

CMS-II Features At a Glance

■ SCALABLE

A user can "build" a system from a single work station to a complete enterprise solution reaching across continents.

■ FLEXIBLE ALARM NOTIFICATION

Alarm notifications can be customized, allowing responsibility splits between departments, work groups and schedules. Priorities can be set for various methods including phone, pager and e-mail.

■ VALIDATION

Hampshire Controls provides a protocol and documentation package for users to easily validate their system.

■ 21 CFR PART II COMPLIANT

■ EASE OF USE

Intuitive graphical interface is easy to learn and use.

■ TRAINING

Hampshire Controls training seminars are formatted to give system administrators the tools necessary to train new users and maintain an audit trail of the knowledge transfer back to the manufacturer.

■ CUSTOMER SUPPORT

Hampshire Controls prides itself in setting the standard for after the sale support. Our systems are designed so that most problems can be resolved over the phone, and we stock replacement items for next day delivery.

Compliance With:

- 21 CFR 11 Requirements for Electronic Signatures
- 21 CFR 211.25 Requirements for Training
- 21 CFR Part 606.140, 606.160 Blood Bank Regulations
- 21 CFR 806, 820 Quality System Requirements
- FDA Docket No. 93-394 Guidelines for Quality Assurance in Blood Banks
- Accuracy, Resolution and Range Requirements of National Committee for Clinical Laboratories
- Safety Certificates UL 3 121-1, EN 61011, IEC 61010-1
- EMC FCC Part 15-A, EN 61326, EN 55011
- CE EN 61326-1:1997 A1:1988
- CAN/CSA -C22.2 No. 1010.1-92, "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use - Part 1: General Requirements".

Technical Specifications

■ REMOTE NODE

- 32 to 64 inputs in various combinations of temperature, current, voltage or contact closure
- Temperature range, RTD, standard: -200 C to +150 C
- Temperature range, RTD, extended: -200 C to +850 C
- Current: 4-20 mA
- Voltage: 0 to 1 V, 0 to 10V
- Other ranges and input types available on request
- Analog to digital converter resolution: 16 bits
- Nominal Temperature Accuracy: 0.1 C
- Resolution: 0.03 C
- Nominal Current Accuracy: 0.01 mA + .04%
- Nominal Voltage Accuracy: 0.5 mV + .03%
- Power requirements: 120 VAC, 30 W 10/100 Ethernet Port
- Optional local alarm horn and silence button

■ COMMUNICATIONS

- TCP/IP between Central Station and all remotes
- Does not need to be Ethernet

■ CENTRAL STATION PC MINIMUM REQUIREMENTS

- Operating System: Windows XP/2000
- Processor: Pentium/Celeron, 800 MHz
- RAM: 1G
- Hard Drive: 20G
- 10/100 Ethernet port
- Color SVGA screen
- CD drive

■ SYSTEM

- Up to 1024 Remote Nodes per system
- Up to 4 alarm limits per channel: Hi Warn, Hi Alarm, Lo Warn, Lo Alarm
- All limits can be set or enabled for each channel individually
- Multiple equipment groups and user groups allow for precise assignment of responsibility and authority
- Contact schedules permit different notification sequences for different times of day
- Users can be contacted by phone, pager or email

About Our Company

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

- Model 140 single probe temperature monitor
- Model 140-200R LN2 temperature monitor
- Model TS-4 multi-probe temperature monitor
- Model LD-200 LN2 level detector alarm
- TempCheck rapid response thermometer
- Dataplex-32 multipoint monitor/logger
- Model AFM air flow monitor
- Custom microprocessor subassemblies, software

CMS-II

Central Monitoring System



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CMS-II

A Feature-Rich Monitoring, Recording & Alarm System for Environmental Parameters

THE CMS-II DATA NODE

A CMS-II system is built around independent nodes

- Each node is comprised of Input/Output modules and a Controller module
- In the event of a network failure a node continues to monitor, control, record and alarm
- Unsafe or fault conditions are detected and the appropriate personnel are notified
- Single Point Failure Protection – A failed component has no detrimental effect on other system components

SENSORS

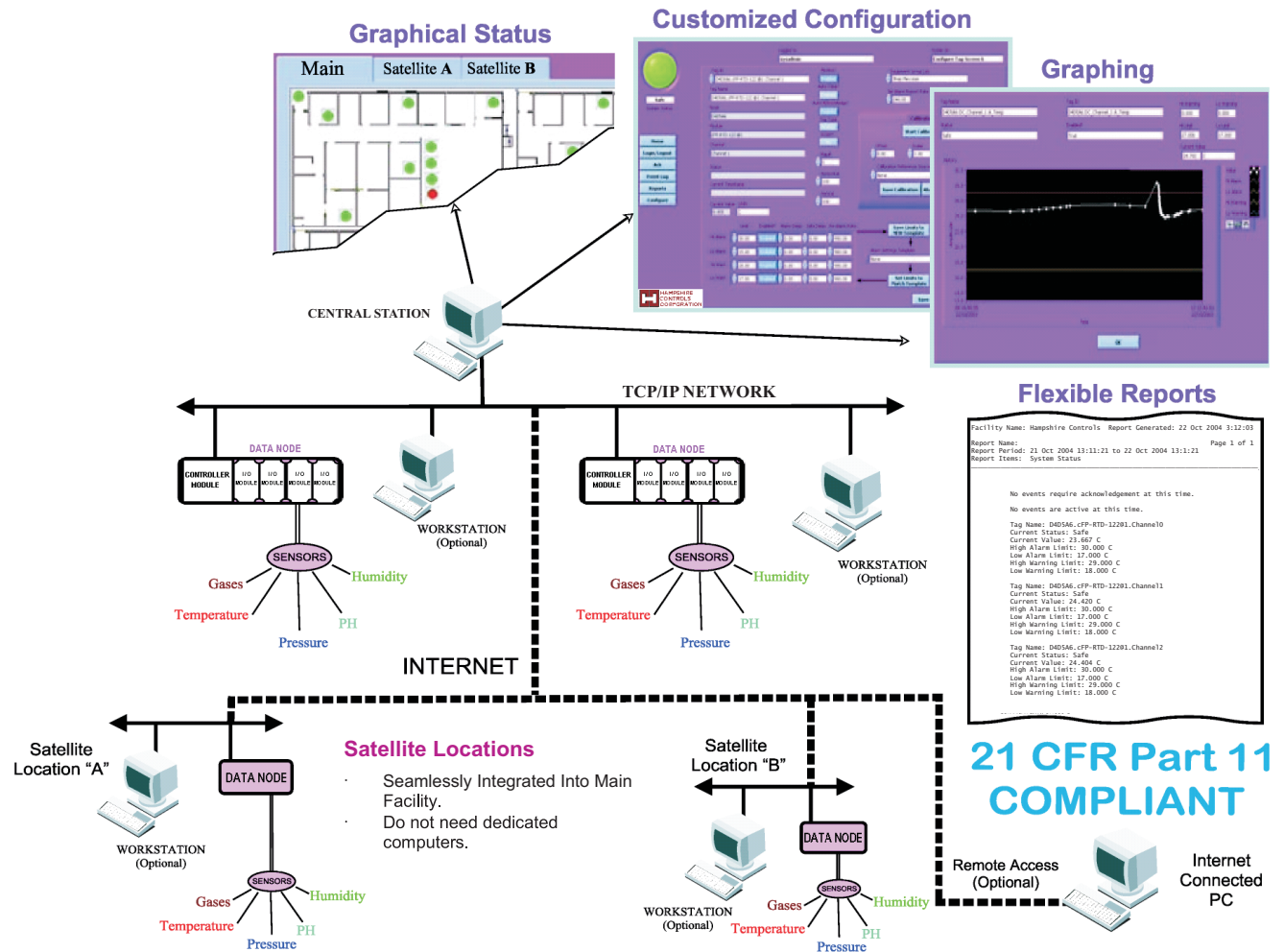
CMS-II utilizes industry standard sensors and can monitor virtually any needed parameter including:

- Temperature
- Humidity
- Pressure
- Light
- Gas
- Digital I/O

- Sensors can be organized into Equipment Groups and assigned access and responsibility rights
- Assign alarm notification by groups with customized scheduling

CMS-II NETWORK

- Nodes are networked using an organizations existing TCP/IP wiring
- Compatible with almost all LAN, WAN, or intranet configurations
- Allows seamless integration of on-site and off-site nodes
- No need for dedicated phone lines for remote facilities



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