Particulate Matter Web Data logger

○ **DETECTION OF PM1.0, PM2.5, PM4.0, PM10**

Fast and easy detection and alarming
at dangerous situations

○ **EASY TO USE - STAND ALONE OR IN NETWORKS**

Connect it to your own local network
via the **Wi-Fi or Ethernet** interface

○ **INTEGRATED WEB SERVER**

Directly accessible from
any device in the network

○ **ACCURATE AND RELIABLE SYSTEM**

Highly accurate **self-cleaning** mechanism
for minimized maintenance

○

Main Applications

Building automation
Garages and workplaces
Offices in process industry
Cleanrooms

Keep indoor exposures to particulate matter under control!

Although it's difficult to estimate the percentage of time every individual spends indoors, it is a matter of fact that the incidence of PM on health is often overlooked.

When we talk about indoor PM we do not only mean the particulate matter generated by indoor activities such as combustion, fumes or other substances of biological origin. Indoor particulate matter is also the result of the inward migration of external particulate matter, a migration that can occur in a variety of ways: from cracks in the building envelope to infiltration, from the type of fi lters and ventilation used to natural ventilation and consequently to the external environment around us. It is therefore essential that indoor PM exposure is regularly measured and controlled in order to avoid harmful health effects.

With the succesfuls **HD50 series**, **AP** already introduced in the market a data logger specifically for indoor measurement with **built-in web server** and easy to integrate in any kind of network thanks to the connection to local network via **Wi-Fi or ETHERNET**. The new model of the series, has been developped to allow data logging of PM1.0, PM2.5, PM4.0, PM10 and typical particles size.

The data can be regularly sent to an FTP address, to an HTTP server (Cloud) and via e-mail (as attachments). By configuring personalized thresholds, the data logger advise acoustically, visually and remotely through notification via e-mail when these are exceeded. The internal clock can be regularly synchronized with a NIST reference server.

The PC software allows configuring the data logger, viewing the real time measurements both graphically and numerically, downloading the data in a database. The HD35AP-CFR21 option allows, in addition to the features of the basic software, the protection of recorded data and configuration in response to FDA 21 CFR part 11 recommendations.

Technical Specification

Measuring principle	Laser scattering
Measuring range	0...1000 µg/m³ (for each pollutant)
Particle size detection range	Ø 0.3...10 µm
Resolution of the instruments	0.1 µg/m³
Accuracy (@ 10...40 °C)	± 10 µg/m³ (0...100 µg/m³) / ± 10% measure (100...1000 µg/m³)
Warm up time	< 8 s
Sensor lifetime	> 8 years (24 h/day operation)

GENERAL CHARACTERISTICS

Measuring interval	1, 2, 5, 10, 15, 30 s 1, 2 5, 10, 15, 30, 60 min
Logging interval	1, 2, 5, 10, 15, 30 s 1, 2 5, 10, 15, 30, 60 min
Internal memory	Circular management or stop logging if full. The number of samples that can be stored is from 469,510 to 906,640 depending on the number of quantities selected for logging.
Interfaces	Wi-Fi (IEEE 802.11b/g/n) and ETHERNET (RJ45 connector)
Protocols	Proprietary, Modbus TCP/IP, SMTP, FTP, HTTP, NIST
Wi-Fi security settings	WEP64, WEP128, WAP, WAP2
Alarm	Acoustic by means of the internal buzzer, LED on the front panel, sending of e-mails. Configurable for each detected quantity
Power supply	External 7…30 Vdc (no internal battery)
Power consumption	Average: 40 mA @ 24 V / 80 mA @ 12 V Peak: < 200 mA
Display	Optional graphic LCD
LED indicators	Power supply, Network connection (LAN/WLAN) and Alarm
Operating temperature and humidity	-10…+60 °C / < 100%RH non-condensing
Housing	Material: Polycarbonate Dimensions: 130 x 90 x 40 mm (156 x 90 x 44 mm with flanges) Protection degree: IP 54 (with protective cap on RJ45 connector)
Weight	300 g approx.
Installation	Wall mount, indoor

Integrated Web Server

Thanks to the integrated web server, you can configure the data logger and view the real time measurements from any PC, tablet or smartphone connected to the same local network of the data logger by simply using a web browser and typing the IP address of the data logger, without the need to install specific software.