# F Series
# Fetal & Maternal Monitor

Version V1.0

## Specification

| | | F2/F3 | F6 Series | F9 Series |
|---|---|---|---|---|
| Physical Specifications | Dimensions(D×W×H) | 350mm×300mm×104mm | 347mm×330mm×126mm | 347mm×330mm×126mm |
| | Weight | 3.5kg approx. | F6 5.3kg approx.<br>F6 Express 6.1kg approx. | F9 5.5kg approx.<br>F9 Express 6.3kg approx. |
| | Display | 5.6 inch<br>112.9mm (W) x 84.7mm (H)<br>640×480 Pixel<br>Normally White, Transmissive | 10.1 inch<br>800×600 Pixel<br>Multicolor LCD | 12.1 inch<br>800×600 Pixel<br>Multicolor LCD Touch Screen |
| | Signal Interface | RS232 Interface (DB9)<br>RJ45 Interface | RS232 Interface (DB9 or D-Sub)<br>RJ45 Interface | RS232 Interface (DB9 or D-Sub)<br>RJ45 Interface |
| | Ultrasound Transducer | 8-Crystal Transducer<br>Cable Length 2.5m<br>Weight 190g<br>Dimension 88mm × 35mm<br>Color Pink | 8-Crystal Transducer<br>Cable Length 2.5m<br>Weight 190g<br>Dimension 88mm × 35mm<br>Color Pink | 12-Crystal Transducer<br>Cable Length 2.5m<br>Weight 190g<br>Dimension 88mm × 35mm<br>Color Identification<br>Color Yellow/Purple |
| | TOCO Transducer | Cable Length 2.5m<br>Weight 180g<br>Dimension 88mm × 35mm | Cable Length 2.5m<br>Weight 180g<br>Dimension 88mm × 35mm | Cable Length 2.5m<br>Weight 180g<br>Dimension 88mm × 35mm |
| | Remote Event Marker | Cable Length 2.5m<br>Weight 56g | Cable Length 2.5m<br>Weight 56g | Cable Length 2.5m<br>Weight 56g |
| | ECG | N/A | Cable Length 3m<br>Weight 213g | Cable Length 3m<br>Weight 213g |
| | SpO2 | N/A | Cable Length 2.4m<br>Weight 68g | Cable Length 2.4m<br>Weight 68g |
| | NIBP | N/A | Cable Length 3.3m<br>Weight 194g | Cable Length 3.3m<br>Weight 194g |
| | TEMP | N/A | Cable Length 3m<br>Weight 55g | Cable Length 3m<br>Weight 55g |
| Power Supply | Mains Supply | Operating Voltage 100V ~ 240V~<br>Operating Frequency 50Hz/60Hz<br>Input Power 1.0 ~ 0.5A | Operating Voltage 100V ~ 240V~<br>Operating Frequency 50Hz/60Hz<br>Input Power 1.0 ~ 0.5A | Operating Voltage 100V ~ 240V~<br>Operating Frequency 50Hz/60Hz<br>Input Power 1.0 ~ 0.5A |
| | Rechargeable Li-ion Battery | Nominal Voltage 14.8V<br>Nominal Capacity 5000mAh | Nominal Voltage 14.8V<br>Nominal Capacity 5000mAh | Nominal Voltage 14.8V<br>Nominal Capacity 5000mAh |

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|---|---|---|---|---|
| | | Continuous Working Time >7 hours<br>Necessary Charge Time <6 hours<br>Cycle Life >300 times | Continuous Working Time >2 hours<br>Necessary Charge Time <7 hours<br>Cycle Life >300 times | Continuous Working Time >2 hours<br>Necessary Charge Time <7 hours<br>Cycle Life >300 times |
| Recording | Recorder | Thermal Dot-matrix Recorder | Thermal Dot-matrix Recorder | Thermal Dot-matrix Recorder |
| | Paper | Z-fold, Thermosensitive<br>(Compatible with GE and Philips recorder papers) | Z-fold, Thermosensitive<br>(Compatible with GE and Philips recorder papers) | Z-fold, Thermosensitive<br>(Compatible with GE and Philips recorder papers) |
| | Paper Width | 152mm/150mm | 152mm/150mm | 152mm/150mm |
| | Effective Printing Width | 110mm (American Standard)<br>120mm (International Standard) | 110mm (American Standard)<br>120mm (International Standard) | 110mm (American Standard)<br>120mm (International Standard) |
| | FHR Printout Width | 70mm (American Standard)<br>80mm (International Standard) | 70mm (American Standard)<br>80mm (International Standard) | 70mm (American Standard)<br>80mm (International Standard) |
| | FHR Scaling | 30bpm/cm (American Standard)<br>20bpm/cm (International Standard) | 30bpm/cm (American Standard)<br>20bpm/cm (International Standard) | 30bpm/cm (American Standard)<br>20bpm/cm (International Standard) |
| | TOCO Printout Width | 40mm | 40mm | 40mm |
| | TOCO Scaling | 25%/cm | 25%/cm | 25%/cm |
| | Printing Speed | Standard Speed(Real-Time Traces) 1/2/3 cm/min<br>Fast Print Speed(Stored Traces) Up to 15mm/sec | Standard Speed(Real-Time Traces) 1/2/3 cm/min<br>Fast Print Speed(Stored Traces) Up to 15mm/sec | Standard Speed (Real-Time Traces) 1/2/3 cm/min<br>Fast Print Speed (Stored Traces) Up to 15mm/sec |
| | Accuracy of Data | ± 5% (X-Axis)<br>± 1% (Y-Axis) | ± 5% (X-Axis)<br>± 1% (Y-Axis) | ± 5% (X-Axis)<br>± 1% (Y-Axis) |
| | Resolution | 8 dots/mm | 8 dots/mm | 8 dots/mm |
| | Record Information | FHR1 trace/mark, FHR2 trace/mark, TOCO trace, AFM trace/black mark, fetal movement mark, event mark, fetal stimulation mark, AUTO-zero symbol, date, time, printing speed, ID, name, FHR2 Offset etc. | FHR1 trace/mark, FHR2 trace/mark, TOCO trace, AFM trace/black mark, fetal movement mark, event mark (and annotation), AUTO-zero symbol, alarm indicator, SOV alarm indicator, US1 and US2 signal loss alarm indicator, wired/wireless monitoring status mark, date, time, printing speed, ID, name, FHR2 Offset, HR, SpO2, SYS, DIA, MAP, PR, TEMP, CTG analysis results etc. | FHR1 trace/mark, FHR2 trace/mark, TOCO trace, AFM trace/black mark, fetal movement mark, event mark (and annotation), AUTO-zero symbol, alarm indicator, SOV alarm indicator, US1 and US2 signal loss alarm indicator, wired/wireless monitoring status mark, date, time, printing speed, ID, name, FHR2 Offset, HR, SpO2, SYS, DIA, MAP, PR, TEMP, CTG analysis results etc. |
| FHR | Operating Mode | PW with Autocorrelation | PW with Autocorrelation | PW with Autocorrelation |
| | Working Frequency | (1.0±10%)MHz | (1.0±10%)MHz | (1.0±10%)MHz |
| | Pulse Repetition Rate | 2KHz | 2KHz | 2KHz |
| | Pulse Duration | 92μs | 92μs | 92μs |
| | FHR Measurement Range | 50bpm ~ 240bpm | 50bpm ~ 240bpm | 50bpm ~ 240bpm |
| | Resolution | 1bpm | 1bpm | 1bpm |
| | Accuracy | ±2bpm | ±2bpm | ±1bpm |
| | Alarm | FHR Alarm | FHR Alarm | FHR Alarm |
| | Ultrasound Output | $I_{sppa.3}$<190W/cm$^2$<br>$I_{spta.3}$<94mW/cm$^2$<br>$I_{sata}$<20mW/cm$^2$<br>TI<1.0 MI<1.0 | $I_{sppa.3}$<190W/cm$^2$<br>$I_{spta.3}$<94mW/cm$^2$<br>$I_{sata}$<20mW/cm$^2$<br>TI<1.0 MI<1.0 | $I_{sppa.3}$<190W/cm$^2$<br>$I_{spta.3}$<94mW/cm$^2$<br>$I_{sata}$<20mW/cm$^2$<br>TI<1.0 MI<1.0 |
| | Temperature Rise | When applied to the patient, the ultrasound transducer may warm slightly (less than 2°C (3.6°F) above ambient temperature). When NOT applied, at the ambient temperature | When applied to the patient, the ultrasound transducer may warm slightly (less than 2°C (3.6°F) above ambient temperature). When NOT applied, at the ambient temperature | When applied to the patient, the ultrasound transducer may warm slightly (less than 2°C (3.6°F) above ambient temperature). When NOT applied, at the ambient temperature |

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| | | of 40°C (104°F), the ultrasound transducer may reach the highest temperature of 43°C (109.4°F). | of 40°C (104°F), the ultrasound transducer may reach the highest temperature of 43°C (109.4°F). | of 40°C (104°F), the ultrasound transducer may reach the highest temperature of 43°C (109.4°F). |
| | Effective Radiating Area | (628 ± 15%) $mm^2$ | (628 ± 15%)$mm^2$ | (942 ± 15%)$mm^2$ |
| | Dielectric Strength | >4000Vrms | >4000Vrms | >4000Vrms |
| | Other Info. | p- <1MPa<br>$I_{ob}$ <10mW/$cm^2$<br>$I_{spta}$ <100mW/$cm^2$<br>Max Output Power <15mW | p- <1MPa<br>$I_{ob}$ <10mW/$cm^2$<br>$I_{spta}$ <100mW/$cm^2$<br>Max Output Power <15mW | p- <1MPa<br>$I_{ob}$ <10mW/$cm^2$<br>$I_{spta}$ <100mW/$cm^2$<br>Max Output Power <15mW |
| TOCO | TOCO Range | 0 ~ 100 | 0 ~ 100 | 0 ~ 100 |
| | Non-linear Error | ±10% | ±10% | ±10% |
| | Resolution | 1 | 1 | 1 |
| | Baseline Drift due to Temperature Changes | 1 unit/min/°C (free air)<br>5 units/min/°C (underwater) | 1 unit/min/°C (free air)<br>5 units/min/°C (underwater) | 1 unit/min/°C (free air)<br>5 units/min/°C (underwater) |
| | Zero Mode | Automatic (TOCO value becomes zero or below lasting for 30 seconds)/Manual | Automatic (TOCO value becomes zero or below lasting for 30 seconds)/Manual | Automatic (TOCO value becomes zero or below lasting for 30 seconds)/Manual |
| | Dielectric Strength | >4000Vrms | >4000Vrms | 4000Vrms |
| DECG | DFHR Measurement Range | 30bpm ~ 240bpm | 30bpm ~ 240bpm | 30bpm ~ 240bpm |
| | Resolution | 1bpm | 1bpm | 1bpm |
| | Accuracy | ±1bpm | ±1bpm | ±1bpm |
| | Alarm | DFHR Alarm | DFHR Alarm | DFHR Alarm |
| | Technique | Peak-peak detection technique | Peak-peak detection technique | Peak-peak detection technique |
| | Input Impedance | >10MΩ (Differential, DC50/60Hz)<br>>20MΩ (Common Mode) | >10MΩ (Differential, DC50/60Hz)<br>>20MΩ (Common Mode) | >10MΩ (Differential, DC50/60Hz)<br>>20MΩ (Common Mode) |
| | CMRR | >110dB | >110dB | >110dB |
| | Noise | <4μVp | <4μVp | <4μVp |
| | Skin Voltage Tolerance | ±500mV | ±500mV | ±500mV |
| | Fetal Input Voltage Current | 20μVp ~ 3mVp | 20μVp ~ 3mVp | 20μVp ~ 3mVp |
| IUP | Pressure Range | 0mmHg ~ 100mmHg (0.0kP ~ 13.3 kPa) | 0mmHg ~ 100mmHg (0.0kP ~ 13.3 kPa) | 0mmHg ~ 100mmHg (0.0kP ~ 13.3kPa) |
| | Non-linear Error | ±3mmHg (±0.4kPa) | ±3mmHg (±0.4kPa) | ±3mmHg (±0.4kPa) |
| | Resolution | 1mmHg (0.1kPa) | 1mmHg (0.1kPa) | 1mmHg (0.1kPa) |
| | Sensitivity | 5μV/V/mmHg | 5μV/V/mmHg | 5μV/V/mmHg |
| | Zero Mode | Manual | Manual | Manual |
| MFM & AFM | Display Range | 0 ~ 999 | 0 ~ 999 | 0 ~ 999 |
| | FM Mode | Automatic/Manual | Automatic/Manual | Automatic/Manual |
| | AFM Mode | Trace (default)/Black Mark | Trace (default)/Black Mark | Trace (default)/Black Mark |
| | AMF Technique | Pulsed Doppler Ultrasound | Pulsed Doppler Ultrasound | Pulsed Doppler Ultrasound |
| MECG | MHR Measurement Range | N/A | 30bpm ~ 240bpm | 30bpm ~ 240bpm |
| | MHR Measuring Accuracy | N/A | ±2bpm | ±2bpm |
| | Resolution | N/A | 1 bpm | 1bpm |
| | MHR Alarm Limits | N/A | 30bpm ~ 240bpm | 30bpm ~ 240bpm |
| | Alarm | N/A | HR Alarm | HR Alarm |

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| | Anti-electric Shock Type | N/A | Defibrillating-proof | | Defibrillating-proof | |
| | Input Signal Range | N/A | ±8 mV PP | | ±8 mV PP | |
| | ECG Waveform | N/A | Manual control ECG waveform display | | Manual control ECG waveform display | |
| | ECG falls off | N/A | Detect Automatically | | Detect Automatically | |
| | Patient Leakage Current (Limit) | N/A | N.C. S.F.C.<br>d.c. 10μA 50μA<br>a.c. 10μA 50μA | | N.C. S.F.C.<br>d.c. 10μA 50μA<br>a.c. 10μA 50μA | |
| | Patient Auxiliary Current (Limit) | N/A | N.C. S.F.C.<br>d.c. 10μA 50μA<br>a.c. 10μA 50μA | | N.C. S.F.C.<br>d.c. 10μA 50μA<br>a.c. 10μA 50μA | |
| | Differential Input Impedance | N/A | >5MΩ | | >5MΩ | |
| | Display Sensitivity | N/A | 2.5mm/mV (×0.25), 5mm/mV (×0.5), 10mm/mV (×1), 20mm/mV (×2), AUTO gain | | 2.5mm/mV (×0.25), 5mm/mV (×0.5), 10mm/mV (×1), 20mm/mV (×2), AUTO gain | |
| | Electrode Offset Potential Tolerance | N/A | ±500mV | | ±500mV | |
| | Auxiliary Current (Leads off detection) | N/A | Active electrode <100nA<br>Reference electrode: <900nA | | Active electrode <100nA<br>Reference electrode: <900nA | |
| | Accuracy and Response to Irregular Rhythm | N/A | According with ANSI/AAMI EC13-2002 Sect.4.1.2.1 e)<br>The MHR value displays after a stable period of 20s:<br>Ventricular bigeminy 80bpm±1bpm<br>Slow alternating ventricular bigeminy 60bpm±1bpm<br>Rapid alternating ventricular bigeminy 120bpm±1bpm<br>Bidirectional systoles 91bpm±1bpm | | According with ANSI/AAMI EC13-2002 Sect.4.1.2.1 e)<br>The MHR value displays after a stable period of 20s:<br>Ventricular bigeminy 80bpm±1bpm<br>Slow alternating ventricular bigeminy 60bpm±1bpm<br>Rapid alternating ventricular bigeminy 120bpm±1bpm<br>Bidirectional systoles 91bpm±1bpm | |
| | Bandwidth(-3dB) | N/A | Diagnosis 0.05 Hz ~ 150 Hz<br>Monitor 0.5 Hz ~ 40 Hz | | Diagnosis 0.05Hz ~ 150Hz<br>Monitor 0.5Hz ~ 40Hz | |
| | Response time to Change in MHR | N/A | MHR range 80bpm ~ 120bpm<br>Range 7s ~ 8s (average 7.5s)<br>MHR range 80bpm ~ 40bpm<br>Range 7s ~ 8s (average 7.5s) | | MHR range 80bpm ~ 120bpm<br>Range 7s ~ 8s (average 7.5s)<br>MHR range 80bpm ~ 40bpm<br>Range 7s ~ 8s (average 7.5s) | |
| | Tall T-wave Rejection | N/A | Exceeds ANSI/AAMI EC13-2002 Sect. 3.1.2.1 (C)<br>minimum recommended 1.2mV T-Wave amplitude | | Exceeds ANSI/AAMI EC13-2002 Sect. 3.1.2.1 (C)<br>minimum recommended 1.2mV T-Wave amplitude | |
| $SpO_2$ | Measurement Range | N/A | 50% ~ 100% | | 50% ~ 100% | |
| | Resolution | N/A | 1% | | 1% | |
| | Measuring Accuracy (EDAN) | N/A | 90% ~ 100% ±2%<br>70% ~ 90% ±4%<br><70% unspecified | | 90% ~ 100% ±2%<br>70% ~ 90% ±4%<br><70% unspecified | |
| | Measuring Accuracy (Nellcor) | N/A | 70% ~ 100% ±2%<br><70% unspecified | | 70% ~ 100% ±2%<br><70% unspecified | |
| | Data update period (EDAN) | N/A | 1s | | 1s | |
| | Data update period (Nellcor) | N/A | 2s | | 2s | |
| | PR Measurement | N/A | Range 30 ~ 240bpm<br>Resolution 1bpm | | Range 30 ~ 240bpm<br>Resolution 1bpm | |

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| | | | Accuracy ±3bpm | Accuracy ±3bpm |
| | $SpO_2$ Alarm Limits | N/A | 50% ~ 100% | 50% ~ 100% |
| | Alarm | N/A | PR Alarm and $SpO_2$ Alarm | PR Alarm and $SpO_2$ Alarm |
| | Wavelength | N/A | Red light (660±3)nm<br>Infrared light (905±10)nm<br>Emitted light energy <15mW | Red light (660±3)nm<br>Infrared light (905±10)nm<br>Emitted light energy <15mW |
| NIBP | Measurement | N/A | Systolic Pressure<br>Diastolic Pressure<br>Mean Artery Pressure | Systolic Pressure<br>Diastolic Pressure<br>Mean Artery Pressure |
| | Method | N/A | Oscillometric Method | Oscillometric Method |
| | Measurement Range | N/A | Systolic Pressure 40mmHg ~ 270mmHg (5.3kPa ~ 36.0kPa)<br>Diastolic Pressure 10mmHg ~ 215mmHg (1.3kPa ~ 28.7kPa)<br>Mean Artery Pressure 20mmHg ~ 235mmHg (2.7kPa ~ 31.3kPa) | Systolic Pressure 40mmHg ~ 270mmHg (5.3kPa ~ 36.0kPa)<br>Diastolic Pressure 10mmHg ~ 215mmHg (1.3kPa ~ 28.7kPa)<br>Mean Artery Pressure 20mmHg ~ 235mmHg (2.7kPa ~ 31.3kPa) |
| | Resolution | N/A | 1mmHg (0.1kPa) | 1mmHg (0.1kPa) |
| | Measuring Accuracy | N/A | Max. average deviation ≤±5mmHg (≤±0.8kPa)<br>Max. standard deviation ≤8mmHg (≤1.2kPa) | Max. average deviation ≤±5mmHg (≤±0.8kPa)<br>Max. standard deviation ≤8mmHg (≤1.2kPa) |
| | Measuring Time (Normal) | N/A | 30 ~ 45s | 30 ~ 45s |
| | Measuring Time (MAX) | N/A | 120s | 120s |
| | Alarm Limits | N/A | Systolic Pressure 40mmHg ~ 270mmHg (5.3kPa ~ 36.0kPa)<br>Diastolic Pressure 10mmHg ~ 215mmHg (1.3kPa ~ 28.7kPa)<br>Mean Artery Pressure 20mmHg ~ 235mmHg (2.7kPa ~ 31.3kPa) | Systolic Pressure 40mmHg ~ 270mmHg (5.3kPa ~ 36.0kPa)<br>Diastolic Pressure 10mmHg ~ 215mmHg (1.3kPa ~ 28.7kPa)<br>Mean Artery Pressure 20mmHg ~ 235mmHg (2.7kPa ~ 31.3kPa) |
| | Alarm | N/A | Systolic Pressure<br>Diastolic Pressure<br>Mean Artery Pressure Alarm | Systolic Pressure<br>Diastolic Pressure<br>Mean Artery Pressure Alarm |
| | Software Over Voltage Protection | N/A | (297±3)mmHg [(39.6±0.4)kPa] | (297±3)mmHg [(39.6±0.4)kPa] |
| | Hardware Over Voltage Protection | N/A | (320±10)mmHg [(42.8±1.3)kPa] | (320±10)mmHg [(42.8±1.3)kPa] |
| | Cuff pressure measuring range | N/A | 0mmHg ~ 300mmHg (0.0kPa ~ 40.0kPa) | 0mmHg ~ 300mmHg (0.0kPa ~ 40.0kPa) |
| TEMP | Channel | N/A | 1 | 1 |
| | Measurement Range | N/A | 0°C ~ 50°C | 0°C ~ 50°C |
| | Resolution | N/A | 0.1°C | 0.1°C |
| | Accuracy | N/A | ±0.3°C<br>(Transducer error excluded ±0.1°C )<br>(Transducer ≤ ±0.2°C) | ±0.3°C<br>(Transducer error excluded ±0.1°C )<br>(Transducer ≤ ±0.2°C) |
| | Unit | N/A | °C/°F | °C/°F |
| | Refresh Time | N/A | 1 ~ 2s | 1 ~ 2s |
| | Self-Check | N/A | 5 ~ 10min | 5 ~ 10min |
| | Alarm Limits | N/A | 0.0°C ~ 50.0°C | 0.0°C ~ 50.0°C |
| | Alarm | N/A | TEMP Alarm | TEMP Alarm |

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|---|---|---|---|---|
| | Measuring Mode | N/A | Direct Mode | Direct Mode |
| | Position | N/A | Axilla | Axilla |
| Data Transmission | Data Export | Ethernet/USB | Ethernet/USB | Ethernet/USB |
| | Report Format | TRC | TRC | TRC |
| | Data Management System | MFM-CNS/MFM-CNS Lite | MFM-CNS/MFM-CNS Lite | MFM-CNS/MFM-CNS Lite |
| | HIS connection | HL7/GDT | HL7/GDT | HL7/GDT |
| Safety Specifications | Standards Compliance | IEC 60601-1:2005/A1:2012,<br>EN 60601-1:2006/A1:2013,<br>IEC 60601-1-2:2014,<br>EN 60601-1-2:2015,<br>IEC/EN 60601-2-37 | IEC 60601-1:2005,<br>EN 60601-1:2006/AC:2010,<br>IEC 60601-1-2:2007,<br>EN 60601-1-2:2007/AC:2010,<br>IEC/EN 60601-2-27,<br>IEC/EN 60601-2-37,<br>IEC/EN 60601-2-49,<br>IEC 80601-2-30,<br>ISO 80601-2-61,<br>ISO 80601-2-56,<br>EN 12470-4,<br>AAMI/ANSI EC13 | IEC 60601-1:2005, EN 60601-1:2006/AC:2010,<br>IEC 60601-1-2:2007, EN 60601-1-2:2007/AC:2010,<br>IEC/EN 60601-2-27,<br>IEC/EN 60601-2-37,<br>IEC/EN 60601-2-49,<br>IEC 80601-2-30,<br>ISO 80601-2-61,<br>ISO 80601-2-56,<br>EN 12470-4,<br>AAMI/ANSI EC13 |
| | Anti-electric Shock Type | Class I equipment with internal power supply | Class I equipment with internal power supply | Class I equipment with internal power supply |
| | Anti-electric Shock Degree | FHR1, FHR2, TOCO, FM, IUP BF<br>DECG CF | FHR1, FHR2, TOCO, FM, IUP BF<br>SpO2, NIBP BF (Defibrillating-proof)<br>DECG CF<br>ECG, TEMP CF (Defibrillating-proof) | FHR1, FHR2, TOCO, FM, IUP BF<br>SpO2, NIBP BF (Defibrillating-proof)<br>DECG CF<br>ECG, TEMP CF (Defibrillating-proof) |
| | Degree of Protection against Harmful Ingress of Water | Main Unit Not waterproof<br>US/TOCO Transducers IPX8, protected against the effects of continuous emersion in water | Main Unit IPX1, protected against vertically falling water drops (provided recorder drawer is shut and the monitor is not mounted on the wall vertically)<br>US/TOCO Transducers IPX8, protected against the effects of continuous emersion in water | Main Unit IPX1, protected against vertically falling water drops (provided recorder drawer is shut and the monitor is not mounted on the wall vertically)<br>US/TOCO Transducers IPX8, protected against the effects of continuous emersion in water |
| | Degree of Safety in Presence of Flammable Gases | Equipment not suitable for use in presence of flammable gases | Equipment not suitable for use in presence of flammable gases | Equipment not suitable for use in presence of flammable gases |
| | EMC | CISPR11 Group 1 Class A | CISPR11 Group 1 Class A | CISPR11 Group 1 Class A |
| | Working System | Continuous Operation | Continuous Operation | Continuous Operation |
| Environmental Specifications | Temperature | Working +5°C ~ +40°C ( +41°F ~ +104°F)<br>Transport and Storage -20°C ~ +55°C (-4°F ~ +131°F) | Working +5°C ~ +40°C ( +41°F ~ +104°F)<br>Transport and Storage -20°C ~ +55°C (-4°F ~ +131°F) | Working +5°C ~ +40°C ( +41°F ~ +104°F)<br>Transport and Storage -20°C ~ +55°C (-4°F ~ +131°F) |
| | Relative Humidity | Working 15% ~ 93% (non-condensing)<br>Transport and Storage 15% ~ 93% (non-condensing) | Working 15% ~ 93% (non-condensing)<br>Transport and Storage 15% ~ 93% (non-condensing) | Working 15% ~ 93% (non-condensing)<br>Transport and Storage 15% ~ 93% (non-condensing) |
| | Atmospheric Pressure | Working 86kPa ~ 106kPa<br>Transport and Storage 70kPa ~ 106kPa | Working 86kPa ~ 106kPa<br>Transport and Storage 70kPa ~ 106kPa | Working 86kPa ~ 106kPa<br>Transport and Storage 70kPa ~ 106kPa |