



# MACView® PARTICLES

**The concept for monitoring of fine-dust and particles in the air**

## **Permanent measurement and monitoring of particles**

The MACView®-Particles monitoring system for particles like dust and smoke. It is specially developed for use in workrooms and industrial environments. The MACView®-Particles measures, reproduces data, registers data using software and controls an external alarm, if needed. The principle of measurement is based on the principle of diffusion of infrared light (light scattering method).

## **Displaying, alarming and registering**

The MACView®-Particles displays the measured values on a LCD-display in mg/m<sup>3</sup> (milligrams per cubic metre). The value can be compared to the MAC-value (Maximum Allowable Concentration) directly. In the monitoring system, 2 relays and 1 analog output are built in which can be used to trigger an external alarm- or ventilation system. It is possible to activate an acoustic or visual alarm to make people aware of too high concentrations.

With the software (useable for all Windows versions), data can be saved, printed and graphical represented remotely. The data can be exported to every desired format to be used in your own files. In the software, the MAC-values (Maximum Allowable Concentration) of the various kinds of dust are adjustable separately. It is also possible to set up the system for multiple kinds of dust or particles. The program will calculate the correct average MAC-value and compare this with the measured values of the MACView®-Particles.





# TECHNICAL SPECIFICATIONS

## MACView®-Particles

<b>Material of housing</b>	<b>Read-out unit: Aluminium, sensor: Stainless steel</b>
<b>Approval</b>	<b>CE</b>
<b>Protection classification read-out unit</b>	<b>IP65</b>
<b>Dimensions MACView®-Particles</b>	<b>61 x 116 x 189 mm</b>
<b>Diameter sensor</b>	<b>130 mm</b>
<b>Warming-up time</b>	<b>300 seconds</b>
<b>Short-term stability sensor</b>	<b>± 3%</b>
<b>Long-term stability &gt;1 year sensor</b>	<b>± 7%</b>
<b>Measurement range</b>	<b>0 - 16 mg/m<sup>3</sup></b>
<b>Signalling / Alarming</b>	<b>mg/m<sup>3</sup> and hysteresis adjustable per relays</b>
<b>Display</b>	<b>Using backlight LCD display with 2 rows x 16 characters</b>
<b>Unit on display</b>	<b>mg/m<sup>3</sup> or pcs.</b>
<b>Acceptance of alarm</b>	<b>By use of reset pushbutton</b>
<b>Communication with PC</b>	<b>Via a RS232-cable</b>
<b>Outputs</b>	<b>- 2 relays outputs (up to 250 VAC separately switchable)</b> <b>- 1 analog output 0-10 V or 4-20 mA, 325 Ohm @12V</b>
<b>Speed of the microcontroller</b>	<b>20MHz</b>
<b>Measurement approval</b>	<b>Calibrations done in Spiez (Swiss), copy of the certificate available</b>
<b>Fastening</b>	<b>Read-out unit and sensor can be mounted separate or together on a wall easily.</b>
<b>Software</b>	<b>MACRegister®-software is standard available for Windows 95, 98, NT, 2000, ME and XP.</b>



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