**System Requirements**

- **Windows XP, Windows Vista**
- **Model**: ZN-SW11-S
- **Sample flow rate**: 6.0L/min
- **Operating and storage temperature**: 0 to 50°C (without condensation)
- **Degree of protection**: IP65
- **Vibration resistance**: 110 to 55 Hz, 0.3-mm double amplitude, 50 min
- **Withstand voltage**: 1,000 VAC, 50/60 Hz for 1 min
- **Insulation resistance**: >20 MΩ min. at 500 VDC
- **Current consumption**: DC19V (See note 2.)
- **Power supply voltage**: DC19V
- **Input/output terminals**: Instruction Sheet, AC adapter
- **Trigger Input**: Status outputs linked with clean levels
- **System error status output**: Status outputs (2 outputs)
- **Communication interface**: 7-segment main display (red/6 digits), 7-segment sub-display (green/6 digits), Ethernet twisted-pair cable connector (TCP/IP)
- **Trigger mode**: Cycle mode
- **Selected particle diameter**: 5µm (10µm), 20µm (30µm), 50µm min.
- **SEMiconductor laser**: 90° sideways light-scattering method
- **Measure Mode**: Real-time mode (by second)/Cycle mode (by set cycle)/Trigger mode (by trigger)
- **Count value**: 2.8L/min
- **Measurement method**: 90° sideways light-scattering method
- **Sample flow rate**: 6.0L/min
- **Weight (Packed state)**: Approx. 1.7kg
- **Power supply voltage**: DC19V
- **Ambient temperature range**: -15 to 50°C (with no icing or condensation)
- **Ambient humidity range**: 35% to 85% (with no icing or condensation)
- **Ambient temperature range**: 0 to 50,000 particles/cf
- **Degree of protection**: IP20
- **Vibration resistance**: 110 to 55 Hz, 0.3-mm double amplitude, 50 min
- **Withstand voltage**: 1,000 VAC, 50/60 Hz for 1 min
- **Insulation resistance**: >20 MΩ min. at 500 VDC
- **Current consumption**: DC19V (See note 2.)
- **Power supply voltage**: DC19V
- **Input/output terminals**: Instruction Sheet, AC adapter
- **Trigger Input**: Status outputs linked with clean levels
- **System error status output**: Status outputs (2 outputs)
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**New Production-Environmental Sensing Series The First**

**Optimized Quality Management with Real-time Particle Monitoring System**

Particle measurement type
(0.3µm to 1µm)

Dust measurement type
(5µm to 50µm)
Particle/contamination Real-time Monitoring

Thinking of upgrading from manual fixed-point particle measurement in your clean environment to a continuous monitoring solution?

The ZN-PD03-S Particle Sensor (Particle Type) provides continuous high-precision monitoring at a very low set-up cost. It is ideal for traceability and fault analysis and substantially reduces labor expenses.

Combines high-precision measurement with continuous monitoring

Measurement accuracy to rival a particle counter?

The Particle Sensor generates air flow of 2.83 liters per minute through a combination of fully rectified internal design and high-suction fan. Measurement accuracy is close to that of a particle counter, thanks to Omron laser-optic design technology as used in high-precision displacement sensors.

Low-maintenance design for continuous measurement

The maintenance workload is reduced substantially through a combination of long-lasting fan construction and multi-stage filter design, preventing the laser from being contaminated. This ensures that the laser is not blocked and that measurement results are accurate.

Particle measurement type

Model ZN-PD03-S

0.3 µm, 0.5 µm, 1.0 µm

Simultaneous real-time sensing

Measurement data is useful for trend analysis and early detection of problems.

Connects readily to Ethernet hub for networking with computers

Supports trigger input as well as two-stage alarm and warning output, with configuration via a larger touch panel or via Ethernet hub.

Ambient Dust Real-time Monitoring

Foreign matter in the production environment can affect the quality of finished products. Perhaps your production environment is affected by dust? The largest form of particles, typically carried by human operators and generated by machinery.

The ZN-PD50-S Particle Sensor (Dust measurement type) provides the most simple and effective solution yet for monitoring dust levels.

Dust measurement type

Model ZN-PD50-S

5(10) µm, 20(30) µm, 50 µm

Simultaneous real-time sensing

Measure dust levels and identify dust sources with a single unit

Efficient measurement of falling dust

The combination of a powerful fan and a funnel-shaped air intake efficiently captures falling dust. A built-in filter prevents large dust particles from entering the system and causing internal blockages. The filter is simple to replace.

Dust Catcher feature to identify dust sources

Double-sided tapes on the pull-out Trap Box capture dust particles. The dust can then be analyzed under a microscope to determine the source.

Production-Environments Visualizer (PC software)

Wave Inspire ES

Visual representation of particle volumes makes it easier to identify trends for faster analysis. Also handles time-consuming tasks such as data storage and collation.