

HORIBA
Medical

Pentra 400 ●
Clinical Chemistry system



Pentra 400

From routine to specialty testing

One bench, not a whole lab
No water system, drain,
or special electrical requirements

- Up to 420 tests per hour with the ISE module
- 55 onboard parameters with back up availability
- Innovative cassette format
- Integrated work station and validation station
- Touch screen interface
- Real-time follow-up of your workflow



Efficient Sample and Reagent Management



Sample management

- Positive identification
- Shock, level and clot detection
- Continuous loading
- STAT capability
- Automatic pre/post-dilution
- Automatic rerun



Reagent management

- Barcoded cassettes
- Optimized test packaging
- Reagent test count down with automatic backup
- Extensive onboard test menu
- 40 user-defined channels

Patented technology yields high quality results

HIGH PRECISION OPTICAL SYSTEM

HORIBA Medical has chosen HORIBA Scientific's patented holographic grating technology to generate highly accurate photometric results

The holographic grating technology reduces light diffraction and provides a high signal / noise ratio which significantly increases the quality of measurement to produce precise and stable test results.

- Spectral unit offering 15 different wavelengths (mono- or bi-chromatic)
- Optimized reading by continuous sweep
- Highly sensitive detection (validated holographic technology)



INTEGRATED ISE MODULE

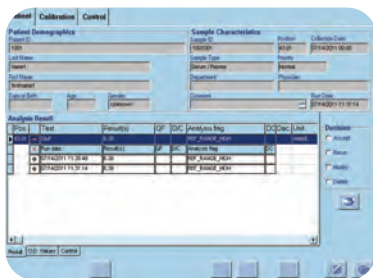
ISE module designed by HORIBA Ltd., Japan.

- 180 tests/hour
- Simultaneous analysis of Sodium, Potassium and Chloride
- Applications on Serum, Plasma and Urine

HIGH QUALITY ANALYTICAL TECHNOLOGY

- Single-use reaction cuvettes produce highly sensitive and robust results
- High performance mixer design for optimal homogenization without cross-contamination
- Test sequence optimization programming minimizes sample to result turn around time

Secure and simple patient data management



Secure data management

- Secured results validation
- Reliable traceability in compliance with accreditation standards



Patient management

- Worklist generated by a manual entry or uni-/bi-directional connectivity
- Automatic validation based on user defined rules
- Intuitive delta checking
- Monitors panic values

An extensive menu of liquid reagents

Cassette packaging

- One and two reagent cassettes
- Ready-to-use
- Broad menu
- 52 reagents
- Enzymes / Substrates / Specific Proteins



Easy management of your lab processes

- Reagent cassettes can be placed anywhere in the reagent compartment
- Automated traceability: Test name, lot number, expiration date, tests remaining, and unique cassette number
- Reagent compartment will be scanned and inventoried every time the reagent door is opened and closed
- Automated reagent cassette backup
- Just one calibrator and two controls for routine analysis



Environment protection

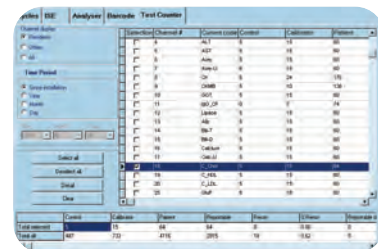
Compact cassette packaging that respects the environment

- No more superfluous packaging
- Saves refrigerator space



Cost control

- Optimized number of tests per cassette
- Minimal calibrations
- Rerun analysis according to laboratory defined rules
- Activity analytics with the test counter function⁽¹⁾



| Reagent | Quantity | Unit | Cost | Value | Unit | Cost | Value |
|---------|----------|------|------|-------|------|------|-------|
| ALP | 12 | ml | 12 | 12 | | | |
| ALT | 18 | ml | 18 | 18 | | | |
| Amo | 18 | ml | 18 | 18 | | | |
| Chol | 24 | ml | 24 | 24 | | | |
| Chol2 | 18 | ml | 18 | 18 | | | |
| CRP | 18 | ml | 18 | 18 | | | |
| CRP2 | 18 | ml | 18 | 18 | | | |
| CRP3 | 18 | ml | 18 | 18 | | | |
| CRP4 | 18 | ml | 18 | 18 | | | |
| CRP5 | 18 | ml | 18 | 18 | | | |
| CRP6 | 18 | ml | 18 | 18 | | | |
| CRP7 | 18 | ml | 18 | 18 | | | |
| CRP8 | 18 | ml | 18 | 18 | | | |
| CRP9 | 18 | ml | 18 | 18 | | | |
| CRP10 | 18 | ml | 18 | 18 | | | |
| CRP11 | 18 | ml | 18 | 18 | | | |
| CRP12 | 18 | ml | 18 | 18 | | | |
| CRP13 | 18 | ml | 18 | 18 | | | |
| CRP14 | 18 | ml | 18 | 18 | | | |
| CRP15 | 18 | ml | 18 | 18 | | | |
| CRP16 | 18 | ml | 18 | 18 | | | |
| CRP17 | 18 | ml | 18 | 18 | | | |
| CRP18 | 18 | ml | 18 | 18 | | | |
| CRP19 | 18 | ml | 18 | 18 | | | |
| CRP20 | 18 | ml | 18 | 18 | | | |
| CRP21 | 18 | ml | 18 | 18 | | | |
| CRP22 | 18 | ml | 18 | 18 | | | |
| CRP23 | 18 | ml | 18 | 18 | | | |
| CRP24 | 18 | ml | 18 | 18 | | | |
| CRP25 | 18 | ml | 18 | 18 | | | |
| CRP26 | 18 | ml | 18 | 18 | | | |
| CRP27 | 18 | ml | 18 | 18 | | | |
| CRP28 | 18 | ml | 18 | 18 | | | |
| CRP29 | 18 | ml | 18 | 18 | | | |
| CRP30 | 18 | ml | 18 | 18 | | | |
| CRP31 | 18 | ml | 18 | 18 | | | |
| CRP32 | 18 | ml | 18 | 18 | | | |
| CRP33 | 18 | ml | 18 | 18 | | | |
| CRP34 | 18 | ml | 18 | 18 | | | |
| CRP35 | 18 | ml | 18 | 18 | | | |
| CRP36 | 18 | ml | 18 | 18 | | | |
| CRP37 | 18 | ml | 18 | 18 | | | |
| CRP38 | 18 | ml | 18 | 18 | | | |
| CRP39 | 18 | ml | 18 | 18 | | | |
| CRP40 | 18 | ml | 18 | 18 | | | |
| CRP41 | 18 | ml | 18 | 18 | | | |
| CRP42 | 18 | ml | 18 | 18 | | | |
| CRP43 | 18 | ml | 18 | 18 | | | |
| CRP44 | 18 | ml | 18 | 18 | | | |
| CRP45 | 18 | ml | 18 | 18 | | | |
| CRP46 | 18 | ml | 18 | 18 | | | |
| CRP47 | 18 | ml | 18 | 18 | | | |
| CRP48 | 18 | ml | 18 | 18 | | | |
| CRP49 | 18 | ml | 18 | 18 | | | |
| CRP50 | 18 | ml | 18 | 18 | | | |
| CRP51 | 18 | ml | 18 | 18 | | | |
| CRP52 | 18 | ml | 18 | 18 | | | |

(1) Test counter

The Pentra C400 is the evolution of the successful Pentra 400 system. This evolution provides a platform that is reliable and extremely user friendly, while ensuring quality results that are required in the laboratory environment.

Save valuable time

Automatic reagent management

- Intelligent monitoring of reagent supply: the “work balance” function assesses the stock on board relative to the workload requirements⁽¹⁾
- Use limit date and calibration validity checks

| Substance | Capacity required | Present in reagent bag | Lot # | Position | Unit |
|-----------|-------------------|------------------------|----------|----------|------|
| ALP | 0.8400 mL | OK | 01700000 | 11 | 64 B |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 A |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 B |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 C |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 D |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 E |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 F |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 G |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 H |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 I |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 J |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 K |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 L |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 M |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 N |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 O |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 P |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 Q |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 R |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 S |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 T |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 U |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 V |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 W |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 X |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 Y |
| ALP | 0.8400 mL | OK | 00000001 | 11 | 64 Z |

(1) Workbalance

Real-time workflow follow-up

- Control all operations from the main screen (system, reagent and sample status)
- Dynamic display of the test results and sampling exceptions with the test review function⁽²⁾

| Sample | Sample ID | Position | Test | Result | QC | Analysis flag |
|----------|-----------|----------|------|--------|----|---------------|
| Sample 1 | 123456 | 71.00 | Ab | | | |
| Sample 2 | 123457 | 71.00 | Ab | | | |
| Sample 3 | 123458 | 71.00 | Ab | | | |

(2) Test review

Reduced maintenance procedures

- Automated daily procedures
- Maintenance alerts
- Easy uploading of target values for calibrators and controls

Secure data management

Secured results validation

- Westgard multi-rule quality control procedures
- Automatic calibration factor check
- Selective flagging



(3) Quality Control

Reliable traceability in compliance with Accreditation Standards

- Operator login history, Reagents, Calibration and Maintenance logs
- Full patient results traceability: Multi-format option for archives review, end of day patient reports
- Full QC program: Up to 12-month control history, Levey-Jennings and Statistics⁽³⁾

Pentra 400

Clinical Chemistry system by HORIBA Medical



PHYSICAL SPECIFICATIONS

• Analyzer dimensions and weight

| Height | Width | Depth | Weight |
|--------|--------|-------|---------|
| 25 in | 40 in | 28 in | 265 lbs |
| 634 cm | 102 cm | 72 cm | 121 kg |

• Recommended lab bench dimensions (analyzer/printer + servicing area)

| Height | Width | Depth |
|--------|--------|-------|
| 48 in | 60 in | 36 in |
| 122 cm | 153 cm | 92 cm |

• External cooling unit dimensions and weight

| Height | Width | Depth | Weight |
|--------|-------|-------|--------|
| 18 in | 12 in | 17 in | 77 lbs |
| 46 cm | 31 cm | 44 cm | 35 kg |

• Recommended dimensions beneath bench (for cooling unit + water/waste containers)

| Height | Width | Depth |
|--------|-------|-------|
| 28 in | 32 in | 24 in |
| 172 cm | 82 cm | 62 cm |

• Power requirements

Power supply 120 VAC (\pm 10%)
60Hz
15 Amp

Outlets 3-5 outlets (1 – PC400 / 1 – Cooling Unit / 1 – Printer)
(Optional: 1 – Water System / 1 – waste pump)

• Temperature and humidity requirements

Operating temperature 61° F to 90° F
15° C to 32° C

• Optional remote diagnostic and LIS connectivity requirements

1 – Cat 5 Ethernet Port for Remote Diagnostics capability to Pentra C400
RS232 port from Pentra C400 is a standard DB-9 male connector
ASTM specification E-1381 and E-1394 compliant
Pentra C400 accepts most Barcode formats

HORIBA
Medical

9755 Research Drive, Irvine CA 92618