

EDM 365 SVC

Unique environmental dust monitor

PM monitoring with and without semi volatile compounds

- Two parallel inlet systems
- PM₁₀, PM_{2.5} and PM₁
- SVC discrimination for dust mass and counts



Features

- **Unique PM10, PM2.5 and PM1 monitoring**
 - Dual sampling system with two sampling lines
 - Isothermal humidity extraction with Nafion and heated SVC evaporator
- **SVC controller**
For selectable temperatures for the SVC evaporator
- **31 size channels**
For particle size distribution
- **Data logger**
For remote access and real-time data analysis
- **Long term stability and very low zero drift**
Due to rinse air for protecting laser and detector
- **Meteorological sensor**
For wind speed + direction, T, RH, P and precipitation

Technical data

Sampling inlet	<ul style="list-style-type: none"> ▪ Dual sampling system ▪ Isothermal humidity extraction with Nafion and heated SVC evaporator ▪ Selectable intervals for sampling lines
Detection principle	Light scattering at single particles with diode laser
Output	<ul style="list-style-type: none"> ▪ PM₁₀, PM_{2.5}, PM₁, number concentration and size distribution ▪ With and without SVC ratio
Particle size range	0.25 ... 32 µm
Size channels	31
Particle number	0 ... 3 000 000 particles/liter
Dust mass	0 µg/m ³ ... 100 mg/m ³
Reproducibility	>97% of total measuring range
Time resolution	6 s, selectable storage intervals (6 s, 1, 5, 10, 15, 30 min, 1 h)
Volume flow rate	1.2 l/min ± 3% due to self regulation according to ISO 21501-1
Rinse air	0.4 l/min, protects laser optics, reference air for self-test
Power supply	85 ... 264 VAC, 47 ... 63 Hz
Power input	P _{max} = 300 W, I _{max} : 1.4 A
Data interfaces	Data logger or RS-232 with GRIMM software or HyperTerminal

Benefits

- **Suitable for versatile applications**
 - Environmental aerosol research
 - 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

Dimensions (h x w x d)	<ul style="list-style-type: none"> ▪ Housing: 70 x 50 x 27 cm (27.6 x 19.7 x 10.6 inch) ▪ Dual sampling pipe: ca. 140 x Ø14 cm (55.1 x 5.5 inch) ▪ Total: 210 x 50 x 27 cm (55.1 x 19.7 x 10.6 inch)
Weight	<ul style="list-style-type: none"> ▪ Housing: 36 kg (79.4 lbs) ▪ Dual sampling pipe: 10 kg (22.0 lbs) ▪ Total: 46 kg (101.4 lbs)
Operating conditions	–20 ... +40 °C (–4 ... 104 °F), RH < 95%, non condensing, 900 ... 1100 mbar
Transport and storage	–20 ... +50 °C (–4 ... 122 °F) RH < 95 %
Accessories	157L sensor for temperature, relative humidity, and barometric pressure 158L as 157L plus wind speed and wind direction 159L as 158L plus precipitation

