external temperature probe can be connected to the TA1 sensor up to 100' away.

We recommend using a Pelican certified external temperature probe. Contact your local Pelican Wireless distributor for assistance.

Wiring Options:

The following wiring options should be used to determine the proper wiring approach for your application. This guide shows the most common configurations. Contact Pelican Wireless Systems for assistance with configurations not shown on this guide.
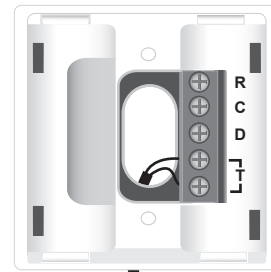
Internal Temperature Sensor

For installations where 3-wires already exist or can be run from a TS200(H) thermostat to the TA1 sensor. Mount the TA1 sensor directly on the wall. Connect TA1 sensor's D, C, and R terminals to matching terminals at TS200(H). 500' maximum distance.

Applications:
– Detect temperature inside of an enclosed refrigerator or freezer.
– Install the TA1 sensor in the conditioned area with the thermostat placed in a secure, non-visible location.

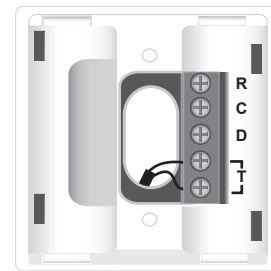### 2-Wire External Temperature Probe

Remove the internal temperature sensor from the "T" terminal of the TA1 sensor. Connect the external temperature probe to the TA1 sensor's "T" terminal. 100' maximum distance.

Connect the TA1 sensor's D, C, and R terminals to matching terminals of the TS200(H).

Up to 100'

Interface Dry Contact Relay for Alarm Notification

Interface a Dry Contact Sensor's output to the input of the TA1 Sesnor in order to create an alarm notification through your Pelican Site Manager.

Remove the provided internal temperature sensor from the "T" terminal of the TA1 sensor. Connect the output of the external sensor to the TA1 sensor's "T" terminal.

Connect the TA1 sensor's D, C, and R terminals to the matching terminals of the TS200(H).

Note: Can be used with normally open or normally closed contacts.

Up to 150'