

GE Healthcare

Cardiocap/5

The compact, all-in-one,
anesthesia monitor



Features

- Integrated, hemodynamic and airway gas monitor specifically designed for operating and recovery rooms
- Proven intuitive user interface, including anesthesia-dedicated menu logic and alarm philosophy, as in all Datex-Ohmeda monitors
- Small and compact for places where space is a premium
- Large numerics and waveforms provide excellent visibility from a distance
- Built-in back-up battery to handle sudden power-down situations
- The frame-integrated mounting piece allows quick and easy mounting on optional wall mount, roll stand and anesthesia machine mounting arms

Available options

- Integrated airway gases O₂, N₂O and CO₂
- Automatic identification and measurement of all five anesthetic agents
- Patient Spirometry™ measured at the patient's airway
- Integrated NeuroMuscular Transmission (NMT) measurement with automated TOF (train-of-four) measurements
- Three-channel thermal array recorder
- Data/Network option provides data continuity as patient data and trends are transferred between Datex-Ohmeda monitors



Technical Data

General

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|-----------------------------------|---|
| Dimensions (WxDxH) | 330 x 220 x 300 mm/ 13.0 x 8.7 x 11.8 in |
| Weight | F-MXG: < 11.2 kg, (24.8 lb) F-MX: < 10.2 kg, (22.6 lb) |
| Power | 100-240 V AC \pm 10 %, 60/50 Hz |
| Back-up battery | 15 min minimum, charging time typically 5h |
| Graphical trends | 20 min, 1, 2, 4, 6, 8, 10, 12 and 24h |
| Numerical trends | All parameters, sampled every 5 min and after NIBP measurement |
| Alarms | Adjustable high and low limit alarms |
| Operating temperature | +10° to +40 °C/50° to 104 °F |
| Storage and transport temperature | -10° to +50 °C/14° to 122 °F |
| Relative humidity | 10 to 85 % noncondensing, in airway 0 to 100 % condensing |
| Atmospheric pressure | 660 to 1060 hPa/ 500 to 800 mmHg |
| Recorder (optional) | Thermal array, 3-channels, paper width 50 mm |
| Local printing | PCL-5 and later compatible laser printers |
| Mounting | Wall mount or roll stand available. See the accessory list or catalog to find more information. |
| Safety standards | IEC 60601-1 approved, CE marking according to MDD directive 93/42/EEC, CSA C 22.2.No. 601.1 approved, UL2601-1 approved |

Display

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| Display size and type | 10.4 inch LCD active matrix color |
| Number of traces | Up to 6 |
| Display resolution | 640 x 480 pixels |

ECG

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| Number of channels | 3 |
| Number of leads | 3 or 5 |
| ST analysis | 3 channels, continuous |
| Heart rate | |
| Measurement range | 30 to 250 beats per min (bpm) |
| Accuracy | \pm 5 % or \pm 5 bpm, whichever is greater |
| Pacemaker | |
| Pulse detection level | 2 to 500 mV |
| Pulse duration | 0.5 to 2 ms |

Impedance Respiration

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| Measurement method | Measurement uses ECG electrodes to measure the impedance changes as a result of breathing |
| Measurement range | 4 to 120 breaths/min |
| Accuracy | \pm 5 % or \pm 5 resp/min |

Pulse Oximetry (SpO₂), Standard

Plethysmographic waveform/plethysmogram

Measurement method Red and infrared light absorbtion SpO₂

Measurement range

SpO₂ 40 % to 100 %

Pulse rate 30 to 250 bpm

Accuracy,

SpO₂ (±1SD) 100 % to 80 %, ±2 digits
80 % to 50 %, ±3 digits
Below 50 %, unspecified

Pulse rate ±5 % or ±5 bpm

Note: Use only Oxytip+ sensors provided by GE. See the Cardiocap/5 User's Guide for a list of approved sensors. Refer to the sensor instructions for specific accuracy data.

Pulse Oximetry (SpO₂), Datex-Ohmeda

Datex-Ohmeda enhanced oxygen saturation (N-XOSAT option)

Plethysmographic waveform/plethysmogram

Measurement range

SpO₂ 1 % to 100 %

Pulse rate 30 to 250 bpm

Accuracy,

SpO₂ (±1SD) 100 % to 70 % ±2 digits or
100 % to 70 %, ±3 digits under clinical patient motion conditions,
Below 70 % unspecified

Pulse rate ±2 % or ±2 bpm, whichever is greater

Note: The enhanced oxygen saturation (N-XOSAT) option and Oxytip+ sensors are designed together as a system to ensure the highest clinical performance. Use only Oxytip+ sensors provided by GE. See the Cardiocap/5 User's Guide for a list of approved sensors. Refer to the sensor instructions for specific accuracy data.

Non-invasive Blood Pressure (NIBP)

Measurement range

Adult 25 to 260 mmHg

Child 25 to 195 mmHg

Infant 15 to 145 mmHg

Invasive Blood Pressure (InvBP)

Measurement range -40 to 320 mmHg

Measurement accuracy ±5 % or ±2 mmHg

Transducer sensitivity 5 µV/V/mmHg, 5 V dc, max 20 mA

PCWP (Pulmonary Capillary Wedge Pressure)

Temperature

Measurement range 10° to 45°C, (50° to 113°F)

Probe type Compatible with GE probes only

Measurement accuracy 25° to 45.0 °C: ± 0.1°C/
77° to 113 °F: ± 0.2°F
10° to 24.9 °C: ± 0.2°C/
50° to 76.8 °F: ± 0.4°F

Airway Gases

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| Measurement method | side stream |
| Sampling rate | 200 ml/min |
| Measurement range and accuracy | |
| CO ₂ | 0 to 15 vol%, ±(0.2 vol% + 2 % of reading) |
| O ₂ | 0 to 100 vol%, ±(1 vol% + 2 % of reading) |
| N ₂ O | 0 to 100 vol%, ±(2 vol% + 2 % of reading) |
| Hal, Iso, Enf | 0 to 6 vol%, ±0.2 vol% |
| Sevoflurane | 0 to 8 vol%, ±0.2 vol% |
| Desflurane | 0 to 20 vol% for 0 to 5 vol%, ±0.2 vol% for 5 to 10 vol%, ±0.5 vol% for 10 to 20 vol%, ±1.0 vol% |
| Identification threshold | 0.15 vol% |

Respiration from CO₂

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| Breath detection | 1 % variation in CO ₂ |
| Measurement range | 4 to 60 breaths/min |

Patient Spirometry

Measurement range and accuracy**

| | Adult | Pediatric |
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| Tidal volume | 150 to 2000 ml (±6 % or 30 ml) | 15 to 300 ml (±6 % or 4 ml) |
| Minute volume | 2 to 20 l/min (±6 %) | 0.5 to 5 l/min (±6 %) |
| Flow | 1.5 to 100 l/min | 0.25 to 25 l/min |
| Compliance | 4 to 100 ml/cmH ₂ O | 4 to 100 ml/cmH ₂ O |
| Airway resistance | 0 to 40 cmH ₂ O/l/sec | 0 to 40 cmH ₂ O/l/sec |
| Airway pressure | -20 to 100 cmH ₂ O (±1 cmH ₂ O) | -20 to 100 cmH ₂ O (not applicable) |

** Typical value

NeuroMuscular Transmission

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| Stimulation modes | Train-of-four, TOF Double burst (3.3), DBS Single twitch, ST 50Hz tetanic & post tetanic count, PTC |
| Stimulus current range | supramax 10 to 70 mA manual 10 to 70 mA (5mA steps) |
| Stimulus current | |
| accuracy | 10 % or ±3 mA, whichever is greater |
| Regional block mode | |
| Stimulation mode | Single twitch |
| Stimulus current | |
| range | 0 to 5.0 mA with 0.1 mA steps |
| Stimulus current | |
| accuracy | 20 % or ±0.3 mA, whichever is greater |

Ordering information

Monitor Frame and Type

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|----------------------------------|---------------|
| Cardiicap™/5 | 6051-0000-164 |
| Hemodynamic frame F-MX | 6050-0005-614 |
| Hemodynamic frame with gas F-MXG | 6050-0005-617 |

Software

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|------------------------------|---------------|
| Anesthesia software S-XANE01 | 6050-0005-615 |
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Parameter Options

Cardiicap/5

5-lead ECG, SpO₂, temperature, NIBP and impedance respiration.

Hemodynamic frame, F-MX

Optional built-in measuring parameters:

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| N-XP Invasive Pressures (2 pressures, and 2nd temperature) | 6050-0005-939 |
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| N-XOSAT Datex-Ohmeda enhanced SpO ₂ | 6050-0005-917 |
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Gas frame, F-MXG *

Optional built-in measuring parameters:

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| N-XP, Invasive Pressures (2 pressures, and 2nd Temp) | 6050-0005-940 |
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| N-XOSAT, Datex-Ohmeda enhanced SpO ₂ | 6050-0005-917 |
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| N-XC, Side Stream CO ₂ | 6050-0005-611 |
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| N-XCO, CO ₂ , N ₂ O and Patient Oxygen™ | 6050-0005-612 |
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| N-XCAiO, CO ₂ , N ₂ O, O ₂ , and anesthetic agents with automatic identification | 6050-0005-613 |
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| N-XV, Patient Spirometry (only with N-XCO or N-XCAiO) | 6050-0005-620 |
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| N-XNMT, NeuroMuscular Transmission (only with N-XCAiO) | 6050-0005-914 |
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No parameter upgrades are available.

* This option is not available in European Economic Area.

Recorder and Network

Data collection and data management options:

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| N-XREC, Recorder option for printouts, 3-channels | 6050-0005-941 |
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| N-XNET, Network option (connects monitor to Datex-Ohmeda Network) | 6050-0005-622 |
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N-XDNET, DataCard and Network option for storing and retrieving continuous physiological data trends

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| English | 6050-0005-700 |
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| French | 6050-0005-735 |
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| German | 6050-0005-736 |
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Localization

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| Danish | 6050-0006-007 |
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| Dutch | 6050-0005-997 |
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| English, UK | 6050-0005-998 |
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| English, US | 6050-0005-999 |
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| Finnish | 6050-0006-000 |
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| French | 6050-0006-001 |
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| German | 6050-0006-002 |
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| Italian | 6050-0006-003 |
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| Norwegian | 6050-0006-004 |
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| Polish | 6050-0006-516 |
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| Portuguese | 6050-0006-005 |
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| Spanish | 6050-0006-006 |
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| Swedish | 6050-0005-996 |
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Not all language versions are available for sale in each country - please check with the local representative for ordering details.

Cardiopac/5 Hemodynamic Frame (F-MX) and Options

| | ECG, 5-lead w/ ST analysis | SpO ₂ /Pleth | Temperature | NIBP | Impedance respiration | InvBP x 2 | Nellcor Comp. SpO ₂ | Datex-Ohmeda enhanced SpO ₂ | Thermal Recorder | Networking | Patient Data Continuity | |
|----------|----------------------------|-------------------------|-------------|------|-----------------------|-----------|--------------------------------|--|------------------|------------|-------------------------|----------------------------------|
| F-MX | • | • | 1 | • | • | | | | | | | 6051-0000-164 with 6050-0005-614 |
| N-XP | | | 2 | | | • | | | | | | 6050-0005-939 |
| N-XOSAT* | | | | | | | | • | | | | 6050-0005-917 |
| N-XREC | | | | | | | | | • | | | 6050-0005-941 |
| N-XNET | | | | | | | | | | • | | 6050-0005-622 |
| N-XDNET | | | | | | | | | | • | • | 6050-0005-700/735/736 |

* Only one of the following options may be selected:
N-XNMT or N-XOSAT
** Requires N-XCAiO
*** Requires either N-XCO or N-XCAiO

Cardiopac/5 Gas Frame (F-MXG) and Options

| | ECG, 5-lead w/ ST analysis | SpO ₂ /Pleth | Temperature | NIBP | Impedance respiration | InvBP x 2 | Nellcor Comp. SpO ₂ | Datex-Ohmeda enhanced SpO ₂ | Neuromuscular transmission | CO ₂ | Patient O ₂ | Patient N ₂ O | Anesthetic agents w/d | Patient Spirometry | Thermal Recorder | Networking | Patient Data Continuity | |
|------------|----------------------------|-------------------------|-------------|------|-----------------------|-----------|--------------------------------|--|----------------------------|-----------------|------------------------|--------------------------|-----------------------|--------------------|------------------|------------|-------------------------|----------------------------------|
| F-MXG | • | • | 1 | • | • | | | | | | | | | | | | | 6051-0000-164 with 6050-0005-617 |
| N-XP | | | 2 | | | • | | | | | | | | | | | | 6050-0005-940 |
| N-XOSAT* | | | | | | | | • | | | | | | | | | | 6050-0005-917 |
| N-XNMT*,** | | | | | | | | | • | | | | | | | | | 6050-0005-914 |
| N-XC | | | | | | | | | | • | | | | | | | | 6050-0005-611 |
| N-XCO | | | | | | | | | | • | • | • | | | | | | 6050-0005-612 |
| N-XCAiO | | | | | | | | | | • | • | • | • | | | | | 6050-0005-613 |
| N-XV*** | | | | | | | | | | | | | | • | | | | 6050-0005-620 |
| N-XREC | | | | | | | | | | | | | | | • | | | 6050-0005-941 |
| N-XNET | | | | | | | | | | | | | | | | • | | 6050-0005-622 |
| N-XDNET | | | | | | | | | | | | | | | | • | • | 6050-0005-700/735/736 |

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