

Certificate No. 24PTP_0104240112

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Certificate of Calibration

EQUIPMENT : VENTILATORS, INTENSIVE CARE

ID CODE : PTP00280

MANUFACTURER : CAREFUSION

MODEL : VELA

SERIAL No. : BFT01893

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 Approved by:

SUPATCHA BUAPUEAN PHUWASIN YIWKIM

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CONDITION OF THIS RESULT OF TEST

Performed by:

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



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Calibration Report

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DATE OF CALIBRATION : 18 APRIL 2024

ENVIRONMENT : TEMPERATURE 24 °C

RELATIVE HUMIDITY 56 %

PROCEDURE USED:

This instrument was calibration by comparison with standard

MEASURMENT RESULT:

/	Without Adjustment		Before Adjustment		After Adjustment
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TIDAL VOLUME						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(mL)	(mL)	(mL)	(%)	(mL)		
400	375.20	-24.80	-6.20	± 14.4190		
600	566.80	-33.20	-5.53	± 21.7069		
800	780.95	-19.05	-2.38	± 28.9088		

BREATH RATE						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(BPM)	(BPM)	(BPM)	(%)	(BPM)		
30	29.95	-0.05	-0.17	± 0.3606		
20	19.93	-0.08	-0.38	± 0.2363		
15	15.00	0.00	0.00	± 0.1732		

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	2.00	-0.00	-0.12	± 0.0465		
3	2.91	-0.09	-3.00	± 0.0693		

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PIP						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(cmH ₂ O)	(cmH ₂ O)	(cmH ₂ O)	(%)	(cmH ₂ O)		
20	19.54	-0.47	-2.33	± 0.3202		
30	29.24	-0.76	-2.53	± 0.3200		
40	38.54	-1.46	-3.65	± 0.3200		

PEEP						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(cmH2O)	(cmH2O)	(cmH2O)	(%)	(cmH2O)		
5	5.16	0.16	3.20	± 0.0577		
10	10.60	0.60	6.00	± 0.1155		
15	15.66	0.66	4.40	± 0.1732		

% OXYGEN						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(%O ₂)	(%O ₂)	$(\%O_2)$	(%)	(%O ₂)		
21	21.60	0.60	2.86	± 0.4850		
60	59.20	-0.80	-1.33	± 1.3857		
100	99.10	-0.90	-0.90	± 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%

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