SARTREX
POWER CONTROL
SYSTEMS INC.

Temperature Alarm Monitor (TAM)

System Description

TAM consists of two main functional subsystem. These two subsystems are Hardware Control Circuit (HCC) and Software Monitoring Circuit (SMC).

The hardware Control Circuit Subsystem is responsible for all the inputs and outputs of the System (except for Rs232 communication and audio alarm) and is independent of Software Monitoring Circuit Subsystem and can perform its intended safety related functions without software and its related hardware.

The software Monitoring Circuit is responsible for displaying the data in engineering units and transmit the data to a PC through a RS232 communication port. Also the sound alarm is function of this circuit (SMC).

Overview of the Temperature Alarm Monitor (TAM)

The Temperature Alarm Monitor (TAM) system is designed to measure the 18 Type K Thermocouple (TC) inputs and provides 18 alarm outputs. The two basic functions of the TAM are defined as Normal and Test Mode.

Under Normal mode of operation, the TAM receives thermocouple signals from the sensors in the field, compares the measured values to the set points and provides 18 alarm outputs (Relay contacts).

Under the Test Mode, which is initiated by the Test Command (Relay Contact) from PLC, the input connections to the TAM switch to the internally simulated TC signal (Test signal).This Test Signal can be used to check the operation of the TAM.

The TAM provides a full color display,which is mainly used to display:

- Temperature of each TC connected to the input
- Trend for each input (user selectable function)
- System and Temperature Alarm status
- System Mode (Normal or Test)
- Day of the week and time
- Calculated median for each group of inputs
- Test Signal value

Also one standard Rs232 communication port (Unidirectional) is provided.

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