Search

Features of the Edison 1616 RTD Temperature Monitor

- Traditional Edison quality
- Two temperature alarm levels for each channel
- 16 RTD alarm channels with the ability to trip a common relay and a channel specific relay
- Selectable options for alarm on rising or falling, latching or non-latching alarms
- Time and date calendar
- Memory buffer stores up to 64 system events
- Security code required accessing programming
- Printer port allows printed system events as they occur
- Custom messages appear on the display when an alarm occurs
- Easy to read blue or green 20 X 4 matrix character vacuum fluorescent display
- Monitor is programmed with a PC keyboard temporarily connected to the front panel
- A history buffer accommodates up to 64 events and can be printed on demand
- Accessible connector for remote operation of panel switches to incorporate explosion proof housing
- Internal failsafe fault relay Internal "common system pre-alarm" relay

Mechanical

- Dust and splash proof front bezel assembly
- Aircraft quality 5082 alodine plated aluminum housing
- Housing dimensions accommodates single DIN opening

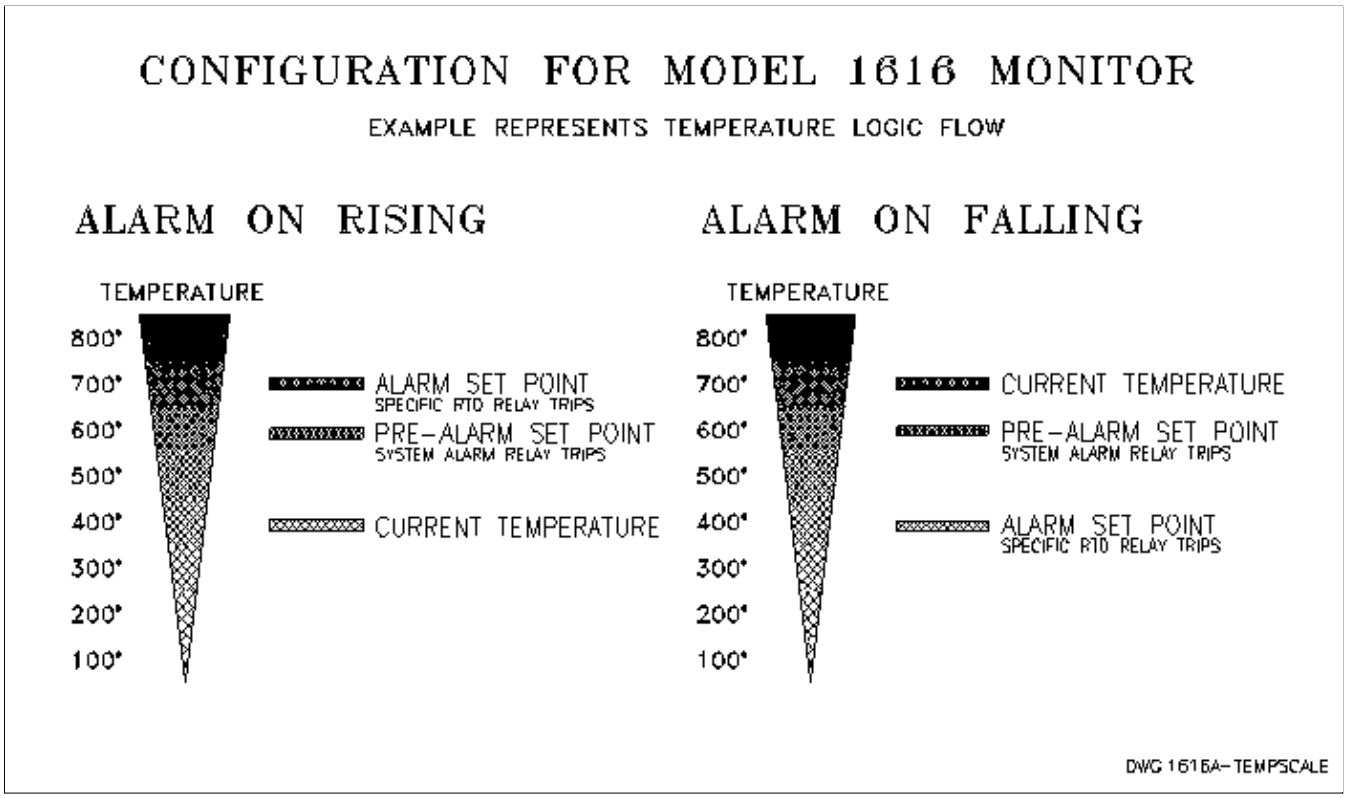
Electrical/Electronic

- Microprocessor based
- Selection for Nickel, Platinum, or Copper RTDs
- 110V-230 VAC or 24VDC power supplies
- Printer port prints configurations and alarms
- RTD linearization implemented within the CPU
- All connections accessible from rear terminals
- Internal power supply accommodates entire system requirements
- Up to 16 RTD transmitters able to transmit data over 1000 ft, on a single 4-wire cable

Industrial Applications

- Process control
- Large motor bearings
- Nuclear power plants
- Refrigeration systems
- Coal fired power plants
- Scientific and laboratory
- Infrastructure diagnostics
- Co-generation turbine plants
- Pipeline transmission facilities
- Remote gas pumping stations

- Rotating equipment



The Edison model 1616 monitor is designed to provide simultaneous, continuous surveillance of up to 16 addressable RTDs connected on a common 4-wire buss. RTD relays are internal to the main monitor unit. The entire system is self-contained in that it supplies all field RTD transmitters with their power requirements for distances in excess of 1000 ft. The RTD is connected to an RTD transmitter where the temperature characteristics are converted to a digital protocol for the monitor. The 1616 monitor accepts industrial standard RTD inputs for Nickel, Platinum, and Copper characteristics. Installations can include single or fully configured 16 RTD transmitters. There is no calibration required for the monitor.

RTDs are electronically scanned and their temperature is compared to the user's pre-selected two trip points. When the RTD temperature exceeds the pre-selected menu temperature, a system alarm relay will trip and then the alarm detail can be viewed. The printer will print the details of the alarm, if utilized. Should the temperature continue to change in the same direction, a second "alarm relay" will trip for that specific RTD. Different combinations of configuration for each point is available for alarm on rising or alarm on falling. Each point allows the user to insert a memo field that will be displayed when the unit alarms. In coming alarms can be viewed in detail at the display and/or printed out to a printer for evaluation.

A system failsafe fault relay changes state in the event of any type of fault. This fault will be displayed at the display and will be printed to the printer.

Programming is implemented by utilizing a standard PC keyboard, temporarily connected to the front bezel. The user programs preset temperature values into the monitor as well as RTD specific messages.

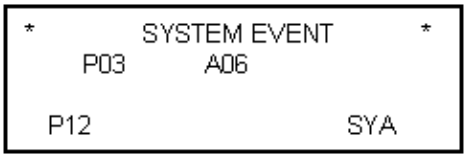
Sample Menus

1616 MONITOR SYSTEM OK Time and Date

Monitor menu in quiescent mode. Unit continuously self checks for any discrepancies that may occur.

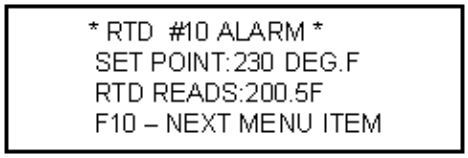
* RTD #10 ALARM MODE * SELECT ALARM MODE * RISING MODE * F1 TOGGLES ➔ F10 NXT

Menu to select the alarm rising or falling mode of the RTD temperature.



Menu indicating a pre-alarm at address #3 and #12. There is also an alarm at address #6. All alarms are simultaneously displayed for easy viewing. SYA or "system alarm" indicates the temperature is exceeding its set point.

Menu to select the latching and failsafe feature of the alarm relay. Depress F1 and the F3 key on the keyboard to change the selection.



This menu indicates a current RTD temperature of 200.5 degrees with its related set point of 230 degrees. The RTD address ID #10 is also visible.

Each RTD has a pre-alarm and an alarm message box to store memo fields. This message can be viewed any time before or during an alarm.

Specifications of the Edison 1616 RTD Temperature Monitor

Electrical	
Operating voltage:	100-120, 200-240 VAC, 50-60 Hz, @12W, relays non-erergized with 16 RTD transmitters
Isolation:	1500 VDC isolation between RTD transmitters and monitor
Accuracy @ 72°F, 22°C:	Specified from RTD input to display output: [Temp Range °F] Platinum #8 +/- 0.13% [-202 to 1544] Platinum #11 +/- 0.12% [-202 to 1364] Nickel #1.7 +/- 0.30% [-94 to 572] Copper #15 +/- 0.70% [-53 to 432|
Resolution:	0.1" Displayed (to the tenth of a degree)
RTD scan rate:	1.17 Seconds for all 16 RTD transmitters, quiescent mode
Clock / calendar:	Memory retained for 2-3 days in loss of input power
Memory:	Configuration data retained in nonvolatile memory
Remote keypad:	Optional connection for remote keypad operation
Relay ratings (alarm & fault):	DC resistive 5A, 30V AC resistive 8A @ 277 VAC AC inductive 7A @ 125 VAC, 3A @ 277 VAC
Display	
Type:	4 character high x 20 character wide vacuum fluorescent, blue display (active ambience)
Action:	Display remains at 80% of luminescence intensity and returns to full intensity with any alarm or keypad action after 15 minutes of inactivity
Mechanical	
Weight:	System unit: 3.6 lbs (1.61 kg) RTD module: 2.8 oz (83 g)
Mounting orientation:	Any axis

Dimensions:	Refer to figures below
Case:	Aircraft quality 5052 1/16" thick aluminum, alodine finish
Environment	
Operating temperature:	0 to 150°F -18 to 65°C 0 to 90% humidity, non-condensing
Front bezel:	Internal perimeter gasket for water and chemical resistance
Seismic:	Pending
Approvals	
Factory mutual:	Pending