

# SSA 50 Portable



The SSA 50 Portable is a state-of-the-art, professional light absorption partial flow opacimeter for emission tests of diesel vehicles.

It's specially designed for intensive use and single person operation, such as vehicle inspection stations or in professional workshops. The vehicle test time is less than 3 minutes.

The SSA 50 Portable model is specially designed for use where the analyzer must be easily transported such as road side vehicle inspections or part of a police vehicle's test equipment.

## Functionality

The program includes two test modes: continuous gas sampling - full load/part load and free acceleration measurement. The values are displayed on the alphanumeric LCD remote.

- Automatic zeroing
- Linearity test

The acceleration test program can be customized according to country specifications and legislation.

## Measurement

The diesel smoke opacity is measured in smoke density % (also known as Hartridge HSU units) as well as in absorption coefficient  $k$  ( $m^{-1}$ ). The readings of the  $k$  and % opacity values are displayed simultaneously.

## Flexible design

The flexible design with a small separate smoke head makes it easy to use on all sizes of vehicles such as cars, trucks, busses and others. The cable length between the smoke unit and the main unit is 10 m (or Bluetooth) and the LCD remote control cable is 5 m.

## Standards

The SSA 50 complies to ISO 11614 and 72/306/EEC.

## Accessories

The analyser can be equipped with a built-in printer and different RPM and Oiltemp options. Optionally the main unit can communicate with the smoke unit with Bluetooth

**Warranty** 12 months.

# SSA 50 Portable

|                                 | <b>Range</b>   | <b>Resolution</b>    | <b>Accuracy</b>                  |
|---------------------------------|--|----------------------|----------------------------------|
| <b>Opacity</b>                  | 0-99.9%  | 0.1%                 | 2%                               |
| <b>K-value</b>                  | 0-16.06 m <sup>-1</sup>  | 0.01 m <sup>-1</sup> | 2% (calculated on opacity value) |
| <b>RPM</b>                      | 0-9999 rpm<br>rpm/min  | 1                    |                                  |
| <b>Oiltemp.</b>                 | 0-160 °C   | 1 °C                 |                                  |
| <b>Optical path length</b>      | 215 mm single path, corrected to 430 mm according to ISO11614.   |                      |                                  |
| <b>Smoke chamber</b>            | 85 °C heated   |                      |                                  |
| <b>Light source</b>             | Green LED 565 nm   |                      |                                  |
| <b>Detector</b>                 | Silicon photo diode  |                      |                                  |
| <b>Sample probe</b>             | 1.4 m silicone hose with stainless steel probe   |                      |                                  |
| <b>External connections</b>     | RS 232 för PC-connection, I2C extended auxiliary port  |                      |                                  |
| <b>Warm-up time</b>             | Approx. 3 min.   |                      |                                  |
| <b>Operating conditions</b>     |  |                      |                                  |
| Temp                            | 0 °C till +40 °C   |                      |                                  |
| Relative humidity               | up to 90%  |                      |                                  |
| Atm. pressure                   | 750 - 1 100 mBar   |                      |                                  |
| Pressure range                  | 0-10 kPa   |                      |                                  |
| <b>Power supply</b>             | 10-30 VDC, 6A or 230 VAC with external power source  |                      |                                  |
| <b>Size sample unit (WxHxD)</b> | 375 x 180 x 75 mm (excl. stands)   |                      |                                  |
| <b>Weight sample unit</b>       | Approx. 5.5 kg (incl. stands)  |                      |                                  |
| <b>Size main unit (WxHxD)</b>   | 296 x 192 x 70 mm  |                      |                                  |
| <b>Weight main unit</b>         | Approx. 1.3 kg   |                      |                                  |
| <b>Options</b>                  |  |                      |                                  |
| <b>RPM</b>                      | Battery voltage measurement<br>Piezo electric system incl. 6 mm clamp<br>RPM/OILTemp OBD, values through vehicle's OBD diagnostic socket |                      |                                  |
| <b>Bluetooth Hose</b>           | Wireless communication between main unit and smoke meter<br>5 m long hose electrically heated  |                      |                                  |