

# HORIBA



## *Small Wonder*

**Yumizen**  
C150

Automated Clinical Chemistry Analyzer

# Beat *the* best

Accuracy

High Precision

Convenience

Flexibility

Ease of operation

## Yumizen C150

### Automated Clinical Chemistry Analyzer

An ideal solution for small & mid size laboratories and as a backup for high workload laboratories.



#### Reagent & Sample Tray

- 30 refrigerated reagent positions & 30 sample positions concentrically arranged
- Reagent & Sample positions are barcode enabled
- Detachable Reagent Tray
- Peltier based cooling system to maintain temperature between 8°C to 12°C
- Primary tubes & sample cups can be used with continuous loading facility
- STAT samples/controls/calibrators can be placed at any position

#### Sample / Reagent Multifunction Probe and Stirrer

- Electro-polished probes which prevents cross contamination & single teflon coated stirrer
- Internal & external prob washing & probe carry over < 3%
- Capacitive level detection
- Vertical and horizontal obstruction detection facility to prevent probe crash
- Long life pipetting system with plunger driven by precised stepper motor
- Cutting edge technology for volume measurement by ceramic block piston

#### Reaction & Optical System Unit

- 60 discrete, dismountable, easily replaceable and reusable cuvettes with 6 mm optical path
- High transmittance cuvette material
- Halogen Tungsten Lamp with fiber optics

#### 7-step Onboard Laundry System

- Hot Water wash of cuvettes, carry over < 1%
- Continuous cuvette blank checking, if blank exceeds the limit, cuvette is skipped
- Water consumption 5-6 liters/hour
- Option of three different wash for forbidden pairs to minimize the carry over

#### User friendly Software

- Intuitive software of reflex testing and dedicated system packs
- Windows based software



## TECHNICAL SPECIFICATIONS

### Throughout

Double Reagent	:	Max 200 Tests/hour
Single Reagent	:	Max 240 Tests/hour

### System Functions

Analysis method	:	End Point, Fixed Time (2-Point), Kinetic Rate - A, Kinetic Rate - B
Assay Modes	:	Colorimetry, Turbidity Single and Double reagent, Multi Standard, Mono and Bi - Chromatic

### Sample/Reagent processing

Sample position	:	30
Sample Volume	:	2-50 $\mu$ L (0.1 $\mu$ L step)
Sample dilution	:	2 to 40 times
Reagent Position	:	30 for R1 and R2
Reagent 1	:	180 - 350 $\mu$ L (Adjustable in 1 $\mu$ L step)
Reagent 2	:	10 - 350 $\mu$ L (Adjustable in 1 $\mu$ L step)

### Reaction System

Reaction Cuvette	:	60 reusable cuvettes
Cuvette Washing	:	On board laundry with 7 step washing system
Water consumption	:	5-6 liters/hour
Optical Length of cuvette	:	6 mm
Reaction Time	:	30 to 600 secs (Depending on the designated cycle time & number of reagents)
Reaction Temperature	:	37°C $\pm$ 2°C

### Optical System

Measurement Principle	:	Photometry
Light Source	:	Halogen Tungsten Lamp with fiber optics
Wavelength	:	Total 9 filters (340, 405, 450, 510, 546, 578, 620, 670 & 700nm)
Detector	:	Silicon Diode
Absorbance Range	:	0 - 3.000 Abs

### Calibration

Calibration Type	:	K-Factor, Linear (one, two and multi point), Logit Log, Spline, Exponential, Polynomial (second, third, fourth order)
Calibration Points	:	Multipoint curves for up to 6 points execution by repeat run lists or auto execution
Auto Re-run	:	Auto execution according to abnormal marking or range over

### Data Storage

Test Results	:	Unlimited
Reaction Curve	:	Unlimited
Profiles	:	20 per sample type

Quality Control	:	Within day and as well as day-to-day X and X-R control diagram (L-J graph) Real time quality control based on Multi rule method mean, SD, %CV, R is calculated for all parameters for sample replicates
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### Working Conditions

Power supply	:	110/230 VAC 50-60 Hz (Max Power 250 W)
Temperature	:	10°C - 30°C
Humidity	:	40% - 80% free from water dew formation
Operation System	:	Windows XP, Windows 7, Windows 8, Windows 10 or Winfix
Input	:	RS232 interface/computer
Output	:	Multi format printout / Computer

Dimensions	:	W 625 mm x D 450 mm x H 424 mm
Weight	:	25 kg



**HORIBA CARE**

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