PT2060/30 TEMP Temperature Module

ProvibTech's PT2060/30 TEMP temperature module is an 8 channel module which processes the incoming temperature sensor signal, compares it the alarm set-point and outputs the appropriate status information. Acceptable sensor signals include:

✓ **Thermocouple: E, J, K, T**
✓ **RTD: 3 wire or 4 wire Platinum**

The PT2060/30 TEMP module also provides additional information; such as, module status, alarm status, alarm history and system events. This information can be accessed via Modbus or the configuration software.

The PT2060/30 TEMP module is also equipped with local status indication. There are three LEDs which display the status of the monitoring channels.

✓ OK/TX LED indicates that both the module and the proximity probe systems in the field are working
✓ Alarm LED indicates the current alarm status of the module.
✓ Bypass LED indicates the channels have been programmed to be in the Bypass mode.

Specifications

Electrical

Power supply:

    Internally converted by the rack power supply module

    8.0W total typical for this module

Signal Input:

    Type E (TC):

        -100°C to $+1000^{o}$C (-148°F to $+1832^{o}$F)

    Type J (TC):

        0°C to $+760^{o}$C ($+32^{o}$F to $+1400^{o}$F)

Signal Input Continued:

    Type K (TC):

        0°C to $+1370^{o}$C ($+32^{o}$F to $+2498^{o}$F)

    Type T (TC):

        -160°C to $+400^{o}$C (-256°F to $+752^{o}$F)

    RTD (100Ω 3 wire & 4 wire platinum, alpha=0.0385):

        -200°C to $+850^{o}$C (-328°F to $+1562^{o}$F)

    RTD (120Ω 3 wire & 4 wire platinum):

        -80°C to $+260^{o}$C (-112°F to $+500^{o}$F)

    RTD (10Ω 3 wire & 4 wire platinum):

        -100°C to $+260^{o}$C (-148°F to $+500^{o}$F)

Signal Conditioning (@25°C):

    Accuracy:

        $+/-3^{o}$C

    Resolution:

        1°C

Cold Junction Compensation Sensor (used for TC measurement).

        Accuracy: $+/-1^{o}$C at 25°C

Electrical Continued

Static and Status Values:

Each of the options for this monitor module has been defined with static values. Those values can be accessed via the 4-20mA output or from the digital communication protocols

Direct temperature, OK, Alert, Danger, Bypass

Overall in 4-20mA Output:

Proportional to monitor full-scale; each channel has its own overall vibration output. The short of the 4-20mA will not affect system performance.

Maximum Load:

300 Ω

Alarm:

Alarm set-point:

Each channel has two alarm set-points which can be field adjusted from 0 to 100% FS

Set-point accuracy:

Better than 0.5% FS

Set-point repeatability:

Within 0.5% FS

Alarms:

Normally latching or normally non-latching

Alarm delay:

Alert delay can be set from 1 to 60 seconds with a time interval of 1 second

Danger delay can be set from 1 to 60 seconds with a time interval of 1 second

LED Indicators:

OK/TX: green. On / off / flash

Alarms: red

Bypass: red

CE Marks

The monitor module will have a CE approval with EMC conformity.

Environmental

Temperature:

Operation: -20°C to +65°C

Storage: -40°C to +85°C

Humidity:

95% non-condensing

Physical

Each module comes with two components- the front panel assembly and the back panel assembly.

Dimensions:

241mm (9.5in) X 24.5mm (0.96in)

Mounts in any of the 14 remaining slots. Slots 15 and 16 of system rack are reserved for the Power Supply and SIM modules.

Weight:

1.0 kg (2.0 lbs)

Order Information

PT2060/30-AX

AX: Back Panel IO module

A0: RTD

A1: TC

Back Panel Connectors Layout