



MillTemp

PT100 Sensor Temperature Monitoring

Introduction

MillTemp is a RF temperature monitoring system with a **4-20mA output**. It consists of a small battery powered RF transmitter that digitally sends temperatures obtained from a standard **PT100** platinum resistive sensor mounted in the mill shell or diaphragm. The RF receiver is then mounted nearby the mill and its function is to convert the RF digital temperature information to a standard 4-20mA output.

Benefits

- 5 Year life hi-tech Lithium Ion Battery in the transmitting RF unit.
- 'Easy to Mount' Small Magnetic Cases on both the transmitter and receiver.
- Receiver connects to your PLC via a 4 conductor cable where two wires form the 4-20mA channel and two wires are used for power (+24 VDC) & ground.
- "Indutherm" Killer... easy to install and far less costly!

Transmitter Specs & Installation

The shell mounted transmitter consists of 10x10x10 cm (4x4x4 inch) water/airtight cube containing a 2.4 GHz transmitter & ultra low power microprocessor. Battery life is estimated at 5 years or more.

Installation consists of placing the unit on the mill shell within 2 meters (6 ft.) of the PT100 sensor and then screw terminals are used to connect the PT100 cable inside the transmitter. High temperature epoxy is then applied to four small spots on the transmitter's base magnet to prevent movement on the shell.

RF Receiver Specs & Installation

A receiver consists of a 10x10x10 cm (4x4x4 inch) water/airtight cube mounted above or nearby the mill.

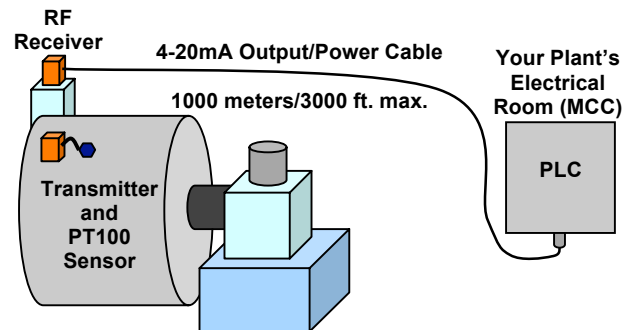
4 conductor cable (i.e. standard Ethernet cable) is then attached to the receiver to run the 4-20mA output to a PLC. The other two conductors are then used for power (+24 VDC) and ground. Cable length is a maximum of 1000 (3000 feet) meters.

MillTemp Specifications

Temperature updates from the transmitter/receiver pair may occur **as fast as one measurement per second** or as slow as one measurement per 10 minutes. The update rate is programmable via a USB cable and our custom software and/or can be set up in advance at our factory. Please specify the desired rate when you order the product.

The temperature range is 0 °C to 250 °C with 1% accuracy.

System Diagram



Contact Information

Digital Control Lab
3701 NW 40th Terrace, Suite #1
Gainesville, Florida, 32606
Phone: +1.352.692.0800
Fax: +1.813.649.8390

www.digitalcontrollab.com

Tech Questions: Karl Gugel, Engineering
Email: karl@digitalcontrollab.com

Quotes & Orders: Ms. Monique Mennis
Email: monique@digitalcontrollab.com