

Certificate No.

24PTP_0104240328

Page 1 of 3

Certificate of Calibration

EQUIPMENT : VENTILATORS, INTENSIVE CARE

ID CODE : PTP00080

MANUFACTURER : MAQUET

MODEL : SERVO I

SERIAL No. : 82025

LOCATION : Patient Wards 18

SUBMITTED BY : PHYATHAI PHAHOLYOTHIN HOSPITAL

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

Tel: 02-271-7000 Fax: -

CALIBRATED DATE : 25 APRIL 2024

ISSUE DATE : 1 MAY 2024

Kanittha.

Performed by : Approved by : PHU

KANITTHA SRIPRAPAD PHU

PHUWASIN YIWKIM

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CONDITION OF THIS RESULT OF TEST

1. REFERENCE STANDARD INSTRUMENT:

MASTERMANUFACTURERMODELSERIAL NO.CERTIFICATE NO.DUE DATEGas Flow AnalyzerFluke BiomedicalVT650606972523MD115827 Aug 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



Certificate No. 24PTP_0104240328

Page 2 of 3

Calibration Report

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SERIAL No. : 82025

DATE OF CALIBRATION : 25 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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Inspiration Time				
UUC* Setting	Standard Reading	Error	% Error	Uncertainty
(Sec.)	(Sec.)	(Sec.)	(%)	(Sec.)
0.3	0.29	-0.01	-3.33	± 0.0035
0.5	0.48	-0.02	-4.00	± 0.0058
0.7	0.68	-0.02	-2.86	± 0.0081

Breath Rate						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(BPM)	(BPM)	(BPM)	(%)	(BPM)		
60	59.95	-0.05	-0.08	± 0.6952		
80	79.98	-0.03	-0.03	± 0.9251		
100	99.78	-0.23	-0.23	± 1.1558		

I:E Ratio						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
((1:x))	((1:x))	((1:x))	(%)	((1:x))		
1	1.00	0.00	0.00	± 0.0231		
2	2.13	0.13	6.50	± 0.0462		
3	3.17	0.17	5.67	± 0.0693		

FI-BME-NHS-CP-018/5 Rev.03 Page 2/3 Issued Date 20/07/2023



Certificate No. 24PTP_0104240328

Page 3 of 3

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ID CODE : PTP00080

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PIP						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(cmH ₂ O)	(cmH ₂ O)	(cmH ₂ O)	(%)	(cmH ₂ O)		
10	10.46	0.46	4.60	± 0.3200		
20	20.04	0.04	0.20	± 1.7814		
30	31.31	1.31	4.36	± 0.5281		

PEEP						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(cmH2O)	(cmH2O)	(cmH2O)	(%)	(cmH2O)		
3	2.94	-0.06	-2.00	± 0.0346		
5	5.01	0.01	0.20	± 0.0577		
7	7.04	0.04	0.54	± 0.1110		

% OXYGEN						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(%O ₂)	(%O ₂)	$(\%O_2)$	(%)	(%O ₂)		
21	21.58	0.58	2.74	± 0.4876		
60	59.90	-0.10	-0.17	± 1.3857		
100	98.30	-1.70	-1.70	± 2.3095		

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%

FI-BME-NHS-CP-018/5 Rev.03 Page 3/3 Issued Date 20/07/2023