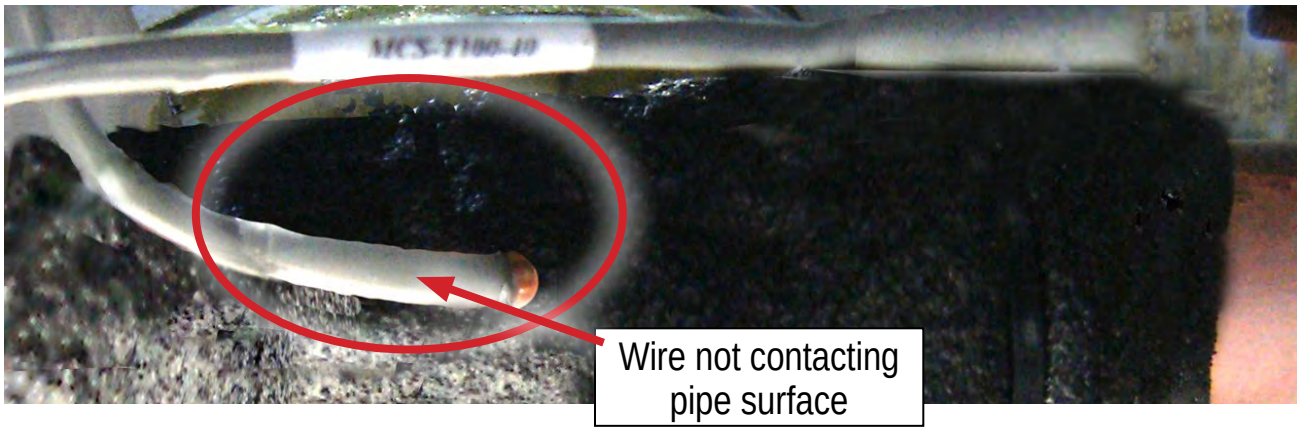
APPLICATION NOTE

APP #059A

Revision History

Date	Author	Description
03-29-10	JGW	Created Application Note
04-17-18	DEW	Change Format
08-06-18	DEW	Modify installation to horizontal position
04-12-2022	DEW	Make changes to install, photos

Installing a MCS-T100 Temperature Sensor Location on SUCTION SIDE



MCS-T100 Temperature Sensor mounted on horizontal pipe,
wires insulated from pipe surface

Any questions regarding this release, contact: support@mcscontrols.com

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General Concept

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

NOTE: When installing to measure superheat:

1. Temperature Sensor should be on a horizontal pipe close to the evaporator.

2. Pressure Sensor should be installed close to the compressor.

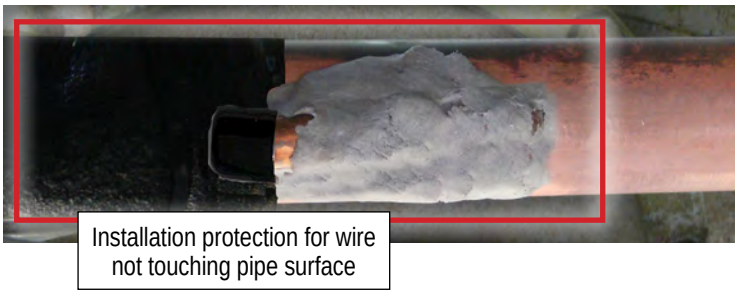
Tube Installation

LOCATION OF TUBE & SENSOR on SUCTION SIDE

For accurate readings, install tube at 3:00 or 9:00 with opening slightly angled up on horizontal pipe.

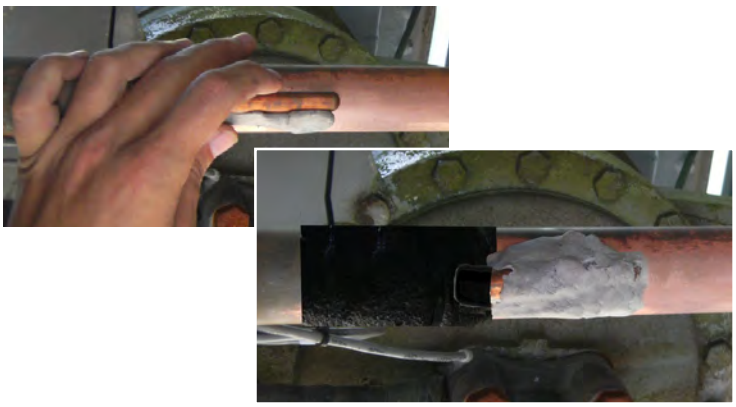
Step1:

- Select a section of the pipe where you want to mount the MCS Tube.
- Sand pipe to get a good clean surface for mounting.
- **Wrap pipe, with high temperature resistant thermal tape, forming a double layer under the tube black cap, and about 4 inches to the left of the cap, so the wire will be off any pipe surfaces.**



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 (about 1/4 to 1/2” back from opening cap.



Step 3:

- After the epoxy has hardened, about 20 to 30 minutes, insulate the MCS tube with high temperature resistant thermal tape.
- Wrap down around and then back up. This provides a double layer of insulation, thus eliminating outside effects on the temperature.

Step 4:

- Remove the plastic cap from the MCS Tube
- Insert the MCS Temperature sensor into the tube, until it is completely inserted.
- Bring the sensor cable down, over the tube insulation, and wrap it to the insulation.
- You now have an insulated tube with transfer paste inside the tube.
- You have also created a strain relief and tied the cable to it.