Dry Clinical Chemistry Analysis

SPOTCHEM D-Concept

SD-9811,3810,4810,4820

A test system leading the way with excellent scalability and stylish design

arkray,inc.

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A test system
with excellent scalability
and stylish design

Proprietary technology molded into a compact form

ARKRAY's dry chemistry/immunological analysis technology, condensed.

The flexibility to combine the units you want

Separate operation and measurement units: measurement units can be added to fit your needs.

An innovation in stylish design

A novel, smart and functional design for clinical laboratory equipment

Simple key operation

Calibration by scanning a QR code

Operation unit

SPOTCHEM D-00 QR SD-9811

Once connected, measurement units can be collectively operated through this, the SPOTCHEM™ D-00 QR. It can readily be calibrated just by scanning a QR code with handy bar-code reader into SPOTCHEM™ D-00 QR.

Just set the Reagent pack, and you are ready to test.

Compact reagent pack

Mobile immuno-nephelometry analysis Measurement unit

SPOTCHEM D-01 SD-3810

Accurate measurement of CRP. Disposable reagent packs remove the need for waste liquid treatment meaning extra safety for you.

Electrolyte measuring reagent

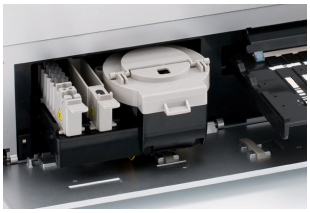
Biochemistry measuring reagent

Choose necessary items to measure

Dry chemistry clinical analysis measurement unit

SPOTCHEM D-02 SD-4810

Choose from 21 biochemistry items and 3 electrolyte items. Simultaneous measurement of up to 12 biochemistry items and 3 electrolyte items. Set the reagent, push the start key and you are ready to test. The solid phase reagent is individually-packaged, so you can perform measurements at your own pace.



Built-in centrifuge

Choose necessary items to measure

Dry Clinical Chemistry analysis Measurement unit

SPOTCHEM D-03 SD-4820

Choose from 21 biochemistry items. Simultaneous measurement of up to 12 biochemistry items. A built-in centrifuge allows for whole-blood sample testing without pretreatment.

SPOTCHEM D-00 QR (SD-9811) specifications	
Number of connectable units	3 (Max.)
Warm up time	Approx. 1 min.
Screen	Full- color LCD 320×240 dpi
Printer	58 mm thermal printer paper
Data storage capacity	100 measurement results for each connected unit
External output	RS-232C × 1 port
Measurement environment	Temperature: 10-30℃ Humidity: 20-80% R.H. (with no condensation)
Dimensions	408 (W) × 330 (D) × 103 (H) mm
Weight	Approx. 5 kg
Power supply voltage (main device)	AC100-240V, 50/60Hz
Power input	Up to 300VA

SPOTCHEM D-01 (SD-3810) specifications	
Sample types	Whole blood, serum, plasma
Reagent	SPOTCHEM D reagent pack
Measurement items	CRP
Measurement principle	Latex immunological nephelometry (LPIA method), transmitted light volume by coloring substance
Measurement wavelengths	465nm, 550nm, 660nm
Loaded reagents	2
Processing speed	9-12 min. per sample, 14-18 min. required for simultaneous dual sample measurement
Minimum sample volume	50 μL
Sample container	All-In-One Sample container
Warm up time	Approx. 5 min. (from a room temperature of 25℃)
Measurement environment	Temperature: 10-30℃ Humidity: 20-80% R.H. (with no condensation)
Outer dimensions	408 (W) × 330 (D) ×132 (H) mm
Weight	Approx. 8kg
Power supply voltage	DC24V, 2A (supplied from operating unit)

	SPOTCHEM D-02 (SD-4810) specifications	SPOTCHEM D-03 (SD-4820) specifications
Sample types	Biochemistry: serum, plasma Electrolyte: whole blood, serum, plasma and urine	Whole blood, serum, plasma
Reagent	SPOTCHEM D single reagent, SPOTCHEM D multi reagent, SPOTCHEM D electrolyte plate	SPOTCHEM D single reagent, SPOTCHEM D multi reagent
Measurement items	Biochemistry: ALB, ALP, ALT (GPT) , AMY, AST (GOT) , Ca, CK, CRE, FRA, GGT, GLU, HDL, IP, LD, Mg, T-BIL, TC, TG, TP, UA, UN (21 items in total) Electrolyte: Na, K, Cl Simultaneous measurement for a maximum of 15 items. (Biochemistry single 6 items + Biochemistry multi 6 items + Electrolyte 3 items)	Biochemistry: ALB, ALP, ALT(GPT), AMY, AST(GOT), Ca, CK, CRE, FRA, GGT, GLU, HDL, IP, LD, Mg, T-BIL, TC, TG, TP, UA, UN (21 items in total) Simultaneous measurement with a maximum of 12 items (Biochemistry single 6 items + Biochemistry multi 6 items)
Measurement principle	Biochemistry: Endpoint method and rate method by dual-wavelength reflectance Electrolyte: potentiometry method by ion-selective electrode technique	Endpoint method and rate method by dual-wavelength reflectance
Measurement wavelength	405, 550, 575, 610, 820nm	
Loadable reagent	6 single test strips, 1 multi test strip and 1 electrolyte plate	6 single test strips, 1 multi test strip
Processing speed	Time required for 6 single test strips + 1 multi test strip is approx. 18 min. Measurement time for Electrolyte plate is approx. 4 min.	Time required for 6 single test strips + 1 multi test strip is approx. 18 min. Centrifuge time is 2.5 min.
Minimum sample volume	30 μL plus test consumption volume per measurement (Biochemistry: about 6 μL per item Electrolyte: about 22 μL)	Cuvette (serum, plasma) : 30 μL and test consumption volume per measurement (approx. 6 μL per item) Centrifuge cup (whole blood) : approx. 530 μL
Sample container	ARKRAY sample tube	ARKRAY sample tube, ARKRAY centrifuge cup
Warm up time	Approx. 8 min. (from a room temperature of 25℃)	
Measurement environment	Temperature:10-30℃, Humidity: 20-80%R.H. (with no condensation)	
Outer dimensions	408 (W) × 330 (D) × 132 (H) mm	408 (W) × 330 (D) × 160 (H) mm
Weight	Approx. 10 kg	Approx. 11 kg
Power supply voltage (main body)	DC24V, 2A (supplied from operation unit)	DC24V, 2A (supplied from operating unit)

*Design and specifications may be subject to change without notice.

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