

# SP200DAS AEROSOL PHOTOMETER



## AN OVERVIEW



The DOP SOLUTIONS PHOTOMETER with the most advanced zero stability for testing HEPA and ULPA filters.

In-built data acquisition with HEPA filter reporting software for USB connection to PC. The software allows for data capture and will find leaks that might otherwise be missed, supports ISO14644-3 compliance.

The Photometer meets or exceeds the current British, American, European and Australian requirements for filter testing with aerosol challenge efficiency or leak testing.

## BENEFITS OF THE SP200DAS™

- Weighs only 9kgs
- Travel case included
- Comprehensive manual included
- Digital read-out : mass concentration in micro-grams per litre ( $\mu\text{g}/\text{l}$ ) or direct percentage penetration as data
- True real time indication - not processed
- Supported by factory trained personnel from our centrally situated Service Centre in Hertfordshire in the UK or one of our overseas partners
- Two stream solenoid switched – may be computer controlled or remotely operated
- Switchable DNS makes upstream measurements stable and more accurate when poor mixing is found
- Unrivalled stability – enables measurement to 99.9999% efficiency.
- Visual & audible alarm.
- True positive and negative display around zero.
- Nuclear toxic chamber option.
- Interface to computer option.

## PRODUCT

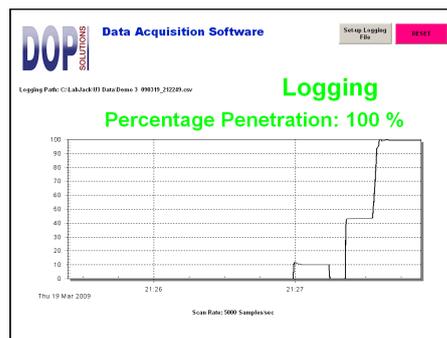
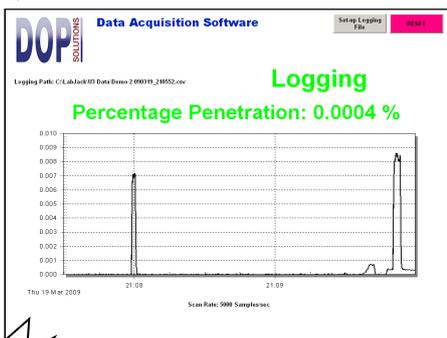
**Aerosol  
Photometer**

## MODEL NUMBERS

**SP200DAS**

NEW

## DATA ACQUISITION & FILTER TESTING SOFTWARE



NEW

## SP20A DIGITAL PROBE (OPTION)

Advanced scanning probe for SP200 photometers - **articulating multi-directional plastic scanning head** inserted into a stainless steel hand-grip with digital display, remote visual alarm and software control buttons. Probe and hand-grip/display can be separated for ergonomic scanning. **GUARANTEED FOR LIFE** - free replacement for a component fault.



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## SPECIFICATIONS

### Sample flow rate

Nominally 1 cubic foot per minute - 28 litres per minute  $\pm 15\%$

### Sample pump

Brushless DC 24V motor—highly reliable for continuous duty

### Accuracy

Detector electronic linearity  $\pm 0.5\%$

Optical system better than 5 % in any measurement decade

### Sensitivity

0.00001  $\mu\text{g/l}$

### Zero reading

Indicates on negative and positive side of zero

### Zero stability

Better than  $\pm 0.00003 \mu\text{g/l}$  after 20 minutes

### High/low Range

100 $\mu\text{g/l}$  to 1.000 $\mu\text{g/l}$  and 1.0000 to 0.00001 $\mu\text{g/l}$  mass concentration

100% to 1.000% and 1.0000% to 0.00001% penetration

### Response time

100 $\mu\text{g/l}$  to 10 $\mu\text{g/l}$  in  $\leq 5$  seconds

0% to 90% in  $\leq 5$  seconds

### Maximum Concentration

250  $\mu\text{g/l}$ .

### Particle size range

0.1 to 1.25 microns calibrated

### Dynamic Noise Suppression (DNS)

Switched in or out - 75% dampening of reading.

### Alarm

Adjustable audio alarm with probe LED indicator.

### Computer Output

Mini-USB

### Power

90-250V Universal - 50 or 60 Hz.

### Operating Conditions

Temperature 5 - 50°C

Relative Humidity 30 - 80%

### Physical Specifications

Length 417 mm Depth 290 mm Height 143 mm Weight: 9 kg

### Case

Robust transport case for storage and shipping.



## CALIBRATION

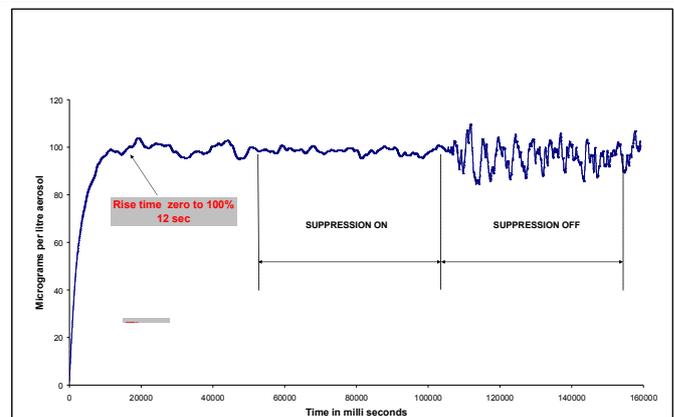
Calibration is made using the most advanced system available. Aerosols from 100 to 0.0001 $\mu\text{g/l}$  are repeatably generated and every instrument is tested through all 6 measuring decades. Certification is supplied to meet all current international filter testing legislation; BS, EN, ISO and IEST standards.



## ORDERING INFORMATION

1. Photometer Only: **SP200DAS**
2. HEPA Filter Scanning Probe: **SP20A**  
Advanced scanning probe for SP200 photometer, **articulating multi-directional scanning head** inserted into a stainless steel hand-grip with digital display, remote visual alarm and software control buttons.
3. IQ/OQ protocol: **9000-500**  
Installation and Operational Qualification protocol with executable step-by-step activities to ensure the photometer, along with any aerosol generator, injection pump, sparge pipes or airflow instruments functions correctly.
4. HEPA filter testing course: **PHOT-TRAIN3**  
One day training course on theory and practical testing of HEPA filters, run by The Academy for Cleanroom Testing.

## DYNAMIC NOISE SUPPRESSION



Switchable DNS makes upstream measurements stable and more accurate when poor mixing is found