

## EDM 264 SVC

### Stand-alone environmental dust monitor

For continuous outdoor measurements with and without SVC

- Reliable particle sizing and counting
- Catalytic elimination of semi volatile compounds
- Eco and Pro version to meet all requirements



## FEATURES

- **Unique measurement range in one device**
  - TSP, PM<sub>10</sub>, PM<sub>4</sub>, PM<sub>2.5</sub>, PM<sub>1</sub>, PM<sub>coarse</sub> and total counts
  - Inhalable, thoracic, respirable, pm10, pm2.5 and pm1
- **31 equidistant size channels**  
PSL traceable particle size distribution
- **Long term stability and very low zero drift**  
Due to rinsing air for protecting laser and detector
- **High-class data logger**  
Data transmission, remote access and real-time data analysis via mobile radio (LTE)
- **Configurable meteorological sensor**  
For temperature, relative humidity, barometric pressure, wind speed + direction and precipitation
- **GPS position**  
For high spatial and temporal resolution

## TECHNICAL DATA

|                                      |                                                                                                                                                                                                                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sampling probe (SVC)</b>          | µ-Sigma-2 inlet and heated sampling pipe with switchable catalytic stripper for SVC elimination                                                                                                                                                                                        |
| <b>Detection principle</b>           | Light scattering at single particles with diode laser                                                                                                                                                                                                                                  |
| <b>Output</b>                        | <ul style="list-style-type: none"> <li>• TSP, PM<sub>10</sub>, PM<sub>4</sub>, PM<sub>2.5</sub>, PM<sub>1</sub>, PM<sub>coarse</sub> and Total Counts</li> <li>• Inhalable, thoracic, respirable, pm10, pm2.5 and pm1</li> <li>• Number concentration and size distribution</li> </ul> |
| <b>Particle size range</b>           | 0.253 ... 35.15 µm                                                                                                                                                                                                                                                                     |
| <b>Size channels</b>                 | 31, equidistant                                                                                                                                                                                                                                                                        |
| <b>Particle number concentration</b> | 0 ... 5,300,000 particles/l                                                                                                                                                                                                                                                            |
| <b>Dust mass</b>                     | 0 µg/m <sup>3</sup> ... 100 mg/m <sup>3</sup>                                                                                                                                                                                                                                          |
| <b>Reproducibility</b>               | 98.2% for 0.3 µm, 99.5% for 0.5 µm, 91.8% for 1.0 µm, 91.0% for 5 µm, meets ISO 21501-1                                                                                                                                                                                                |
| <b>Time resolution</b>               | 6 s, selectable storage intervals<br>6 s, 1, 5, 10, 15, 30 min, 1 h                                                                                                                                                                                                                    |
| <b>Volume flow rate</b>              | 1.2 l/min ± 3% due to self regulation according to ISO 21501-1, automatic altitude correction up to 5,000 m                                                                                                                                                                            |

## OPTIONAL ACCESSORIES

- Configurable meteorological sensor:
  - 157L** For temperature, relative humidity, barometric pressure
  - 158L** Plus wind speed and wind direction
  - 159L** Plus precipitation
- High-class data logger to upgrade Eco version for mobile radio transmission (LTE)

## BENEFITS

- **Suitable for various applications**
  - Mobile PM monitoring
  - Aerosol Science, source apportionment
  - Secondary PM formation by gaseous precursors
  - VOC and SVOC contribution in dust mass fractions
- **All in one solution**  
Ready to use, rugged design
- **Aerodynamic aerosol focusing**  
Total inlet flow (1.2 l/min) analyzed in the optical cell, no border zone error
- **Cost saving**  
Low maintenance

|                               |                                                                                                                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Rinsing air</b>            | 0.4 l/min, protects laser optics, reference air for self-test                                                                                                                                                                                  |
| <b>Power supply</b>           | 100 ... 240 VAC, 50 ... 60 Hz, 2.6 A or: 12 VDC, 12.5 A e. g. via solar panel                                                                                                                                                                  |
| <b>Power consumption</b>      | Depending on version and configuration, P <sub>max</sub> = 200 W;<br>EDM 264 SVC Eco: 92 W,<br>EDM 264 SVC Pro: 147 W                                                                                                                          |
| <b>Data interfaces</b>        | <ul style="list-style-type: none"> <li>• Eco version: USB (type B), Ethernet (TCP/IP), Modbus, USB flash drive with GRIMM software</li> <li>• Pro version: Same as Eco version plus data logger for mobile radio transmission (LTE)</li> </ul> |
| <b>Dimensions (l x w x h)</b> | <ul style="list-style-type: none"> <li>• Housing: 44 x 45 x 21 cm (17.3 x 17.7 x 8.3 inch)</li> <li>• With meteo sensor and sampling probe: 85 x 51 x 23 cm (33.5 x 20.0 x 9.1 inch)</li> </ul>                                                |
| <b>Weight</b>                 | <ul style="list-style-type: none"> <li>• Housing: 10 kg (22.0 lbs)</li> <li>• With meteo sensor and sampling probe: 20 kg (44.1 lbs)</li> </ul>                                                                                                |
| <b>Operating conditions</b>   | -20 ... +40 °C (-4 ... 104 °F), RH < 99%, non condensing, 533 ... 1,133 mbar                                                                                                                                                                   |
| <b>Transport and storage</b>  | -20 ... +50 °C (-4 ... 122 °F) RH < 95%                                                                                                                                                                                                        |

