

# Instrument Solutions DATASHEET

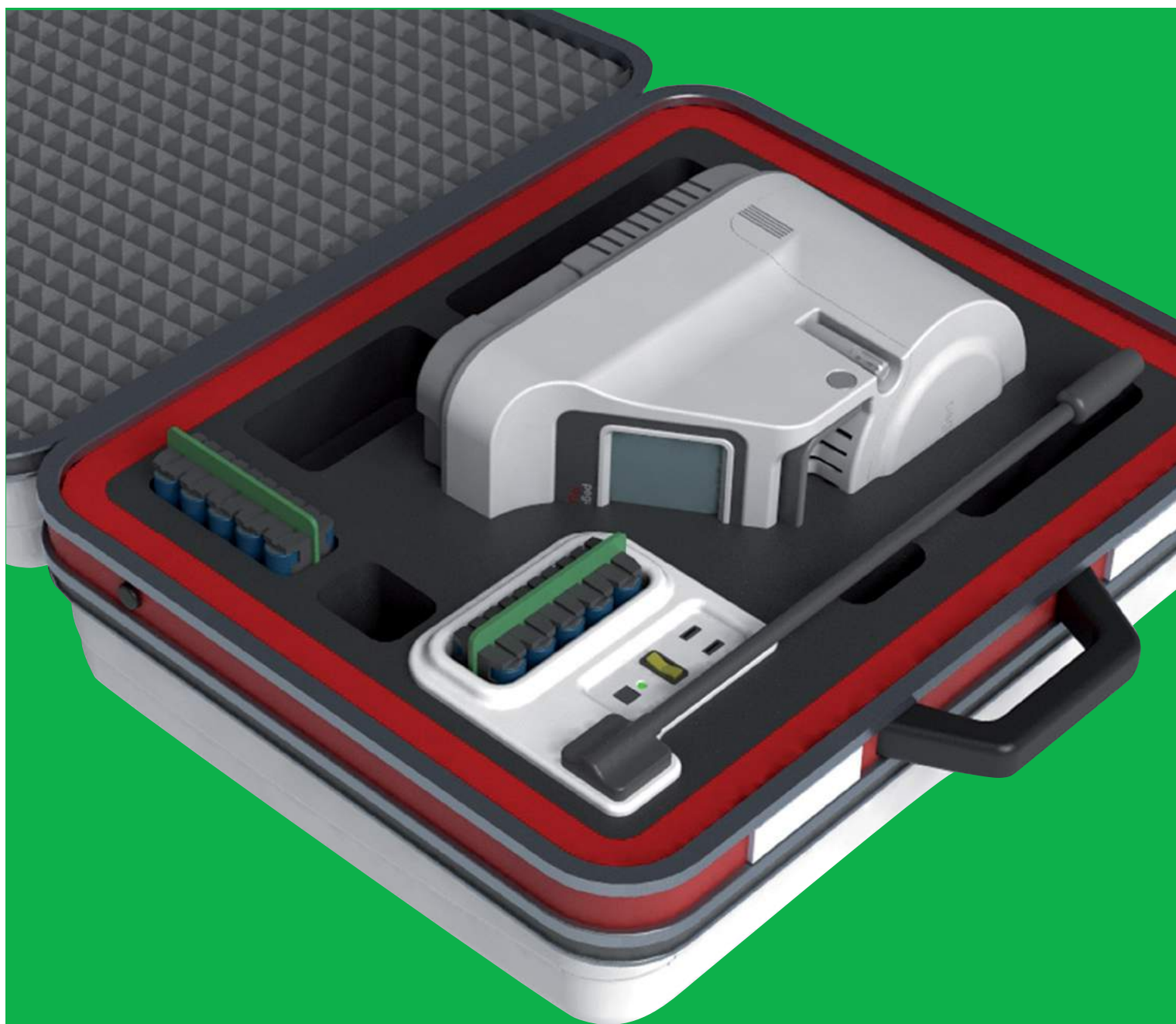
Quality products from leading manufacturers



# Pegasor AQ™ Indoor







# Accurate feedback on indoor air quality

## What are we breathing

PM<sub>2.5</sub> pollution is a well-known problem and monitoring PM<sub>2.5</sub> concentration is a must. However, traditional PM<sub>2.5</sub> monitoring methods are not sensitive to the most harmful, ultrafine particles, diameter below 0.1 micrometers. All Pegasor instruments are capable to detect particles larger than 0,01  $\mu\text{m}$  and thus measure also the most dangerous particles.

## Reliable Pegasor technology

Pegasor instruments electrically charge all particles entering the device and measure the electrical current carried by particles. The measurement result can be shown as particle mass concentration (PM<sub>2.5</sub>), particle number concentration (PN) or active particle surface area concentration (PA). Pegasor products have extraordinary stability, low maintenance need and long measurement periods.

## Pegasor AQ™ Indoor

Pegasor indoor measuring instrument is a perfect tool for all public and private places where real time monitoring of living environment with data storage is needed.

### KEY FEATURES:

- Measures ultrafine particles
- Detects temperature, relative humidity and CO<sub>2</sub> concentration
- Self diagnostic procedure guarantees accurate continuous measurements
- Fits easily to any indoor environment
- Measured data can be read from the touch screen in graphical and numerical form
- Measured data can be stored on hard disk or USB and transferred to data storage, cloud service, or printed out as separate document
- Easy maintenance and long maintenance interval
- Reasonable pricing and very low cost of ownership

## Applications

Pegasor data can be used for ventilation system and filtration efficiency monitoring, and indoor air quality classification.

## Technical specification

<b>Sensor type</b>	Diffusion charging operating principle
<b>Measuring range</b>	0.001 – 200 mg/ m <sup>3</sup>
<b>Maximum responsive particle size</b>	0.01 – 2.5 µm
<b>Particle size cutter</b>	PM <sub>2.5</sub>
<b>Sampling mode</b>	Built in suction pump
<b>Flow rate</b>	3 L/min
<b>Resolution</b>	0.001 mg/m <sup>3</sup> (with 1 min integration time) 0.1% of reading
<b>Sampling rate</b>	1/sec
<b>Operation interface</b>	4,3" Color display touch screen
<b>Time constant</b>	1-300 s adjustable by user
<b>Battery operation time</b>	10h - 24h -100h (depending of the sampling rate)
<b>Battery type</b>	Li-ion
<b>AC power supply</b>	External power supply, 100 – 240 VAC, 50/60 Hz
<b>Operating temperature range</b>	0 - 50 °C
<b>Storage temperature range</b>	-20 – 60 °C
<b>Communication interface</b>	Ethernet with Modbus protocol, optionally wireless (3G/4G modem)
<b>Automatic zero setting function</b>	Yes
<b>Document printer</b>	Yes, with optional device
<b>Service period</b>	12 months, depending environment
<b>Configurable to PM, PN or PA measurements</b>	Yes
<b>Temperature and relative humidity measurements</b>	Yes, with Vaisala HUMICAP® sensor
<b>CO<sub>2</sub> concentration measurement</b>	Yes, with Vaisala CARBOCAP® sensor
<b>Analog output mode</b>	0 -10 V or 4 – 20 mA
<b>Analog output range</b>	Adjustable by user
<b>Alarm output</b>	Yes, for different alarms
<b>Alarm setting point range</b>	Adjustable
<b>Built-in data storage</b>	1 GB
<b>Data storage type</b>	Flash memory
<b>Storage interval</b>	1s – 1h
<b>Maximum data points</b>	> 1,000,000
<b>Software</b>	Pegasor
<b>Dimensions (wxhxl)</b>	150 x 200 x 300mm
<b>Weight</b>	< 1.5 kg
<b>GPS for location indicator</b>	Yes, optional

## Connections

<b>USB in, USB out</b>	Yes
<b>Bluetooth</b>	Yes
<b>WLAN</b>	Yes, optional
<b>Ethernet</b>	Yes
<b>3G/4G</b>	Yes, optional
<b>Analog (V and mA)</b>	Yes



Pegasor provides unique fine particle sensor products. Our products are based on diffusion charging of particles, technology capable of covering all fine particle monitoring applications, such as ambient and indoor air quality monitoring and emission measurements. Same measurement principle makes all measurements comparable. This is a key feature in combining measurements from different spots into wider information base.

Our technology and sensors are a result of acknowledged and solid scientific research, as well as extensive track record of industrial fine particle measurements. Our products are available throughout Asia, Europe and North America through via comprehensive network of local distributors and leading manufacturer partners.

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COORSTEK SENSORS

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