

**DESCRIPTION**

Employing a colorimetric method traceable to national or international standards and a high-performance photometer, the PCS3 Pipette Calibration System allows an accurate, precise, quick, and easy measurement of the dispensed volume from any pipette (from 0.1  $\mu$ L to 5000  $\mu$ L). Additionally, to facilitate record keeping, a hard copy printout is generated for every test and calibration.

The PCS3 is insensitive to its environment and can be used under standard laboratory conditions. A special workstation is not required.

Each PCS3 is shipped with a Validation Guide that provides materials that will greatly reduce the time required to validate the PCS.

**SYSTEM PERFORMANCE**

Assay Time Requirement	Three minutes for a ten data point calibration
Data Points Per Assay	1 to 50 data points can be taken per calibration
Inaccuracy	Less than 1%
Imprecision	Less than 0.5% CV
Operating Temperature	18 °C to 28 °C
Printed Output	Complete calibration data record; 11.2 cm width; with standard printer supplied

**PCS INSTRUMENT**

The PCS instrument is a high performance bench-top filter photometer that provides a very high signal-to-noise ratio and easy-to-use interface while requiring no lamp warm-up.

Size	23 cm (9.1 in) W x 11.5 cm (4.5 in) H x 30.5 cm (12 in) D
Weight	4.8 kg (10.5 lbs.)
Keypad	18 keys
Display	2 x 20 alphanumeric
Wavelengths	520 nm and 730 nm
Printer Output	Centronics parallel
Serial Input/Output	RS 232 (configuration: 9600 bits per second, 8 data bits, 1 stop bit, no parity)
Noise	Less than 0.00015 AU at AU = 1
Inaccuracy	Less than 0.75% over the range 0 to 1.5 AU
Warranty	2 years

**PCS REAGENT KIT**

Reagents come packaged in several different kit options. Please see the PCS price list for options.

Blank Reagent Vials	Prefilled with blank reagent Up to 40 data points may be taken per vial
Sample Solutions	6 ranges - for pipette sizes 0.1 $\mu$ L to 5000 $\mu$ L
Sample Aliquot Containers and Transfer Pipettes	Used to transfer and hold aliquots of sample solution
Calibration Standard	1 solution - not consumed during use
Shelf Life	Maximum of 10 months at 18 °C to 28 °C

## PCS INSTRUMENT CALIBRATOR KIT

Calibration solutions are not consumed and results are printed after completion.

Calibration Standards	4 solutions; allows accuracy and noise testing over the full range of volume measurements
Shelf Life	Maximum of 13 months at 18 °C to 28 °C

## PCS VALIDATION

Organizations submitting data to a regulatory agency or otherwise concerned with obtaining consistent results that conform to specification should seriously consider validation of their production and test processes. Validation establishes that a process yields consistent data or products that conform to predetermined specification. In addition to providing support for regulatory compliance, validation can provide such benefits as decreased cost, increased customer satisfaction, and improved data and product integrity.

The accompanying validation materials will assist with both the Installation Qualification (IQ) and Operational Qualification (OQ) and address critical parameters including:

### INSTALLATION QUALIFICATION (IQ)

- Instrument Specific Release Data
- Release Test Protocol
- Incoming Inspection Checklist
- Detailed Component Specifications
- NIST Traceability Documentation
- Reagent Composition and Stability

### OPERATIONAL QUALIFICATION (OQ)

- Instrument Setup
- Operating Procedures
- Performance Testing
- Environmental Conditions
- Instrument Calibration
- Material Requirements

## PATENTS

United States	5492673, 5298978, 7772008, 7791716
Europe	0628157, 0711404
Japan	2520852

Other patents pending