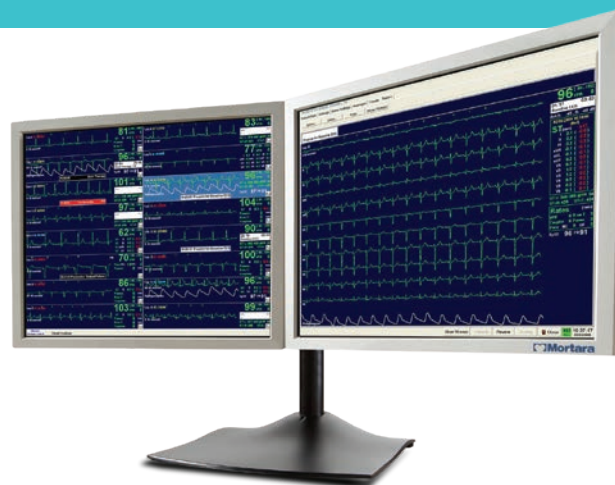


# Surveyor™ Central Bedside and Telemetry Patient Monitoring Specifications

## Product Features

- **12-lead ECG Monitoring (Optional)** — The Surveyor™ Central System enables continuous 12-lead ECG monitoring and trending using the VERITAS® ECG algorithm with the Surveyor S12/S19 bedside monitors and the Surveyor S4 wireless mobile monitor. Continuous 12-lead monitoring enables diagnostic 12-lead ECGs with measurements and interpretation automatically printed and exported to an E-Scribe™ data management system.
- **Multiparameter Bedside Monitoring** — Both the S12 and S19 Surveyor patient monitors support options for pulse oximetry, non-invasive blood pressure, invasive pressures, capnography, temperature and respiration, along with 3- or 5-wire, and 12-lead ECG display and storage. Bidirectional communication between the monitors and the Surveyor Central System provides continuity of patient data, as well as critical settings such as alarms.
- **Full Disclosure Storage** — Continuously monitored multiparameter data can be reviewed online or archived for retrospective view. ECG data can also be exported for full Holter analysis.
- **Data Distribution and Integration** — The Surveyor Central System offers optional Review and Repeater Stations for access to real-time and archived data.  
HL7® data exchange is supported allowing demographics management at the Hospital Information Systems (HIS), as well as receipt of trend, event, parameter and monitoring status data (optional).
- **Workflow Manager** — User-programmable workflow provides automatic reminders, 12-lead ECG printouts and export of timed events.



## Surveyor™ Central System

Feature	Specification*
Product Type	Patient monitoring central station
Operating System	Microsoft® Windows® 10 Professional workstation Microsoft Windows Server 2008 server (optional)
Monitor	Single or dual display with suggested minimum native resolution of 1920 x 1080; minimum 24" in size; single touchscreen display option available
Input	Standard keyboard and mouse
Telemetry ECG Acquisition	500 samples/second for ECG analysis and transmission. 40,000 samples/second for pacemaker detection
Resolution	2.5µV
Frequency Response	According to IEC 60601-2-25 and IEC 60601-2-27
Acquired ECG Leads	I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6 (Surveyor S4 with 10-wire ECG cable or Surveyor S12/S19 with AM12M). I, II or III with 3-wire ECG cable. I, II, III, aVR, aVL, aVF and V with 5-wire ECG cable.
Displayed Waveforms per Patient	Up to 12 channels can be displayed simultaneously in the single-patient display; user-defined from a selection of 18 possible parameters
Stored Parameters and Trends	12-lead ECG and average complexes with ST segment analysis, heart rate and pulse oximetry. Bedside monitoring only: temperature, respiration, non-invasive blood pressure, invasive pressures, CO <sub>2</sub> and hemodynamic report. Telemetry monitoring only: ectopic rate, R-on-T rate, couplet rate, pause rate, pacemaker failure rate, HR (QT), PR interval, QRS duration, QT interval, QTc Mortara, QTc Bazett and QTc Fridericia
Alarms	High HR, low HR, tachycardia, bradycardia, cardiac arrest, ventricular tachycardia, sustained ventricular tachycardia, ventricular fibrillation, ST segment change, extended arrhythmias (bigeminy, irregular rhythm, couplets, high ectopic rate, resting ECG QTc), SpO <sub>2</sub> and technical alarms such as lead fail, low battery, patient call and noise. Bedside monitoring only: pause, non-invasive blood pressure, invasive pressures, temperatures, respiration and CO <sub>2</sub> . Telemetry monitoring only: trigeminy, QRS morphology change, R-on-T, missing QRS and pacemaker failure, impedance test and transmitter out of range
Alarm Types	Visual and audible; user-defined high, medium, low and informational notification
Storage	Up to 600 patient days; up to 1,200 patient days with optional storage server
Full Disclosure Archive	Offline to USB media or network directory
Patients per System	Up to 64 patients can be monitored simultaneously
Network	IEEE 802.3 Gigabit Ethernet Interface; the Surveyor Central System uses a dedicated network that is isolated from the customer's enterprise network by a firewall; the Surveyor S4 monitor uses a dedicated BSSID on the customer's existing WiFi® infrastructure
Power Requirements	110V or 220V, 400 W (typical)
Environmental Conditions	+10° to +35° C; 15% to 80% humidity w/o condensation; Operating: 0 to 3,048m (10,000 ft)
Project Management	A site survey performed by authorized representatives will determine the most suitable network environment with recommendations for power, cabling and network installation prior to shipment. Project management services are optionally available providing coordination of all project activities.

\*Specifications subject to change without notice.

For more information, contact your local Welch Allyn representative or visit [www.welchallyn.com](http://www.welchallyn.com).



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