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Find the *Thermo / Forma Scientific 1535* at our website: ***Click HERE***

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Product Specifications

Model 1535 Forma® Monitor / Alarm System

Complete laboratory equipment monitoring and reporting system

Model 1535 Forma Monitor/Alarm System is a complete temperature and performance monitoring and reporting system that tracks the "health" of your lab equipment for added protection of your valuable samples. For total peace of mind, you can add an Uninterruptible Power Supply and a Sensaphone® to receive a telephone call – day or night – should an alarm condition occur.



Model 1535 Forma Monitor/Alarm and optional converter modules allow you to define a system that meets your specific needs. Shown here (top to bottom) are No. 190457, 190458, 190456, and 190459.



For a turnkey system, you can add an Uninterruptible Power Supply (UPS) and a Sensaphone Telephone Dialing System to the Model 1535 Forma Monitor/Alarm System.





Model 1535 Forma Monitor/Alarm System interfaces with as many as 24 products, or channels, to monitor equipment conditions up to 2,000 ft. (609.6 m) away. Each channel processes information from an optional converter module installed on the equipment being monitored, namely, ULT freezers, refrigerators, cryopreservation storage systems, and incubators.

Programmable to suit your specific needs

The monitor/alarm's Enviro-Scan® Micro-processor touchpad and menu system guide you through programming steps, and allow you to change parameters and create permanent records.

- Equipment conditions are continuously monitored, updated, and displayed on the 2-line, 40-character readout.
- Printing intervals are programmable, and a printout is generated automatically if an alarm condition occurs.
- Audible/visual alarms alert you to deviations in equipment status for added confidence and peace of mind. Optional Sensaphone will call a designee.

Versatile and convenient to set up

- Personal access code for the setup and programming functions provides added security.
- Built-in dot matrix printer is a convenient source of system information (e.g., date, time, unit, status).
- Standard RS-232 interface provides an easy link to an external printer.

Protection for your investment

The Model 1535 Forma Monitor/Alarm System ensures that your valuable samples are safe and secure. When combined with a UPS and Sensaphone, you or a co-worker can receive a phone call should an alarm condition occur. That's total peace of mind!

Analyze • Detect • Measure • Control™

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Model 1535 Forma Monitor/Alarm System Specifications

	Specification	Benefit
Communications – Monitoring		
Format	ASCII using an RS-485 link	Continuous monitoring of equipment performance
Capacity	Up to 6 data inputs from 24 channels, scan rate of 2 channels/sec.	and documentation/notification of any deviation
Distance	Up to 2,000 ft. (609.6 m), total wire	
Memory	Microprocessor retains all programming in non-volatile memory	
Display	2 line, 40 character alpha-numeric LCD	
Communications – Status	Standard RS-232 interface for data storage to printer and remote alarm contacts for Sensaphone or alarm monitor	Allows connection to a printer, Sensaphone, or alarm
Alarms	Programmable hi/low temp, CO_2, O_2, RH, contact closure	Audible/visual notification of alarm condition
Printing		
Interval	1 min. to 24 hrs. in specified increments	Permanent record; easy-to-read, detailed log
Printer	Dot matrix, red and black permanent ink	
Recorded data	Date; time; channel number, status, designator; alarm conditions	
Electrical*		
Model 1535	90-125 V, 50/60 Hz, 0.7 FLA or 180-250 V, 50/60 Hz, 0.35 FLA	Can be used worldwide
Modules	Maximum 26 V DC, fused in the Model 1535	
Cord Set and Plug	8 ft. (2.4 m) with IEC 320 female plug (cabinet interconnect) and country-specified plug	
Exterior Dimensions**		
Model 1535	14.0" W x 6.0" H x 13.8" F-B (35.6 x 15.2 x 35.1 cm)	Compact size saves lab space
Modules	4.1" W x 1.5" H x 6.5" F-B (10.4 x 3.8 x 16.5 cm)	
Ambient Conditions		
Temperature	41°F to 104°F (5°C to 40°C)	Functional in a wide range of ambient conditions
Humidity	10% to 80% up to 87.8°F (31°C), then decreasing linearly to 50% at 104°F (40°C), non-condensing	
Warranty (Model 1535)	1 year parts and labor	Minimizes operation cost, provides peace of mind
Weight		
Model 1535 (net/shipped)	20 lbs. (9.1 kg)/29 lbs. (13.2 kg)	Compact design conserves space
Modules	1 lb. (0.5 kg)/4 lbs. (1.8 kg)	

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** Power/communication cables meet all Class 2 specifications (type NEC CL2) for low voltage direct current and are flame retardant. Maximum data line voltage is 26 V, and the current is limited to 1 Amp.*

*** F-B is the dimension from the front of the unit to the back of the unit.*

Accessories (customer installed unless specified otherwise)

Cat. No.	Description
Converter Modules	
190456	Converts RTD temp probe (cryogenic) to RS-485, includes RTD probe with a 6 ft. (1.8 m) lead and one set of dry contacts, temp range -328°F to -130°F (-200°C to -90°C)
190457	Converts RTD temp probe to RS-485, includes RTD probe with a 6 ft. (1.8 m) lead and one set of dry contacts, temp range -130°F to 158°F (-90°C to 70°C)
190458	Converts RS-232 (Forma named products only) to RS-485, monitors one RS-232 port and one set of dry contacts
190459	Converts analog to RS-485, monitors four analog signals (0-1 V) and two sets of dry contacts
Sensaphone Telephone Dialing Systems	
400047	Interfaces with standard touch-tone phone, dial specified numbers until call is received and acknowledged. Accommodates up to four input channels
400134	Interfaces with standard touch-tone phone, dial specified numbers until call is received and acknowledged. Accommodates up to eight input channels

Cat. No.	Description
Remote Alarms	
400011	Remote Alarm; audible signal; 115 V, 60 Hz
400040	Remote Alarm; audible/visual signal; 115 V, 60 Hz
Other Accessories	
190477	3.5"/1.44 MB Floppy Disk Drive (front-loading), records data in table or line format for use with a spreadsheet program, disables RS-232, factory installed
270078	Uninterruptible Power Supply; 120 V, 60 Hz; runs approximately one hour with a full load
430222	Four-Wire Cable for Power and Signal Transmission, consists of two 18 gauge and two 22 gauge wires in one ft. (0.3 m) increments
190470	Wall Mounting Bracket for Model 1535
210012	Self-Stripping Electrical Connector
197019	Dot Matrix Printer Paper (10 rolls)

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Controlled Environment Equipment

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