

# MRI Monitor

All-in-one monitor for the MRI environment

The MRI Monitor helps manage Clinical Information Logistics™ needs by enabling caregivers to access important information at the point of care. Designed for the MRI environment, the MRI Monitor provides a comprehensive range of monitoring parameters, an intuitive user interface, anesthesia documentation and data transfer between care areas. Multiple mounting options and a wide range of accessories ensure easy and flexible workplace configuration.



## Features

- Validated for use in MRI scanners up to three Tesla outside the magnetic field strength of 300 Gauss
- Full S/5 Network and iCentral monitoring capabilities
- Active remote screen for viewing and controlling the monitor outside the MRI room
- Large 12.1-inch active matrix color display with optimized screen lay-out
- Intuitive usability and user interface including modes, pages, direct access keys and online help
- Continuity of patient vital sign data across S/5 Network through normal network interfaces as well as DataCard™
- Built-in back-up batteries charged automatically when connected to main power
- Improved safety with measurements and alarms of magnetic field strength

## Parameters

- Hemodynamic options developed specifically for the MRI environment to measure three-lead ECG, SpO<sub>2</sub>, NIBP and two invasive pressures
- Airway gas measurement with anesthetic agents and Patient Spirometry™ available with Compact Airway options

## Accessories

- Specially designed ECG and SpO<sub>2</sub> accessories for use in the MRI environment
- Standard GE accessories to be used in NIBP, IBP and airway gas monitoring
- Cart for easy positioning and mobility between care areas



## Technical Specifications

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### Display

Display size	12.1-in diagonal
Display type	Active matrix color TFT LCD
Display resolution	SVGA resolution, 800 x 600
Number of waveforms	Up to 8
Number of digit fields	Up to 4
Display layout and colors	User-configurable
Integrated Command Board with direct function keys, menu keys and ComWheel for selections and adjustments in menus	

### Frame

I/O connections	Connector for remote controller, external keyboard and barcode reader with Y-cable, network, and active remote screen
Network	Compatible with S/5 Network and iCentral for monitor-to-monitor communication, centralized viewing and remote alarm management
Wired network option	Allows the monitor to utilize wired network for centralized monitoring
Printing	Laser printing capabilities serial printer supporting PCL5 language or network printer (serial/parallel converter, additional accessory)
Recorder option	Built-in, three-channel thermal array recorder, optional
Mounting options	Wall mount and MRI cart roll stand
DataCard option	To transfer the trended data of patient vital signs from MRI Monitor to other monitors

## Performance Specifications

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### Trends

Graphical	All measured parameters, 8 selectable time scales from 20 min to 24 hours
Numerical	All measured parameters, sampled every 5 min, after NIBP measurement and with marker generated by user
Trend cursor	In both graphical and numerical trends
Minitrends	5- or 30-min minitrends can be displayed for a continuous historical view

### Alarms

Classification	Alarm system classified into three categories according to acuity level of alarm color and audio tone coded
Adjustment	Central alarm display and adjustment page. Can be adjusted remotely with active remote screen or network
Trending	10-min graphical mini-trends referenced to set alarm limits

## Power Specifications

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### Power supply

Rated voltage range and frequencies	100 to 240V ±10%, 50/60 Hz
Maximum power consumption	140 VA
Protection class	Class I
Grounding	Hospital grade
Allowed voltage function	±10%

### Battery

Type	Built-in NiMH battery
Capacity	Up to 1.5 hours typical on full charge at 23°C (73°F)
Recharging	When connected to mains power
Charging time	10 hours to full capacity

### Battery operation alarm

Early warning	'Battery low' note
Final warning	'Battery low' alarm
Battery state indicator	Capacity bar displayed on the screen

## Environmental Specifications

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Operating temperature	10°C to 35°C (50°F to 95°F)
Storage temperature	10°C to 50°C (14°F to 122°F)
Relative humidity	10 to 90 % non-condensing

## Physical Specifications

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### Frame dimensions and weight

Dimensions (H x W x D)	372 x 455 x 300 mm (14.7 in x 17.9 x 11.8 in)
Weight (with modules)	21 kg (46 lb)

### Active Remote Screen option

Compatible with external display Active remote screen option of the MRI Monitor.

Power supply voltage	8 to 28 V, 8 W (typical), internally powered
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### Optical elements

Wavelength	850 nm
Optical power	40 µW in 50 µm cable (typical)
Maximum optical loss	4 dB
Optical cable	50/125 µ gradient type or 62.5/125 µ gradient type

### Extender dimensions

Weight	1.5 kg (3.31 lb)
Length/width/height	190 x 160 x 55 mm (7.5 x 6.3 x 2.2 in)

The following components are included in the N-MRIREMOTE option

Remote screen extender
Fiber optical cable
Command Bar for active remote screen



## Configuration Information

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### Hemodynamic configurations

Frame option	ECG	SpO <sub>2</sub> /pleth	NIBP	InvBP x 2
N-PSN	•	•	•	•
N-SN	•	•	•	

### Configurations with gas measurement

Frame option with gas	ECG	SpO <sub>2</sub> /pleth	NIBP	InvBP x 2
N-PSNG*	•	•	•	•
N-SNG*	•	•	•	

Airway gas option	CO <sub>2</sub>	Patient O <sub>2</sub>	N <sub>2</sub> O	Agents	Agent identification
E-MRICO	•	•	•		
E-MRICAiO	•	•	•	•	•

### Configurations with gas and spirometry

Frame option with gas and spirometry	ECG	SpO <sub>2</sub> /pleth	NIBP	InvBP x 2
N-PSNGV**	•	•	•	•
N-SNGV**	•	•	•	

Airway gas option	CO <sub>2</sub>	Patient O <sub>2</sub>	N <sub>2</sub> O	Agents	Agent identification	Spirometry
E-MRICAiOV	•	•	•	•	•	•

\* N-PSNG, N-SNG, N-PSNGV or N-SNGV needed for CO<sub>2</sub>, N<sub>2</sub>O, O<sub>2</sub>, and AA measurement

\*\* N-PSNGV or N-SNGV needed for spirometry option

N-PSN or N-PSNG or N-PSNGV needed for InvBP measurement

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