

Certificate No.

24PTP_0104240235

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Certificate of Calibration

EQUIPMENT : MONITORS, PHYSIOLOGIC, VITAL SIGNS

ID CODE : PTP03473

MANUFACTURER : WELCH ALLYN

MODEL : CONNEX SPOT MONITOR

SERIAL No. : 100091401717

LOCATION : General Medicine

SUBMITTED BY : PHYATHAI PHAHOLYOTHIN HOSPITAL

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

Tel: 02-271-7000 Fax: -

CALIBRATED DATE : 23 APRIL 2024 ISSUE DATE : 30 APRIL 2024

Usanee

Approved by :

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)

Performed by:

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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MODEL : CONNEX SPOT MONITOR

SERIAL No. : 100091401717

DATE OF CALIBRATION : 23 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 | 116.00 | -4.00 | -3.33 | ± 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 | 81.00 | 1.00 | 1.25 | ± 1.0393 | | |
| 150 | 150.00 | 0.00 | 0.00 | ± 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 | 37.10 | 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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