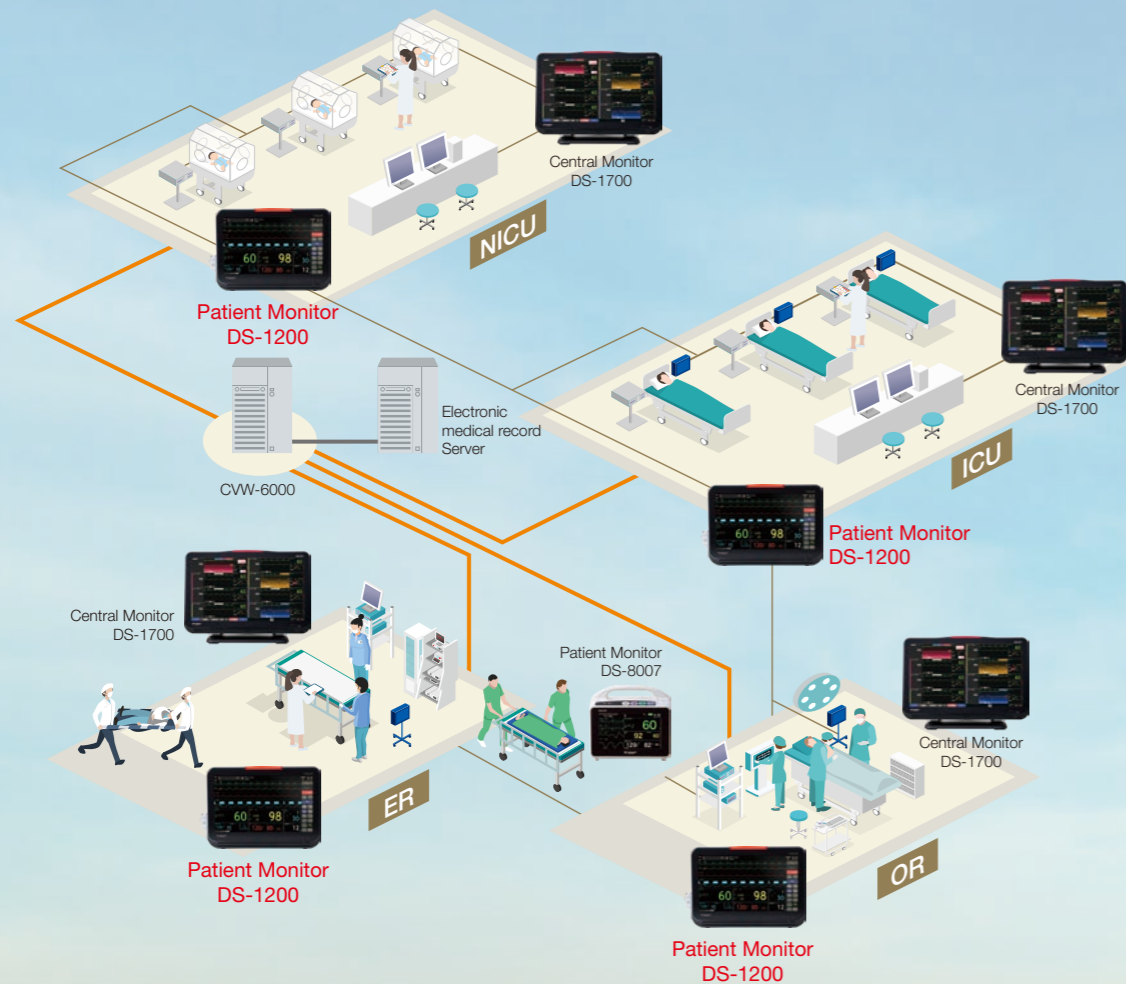## System data server storage system for the DS-1200 patient monitor

# This data storage system can be used to support a variety of critical care departments

Central Monitor
DS-1700

NICU

Patient Monitor
DS-1200

Electronic
medical record
Server

CVW-6000

Central Monitor
DS-1700

ICU

Patient Monitor
DS-1200

Central Monitor
DS-1700

Patient Monitor
DS-8007

Central Monitor
DS-1700

ER

Patient Monitor
DS-1200

OR

Patient Monitor
DS-1200

Patient Monitor
DS-1200

# DYNASCOPE
## DS-1200 System

DYNASCOPE

FUKUDA

CE 2797
UK CA 0086
MD

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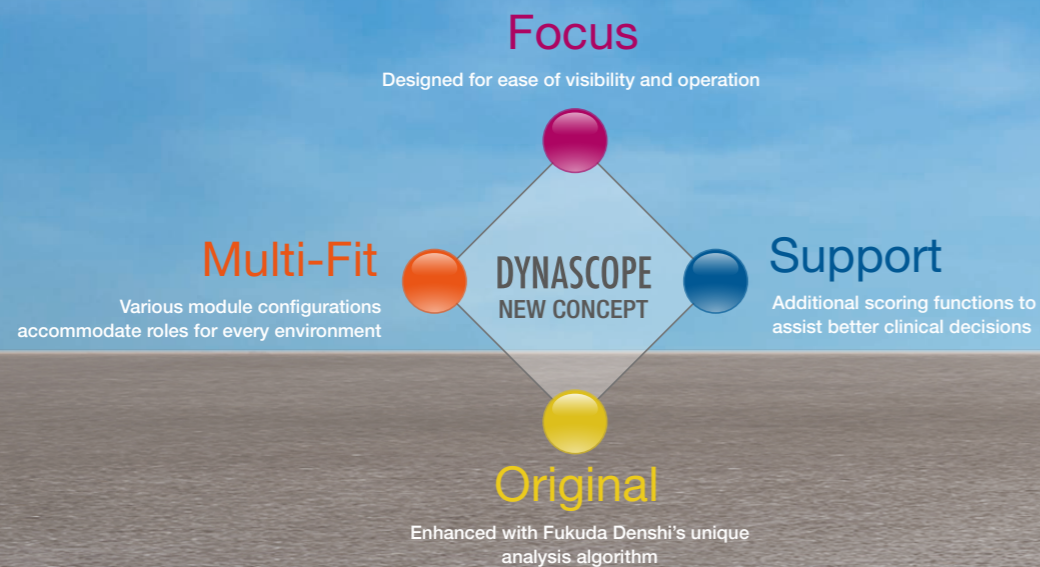Tel. +39 011 580 5202
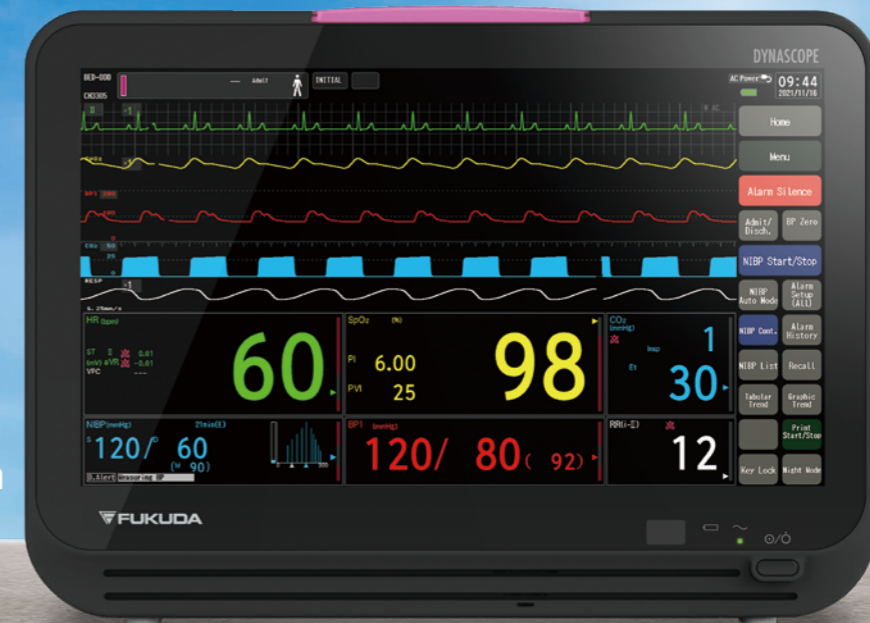Email: info@viglia.it

FUKUDA

# DYNASCOPE

## Adaptive Monitoring Solutions, Expandable technology for now and the future

### Flexible functionality to swiftly support all clinical environments.

The patient monitor DS-1200 system flexibly supports a variety of applications for use and monitoring parameters required in critical departments such as ICUs, CCUs, NICUs, and Operating rooms.

**Focus**
Designed for ease of visibility and operation

**Multi-Fit**
Various module configurations accommodate roles for every environment

**DYNASCOPE NEW CONCEPT**

**Support**
Additional scoring functions to assist better clinical decisions

**Original**
Enhanced with Fukuda Denshi's unique analysis algorithm

**DS-1200 System**
Patient Monitor

# Focus

## Designed for ease of visibility and operation



## All in One
### A variety of modules fit directly into the main unit

Newly designed modules for various measurements such as $EtCO_2$ and anesthetic gas concentration are tailored to fit within the main unit. This design was created to remove unnecessary cables and increase the available space for patient care.

## Familiar Flat design

Patient monitors used in busy clinical environments require both visibility that enables the instant and accurate understanding of the measured values, etc. during alarms and operability that enables rapid entry. Our system's display utilizes the same kind of flat design that is also used for smartphones and other mobile devices. The simple layout of the display design achieves both high visibility and stress-free operability, thereby supporting safe, accurate monitoring in ICUs and hospital wards.
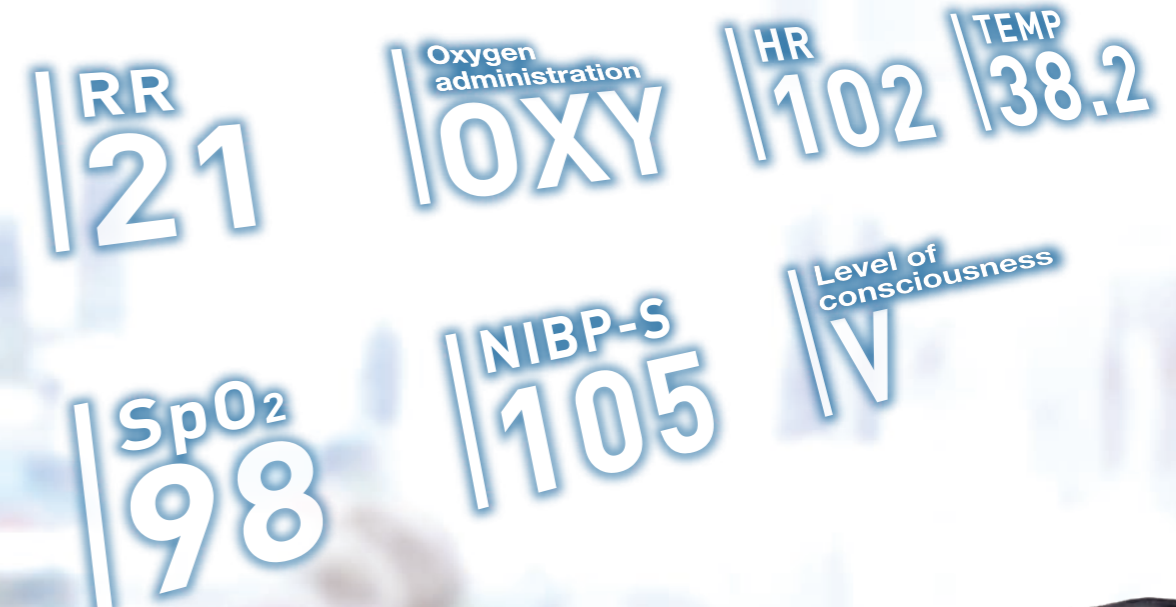
## Capacitive touch panel

Our system uses a touch panel screen that is clear and reduces glare. The screen specifically consists of an LCD surface with a sheet of touch-detecting film attached to it. The screen therefore achieves the clearer display of waveforms and numerical information while also being highly responsive to touch operations.

# Support

## Scoring function to support decision making

RR
21

Oxygen administration
OXY

HR
102

TEMP
38.2

SpO2
98

NIBP-S
105

Level of consciousness
V

## Equipped with EWS (early warning score)

Rapid response systems (RRS) are currently being introduced by many medical institutions to enable specialized teams to promptly intervene and provide medical treatment based on prescribed standards. Meanwhile, an early warning score (EWS) is based on the respiratory rate, body temperature, blood pressure, oxygen saturation, and level of consciousness, which are used as standards to trigger the RRS, and such a score can be used to provide patient care based on any set standards.

## Score mode equipped as standard

**NEWS 2** (National Early Warning Score)
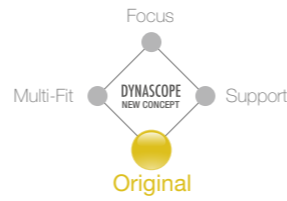This scoring system was released by the NHS (National Health Service) in 2017.

## Original score modes can also be set

The score can be set in combination with any other parameters according to hospital operations.
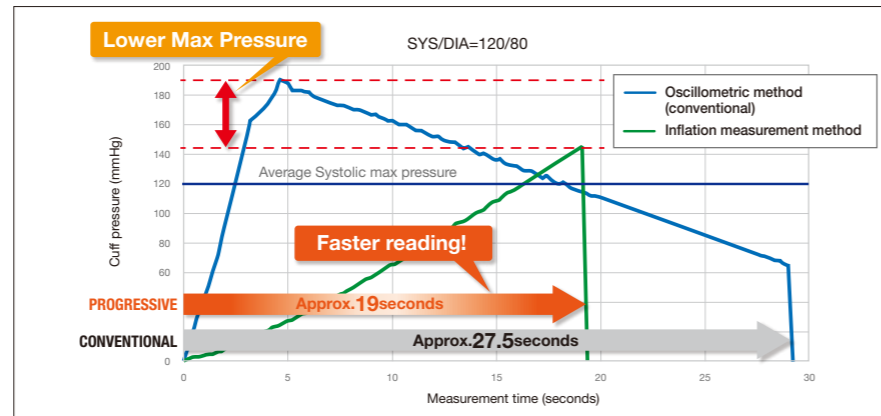
# Original

## Equipped with Fukuda Denshi original analysis algorithm

### Inflation NIBP Measurement Method

Fukuda Denshi's original algorithm uses the inflation NIBP measurement method, which enables a quicker, friendlier, and more stable NIBP measurement even in patients with bradycardia or hypotension.

*Stated settings should be enabled and only use the appropriate cuff specified by our company.

Lower Max Pressure

SYS/DIA=120/80

Oscillometric method (conventional)
Inflation measurement method

Average Systolic max pressure

Faster reading!

Cuff pressure (mmHg)

PROGRESSIVE  Approx.19seconds

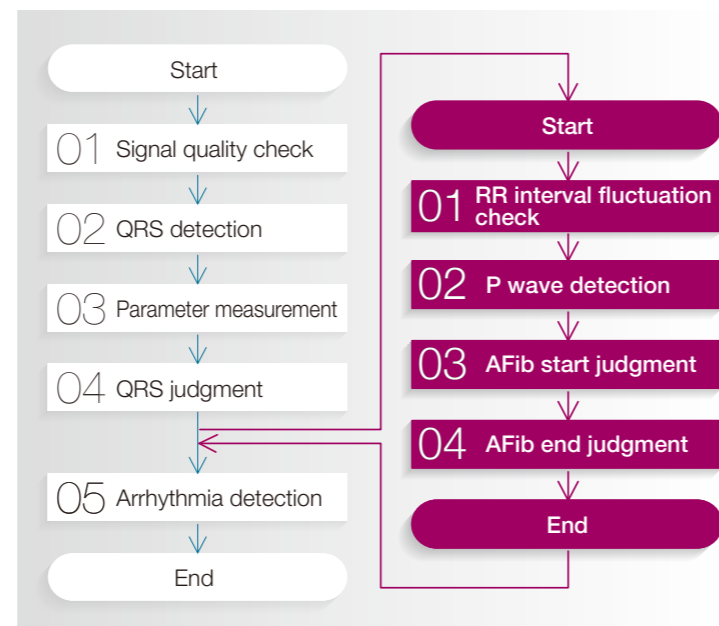CONVENTIONAL  Approx.27.5seconds

Measurement time (seconds)

### QT/QTc measurement

With its comprehensive set of waveform functions, our system can be used to achieve rapid and continuous QT/QTc monitoring.
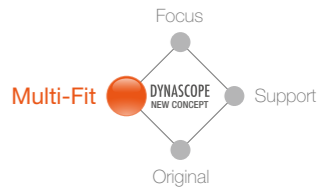This system can be easily used to quickly confirm the presence of long QT segments, which have been known to indicate cases with patients experiencing serious health issues or sometimes even sudden death.

### FUKUDA DENSHI'S original AF Analysis Flow included

In addition to our algorithm for analyzing 28 types of arrythmias, our system includes our own original analysis of Atrial fibrillation (AFib). Our unique analysis technology has been cultivated from our years of experience holding a large share of the Japanese Holter ECG market. This insight has been applied to the development of our technology and also included with our patient monitor.

Start

01 Signal quality check

02 QRS detection

03 Parameter measurement

04 QRS judgment

05 Arrhythmia detection

End

Start

01 RR interval fluctuation check

02 P wave detection

03 AFib start judgment

04 AFib end judgment

End

# Multi-Fit

## Various module configurations accommodate roles for every environment

Additional anesthetic gas module conducive to OR requirements all-in-one.

## OR

Interface module for anesthesia devices fits directly inside the main unit.

## ICU

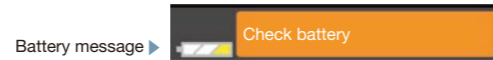NICU mode and dual $SpO_2$ are also available with an additional module.

## NICU

# Maintenance



## ■ 60-minute battery

Removable internal battery enables 60 minutes of continuous operation.

Battery message ▶ | Check battery

## ■ Centralized time management

If the central monitor is connected to the hospital's time server, the patient monitor's time will also be synchronized, eliminating the daily task of verifying the time. In addition, all data can be affirmed reliable because time is synchronized with the hospital's clock.

## ■ Data storage

Patient data is stored to the SD card.
Up to 240 hours of waveform data can be saved by using the larger optional SD card.

Central Monitor
DS-1700 System

15:06
05 Jul.2022

Patient Monitor
DS-1200 System

# Option lineups



Multi Gas Module S
MG-120

Multi Gas Module
MG-110

[Image of connection with BISx]

Gas Unit I/F Module
HC-120

CO₂ Gas Module
HC-110

BISx IF Cable (0.4m)
CJO-29TR0.4

Trolly
OTO-16S*

*When using the OTO-16S with the DS-1200, be sure to attach the OAO-1011A.
However, when using the *OTO-16L*, the OAO-1011A is not necessary.
For more information, please contact our representative.

## Specification

| | |
|---|---|
| **Size** | 400 (W) mm×290 (H) mm×170 (D) mm (not including the protrusion) |
| **Weight** | 5.0kg (not including the optional accesories) |

### Environment Conditions

| | |
|---|---|
| Operating Temperature | 10°C to 40°C |
| Operating Humidity | 30% to 85% (non condensing) |
| Transport/ Storage Temperature | -10°C to 60°C |
| Transport/ Storage Humidity | 10% to 95% (non condensing) |
| Storage Atmospheric Pressure | 80kPa-106kPa |

### Power Supply

| | |
|---|---|
| Rated Voltage | 100-240V AC |
| Frequency | 50/60Hz |
| Power Consumption | 100VA and below |

### Battery for Operating the Equipment

| | |
|---|---|
| Battey Operation Time | 1 hour (When NIBP measurement of 15 min intervals or other optional units are not operating) |
| | The battery operation time is based on the conditions below; The battery pack is fully charged, and no alarms are generated. |
| Battery Charging Time | Rapid Charge (when the device is not operating): 4 hours, Normal Charge (when the device is operating): 8 hours |

## Performance

### Display

| | |
|---|---|
| Display Device | 15.6 inch TFT Color LCD |
| Resolution | 15.6 inch: 1366 pixel × 768 pixel, refresh frequency 60 Hz |
| Function Control | Touch Screen Method |
| Displayed waveform | ECG, Resp, SpO₂, IBP Max. 8channels, EtCo₂ (optional)/ BIS (optional)/ Agent (optional) |
| Displayed parameter | Heart rate/ST/QT/arrhythmia Respiration rate (impedance) Arterial oxygen saturation, pulse rate SpCO, SpMet, SpHb, PVI (when Nellcor sensor is used) RR_SpO₂ (when Nellcor sensor is used) NIBP (SYS/DIA/MAP, Cuff pressure, pulse rate) IBP    Max. 8 channels (with optional module) Temp  Max. 8 channels (with optional module) CO    1 channel Gas concentration (EtCO₂, InspCO₂, N₂O(In/Ex), O₂ (In/Ex), AG (In/Ex), Respiratory rate) Shock index (SI) BIS, SR, EMG, SQI *Depends on the device configuration. |
| Arrhythmia analysis | 28 parameters Asystole, VF, VF, Slow VT, Run, Couplet, Pause, Bigeminy, Trigeminy, Frequent, Tachy, Brady, Ext Tachy, Ext Brady, R on T, Multiform, Vent Rhythm, SVT, AFib, Irregular RR, Prolonged RR, Pacer Not Capture, Pacer Not Pacing, Triplet, S Frequent, S Couplet, VPC, SVPC |

## Composition of the System

| Model | Specification | Recorder | Telemeter |
|---|---|---|---|
| DS-1200N | SpO₂ unit    Medtronic | × | × |
| DS-1200NR | | ○ | × |
| DS-1200NT | | × | ○ |
| DS-1200NRT | | ○ | ○ |
| DS-1200M | SpO₂ unit    MASIMO | × | × |
| DS-1200MR | | ○ | × |
| DS-1200MT | | × | ○ |
| DS-1200MRT | | ○ | ○ |

## Related product

| Model | Size | Specification |
|---|---|---|
| MG-110 | 80 (W)×100 (H)×135 (D) mm | Multi-gas module CO₂, O₂, N₂O, Agent |
| MG-120 | 120 (W)×100 (H)×135 (D) mm | Multi-gas module (with spiro) CO₂, O₂, N₂O, Agent |
| HC-110 | | CO₂ gas module ETCO₂ (side stream) |
| HC-120 | | Gas unit I/F module ETCO₂ (main stream) |
| HM-800 | 40 (W)×100 (H)×135 (D) mm | Multi-module (IBP, TEMP, CO)×2 |
| HG-810 | | SpO₂ module for Masimo's device |
| HG-820 | | SpO₂ module for Medtronic's device |
| HP-800 | | Multi-port module  External device connection |