

Certificate No.

24PTP_0104240219

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Certificate of Calibration

EQUIPMENT : MONITORS, PHYSIOLOGIC, VITAL SIGNS

ID CODE : PTP03479

MANUFACTURER : WELCH ALLYN

MODEL : CONNEX SPOT MONITOR

SERIAL No. : 100082643617

LOCATION : Check Up Center

SUBMITTED BY : PHYATHAI PHAHOLYOTHIN HOSPITAL

670/1 Phaholyothin Road, Samsen Nai, Phaya Thai, Bangkok 10400

Tel: 02-271-7000 Fax: -

CALIBRATED DATE : 22 APRIL 2024 ISSUE DATE : 30 APRIL 2024

| | Usanee |
|---------------|--------|
| Performed by: | |

___ Approved by :

6. . . .

USANEE CHALONGPHOKSILCHAI PHUWASIN YIWKIM

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CONDITION OF THIS RESULT OF TEST

1. REFERENCE STANDARD INSTRUMENT:

MASTER MANUFACTURER MODEL SERIAL NO. CERTIFICATE NO. DUE DATE 7 Jun 2024 Vitalsign Simulator Fluke ProSim8 2541031 23MD777 ATC-140A 12 Jul 2024 Temperature Ametex 561460-00403 WB23062779

Calibrator (Source)

2. THIS CERTIFICATION IS TRACEABLE TO:

- Technology Promotion Association (Thai-Japan)
- N-Health

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



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Calibration Report

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DATE OF CALIBRATION : 22 APRIL 2024

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 | 62.00 | 2.00 | 3.33 | ± 0.9238 |
| 120 | 118.00 | -2.00 | -1.67 | ± 1.2702 |
| 200 | 200.00 | 0.00 | 0.00 | ± 1.7321 |

| Diastolic | | | | |
|------------------|--------------|--------|---------|-------------|
| Standard Setting | UUC* Reading | Error | % Error | Uncertainty |
| (mmHg) | (mmHg) | (mmHg) | (%) | (mmHg) |
| 30 | 35.00 | 5.00 | 16.67 | ± 0.7506 |
| 80 | 80.00 | 0.00 | 0.00 | ± 1.0393 |
| 150 | 144.00 | -6.00 | -4.00 | ± 1.4434 |

| Heart Rate | | | | |
|------------------|--------------|-------|---------|-------------|
| Standard Setting | UUC* Reading | Error | % Error | Uncertainty |
| (BPM) | (BPM) | (BPM) | (%) | (BPM) |
| 60 | 60.00 | 0.00 | 0.00 | ± 0.0150 |
| 80 | 80.00 | 0.00 | 0.00 | ± 0.0460 |
| 120 | 120.00 | 0.00 | 0.00 | ± 0.0460 |

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| %Spo2 | | | | |
|----------------------|----------------------|----------------------|---------|----------------------|
| Standard Setting | UUC* Reading | Error | % Error | Uncertainty |
| (%SPO ₂) | (%SPO ₂) | (%SPO ₂) | (%) | (%SPO ₂) |
| 90 | 90.00 | 0.00 | 0.00 | ± 0.1039 |
| 96 | 96.00 | 0.00 | 0.00 | ± 0.1109 |
| 100 | 100.00 | 0.00 | 0.00 | ± 0.1155 |

| Temperature | | | | |
|--------------|------------------|-------|---------|-------------|
| UUC* Setting | Standard Reading | Error | % Error | Uncertainty |
| (°C) | (°C) | (°C) | (%) | (°C) |
| 35 | 35.00 | 0.00 | 0.00 | ± 0.3100 |
| 37 | 36.90 | -0.10 | -0.27 | ± 0.3100 |
| 39 | 38.90 | -0.10 | -0.26 | ± 0.3100 |

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%

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