

Certificate No.

23BMEP3DEC12230131

Page 1 of 3

Certificate of Calibration

EQUIPMENT : MODULE, ECG/SPO2/NIBP

ID CODE : PYT3_00836

MANUFACTURER : PHILIPS

MODEL : M3001A

SERIAL No. : DE9070B7TT

LOCATION : GASTROINTESTINAL LABORATORY(GI)

SUBMITTED BY : PHYATHAI 3 HOSPITAL

111 Phet Kasem Rd., Pak Khlong Phasi Charoen, Phasi Charoen Bangkok 10160

Tel: 0641470591 Fax: -

CALIBRATED DATE : 19 DECEMBER 2023

PANALEE UEASUNTHONNOP

ISSUE DATE : 2 JANUARY 2024

Performed by:

Approved by:

CHAIWAT SALAIWONG

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CONDITION OF THIS RESULT OF TEST

1. REFERENCE STANDARD INSTRUMENT:

MASTERMANUFACTURERMODELSERIAL NO.CERTIFICATE NO.DUE DATETester, Vital SignFLUKEPROSIM 8570205923MD46517 Apr 2024

Simulator

2. THIS CERTIFICATION IS TRACEABLE TO:

- Technology Promotion Association (Thai-Japan)

3. THIS RESULT OF TEST WAS FOUND ACCURATE AS SHOW ON DATE AND PLACE OF TEST ONLY



Certificate No. 23BMEP3DEC12230131

Page 2 of 3

Calibration Report

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MODEL : M3001A

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DATE OF CALIBRATION : 19 DECEMBER 2023

ENVIRONMENT : TEMPERATURE 25 °C

RELATIVE HUMIDITY 55 %

PROCEDURE USED:

This instrument was calibration by comparison with standard

MEASURMENT RESULT:

| / | Without Adjustment | | Before Adjustment | | After Adjustment |
|---|--------------------|--|-------------------|--|------------------|
|---|--------------------|--|-------------------|--|------------------|

| Systolic | | | | |
|------------------|--------------|--------|---------|-------------|
| Standard Setting | UUC* Reading | Error | % Error | Uncertainty |
| (mmHg) | (mmHg) | (mmHg) | (%) | (mmHg) |
| 60 | 61.01 | 1.01 | 1.69 | ± 0.9246 |
| 120 | 116.00 | -4.01 | -3.34 | ± 1.2710 |
| 200 | 198.00 | -2.00 | -1.00 | ± 1.7329 |

| Diastolic | | | | | | |
|------------------|--------------|--------|---------|-------------|--|--|
| Standard Setting | UUC* Reading | Error | % Error | Uncertainty | | |
| (mmHg) | (mmHg) | (mmHg) | (%) | (mmHg) | | |
| 30 | 31.00 | 1.00 | 3.33 | ± 0.7512 | | |
| 80 | 79.99 | -0.02 | -0.02 | ± 1.0413 | | |
| 150 | 150.02 | 0.02 | 0.01 | ± 1.4442 | | |

| Heart Rate | | | | | | |
|------------------|--------------|-------|---------|-------------|--|--|
| Standard Setting | UUC* Reading | Error | % Error | Uncertainty | | |
| (BPM) | (BPM) | (BPM) | (%) | (BPM) | | |
| 60 | 59.96 | -0.04 | -0.06 | ± 0.0503 | | |
| 80 | 79.98 | -0.02 | -0.02 | ± 0.0530 | | |

FI-BME-NHS-CP-007/1 Rev.03 Page 2/3 Issued Date 20/07/2023



Certificate No. 23BMEP3DEC12230131

Page 3 of 3

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| %Spo2 | | | | | | |
|----------------------|----------------------|----------------------|---------|----------------------|--|--|
| Standard Setting | UUC* Reading | Error | % Error | Uncertainty | | |
| (%SPO ₂) | (%SPO ₂) | (%SPO ₂) | (%) | (%SPO ₂) | | |
| 90 | 91.02 | 1.02 | 1.13 | ± 0.1266 | | |
| 96 | 96.99 | 0.98 | 1.03 | ± 0.1125 | | |

UUC*: Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%

FI-BME-NHS-CP-007/1 Rev.03 Page 3/3 Issued Date 20/07/2023