

NIKKISO

DBB-06 PRO

Innovations for Human Care

Manufacturer
NIKKISO CO., LTD.

20-3, Ebisu 4-Chome, Shibuya-ku,
Tokyo 150-6022, Japan

Telephone +81-3-3443-3727

Fax +81-3-3440-0681

Website www.nikkiso.com

Local representative
NIKKISO MEDICAL AMERICA, INC.

4737 E. Shelby Drive,
Memphis, TN 38118, USA

Telephone +1-901-310-1567

Fax +1-901-310-1901

Website www.nikkisomedical.us

Catalog No.847
2025.10(T)

Features of DBB-06 PRO



SIMPLIFIES BASIC OPERATIONS

Powered by D-FAS technology, the DBB-06 PRO reduces the steps required for priming, blood filling, fluid bolus, and rinse-back. By simplifying workflow, we help clinicians spend more time delivering patient-centered care.

See page 3



REDUCES BLOOD AIR CONTACT

Archloop introduces a simplified bloodline configuration that enhances ease of use. With its airless concept to help minimize blood coagulation, it aims to reduce treatment-related costs while supporting better patient QOL.



EFFECTIVELY MANAGE

With integrated Blood Volume Monitoring, the DBB-06 PRO measures relative blood volume shifts (dBV) alongside the Archloop bloodline set, eliminating the need for additional consumables. This helps clinicians better monitor and manage blood volume drops linked to hypotension during treatment.



REAL TIME DDM

The DBB-06 PRO integrates with the Dialysis Dose Monitor (DDM) to measure standardized dialysis dose (Kt/V) in real time—without calibration or interruptions to treatment. Our goal is to deliver meaningful data that supports higher treatment quality.

DRIVEN BY THE TRUSTED DESIGN PHILOSOPHY THAT DEFINES NIKKISO HEMODIALYSIS TECHNOLOGY

- The DBB-06 PRO accurately monitors bicarbonate before acid mixing, allowing clinicians to set the optimal concentration for every patient.
- Equipped with a long-proven Ultrafiltration Control System, the DBB-06 PRO offers continuous monitoring without interrupting treatment. This allows fluid leaks to be detected early—supporting safer, more reliable therapy.

- The DBB-06 PRO offers quick access with a slide front panel (two screws) and single-screw side panels. Real-time actuator checks are available in service mode via the flow diagram screen, making maintenance and troubleshooting faster and easier.

Powered by Nikkiso's proven technologies, the DBB-06 PRO offers easy operation and advanced monitoring, enabling higher-quality treatments with confidence.

DBB-06 PRO



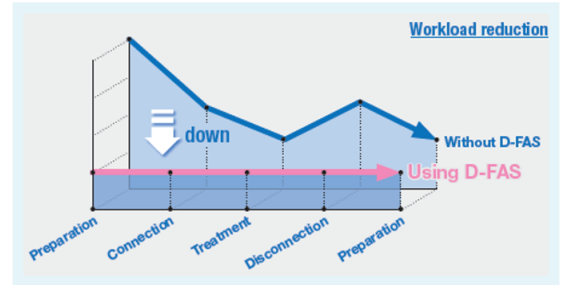
A slide type front panel for easy maintenance access



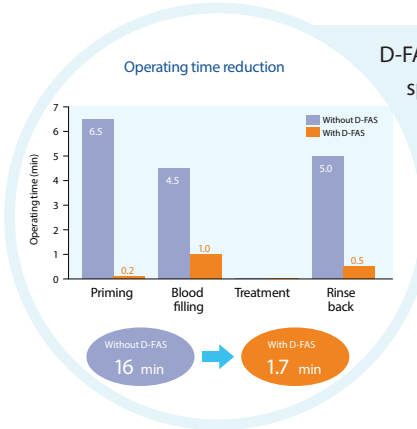
(References)
1. Onodera, J; Kotake, Y; Fukuda, M. et al. Validation of inflationary non-invasive blood pressure monitoring in adult surgical patients. J Anesth. 2011, 25(1), 127–130.

Dialysis Full Assist System (D-FAS) gives healthcare professionals more time to focus on patient care.

D-FAS simplifies priming, blood filling, fluid bolus, and rinse-back. Introduced in 2003 and widely adopted with the DBB-EXA since 2015, it is praised for improving workflow efficiency. Fewer steps mean less workload—and more time for patient care with reduced risk of error.



Online priming automates key steps to reduce operator intervention, helping prevent errors and limiting contamination risk through fewer machine touchpoints.

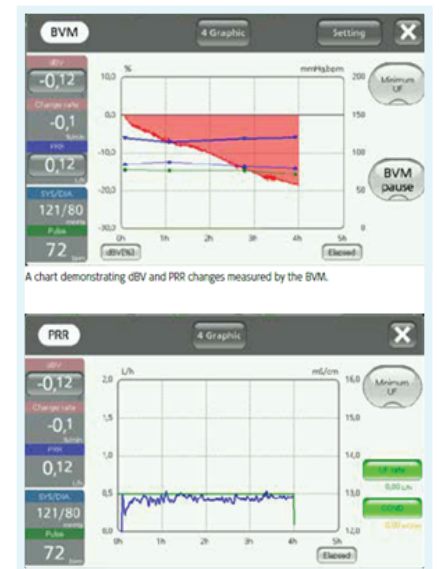


D-FAS reduces the time healthcare workers spend operating the hemodialysis machine by approximately 89.3% compared with the conventional model (DBB-06 without D-FAS)—saving about 5.2 hours per patient each year. Our goal is simple: give clinicians more time to focus on patient care.



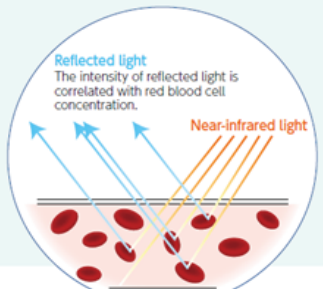
EFFECTIVELY MANAGE RELATIVE BLOOD VOLUME CHANGES

- The BVM continuously tracks dBV during dialysis and enables easy measurement of relative blood volume changes—no dedicated consumables required.
- Blood volume reduction reflects the balance between ultrafiltration rate and plasma refilling rate (PRR). Using dBV, UF rate, and pre-dialysis weight, the DBB-06 PRO calculates and visualizes PRR to support more informed decision-making.



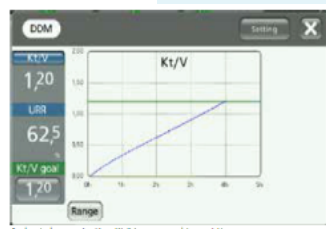
Measurement principles

The Blood Volume Monitor (BVM) applies near-infrared light to the arterial bloodline set and measures the intensity of the reflected light. Since the reflected light intensity is correlated with red blood cell concentration, reflected light intensity is used to determine relative blood volume change (dBV).



REAL TIME DIALYSIS DOSE MONITORING

Evidence from multiple studies links dialysis dose to patient outcomes, making dose verification vital for effective therapy. The DBB-06 PRO, equipped with DDM, continuously measures dialysis dose in real time without interfering with ongoing treatment.



- Specific UV-range absorbance changes in spent dialysate correlate with blood urea nitrogen (BUN)⁵. The DDM uses these changes with the Daugirdas formula to determine Kt/V via the UV absorbance method.
- Unlike sodium dialysance, this method allows continuous, real-time monitoring with no impact on treatment. The DDM incorporates Nikkiso's proprietary DUV-LEDs for stable, accurate measurement.

[References]
 1) Daugirdas, JT; Ing, TS. Handbook of Dialysis, 2nd ed., Boston, MA: Little, Brown and Company, 1994, 149–157.
 2) Onodera, J, Kotake, Y, Fukuda, M, et al. Validation of inflationary non-invasive blood pressure monitoring in adult surgical patients. J Anesth. 2011; 25(1): 127–130.
 3) Depner, T, Daugirdas, J, Greene, T, et al. Dialysis dose and the effect of gender and body size on outcome in the HEMO study. Kidney Int. 2004; 65: 1396–1394.
 4) Greene, T, Daugirdas, J, Depner, T, et al. Association of achieved dialysis dose with mortality in the hemodialysis study: An example of "Dose-Target Bias". JASN. 2005; 16: 3371–3380.
 5) Uhlir, F, Fridolin, C, Magnusson, M, et al. Dialysis dose (Kt/V) and clearance variation sensitivity using measurement of ultraviolet-absorbance (on-line), blood urea, dialysate urea and ionic dialysance. NDT 2006; 21: 2225–2231.

DBB-06 PRO Features

Blood Circuit Features

Archloop™

D-FAS

Saline empty detector

Heparin pump (10ml - 20ml)

Hydraulics Circuit Features

Bicarbonate cartridge holder

Acid central concentrate supply

Concentrate connector nozzle

Drain port

Water leak detector

Single Endotoxin Retentive Filter (ETRF)

Option

NFC (Patient card)

BPM external measurement switch

High altitude pressure reducing valve

Water supply adapter & O-ring

Patient Features

Blood Pressure Monitor (BPM)

Blood Volume Monitor (BVM)

Dialysis Dose Monitor (DDM)

Other Standard Features

Alarm output, LAN port, USB port

Handle

Tray

Disinfectant bottle holder

Concentrate canister holder

Specifications

General data

Dimensions	H150 cm x W43 cm x D50 cm Base: W45 cm x D61 cm
Weight	Approx. 80 kg (incl. all options)
Water supply	Pressure: 1 to 7 bar
Drain	Minimum drain capacity: 800 mL/min average Height: 92 cm maximum Temp: 90 °C maximum
Concentrate supply	Pressure: 0 to 0.5 bar
Power supply	110 to 120 VAC, 50/60 Hz
Battery	Ni-MH battery 24 V / 3200 mAh
External connection port	Alarm output LAN port BPM external measurement switch USB 2.0 or 3.0
Screen	15 inch LCD

Hydraulic circuit

Dialysis fluid flow rate	Setting range: 300 to 800 mL/min
Dialysis fluid temperature	Setting range: 33.0 to 40.0 °C
Dialysis fluid conductivity	Bicarbonate dialysis Bicarbonate conductivity setting range: 2.3 to 7.0 mS/cm (20 to 45 mmol/L or mEq/L) Total conductivity setting range: 12.7 to 15.2 mS/cm (130 to 155 mmol/L or mEq/L) Acetate dialysis Total conductivity setting range: 12.7 to 15.2 mS/cm
Blood leak detector	Method: Optical Sensitivity: 0.3 mL Blood / 1 L Dialysis fluid (Blood: Hematocrit 32 ± 2 %; Dialysis fluid temperature: 37 °C)
Ultrafiltration	UF rate: 0.00; 0.10 to 4.00 L/h UF accuracy: ±30 mL/h (at dialysis fluid flow rate 300 to 500 mL/min) ±0.1 % of the dialysis fluid flow rate (at dialysis fluid flow rate 501 to 800 mL/min)
Dialysis Dose Monitor	Measurement principle: Absorptiometry Applicable Treatment mode: HD Applicable Kt/V range: 0 to 3.0 Applicable Kt range: 0 to 300.0 Applicable K range: 0 to 999.9 Kt/V monitoring accuracy: ±0.1 (Kt/V 0 to 1) ±10 % (Kt/V 1 to 3) eKt/V: 0 to 30 Applicable URR range: 0 % to 100 % URR monitoring accuracy: ±5 %
Endotoxin retentive filter (ETRF)	EF-02D

Treatment options

UF profile	9 programmable profiles available
Conductivity profile	9 programmable profiles available
B Conductivity Profile	9 programmable profiles available

Extracorporeal circuit

Arterial pressure monitoring	Measurement range: -300 to +200 mmHg Measurement accuracy: ±15 mmHg or ±5 % (-300 to +200 mmHg, atmospheric pressure: 78 to 106 kPa) ±15 mmHg or ±5 % (-300 to +50 mmHg, atmospheric pressure: 70 to 78 kPa) ±30 % (+50 to +200 mmHg, atmospheric pressure: 70 to 78 kPa)
Venous pressure monitoring	Measurement range: -200 to +500 mmHg Measurement accuracy: ±15 mmHg or ±5 % (-200 to +500 mmHg)
Air detector	Method: ultrasonic waves Sensitivity: 0.02 mL (normal air bubbles) (at Blood flow rate: 250 mL/min) 0.0003 mL (microbubbles: blood/air mixture) (at Blood flow rate: 250 mL/min)
Arterial blood pump	Setting range: 40 to 600 mL/min Flow rate accuracy: Set value ±10 % (inlet Pressure -150 mmHg ≤ P ≤ +150 mmHg) Set value -20 to 0 % (inlet Pressure -200 mmHg ≤ P < -150 mmHg)
Heparin pump	Setting range: 0.0 to 9.9 mL/h Output rate accuracy: Set value ±10 % Syringe type: 30 mL or 20 mL, 20 mL or 10 mL Bolus volume: 0.0 to 9.9 mL
Blood Pressure Monitor (BPM)	For standard BPM: Pressure display range: 0 to 300 mmHg Pressure display accuracy: less than ±3 mmHg Measurement range: Adult systolic blood pressure (SYS) : 60 to 250 mmHg Mean arterial pressure (MAP) : 45 to 235 mmHg Diastolic blood pressure (DIA) : 40 to 200 mmHg Pulse rate: 40 to 200 beats per minute For iNIBP: Pressure display range: 0 to 300 mmHg Pressure display accuracy: Less than ±3 mmHg Measurement range: Adult systolic blood pressure (SYS) : 40 to 280 mmHg Mean arterial pressure (MAP) : 10 to 280 mmHg Diastolic blood pressure (DIA) : 10 to 235 mmHg Pulse rate: 30 to 200 beats per minute
Blood Volume Monitor (BVM)	Measurement principle: Near-infrared reflection method Applicable blood flow rate range: 40 to 600 mL/min Applicable hematocrit range: 15 to 50 % dBV monitoring accuracy: ±2.3 dBV%

Cleaning program

Disinfection	50 % Citric acid
Disinfection and Degreasing	Sodium hypochlorite solution (6% chlorine concentration in disinfectant)

Accessories

Patient card	MIFARE Classic 4K Capacity: 4096 byte
--------------	--

Please contact your sales representative about available options and functions that will best suit your needs.

