

# SP200-B AEROSOL PHOTOMETER

for HEPA and ULPA filter testing

**DOP**  
SOLUTIONS



## PRODUCT

Digital Aerosol  
Photometer

## MODEL NUMBER

SP200-B

## COMPLIANCE TO ISO14644-3

DOP SOLUTIONS' PHOTOMETERS have been testing manufactured and installed HEPA and ULPA filters around the world for >25 years, and our well-established instrument, the SP200-B is the most rugged and robust available in the world today.

The SP200-B still houses all the components of our most advanced instruments and has all of the key features you might need to test your Filter Systems, for compliance to ISO14644-3 and all other global cleanroom, containment system, and filter manufacturers Standards.

This Photometer meets or exceeds the current British, American, European and Australian requirements for filter testing.

It is capable of testing all HEPA, ULPA and PTFE types of filter in-situ and as manufactured.

## BENEFITS and FEATURES

- Weighs only 9kgs
- Scanning probe options available
- Quick setup, with QuickStart guide
- Digital read-out : mass challenge in  $\mu\text{g}/\text{l}$  and downstream %penetration
- Real time indication– fast response
- Two stream solenoid switched – may be computer controlled or remotely operated
- Switchable DNS makes upstream measurements stable and more accurate
- Unrivalled stability – enables measurement to 99.9999% efficiency.
- Visual & audible alarm.
- Supported by trained technicians from our UK Service Centre or Distributor partner
- TWO year warranty

 **LIGHTHOUSE**  
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## FILTER SCANNING PROBES

Scanning probe for SP200-B photometers have two options; SP20-A2 articulating multi-directional scanning head inserted into a stainless steel hand-grip with digital display, visual LED alarm. Probe and hand-grip/display can be separated for ergonomic scanning or hazardous sampling.

SP9-A simple scanning probe with articulating fishtail and rubber hand-grip



## CALIBRATION

Calibration is made using the most advanced system available. Aerosols from 100 to 0.0001mg/m<sup>3</sup> are generated and every instrument is tested through all 6 measuring decades. Certification is supplied to meet all current international filter testing legislation; BS, EN, ISO and IEST standards.



## ORDERING INFORMATION

1. Photometer only: SP200-B
2. Probe: SP20-A2 or SP9-A
3. Case: 999-048-ASSY
4. IQ/OQ protocol: 9000-500
5. HEPA filter testing course: PHOT-TRAIN3

## TRAINING in HEPA FILTER TESTING



## TECHNICAL SPECIFICATIONS

### Physical Size

42cm L x 29cm D x 14cm H  
16.5" x 11.5" x 5.5"

### Weight

9kg (22lbs). With probe/case - 17kg (38lbs)

### Power

90-250V Universal, at 50 or 60 Hz. Automatically adjusts

### Calibration

Manual calibration of Span and Zero at startup, and healthcheck

### Alarm

SP200-B audio, digital probe LED

### Sample flowrate

Nominally 1 cubic foot per minute or 28 litres per minute  
±15%

### Reagent settings

Two oil calibrations available  
Ondina and PAO (Emery) standard  
DOP, DEHS, PEG, Krydol, Mineral oil, Paraffin oil, Corn oil available on request.

### Measuring Range

0.0001 to 120 mg/m<sup>3</sup> Can be set higher for special applications.

### Light Source

White light, for high optical sensitivity

### Sample Pump

Brushless DC 24V motor—highly reliable for continuous duty

### Instrument Performance

Sensitivity: 0.00001 mg/m<sup>3</sup>

Accuracy: ≤5 % at each decade calibration point

Linearity: ±0.5%

Zero stability: better than ±0.00003 mg/m<sup>3</sup> after 20 minutes

Response time: 100mg/m<sup>3</sup> to 10mg/m<sup>3</sup> in ≤5 seconds and  
0% to 90% in ≤5 seconds

### Dynamic Noise Suppression (DNS)

Switched in or out - 75% dampening of reading.

### Leak Detection capability

100% with scanning rates up to 5cm/sec

### Operating Conditions

Temperature 5 - 50°C

Relative Humidity 15 - 80%

### Standards Compliance

ISO14644-3, NSF49, IEST, CE, EN61010-1:2010

### Warranty

2 years for Photometer, lifetime for digital probe