



SURVEYOR S19 and S12 PATIENT MONITORING SYSTEMS

FEATURE	SPECIFICATIONS*
CO2	
MEASUREMENT METHOD	Side-stream (Non-dispersive IR absorption)
TECHNOLOGY	Covidien® Microstream®
INPUT CONNECTOR	FilterLine®
MEASUREMENT RANGE	etCO2: + FiCO2: 0 to 150 mmHg Resp: 0 to 150 bpm
TRENDS	
TREND DATA	Up to 72 hours of parameter data
TREND DISPLAY INTERVALS	1 min, 5 min, 15 min, 1 hr, 4 hrs
POWER REQUIREMENTS	
POWER SOURCE	AC power/battery
AC POWER SOURCE	External AC power adapter 100 - 240 VAC; 1.2 A max; 50 - 60 Hz
BATTERY TYPE	Internal lithium-ion rechargeable; 8700 mAh
BATTERY RUNTIME	S12: 3 hrs S19: 2 hrs
BATTERY RECHARGE TIME	Powered off: 5 hrs maximum Powered on: S12: 7 hrs maximum S19: 20 hrs maximum

*Specifications subject to change without notice.



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ISO 13485 CERTIFIED

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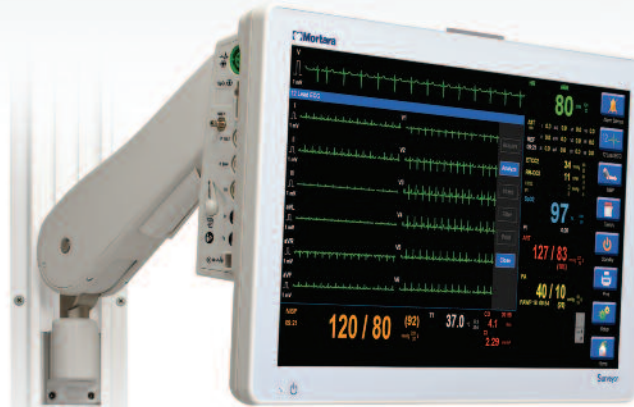
WARRANTY + SERVICE

Mortara Instrument is committed to the highest level of customer support. Please contact us for the program which best suits your needs.



Surveyor S19 & S12

PATIENT MONITORING SYSTEMS



Surveyor S19 wall mounted

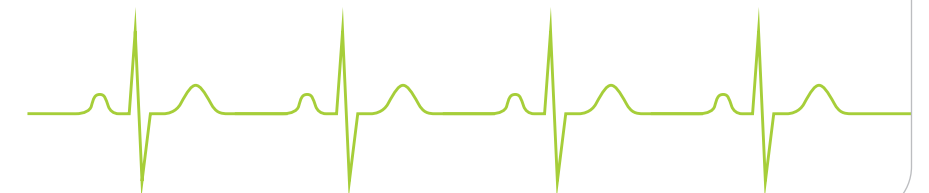


Surveyor S12 wall mounted

PRODUCT FEATURES

- Modern and Flexible Patient Monitoring System**
 Modern bedside monitoring platform offering a simple and intuitive touchscreen user interface, plus exceptional visibility.
- Slim Design**
 Slender and streamlined monitor design provides convenience and ease in crowded patient rooms.
- Portable Solution**
 Surveyor™ S12, with high-resolution 12" touchscreen display, extensive battery runtime, and integrated handle, is an ideal portable monitoring solution.
- High Acuity Solution**
 Surveyor S19, with high-resolution 19" touchscreen display, offers a comprehensive solution for advanced monitoring needs.
- Impressive Flexibility**
 Configurable display layouts, supporting up to 8 waveforms of data plus a 12-lead display format, enable users to customize their system.
- Innovative ECG Acquisition Module**
 Utilizes Mortara's unique AM12™ acquisition module with replaceable lead wires, and lead fail indicator for added convenience and efficiency.
- Multiple Printing Options**
 Surveyor S12 includes an integral thermal recorder. Surveyor S19 offers an external, thermal printing solution for added flexibility.
- Comprehensive Central Monitoring Capabilities**
 Communicate with the Surveyor Central for a complete patient monitoring solution.
- Streamlined Connectivity**
 Surveyor patient monitors have the capability of interfacing directly with EHR systems to annotate real-time vital signs and waveforms in patient records.

PATIENT monitoring



SURVEYOR S19 and S12 PATIENT MONITORING SYSTEMS

FEATURE	SPECIFICATIONS*
INSTRUMENT TYPE	Patient Monitor
DIMENSIONS	S12: 315 W x 203 H x 125mm D (12.4 W x 8 H x 4.9" D) S19: 468 W x 289 H x 97mm D (18.4 W x 11.4 H x 3.8" D)
WEIGHT	S12: 3 kg (6.6 lbs) standard configuration; includes battery and built-in recorder S19: 5 kg (11.2 lbs) standard configuration; includes battery, excludes recorder
DISPLAY TYPE	High-definition, antiglare 16:9 color TFT LCD with LED backlight and resistive touch panel controls
DISPLAY SIZE	S12: 11.6" diagonal; 256mm x 144mm active area S19: 18.5" diagonal; 410mm x 230mm active area
DISPLAY RESOLUTION	S12: 1366 x 768 pixels S19: 1366 x 768 pixels
RECORDER TYPE	S12: Thermal; 2-trace; built-in S19: Thermal; 2-trace; external
RECORDER SPEED/RESOLUTION	25mm/s, 200 (v) x 400 (h) dpi
PRINT WIDTH/PAPER WIDTH	48mm/50mm
PRINT FORMATS	Strip chart printing of 2 user-selectable waveforms (ECG, IBP, SpO2, CO2)
ECG	
ECG MODES	Adult/pediatric
SIMULTANEOUS LEADS AVAILABLE	3-lead patient cable: I, II, III 5-lead patient cable: I, II, III, aVR, aVL, aVF, and V AM12: I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6
INTERPRETATION	Available with AM12 acquisition module only
ECG GAIN	2.5, 5, 10, or 20 mm/mV
BEAT RECOGNITION	Normal, ventricular, paced
HR MEASUREMENT RANGE	15 - 300 bpm
PACER DISPLAY/ANALYSIS	User selectable
ARRHYTHMIA DETECTION	VFib, Asystole, VTach, PVC Run, VRhythm, Couplet, Bigeminy, Sustained Tachycardia, Sustained Bradycardia, Irregular, PVC/m too high, Pause, Pacer Non-Capture
ST SEGMENT ANALYSIS	Sensing leads: any ECG lead available based on lead set used
RESPIRATION	
METHOD 1	Capnography Range: 0 to 150 bpm
METHOD 2	Impedance Pneumography Via 3 - or 5-lead patient cable Sensing lead II Range: 2 to 120 bpm

SURVEYOR S19 and S12 PATIENT MONITORING SYSTEMS

FEATURE	SPECIFICATIONS*
NON-INVASIVE BLOOD PRESSURE	
MEASUREMENT METHOD	Oscillometric
INPUT CONNECTOR	Single Lumen Hose (Quick-disconnect fitting)
NIBP MEASUREMENT RANGE	Systolic: 30 - 250 mmHg Mean: 20 - 230 mmHg Diastolic: 10 - 210 mmHg
MEASUREMENT MODES	Manual or interval (auto) measurement
INTERVAL MEASUREMENT SETTINGS	OFF, 3, 5, 10, 15, 30, 60 minutes
PULSE RATE MEASUREMENT RANGE	30 - 240 bpm
INVASIVE PRESSURE	
MEASUREMENT RANGE	-50 to 300 mmHg
PULSE RATE MEASUREMENT RANGE	30 - 250 bpm
PULSE OXIMETRY	
MEASUREMENT METHOD	Absorption - Spectrophotometric (dual wavelength)
TECHNOLOGY	Nellcor™ OxiMax™ or Mortara Surveyor
MEASUREMENT RANGE	SpO2: 30 - 100%, calibrated range 70-100%
PULSE RATE MEASUREMENT RANGE	PR with Surveyor SpO2: 30 - 240 bpm PR with Nellcor SpO2: 25 - 250 bpm
TEMPERATURE	
INPUT CONNECTOR	2-pin connector
TEMP MEASUREMENT RANGE	T1 & T2: 5.0 to 50.0°C (41.0 to 122.0°F) ΔT: 0.0 to 50.0°C (32.0 to 122.0°F)
PROBE COMPATIBILITY	YSI 400-series probes
CARDIAC OUTPUT	
MEASUREMENT METHOD	Thermodilution
CO MEASUREMENT RANGE	0.3 to 20.0 l/min
MEASUREMENT START	Automatic, manual
CO AVERAGING	Up to 4
BLOOD TEMPERATURE MEASUREMENT RANGE	33.0 - 40.0°C
INJECTATE TEMPERATURE MEASUREMENT RANGE	0.0 - 40.0°C
COMPUTATION CONSTANT RANGE	0.000 - 0.999
HEMODYNAMIC CALCULATIONS	CO, CI, BSA, SV, SVI, SVR, SVRI, PVR, PVRI, LVSW, LVSWI, RCW, RCWI, RVSW, RVSWI, PAWP