

Certificate No.

24PTP_0104240151

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Certificate of Calibration

EQUIPMENT : MONITORS, BEDSIDE, PHYSIOLOGIC

ID CODE : PTP00323

MANUFACTURER : PHILIPS

MODEL : INTELLIVUE MP20(M8001A)

SERIAL No. : DE62221442

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

Supatcha

Performed by : Approved by : SUPATCHA BUAPUEAN

PHUWASIN YIWKIM

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This certificate may not be reproduced except in full unless permission for reproduction has been obtained in writing from the calibration.

CONDITION OF THIS RESULT OF TEST

1. REFERENCE STANDARD INSTRUMENT:

MASTERMANUFACTURERMODELSERIAL NO.CERTIFICATE NO.DUE DATEVitalsign SimulatorFlukeProSim8254103123MD7777 Jun 2024

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 : PTP00323

MANUFACTURER : PHILIPS

MODEL : INTELLIVUE MP20(M8001A)

SERIAL No. : DE62221442

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	62.25	2.25	3.75	± 1.0767
120	118.75	-1.25	-1.04	± 1.3651
200	197.50	-2.50	-1.25	± 2.0600

Diastolic(NIBP)						
Standard Setting	UUC* Reading	Error	% Error	Uncertainty		
(mmHg)	(mmHg)	(mmHg)	(%)	(mmHg)		
30	33.75	3.75	12.50	± 0.9425		
80	82.75	2.75	3.44	± 1.1821		
150	151.75	1.75	1.17	± 1.5276		

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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EQUIPMENT : MONITORS, BEDSIDE, PHYSIOLOGIC

ID CODE : PTP00323 SERIAL No. : DE62221442

%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						
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%