

PartSens 4.0 / PartSens+ 4.0

Portable measuring system for particle measurement on surfaces according to ISO 16232 (VDA19) and 14644-9*



The PartSens 4.0 device is a portable measuring system with a wireless measuring head for direct measurement of impurities on surfaces.

The PartSens+ 4.0 differentiate between metallic, non-metallic particles and fibers on surfaces.

Mobile design and easy operation make this instrument the perfect solution for companies that want to verify the cleanliness of surfaces.

^{*}The use of glancing light technology according to ISO 14664-9 allows for reproducible and highly accurate measurement results.

Using the PartSens eliminates complex sampling by gas extraction and subjective measuring methods such as microscopy or faulty multi-stage procedures such as surface rinsing and subsequent filter analysis.

PartSens4.0 determines particle size and the number of particles directly. The measurement result – including the live image – is immediatley displayed on the instrument via wireless transmission.

For data archiving or later comparison, the data is stored in the particle counter and can be uploaded as a csv-file on a USB stick or printed out via an external printer.

The live image allows the detection of type (metallic or non-metallic), position and morpholigia of the particles.

The system can be used on various surface materials such as stainless, silicon, glass and plastic.



- Portable surface particle counter with wireless measuring head
- Measuring principle according to ISO 14644-9
- Particle measuring range: < 5 μ m to > 3000 μ m
- Size and number of metallic and non-metallic particles and fibres
- Particle size allocation according to VDA 19 and ISO 16232 possible
- active measuring area 2.68 qcm (19.36 mm x 13.82 mm)
- Measuring time < 10 seconds
- Data output and live on I2" TFT touch screen
- Instrument data-storage volume: 300 measurements
- External datatransfer: USB-Typ-A-Interface

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| Size range | < 5 µm to > 3000 µm |
|--|---|
| Size channels (µm) | < 5 μm, 5 μm – 15 μm, |
| Size channels (µm) | $15 \ \mu m$ = 50 μm, 50 μm = 100 μm, |
| | $100 \mu m - 150 \mu m$, $150 \mu m - 200 \mu m$, |
| | 200 μm – 400 μm, 400 μm – 600 μm, |
| | 600 μm – 1000 μm, 1000 μm – 1500 μm, |
| | 1500 μm – 2000 μm, > 3000 μm |
| Metallic particles / Non-Metallic particles | $> 25 \ \mu m$ to $> 3000 \ \mu m$ / $< 5 \ \mu m$ bis $> 3000 \ \mu m$ |
| Fibres | > 50 μm to > 3000 μm |
| Measuring area | 2,68 cm ² (19,36 mm x 13,82 mm) |
| Zerocount | 0 Particles |
| Types of measurements | Single measurements; Serial measurements |
| Display modes | Distributiv; Distributiv /1000 cm ² |
| | Cumulative; Cumulative / 1000 cm ² |
| Internal cummunication | WLAN 2,4 Ghz |
| External datatransfer | USB-Typ-A-Interface |
| Outputs | Network (TCP/IP), USB Typ A, HDMI |
| Instrument data-storage volume | 300 measurements |
| Alarm | Touchscreen: red cell marked with a "*" |
| | Printout: marked with a "*" |
| Display base station | 12.1" - TFT touch screen |
| Display measuring head | LCD-touch screen |
| Languages | German, English, French, Japanese |
| Material base station/ measuring head | Polyeurethan Synthene PR700 |
| AC voltage (Voltage to AC adapter) | 100-240V AC-1,4A 50/60Hz - Universal-Powersupply |
| DC voltage (Voltage to Base Station) | 24 VDC @ 5.0 A |
| Battery | replaceable / rechargeable lithium-ion batteries |
| Range mobile measuring head | max. 10 meters |
| Runtime of the base station in battery mode | up to 6 hours |
| Dimensions base station $(h \times d \times w)$ | 210 mm x 386 mm x 330 mm |
| Dimensions Mobile Measuring Head $(h \times d \times w)$ | 110 mm x 65 mm x 65 mm |
| Contact surface area mobile measuring head | 48 mm x 48 mm |
| Standards (based on) | DIN ISO 14644-9°; DIN ISO 16232; VDA 19 Part 2 |
| Weight | 7,7 kg with batteries, 6,7 kg without batteries |
| Warranty | 12 months |
| Operating range | 5 °C bis +30 °C; 20 % to 95 % RH, noncondensing |
| Storage range | 0 bis 50°C; up to 98 % RH, noncondensing |
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