



SwisensPoleno Jupiter

The new way of real-time
Bioaerosol Monitoring



Detect what's in the air

SwisensPoleno Jupiter

Latest generation of particle measurement

SwisensPoleno Jupiter is the newest generation of optical particle systems, offering real-time measurement and monitoring of bioaerosols. It combines the latest measuring methods with artificial intelligence and transparent data evaluation to create reliable autonomous measuring and identification of pollen, spores, other bioaerosols and solid particles in the air.

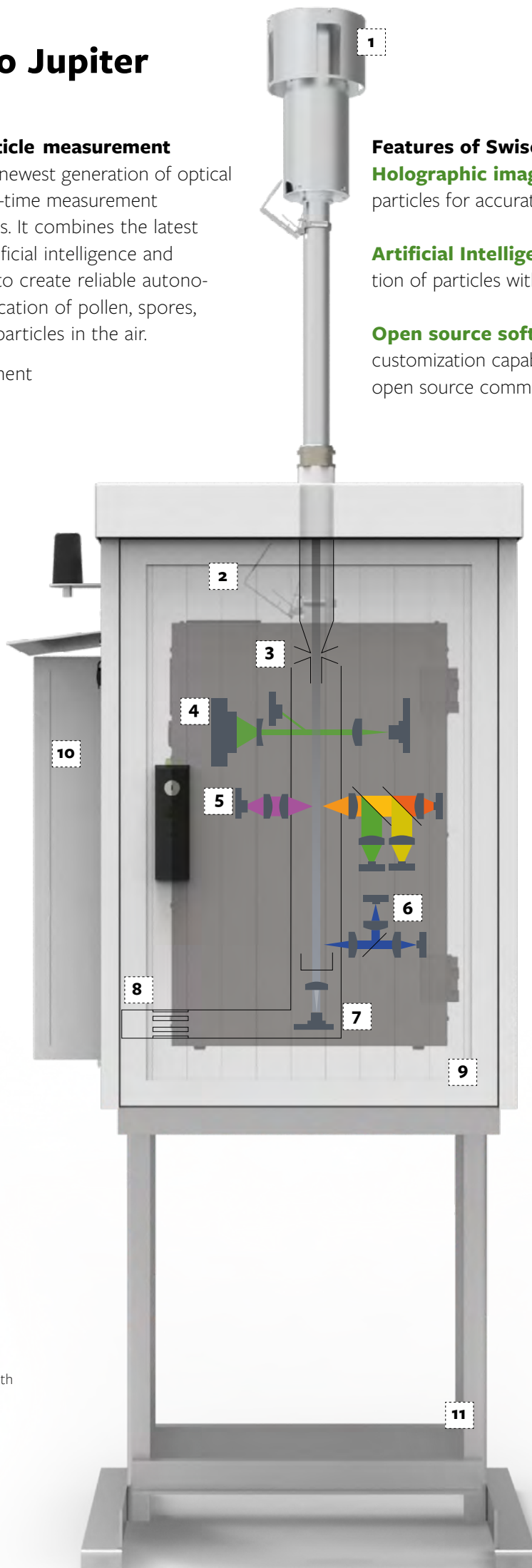
- stable long-term measurement
- unique identification
- transparent data
- lab & field compatible

Features of Swisens technology

Holographic images: Precise capture of airborne particles for accurate identification and analysis.

Artificial Intelligence: Fast, accurate identification of particles without human intervention.

Open source software: Full control over data, customization capabilities, and expertise of the open source community.



Monitoring Station Components

1. Sigma-2 inlet
2. GSM Antenna
3. Particle concentrator
4. Trigger and holography
5. Measurement of fluorescence lifetime and fluorescence spectrum
6. Polarized time-resolved scattered light measurement
7. Insertable sample collector
8. Air outlet
9. Insulated weather protection housing with lightning protection (Inside: Integrated service station with 22" display and hinged keyboard)
10. Air conditioning
11. Easy to mount sub construction

Outdoor and Indoor Applications

SwisensPoleno Jupiter can be operated in the field as well as in the laboratory and indoors. The installation and removal of the measurement system is done with a few simple steps. SwisensPoleno Jupiter can be configured accordingly for use in various applications:

- Longterm outdoor monitoring
- Targeted measurements under laboratory conditions
- Reference measurements & algorithm development
- Measurement of pollutants under protective equipment like an aerosol chamber
- Indoor air quality measurement

SwisensAtomizer

The hardware add-ons such as the Swisens-Atomizer enable direct nebulization and measurement of dry particle samples. A HEPA filter plug at the air outlet of the measuring system provides filtering of the measured air volume. Both can be quickly and easily mounted or removed as desired.



SwisensPoleno Jupiter as indoor application with SwisensAtomizer attached on the air inlet

Technical Performance Data

Measurement & Monitoring:

- Particle classes within 0,5 to 300 µm
- Air measuring volume 40 l/min
- Integrated particle concentrator
- 30'000 particles/m³ or 1000 particles/min

Control & Operation:

- Automatic data transmission
- Remote maintenance and access
- Automatic self-cleaning function
- Continuous operation
- High time resolution in the minute range

Data Generation:

- 1-10 GB Raw data & identification results per day
- <100 MB Identification results per day

Specifications

Ambient Conditions: Outdoor proof at -20°C to +50°C, and 0 % to 100 % R.H.; for non-corrosive environment (contact us for close proximity to sea water)

External Interfaces: Power, Ethernet (if not using integrated mobile router)

Optional Accessories: Integrated mobile router / uninterruptible power supply (UPS)

Dimensions: 63 x 73 x 150 cm³ (L x W x H) (incl. roof, inlet and post mounting adapter)

Weight: 134 kg

Power Supply: 100-240 VAC, 50/60 Hz, 750 W peak incl. IPC & AC

For Outdoor Application

Space Requirements: 80 x 80 cm

Weight: 134 kg

Power Supply: 230 VAC, 50/60 Hz, 9 A

For Indoor Application

Dimensions: 28 x 32 x 47 cm³ (L x W x H)

Weight: 26 kg

Power Supply: 230 VAC, 50/60 Hz, 9 A

Individual requirements?

Our team is looking forward to hearing from you. sales@swisens.ch



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