

CLEAN ROOM MONITOR DATASHEET

Introduction

Navter's clean room monitor is a portable desktop and wall mountable instrument that measures dust particle concentration in air.

The instrument displays the real-time value of dust particle concentration in $\mu\text{g}/\text{m}^3$, temperature and relative humidity. It has built-in storage for continuous data logging and Wi-Fi connectivity for easy access of data log.

Specifications

Dust particle Concentration Range	0 $\mu\text{g}/\text{m}^3$ to 1,000 $\mu\text{g}/\text{m}^3$
Accuracy	$\pm 15 \mu\text{g}/\text{m}^3$
Operating principle	Laser scattering
Temperature/ Resolution / Accuracy	0 to 50°C / (1°C) / ($\pm 1^\circ\text{C}$)
Humidity/ Resolution / Accuracy	10 to 90%RH / 1%RH / $\pm 4\%$ RH
Dimension	14.5 x 9 x 3" (368 x 229 x 76mm)
Response Time	<6 seconds
Weight	4.12Kg
Power	230 V AC, 50/60 Hz
Display	7" HD DISPLAY
Display unit	$\mu\text{g}/\text{m}^3$
Memory	In built storage of 1 million readings
Continuous Operation	24 hours
Warranty	One year
Count Mode	Automatic
Communication Mode	WIFI
Calibration	Factory calibrated valid for 1year

Features

- Quick response time less than 30 sec
- Particle sensor is a laser-based sensor which uses the light scattering method to detect and count dust particles in the concentration range of 0 $\mu\text{g}/\text{m}^3$ to 1,000 $\mu\text{g}/\text{m}^3$ with $\pm 15 \mu\text{g}/\text{m}^3$ Accuracy.
- 7 Inch HD screen with intuitive, rich graphical display of dust particle concentration, temperature, humidity and dust particle concentration vs health effects table
- Automatic change of color, theme and safety alert message indicating dust particle concentration.
- Real time continuous data logging of STEL (average of every 15 min.) & TWA (average of every hour).
- Data log in MS Excel file format Download
- Easy 2-step wireless connectivity
- In Built storage of 1 million readings
- Wall mountable and desk top device
- Optional HDMI output
- No warm up time



Model N-CR100

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Safety Alert

The clean room monitor alerts the user of real time changes in dust particle concentration with safety alert message and three different colors green, orange and red indicating the range, for easy visual perception.

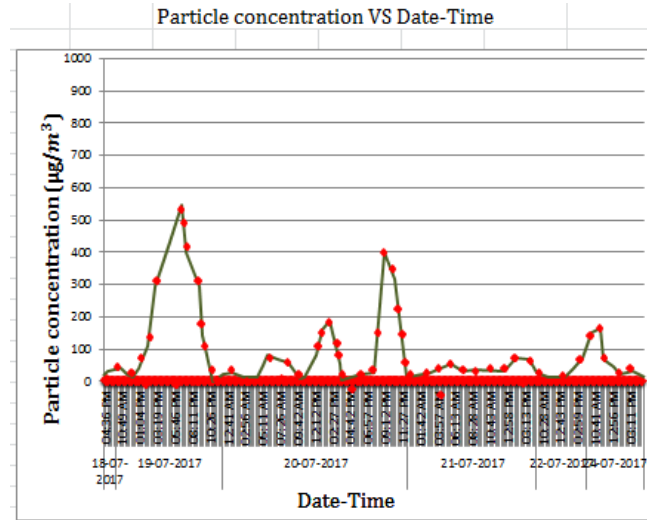
The safety alert message is displayed as 'safe' and the display color is green when the dust particle concentration is in the range of 0 - 50 µg/m³, the display color and safety alert message changes automatically with change in dust particle concentration.

Particle concentration	Color	Alert message
0 - 50 µg/m ³	Green	Safe
50 - 200 µg/m ³	Orange	Risky
200 - 1000 µg/m ³	Red	Danger

Data Logging

The clean room monitor has automatic data logging of STEL (short term exposure limit) values every 15 minutes throughout the operation of the monitor. It has inbuilt storage of 16GB that can store more than a million data records.

The data log stored in the device can be easily accessed from any Wi-Fi enabled device such as smartphone, pc, laptop etc. The data log has auto generated graph of dust particle concentration versus date & time.



Applications

The clean room monitor can be used in a wide variety of applications such as

- Electronics Industries
- Medical device industries
- Biopharmaceutical
- Pharmaceutical
- Hospital Surgical Room
- Hospital infection control
- Chemical industry
- Filter technology
- High-sensitivity applications