

Certificate No. 24PTP\_0104240194

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# **Certificate of Calibration**

**EQUIPMENT** MONITORS, BEDSIDE, PHYSIOLOGIC

**ID CODE** PTP00368 MANUFACTURER **PHILIPS** 

**MODEL** INTELLIVUE MP20(M8001A)

SERIAL No. DE72876246

**LOCATION** I.C.U

**SUBMITTED BY** PHYATHAI PHAHOLYOTHIN HOSPITAL

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

Tel: 02-271-7000 Fax: -

CALIBRATED DATE 18 APRIL 2024

**ISSUE DATE** 3 MAY 2024

Performed by:

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 2541031 ProSim8 23MD777 7 Jun 2024 Vitalsign Simulator Fluke

#### 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**



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# **Calibration Report**

EQUIPMENT : MONITORS, BEDSIDE, PHYSIOLOGIC

ID CODE : PTP00368

MANUFACTURER : PHILIPS

MODEL : INTELLIVUE MP20(M8001A)

SERIAL No. : DE72876246

DATE OF CALIBRATION : 18 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
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Systolic(NIBP)						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
60	62.00	2.00	3.33	± 0.9238		
120	120.00	0.00	0.00	± 1.2702		
200	198.00	-2.00	-1.00	± 1.7321		

Diastolic(NIBP)						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
30	33.00	3.00	10.00	± 0.7506		
80	82.00	2.00	2.50	± 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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# **Calibration Report**

EQUIPMENT : MONITORS, BEDSIDE, PHYSIOLOGIC

ID CODE : PTP00368

SERIAL No. : DE72876246

%Spo2						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(%SPO <sub>2</sub> )	(%SPO <sub>2</sub> )	(%SPO <sub>2</sub> )	(%)	(%SPO <sub>2</sub> )		
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						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(°C)	(°C)	(°C)	(%)	(°C)		
35	35.00	0.00	0.00	± 0.0051		
37	37.00	0.00	0.00	± 0.0051		
39	39.00	0.00	0.00	± 0.0055		

Systolic(IBP)						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
10	10.00	0.00	0.00	± 0.1155		
24	24.00	0.00	0.00	± 0.2771		
120	120.00	0.00	0.00	± 1.3857		

Diastolic(IBP)						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
2	2.00	0.00	0.00	± 0.0231		
10	10.00	0.00	0.00	± 0.1155		
80	80.00	0.00	0.00	± 0.9238		

## **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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