T̈ TULIP DIAGNOSTICS (P) LTD.

Euphorëia™ 4.1
FULLY AUTOMATED ELISA PROCESSOR

Fully Automated ELISA Processor

KEY FEATURES

High Speed Robotic Arm
- Performs two major functions ie: pipetting of reagents and samples into the microplate and transfer of microplates from one module to another.
- Two channel pipetting system - enhances pipetting speed.
- Intelligent microplate transporter – transfers microplates from one module to another.

Robotic Washer
- Washing manifold of Euphoreia 4.1 is designed for efficient washing with speed. The washing manifold is designed with independent needles for aspirating and dispensing.

Robotic Reader
- Euphoreia 4.1 is equipped with 8 channel reading unit with an in-built agitation facility before reading. It consists of 4 filters 405, 450, 492, 630 nm wavelength with two empty filter positions.

Flexible Modular Platform
- Euphoreia 4.1 gives flexibility for user to customize the modular platform.
- Flexible loading of pipette tips – 300 µl, 800 µl or both.
- Flexible loading of samples, controls & calibrators in 6 rails of 24 positions each.
- Continuous loading of samples & microplate.
- Four plate loading positions with in-built incubator and shaker. All incubators & shakers are independent with programmable temperature, shake time & speed.
- 18 reagent positions with flexibility 15 ml/60 ml reagent vials.

Software
- Euphoreia 4.1 is operated through windows based software. It allows user to configure the modular platform & controls the operations & interactions of the different modules on the platform. Westgard or L-J QC functions support automatic creation of quality control charts and validation.

TECHNICAL SPECIFICATIONS

General	
Type	Processes the ELISA/EIA from pipetting to interpretation & print out of results.
Main Performance	Open system, Fully programmable, Walk away, Random access, Multi batch execution with continuous loading facility
Self – Check System	The machine executes a verification of its hardware before it starts a new session.
Maximum Number of Assays Per Microplate	12
Washer	
Manifold Type	8 well washer
Manifold Needles	8-way dispensing channels & 8-way aspiration channels (16 pins)

Plate Type	Flat, U and V shaped bottom
Wash Cycles	Programmable
Soak Time	Programmable
Residual Volume	Less than 2µl per well
Number Of Wash Buffer Bottles	5 (4 wash buffer bottle + 1 distilled water bottle)
Reader	
Reading Method	Single/Dual wavelength measurement
Wavelength Range	From 400 to 750 nm
Filter Configuration	405, 450, 492, 630nm + two empty filter positions
Measurement Range	0 to 3.6 OD
Accuracy	±1% or 0.007
Precision	CV < 0.5% (@0.3 – 1.5 O.D. 405 nm) CV < 1.0% (@1.5 – 2.0 O.D. 405 nm)
Sampler	
Number Of Pipetting Channels	2
Number Of Syringes	2
Syringe Volume	Up to 800 µl
Tips	Non-conductive, disposable tips
Tip Size	300 µl/800 µl
Pipetting Precision And Accuracy	Better than 1 % CV at 10 % syringe volume, based on gravimetric evaluation.
Liquid Detection	Pneumatic type
Carry Over	Zero due to usage of disposable tips
Primary Sample Capacity	Up to 144 positions (shared with controls/calibrators)
Maximum Number Of Controls/Calibrators	Up to 144 positions (shared with sample positions)
Maximum Number Of Reagents	18 reagent positions (15ml/60ml)
Incubator	
Number Of Incubators	4
Temperature Range	Programmable from room temperature to 50 °C
Temperature Accuracy	±0.5 °C at 37 °C
Incubation Time	Programmable
Microplate Shaking	Programmable speed and time
Printer/ Interface/ Display	Windows, Stand alone PC with standard configuration (minimum 2 USB ports), Parallel (printer port) and RS-232 (bi-directional port for connection with host computer)
Power Consumption	500 to 700 W
Power Supply	220V, 50 to 60 Hz
Dimensions	12.7 cms x 78.5 cms x 100 cms
Weight	180 Kgs
Cat No.	810EP004001

LIST OF STANDARD COMPONENTS SUPPLIED ALONG WITH THE INSTRUMENT

Components	Qty
Power Cord	1 No.
CAN Card Cable	1 No.
RS-232 Cable to USB Cable	1 No.
Pipette Arm (2-channel, disposal tips)	1 No.
Robotic Arm	1 No.
Incubation Positions	4 Nos.
Washer	1 No.
Reader (FC)	1 No.
Tip Rack (holding 4 tip boxes)	1 No.
Sample Tube/Control/Standard Rack (holding 24 tubes each)	6 Nos.
Disposable Tip Box (holding 96 tips)	4 Nos.
Reagent (18) & Incubation Cover Rack	1 No.
Disposable Tips Waste Tray	1 No.
Incubation Cover	4 Nos.
Manifold 16 Needle	1 No.
Control/Standard Tubes	40 Nos.
Reagent Tank 60 ml	10 Nos.
Reagent Tank 15ml	25 Nos.
2500 ml Bottle with Tubing & Sensor	5 Nos.
Waste Bottle with Tubing	1 No.
Pressure Bottle with Tubing & Sensor	1 No.
Bottle Holder	1 No.
Disposable Tips 300µl	750 Nos.
Disposable Tips 800µl	250 Nos.
User Manual	1 No.
CD with Default Instrument Setup	1 No.

* Full Desktop System

ACCESSORIES/CONSUMABLES FOR USE WITH EUPHOREIA 4.1

Accessories/ Consumables	Cat No.	Pack Size
Disposable sample tips 300µl	810T3001000	1 x 1000 Pcs
Disposable sample tips 800µl	810T8001000	1 x 1000 Pcs
Reagent Tank 60 ml	810RT600010	1 No.
Reagent Tank 15 ml	810RT150010	1 No.