



# Model 140 Temperature Monitor/Alarm



## **FEATURING:**

- Easy to read LCD display
- Audio and visual alarms
- Adjustable and displayable alarm settings and initial alarm delay period
- Selectable audio mute period
- Covers -200°C to +400°C in various factory set ranges
- Standard operating range -100°C to +100°C

This is a single probe temperature alarm, covering -200°C to +400°C in various factory set ranges, housed in a wall-mounted or free-standing box. The basic unit includes alarm on high and low temperatures, with audible and visual alarm indicators (*beeper and LED*), settable mute and alarm "chirp" periods, and a UL listed plug-in power supply.

Features to make this instrument suitable for applications such as built-in monitoring of freezers, refrigerators and walk-in environmental chambers include temporary muting of the alarm beeper for user-selectable periods up to about 30 minutes (*the beeper cannot be disabled completely*); optional battery back up; and optional relay contacts with an adjustable delay period for hook up to a remote alarm device or telephone dialer.

The Model 140 alarms can be connected to Hampshire Controls Corp. centralized monitoring systems, using a single twisted pair common bus for both power and digital data. Consult Hampshire Controls Corp. for available options and configurations.

## **Available Options:**

- 0.1°C display
- °F display
- NiMH battery backup
- SPDT contact output with adjustable relay delay period
- Thermocouple sensor
  - Type T: -200° to +50°C
  - Type K: 0° to 400°C
- 4 to 20 mA output
- RS-485 output
- Ethernet interface
- Passcode protected set points

***Custom programming and packaging can be provided  
to fit most temperature monitoring tasks.***





### Power Requirements:

9-30 volts DC, 25 ma maximum  
(120VAC, UL listed supply is standard)  
(220v optional)

### Optional Battery Back Up:

7-cell NiMH, 8.4 volt 150 maHr,  
Uses standard 9v size, *option-B*

### Charger:

2 ma trickle charger, built in

### Standard Sensor:

100 ohm RTD in 4" s.s. sheath, waterproof,  
with a 10' Teflon 22 ga. twisted pair

### Temperature Ranges:

-100 to +100°C (*Model 140-100*)  
(°F ranges are available, *option-F*)  
-200 to +50°C (*Model 140-200R*)  
0 to +400°C (*Model 140-400*)  
Other ranges available per special order

### Resolution:

1°C standard, 0.1°C *option-H*

### Accuracy:

+/-1°C standard, +/-0.2°C *option-H*

### Sensor Options:

Type 'K' thermocouple, 0°C to 400°C  
(+/-1°C), *option-K*  
Type 'T' thermocouple, -200°C to +50°C  
(+/-1°C), (*Model 140-200R*)  
1000 ohm RTD, with 10' lead  
Voltage or current input

### Mechanical:

Case is black bakelite, 5"w x 4.25"h x 1.75"d  
wall mount with Velcro, or set on bottom edge;  
all wires exit through side

### Outputs:

SPDT relay contacts with user adjustable  
delay period, *option-R*  
10mV per degree, *option-V*  
4 to 20 mA output, *option-I*  
Digital output, *option-D*

### Special Options:

RS-485  
Ethernet Interface  
Passcode Protected Set Points

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*There is a one-year warranty on all Hampshire Controls products.*

***Hampshire Controls Corp. is a Woman Owned Small Business***

### ***About Our Company***

Started in 1975, Hampshire Controls provides standard and custom designed electronics to the biomedical and industrial markets. In addition to the Model 140, other products include:

- Model TS4 4-Point Temperature Monitor
- Model LD-200 LN2 Level Detector/Alarm
- CO2 Backup Control/Alarm for Freezers
- Isolated Input Line Voltage Controls
- Multipoint Central Monitoring System (CMS-II)
- Dataplex-32 Multipoint Monitor/Logger
- Custom Microprocessor Assemblies
- Model ADM Alarm Delay Module
- Regulated Output Phase Control
- Custom AC Motor Phase Controls
- Model AFM Air Flow Monitor
- Model TC-3 Rapid Response TempCheck

