

Cardioprotective Haemodialysis

# 5008S CorDiax

Product Overview



Cardioprotective Haemodialysis **SPOT**



**FRESENIUS  
MEDICAL CARE**

Protect your Patient

## 5008S CorDiax

Beyond your expectations

Almost one in two patients with ESRD dies as a result of cardiovascular disease. That is why Cardioprotective Haemodialysis is a core principle of Fresenius Medical Care, as we work and strive to solve the challenges of modern dialysis. Each step we take is focused on minimising cardiovascular risks and extending patients' lives. For this reason the 5008S CorDiax is the standard device for haemodialysis treatment in our SPOT programme. It offers sophisticated therapy options and excellent usability combined with the optimal use of dialysis-relevant resources. The 5008S CorDiax helps you to protect your patient – day by day.



### Best therapies

Advanced therapy options such as HighVolumeHDF enable Cardioprotective Haemodialysis – for best possible patient outcomes



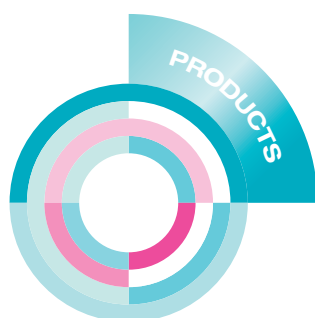
### Best handling

Sophisticated design guarantees outstanding usability and convenient handling for all users



### Optimal use of resources

Efficient and sustainable use of dialysis-relevant resources result in excellent cost-effectiveness



**5008S**  
CorDiax

# 5008S CorDiax

## Highlights



	5008S CorDiax
<b>Therapy highlights</b>	
HighVolumeHDF – pre- and post-dilution	● / ●
AutoSub <i>plus</i> – automatically maximising substitution volumes in a highly safe manner	●
HighVolumeHDF during Single Needle treatment	○
Blood Temperature Monitor (BTM) – regulation of temperature and recirculation measurement	○
Home Haemodialysis – Advanced therapies for home patients	○
<b>Safety features</b>	
Integrated Venous Access Monitor – increased probability of detection of venous needle dislodgement	●
Dynamic Pressure Monitoring – detection of paravasal bleeding (“infiltration”)	●
VenAcc external device for detection of venous needle disconnection	○
<b>Basic features</b>	
Dialysis fluid ultrafilter system – sterile and non-pyrogenic fluid for ONLINE use	●
ONLINE Priming, bolus and reinfusion in HD / HDF / SN – no saline required in all treatment modes*	● / ● / ●
OCM® Kt/V Measurement with transfer of V from BCM-Body Composition Monitor in HD / HDF	● / ●
Single-needle double-pump	○
PatientCard – prescription and documentation of treatment parameters	●
Interface heat disinfection – fulfilling all requirements of ISO 23500	●
Advanced service tools for fast diagnostics and maintenance with interactive hydraulic and pneumatic flow charts and remote access	●
Compliance with latest requirements of IEC 60601	●
Timer function for setting a reminder of a definable task	●
<b>Eco-friendly features</b>	
High efficiency heat exchanger	●
AutoFlow – automatic adaptation of dialysate flow for optimal balance of dialysate consumption and treatment efficiency	●
EcoFlow – water and energy saving during standby conditions	●

(For more details please refer to the Technical Data)

● = standard, ○ = optional

\* Safety advice: It is recommended that you stock sodium chloride in case it might be required.

## 5008S CorDiax

### Technical Data

General data	
<b>Dimensions 5008S CorDiax</b>	1,680 x 350 x 780 mm (H x W x D) at dialysis chair/bed level (width at base: 520 mm, depth with canister holder: 900 mm)
<b>Weight</b>	approx. 114 kg
<b>Water supply</b>	
Water inlet pressure	1.5 to 6.0 bar
Water inlet temperature	5 to 30 °C; for "integrated hot rinse" 85 to 95 °C
Max. drain height	1 m
Flush (optional)	Rinsing of the water supply area
<b>Concentrate supply</b>	
Supply pressure	0 to 100 mbar; 1 m max. suction height with Central Delivery System (CDS): 0.05 to 2.0 bar
<b>Central supply</b>	2 central acid concentrates (optional)
<b>Electrical data</b>	
Power supply	100 to 240V AC $\pm$ 10%, 50 to 60Hz
Current consumption	Approx. 6A (at 230V) at a water inlet temperature of 17 °C, dialysate temperature 37 °C, Dialysate flow: 500 mL/min
<b>External connections</b>	Alarm output: potential free alarm outlet (alternating contact max. 24V/24W). LAN (RJ 45) port for data exchange with Therapy Data Management System (optional)
Extracorporeal circuit	
<b>Arterial pressure monitoring</b>	
Display range	-300 mmHg to +300 mmHg
Accuracy	$\pm$ 7 mmHg
Resolution	5 mmHg
<b>Alarm reaction</b>	dynamic, static, immediate
<b>Venous pressure monitoring</b>	
Display range	-100 mmHg to +500 mmHg
Accuracy	$\pm$ 7 mmHg
Resolution	5 mmHg
<b>Arterial blood pump</b>	
Blood flow range	30 to 600 mL/min
Accuracy	$\pm$ 10 %
Resolution	10 mL/min
<b>Single needle system (optional)</b>	With 2 blood pumps, internal pressure/pressure control with variable stroke volume (max. 60 mL/min)
<b>Air bubble detector</b>	Ultrasound transmission measurement on blood line, additional capacitive level and infrared optical monitoring
<b>Heparin pump</b>	Delivery range: 0.5 to 10 mL/h Bolus function: 1.0 to 20.0 mL Syringe size: 20 mL, 30 mL
Dialysis fluid circuit	
<b>Dialysis fluid flow range</b>	
Selectable	0 to 1000 mL/min (steps of 100 mL/min)
AutoFlow (selectable)	Automatic adaptation of the dialysate flow to the effective blood flow
EcoFlow	Stand-by flow during preparation and after reinfusion
<b>Dialysis fluid temperature</b>	34 to 39 °C

<b>Dialysis fluid conductivity</b>	
Range	12.8 to 15.7 mS/cm
Accuracy	$\pm$ 0.1 mS/cm
Resolution	0.1 mS/cm
<b>Dialysis fluid acid component</b>	
Mixing ratio	Adjustable, e.g. 1+44, 1+34
Adjustment range	125 to 151 mmol/L, depending on the concentrate used $\pm$ 10 % of the base value
<b>Dialysis fluid bicarbonate component</b>	
Default mixing ratio	1+27.6 (others possible)
Adjustment range	20.0 to 40.0 mmol/L (depending on the concentrate used; steps of 0.5 mmol/L)
<b>OCM®</b>	Online Clearance Monitoring
Accurate Clearance K	$\pm$ 6 %
<b>Bicarbonate dry concentrate</b>	bibag®
<b>ONLINEplus</b>	
Dialysis fluid filter system	DIASAFE®plus
Online Haemo(dia)filtration	25 to 600 mL/min
Substitution rate Accuracy	$\pm$ 10%
<b>Balancing accuracy</b>	$\pm$ 0.1 % related to the total dialysate volume
Pressure holding tests	Event controlled
<b>Ultrafiltration</b>	
UF rate	0 to 4000 mL/h (in steps of 10 mL)
Pump volume accuracy	$\pm$ 1 %
Parameters displayed	UF goal, UF time, UF rate, UF volume
<b>Blood leak detector</b>	
Sensitivity	$\leq$ 0.5 mL blood/min (Hct = 25 %) flow rate 100 mL/min to 1000 mL/min
<b>BTM (optional)</b>	
Temperature measurement	Accuracy $\pm$ 0.2 °C
Body temperature control	Allowed change rate $\pm$ 0.5 °C/h
Recirculation measurement	Accuracy $\pm$ 2 %
<b>BPM (optional)</b>	
Display range	Systole: 30 mmHg to 280 mmHg Diastole: 10 mmHg to 240 mmHg MAP: 20 mmHg to 255 mmHg Pulse: 20 to 245 1/min
Accuracy	$\pm$ 3 mmHg
Resolution	1 mmHg
Disinfection and cleaning programmes*	
<b>Rinse</b>	
Temperature/flow	37 °C / 600 to 700 mL/min (adjustable)
<b>Hot rinse (recirculation)</b>	
Temperature/flow	85 °C / max. 600 mL/min
Flow for cool down rinse	600 to 700 mL/min (adjustable)
<b>Cleaning Sporotal® 100 (recirculation)</b>	
Temperature/flow	37 °C / 600 to 700 mL/min (adjustable)
<b>Heat disinfection Diasteril®/Citrosteril® (recirculation)</b>	
Temperature/flow	85 °C / 600 to 700 mL/min (adjustable)
<b>Cold disinfection Puristeril® 340/plus (recirculation)</b>	
Temperature/flow	37 °C / 600 to 700 mL/min (adjustable)

# 5008S CorDiax


## Accessories



### PatientCard

- Individualised therapy prescription and documentation “Offline”
- Also for use with BCM measurements



Type	For use with		Units per treatment	Units per box	Art. No.
PatientCard	5008 / 5008S BCM		1	1	M357651

### VenAcc

- Special wetness detector for detection of venous needle disconnection
- External device for 5008 CorDiax and 5008S CorDiax with single-use patches





Type	For use with		Units per treatment	Units per box	Art. No.
VenAcc patch	5008 / 5008S		1	40	F00003229

### BCM-Body Composition Monitor

- Stand-alone device for the continuous monitoring of the patient's dry weight with single use electrodes
- Uses whole-body bioimpedance spectroscopy (BIS)
- Transfer of measurement results via PatientCard to 5008S CorDiax



Type	For use with		Units per treatment	Units per box	Art. No.
BCM single use electrodes	BCM		4	10 x 4	M351431
BCM single use electrodes Paediatric Dialysis	BCM		4	10 x 4	M416561

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## Bloodlines

- Optimal compatibility between bloodline and machine
- Beta sterilised
- Phthalate free



Type	For use with	Tube length to patient		Filling volume	Units per box	Art. No.
Arterial line		Venous line		SafeLine		
<b>AV-Sets</b>						
AV-Set ONLINEplus 5008-R	5008 / 5008S HD / HDF	Arterial: 1982 mm	Venous: 1900 mm	132 ml	24	F00000384
AV-Set ONLINE Priming 5008S-R	5008S HD	Arterial: 1979 mm	Venous: 1900 mm	132 ml	24	F00000700
<b>SN-Sets</b>						
SN-Set ONLINEplus 5008-R	5008 / 5008S HD / HDF	Arterial: 1979 mm	Venous: 1900 mm	166 ml	20	F00000386

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## Concentrates



### bibag®

- Online dry bicarbonate concentrate 8.4%
- Fully collapsible bag made of PA/PE, 100% PVC-free

Type	For use with	Weight per bag	Boxes per pallet	Units per box	Art. No.
bibag® 5008	5008 / 5008S	650 g	56	16	506 078 1
bibag® 5008	5008 / 5008S	900 g	56	12	506 080 1

### smartbag®

- Liquid acid concentrate (dilution ratio 1+ 44)
- Fully collapsible bag made of PP/PE, 100% PVC-free
- Compositions of ready to use dialysis fluid (after mixing with bicarbonate concentrate 8.4% and purified water)



Type	For use with	Na <sup>+</sup> mmol/L	K <sup>+</sup> mmol/L	Ca <sup>2+</sup> mmol/L	Mg <sup>2+</sup> mmol/L	Cl <sup>-</sup> mmol/L	HCO <sub>3</sub> <sup>-</sup> mmol/L	Acetate mmol/L	Glucose g/L	Osmolarity mosm/L	Art. No. 4.7 L Box of 60	Art. No. 4.7 L Box of 2
smartbag® 111.5	5008 / 5008S	138	1.00	1.50	0.5	108.00	32.00	3.00	1.00	289.55	F000 000 64	F000 006 4D
smartbag® 211.25	5008 / 5008S	138	2.00	1.25	0.5	108.50	32.00	3.00	1.00	290.80	F000 000 65	F000 006 5D
smartbag® 211.5	5008 / 5008S	138	2.00	1.50	0.5	109.00	32.00	3.00	1.00	291.55	F000 000 66	F000 006 6D
smartbag® 211.75	5008 / 5008S	138	2.00	1.75	0.5	109.50	32.00	3.00	1.00	292.30	F000 002 32	F000 023 2D
smartbag® 311.25	5008 / 5008S	138	3.00	1.25	0.5	109.50	32.00	3.00	1.00	292.80	F000 000 67	F000 006 7D
smartbag® 311.5	5008 / 5008S	138	3.00	1.50	0.5	110.00	32.00	3.00	1.00	293.55	F000 000 68	F000 006 8D
Acid concentrate per pallet											564 L	564 L
Bags/box - boxes/pallet											60 - 2	2 - 60

Code message: e.g. smartbag® 111.5 (1xx.x = K<sup>+</sup> in mmol/L) (x1x.x = Glucose in g/L) (xx1.5 = Ca<sup>2+</sup> in mmol/L)

Type	For use with	Art. No.
Concentrate platform*	5008S	M423591

\*Tray fixed onto the machine to improve the stability of the concentrates (e.g. smartbags).

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### Dialysis Fluid Filter

#### DIASAFE® plus

- Production of ultrapure dialysis fluid
- Safe production of sterile and non-pyrogenic substitution fluid with two filters in series
- In accordance with ISO 23500:2011 and ISO 11663:2009
- Membrane type: Fresenius Polysulfone®
- Material: housing/potting PP/PU, sealing silicone



Type	For use with	Effective surface	Operating time	Units per machine	Disinfection cycles	Units per box	Art. No.
DIASAFE® plus	5008 / 5008S	2,2 m <sup>2</sup>	Max. 12 weeks or 100 treatments	2	Max. 11 times Sporotal	24	B 500 820 1
DIASAFE® plus	5008 / 5008S	2,2 m <sup>2</sup>	Max. 12 weeks or 100 treatments	2	Max. 11 times Sporotal	1	500 820 1



## 5008S CorDiax Disinfectants

### Machine Disinfectants

- For the disinfection, cleaning and decalcification of the hydraulic system
- All disinfectants are bactericidal and virucidal
- Cold disinfectants and cleaner at a process temperature of 37 °C
- Heat disinfectants at a process temperature of 85 °C

Type	For use with	Specification	Filling volume/ Items per unit	Units per box	Art. No.
Puristeril® 340		For decalcification and disinfection Contains: Peracetic acid, acetic acid, hydrogen peroxide, water.			
Puristeril® 340	5008 / 5008S cold	multilingual	5 kg (4.4 L)	1	508 562 1
Puristeril plus		For decalcification and disinfection Contains: Peracetic acid, acetic acid, hydrogen peroxide, water.			
Puristeril plus	5008 / 5008S cold	D-NL-F-GB-S-DK	5 kg (4.9 L)	1	508 570 1
Puristeril plus	5008 / 5008S cold	I-E-P-H-HR-GR	5 kg (4.9 L)	1	508 571 1
Puristeril plus	5008 / 5008S cold	RUS-SK-RO-PL-SLO-SRB	5 kg (4.9 L)	1	508 572 1
Citrosteril		For decalcification and disinfection Contains: Citric acid 1-hydrate; lactic acid, malic acid			
Citrosteril	5008 / 5008S heat	multilingual	5 L	1	F00005157
Citrosteril	5008 / 5008S heat	multilingual	5 L	2	F00005158
Diasteril		For decalcification and disinfection Contains: hydroxyacetic acid			
Diasteril	5008 / 5008S heat	GB-I-E-P-F-GR	6 L	1	508 565 1
Diasteril	5008 / 5008S heat	D-NL-F-I-SK-CZ	6 L	1	508 564 1
Diasteril	5008 / 5008S heat	RU-SK-RO-PL-CZ-SLO	6 L	1	508 566 1
Sporotal 100		For degreasing and disinfection Contains: Sodium hypochlorite (releases chlorine); potassium hydroxide, corrosion inhibitors.			
Sporotal 100	5008 / 5008S cold	multilingual	1 L	6	508 516 1
<b>Accessories</b>					
Canister opener	Bottle Sporotal 100, 1 L	-	-	1	M418491
Canister opener	5 kg canisters	-	-	1	M305191
Potassium iodide starch paper	Puristeril 340, Puristeril plus, Sporotal 100	Residual test	100	1	508 521 1
pH-Fix 3.6-6.1	Diasteril	Residual test	100	1	6288161

## Surface Disinfectants

- Bactericidal (incl. MRSA), yeasticidal, inactivating enveloped viruses (Vaccinia virus and BVDV as surrogate viruses for e.g. HBV/HCV/HIV) and noroviruses (MNV), tuberculocidal activity

Type	For use with	Specification	Filling volume/ Items per unit	Units per box	Art. No.
Freka-NOL		100 g Freka-NOL contains 45.0 g ethanol as active ingredient. To be used undiluted. Contact time 1 min.			
Freka-NOL	5008/5008S	D-GB-F-I-NL	2 L	6	F00001165
ClearSurf		100 g ClearSurf contains: 16 g quaternary ammonium compounds (benzyl-C <sub>12-16</sub> -alkyl-dimethyl, chlorides), additives, fragrance. To be used in a 1% dilution. Contact time 15 min.			
ClearSurf	5008/5008S	D-F-I-NL	2 L	6	508 569 1
ClearSurf	5008/5008S	GB-E-P-SLO	2 L	6	508 573 1
ClearSurf	5008/5008S	S-DK-CZ-SK	2 L	6	508 577 1
ClearSurf	5008/5008S	GR-H-HR-TK	2 L	6	508 578 1
ClearSurf	5008/5008S	RUS-PL-RO-BG	2 L	6	508 579 1
Dosing pump	5008/5008S	-	-	1	603 063 1
Measuring cup	5008/5008S	-	-	1	603 062 1
Canister opener	5008/5008S	-	-	1	M305191
ClearSurf WIPES		Soaked with a 1% ClearSurf solution. Soaking solution contains quaternary ammonium compounds (benzyl-C <sub>12-16</sub> -alkyldimethyl, chlorides), additives, fragrance			
ClearSurf WIPES	5008/5008S	D-F-NL-I	30 wipes	14	603 071 1
ClearSurf WIPES	5008/5008S	GB-DK-S-N	30 wipes	14	603 072 1
ClearSurf WIPES	5008/5008S	BG-FIN-RUS-TR	30 wipes	14	603 073 1
ClearSurf WIPES	5008/5008S	E-EST-LT-P	30 wipes	14	603 074 1
ClearSurf WIPES	5008/5008S	H-HR-BIH-SRB-SK	30 wipes	14	603 075 1
Freka-WIPES		Material: High grade, lint-free spunlace non-woven material. 100% synthetic fibre mixture, 40 g/m <sup>2</sup> . Cross-linked and tear-proof			
Freka-WIPES Dispenser	5008/5008S	multilingual Blue dispenser, equipped with 1 roll Freka-WIPES		1	F00000891
Freka-WIPES	5008/5008S	multilingual	100 wipes	6	F00000892





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