

Micro Control Systems

APPLICATION NOTE

APP-059

Installing a MCS-T100 Temperature Sensor

Revision History

Date	Author	Description
03/29/10	John Walterick	Created Application Note

1. General Concept	3
2. Sensor Location	3
3. Tube Installation	3

1. General Concept

Install temperature sensor to achieve rapid temperature changes and allow system to calculate suction and discharge superheat quickly and correctly.

2. Sensor Location

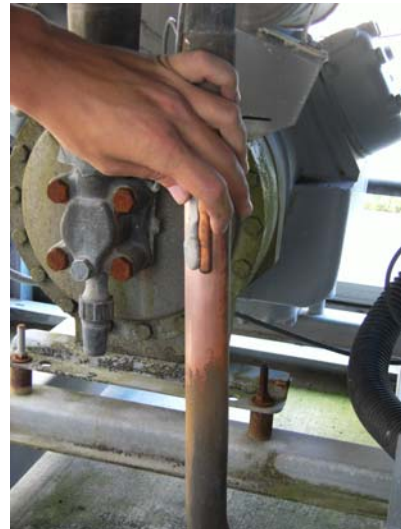
- a. Suction location of tube & sensor.
Install tube at 3:00 or 9:00 with opening slightly angled up.
- b. Discharge location of tube & Sensor.
Install tube at 12:00.

3. Tube Installation



Step1:

- Select section of pipe where you want to mount MCS-Tube.
- Sand pipe to get good clean surface for mounting.



Step 2:

- Cut MCS-EPOXY into 3 pieces.
- Mix 1 piece of epoxy.
- Roll Epoxy into length about same as Tube.
- Holding Tube on pipe place rolled epoxy next to tube.
- Next squeeze epoxy around & over tube.



Step 3:

- After epoxy has hardened (about 20 to 30 minutes) insulate tube. Start just below plastic cap and wrap down and then back up. This provides a double layer of insulation thus eliminating outside effects on temperature.



Step 4:

- Remove plastic cap
- Insert Temperature sensor until it is completely inserted.
- Bring sensor cable down over tube insulation and tie wrap to insulation.

You now have an insulated tube with transfer paste inside the tube. You have also created a strain relief and tied the cable so it'