INTRODUCTION

General Description

The **T**emperature **S**ensor for **P**ipes (TSP) is a temperature sensor based on a **R**esistive **T**emperature **D**etector (RTD) coupled to an electronic circuit with an on board microprocessor. It gives a linear current output (4 to 20 mA) proportional to the temperature detected by the sensing element. The RTD element and the electronics are all integrated in the same mechanical assembly in order to reduce wiring and installation cost.

These features make the TSP very versatile, easy to use and able to fullfill your application requirements.

Models Available

The TSP is available in NPT pipe thread configurations and several standard temperature ranges as well as factory set custom ranges.

Consult the current Kobold catalog information for additional information.

INSTALLATION

Unpacking

The TSP comes completly assembled and ready to install.

Please verify that no parts are missing and do a visual inspection of the TSP to ensure that none of the components have been damaged during shipment. If you notice any damage, please contact the shipping agent immediately, as they are responsible any damage while in transit.

Mechanical Installation

Use a suitable thread sealant on all pipe threads. The same standard installation practices should be observed as with a standard RTD assembly. Care should be taken so the transition, housing the electronics, is maintained within the specified temperature limits.

Electrical Wiring

The TST is a loop powered device that comes with two wires.
Red (+V) and White (-V) are for the 4-20 mA current loop power and signal.

Connect the TSP wiring as shown in Figure # 1

Wiring Connections:

- Connect the Red wire from the TSP to the positive side of the power supply.
- Connect the White wire from the TSP to the positive side of the current indicator or measurement device.
- Connect the negative side of the current indicator or measurement device to the negative side of the Power Supply in order to close the series current loop.

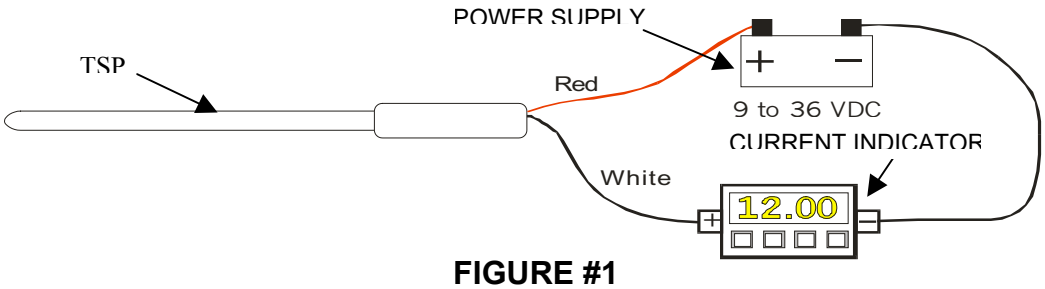

FIGURE #1

Figure # 2 Wiring Diagram for RTD output versions