

Certificate No.

24PTP\_0104240148

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# **Certificate of Calibration**

**EQUIPMENT** MONITORS, BEDSIDE, PHYSIOLOGIC

ID CODE PTP01971

MANUFACTURER **PHILIPS** 

**MODEL** INTELLIVUE MP20(M8001A)

SERIAL No. DE62221511

**LOCATION Pediatrics Center** 

**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

Supatcha

Performed by: SUPATCHA BUAPUEAN

Approved by:

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 ProSim8 2541031 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 : PTP01971

MANUFACTURER : PHILIPS

MODEL : INTELLIVUE MP20(M8001A)

SERIAL No. : DE62221511

DATE OF CALIBRATION : 18 APRIL 2024

ENVIRONMENT : TEMPERATURE 24 °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	60.50	0.50	0.83	± 1.1275		
120	120.50	0.50	0.42	± 1.3953		
200	197.50	-2.50	-1.25	± 1.8258		

Diastolic(NIBP)						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
30	35.50	5.50	18.33	± 1.0085		
80	85.50	5.50	6.88	± 1.2186		
150	155.50	5.50	3.67	± 1.5546		

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 : PTP01971 SERIAL No. : DE62221511

%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	96.50	0.50	0.52	± 0.9730		
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%