

HumaLyte Plus³

- > System Specifications
- > Accessories
- > Consumables



*Autosampler optional

System Overview

REF	17470/10
Analyzer type:	Stand-alone ISE Electrolyte Analyzer
Principle:	Direct measurement by Ion Selective Electrode (ISE)
Measured parameters:	Na+ (sodium) K+ (potassium) Cl- (chloride)
Sample type:	Serum, plasma (heparin >10 U/ml), Whole blood (heparin >10 U/ml), Diluted urine
Throughput:	Up to 60 samples / hour
Sampling:	Manually through aspiration needle Optional Autosampler (with STAT)
Operation Modes:	Standard mode: Daily use operation; QC mode: QC measurement for statistical interpretation (two levels)

HumaLyte Plus³

Stand-alone ISE Electrolyte Analyzer

Measurement

Sample volume:	150 µL		
Carryover:	< 1.5 % sample to sample		
Calibration:	Automatic 2-point calibration every 4 hours or on demand 1-point calibration with each sample for temperature and drift compensation		
Sample positions:	1 aspiration position, (20 sample positions with Autosampler)		
Sample tubes:	All regular tubes/cups up to 50 mm length Sample cups (17470/59) for Autosampler		
Parameter:	Measuring range (serum, plasma, whole blood)	Measuring range (urine)	Precision within run (CV%, for serum)
K+	0.50 – 15.00 mmol/l	10 - 100 mmol/l	≤1.5%
Na+	30.0 – 200.0 mmol/l	50 - 250 mmol/l	≤1.0%
Cl-	30.0 – 200.0 mmol/l	50 - 250 mmol/l	≤1.5%

Operation

Data storage:	Sample results for 200 patients with patient ID QC results		
Reports:	QC (Mean, SD, CV%), patient results		
Warnings:	Analytical limits (high/low) Calibration criteria		
User interface:	LCD touch screen (110 x 62 mm, with LED back light)		
Printer:	Built-in thermal printer, 32 characters per line Printing Width: 58 mm Printing Speed: 46 characters per second		
Connectivity:	RS-232 serial port (uni-directional)		
Periphery:	Barcode reader can be connected via RS-232		
Language:	English		

General

Dimensions (W x D x H):	Instrument without any components:	38 x 35 x 44 cm
	Space required for routine use:	63 x 61 x 52 cm
	Packaging:	49 x 45 x 56 cm
	Weight:	Gross: 13.3 kg, net: 7.8 kg
Electrical requirements	Input voltage: 110 / 220 V AC ± 10%, 50/60 Hz Power consumption: 60 VA Fuse: F2AL250V	
Environmental	Operating temperature: 15 – 32°C Relative humidity: ≤ 85 %, non-condensing	

Usage

Pump:	Peristaltic pump
Valve:	Rotary valve
Sensor:	Optical liquid sensor for positioning
Electrodes:	All electrodes refillable, reference membrane replaceable for cost efficient repair
Reagent:	Only one Reagent Pack necessary for all parameters Closed system, only usable with Human reagent pack
Disposal of waste:	Contaminated waste, container integrated in reagent pack

Reagent Consumption:

The consumption of reagent depends on the way you use the instrument. There are several factors that will influence the consumption: number of samples measured per day, number of batches per day, stand-by time of the instrument, etc. The following table is a rough estimation of the consumption.

A calculation program for consumption of reagents, spare parts and other consumables can be provided.

Number of samples per day	Number of samples per Reagent Pack
5	100-190
10	200-350
20	350-550
50	600-850
100	850-1050

Standard Accessories

(supplied with each instrument)

	Quantity	Cat. No.		Quantity	Cat. No.
Reagent Pack Humalyte Plus ³	1	17470/82	Reference Membrane (10 pcs.)	1	17470/19
K Electrode (K+)	1	17470/11	Cleaning Needle	1	
Na Electrode (Na+)	1	17470/12	Fuse (F2AL250V) (2 pcs.)	1	17470/61
Cl Electrode (Cl-)	1	17470/13	Grounding Wire	1	
Reference Electrode	1	17470/17	O-ring	2	
Internal Electrode	1	17470/18	Reference Membrane Fitting Tool	1	
K Filling Solution	1	17470/74	Peristaltic Pump Tube	2	17470/42
Na/Cl/pH Filling solution	1	17470/75	Power Cord	1	18999
Reference Filling Solution	1	17470/78	Screwdriver	1	
QC Solution 100 ml	1	17470/70	Thermal Paper (3 pcs.)	1	18144/5
Weekly Cleaning Solution	1	17470/72	Tweezers	1	
Na Conditioner	1	17470/79	User Manual	1	17470/1
Urine Diluent	1	17470/86			

HumaLyte Plus³

Accessories & Consumables

Consumables

	Cat. No.
Reagent Pack HumaLyte Plus ³	17470/82
Weekly Cleaning Solution 100 ml	17470/72
Daily Cleaning Solution 100 ml	17470/71
K Electrode (K ⁺)	17470/11
Na Electrode (Na ⁺)	17470/12
Cl Electrode (Cl ⁻)	17470/13
Reference Electrode	17470/17
Internal Electrode	17470/18
Reference Membrane (10 pcs.)	17470/19
K Filling Solution 100 ml	17470/74
pH/Na/Cl Filling Solution 100 ml	17470/75
Ref. Filling Solution 100 ml	17470/78
QC Solution 100 ml	17470/70
QC Solution 10 x 2 ml	17470/110
Na Conditioner 100 ml	17470/79
Urine Diluent 100 ml	17470/86
Aspirating Tube	17470/41
Connection Tube	17470/91
Peristaltic Pump Tube	17470/42
Thermal Printer Paper (5 pcs.)	18144/5

Additional Accessories

	Cat. No.
Autosampler for 20 Sample Cups	17470/30
Sample cup 2.5 ml (250 pcs.)	17470/59



Autosampler for 20 Sample Cups

Cat.No. 17470/30



Sample Cups 2.5 ml

Cat.No. 17470/59



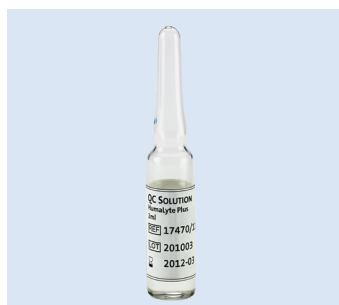
Cl Electrode (Cl⁻)

Cat.No. 17470/13



Reagent Pack

Cat.No. 17470/82



QC Solution 10 x 2 ml

Cat.No. 17470/110



Reference Filling Solution

Cat.No. 17470/78