



# Light Scattering Digital Dust Monitor Model 3432

The latest version of compact lightweight lightscattering dust monitor



# Compact & Lightweight

The instrument is only 1.1 kg so that it is easy to handle and carry.

### **Auto-calibration**

Thanks to the auto-calibration function, calibration before measurement becomes very simple. Span adjustment and zero adjustment only takes about 6 sec each.

#### Easy of Use

Each button is allocated with enough space in order to prevent the users from hitting the wrong button.

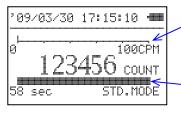
In addition, the most frequently used buttons, [POWER] and [START/STOP] buttons, are in highly visible fluorescent color.

## Large LC Display

The large display which shows not only instantaneous count value but also bar graphs to indicate the count value and the remaining measurement time helps you to check the current situation instantly.

#### Operation Principle of Light Scattering Dust Monitor

When airborne particles are subjected to light, the particles scatter light (light scattering phenomenon). A measurement is performed based on the mechanism that the intensity of the scattering light is proportional to dust concentration. This monitor sucks in sample air including airborne dust and emits laser beam. Then the intensity of the generated scattering light is converted into the electric signal by photodiode (detector). The electric signal will be added up and indicated as the count value. The count value (CPM value) for one minute is converted into the relative mass concentration by K factor (mass concentration conversion factor).



Relative concentration bar (instantaneous value)

Remaining measurement time

# **Specifications**

Product Name	Light Scattering Digital Dust Monitor
Model Name	Model 3432
Measuring Range	$0.001 \sim 10.000 \text{ mg/m}^3 (1\text{CPM} = 0.001 \text{ mg/m}^3)$
Accuracy	$\pm$ (10% of reading + 1) count
Linearity	± 5% of reading
Measurement Mode	(1) Standard mode: 6, 10, 30 sec, 1, 2, 3, 5, 10 min
	(2) Free setting mode (Settable range: $1 \sim 59$ sec or $1 \sim 99$ min)
	(3) Manual mode (Start and stop measuring manually)
Light Source	Semiconductor laser diode
Detector	Photodiode
Measuring Method	Light Scattering Method
Display	Graphic LCD (w/ backlight)
Display Items	(1) Remaining battery level (10 levels)
	(2) Measurement time (remaining measurement time)
	(3) Measurement value
	(4) Measurement mode
	(5) K factor
	(6) Bar graph (CPM instantaneous value, remaining measurement time)
Output*	Analog output: 0 ~ 1,000 CPM 0 ~ 1 V
	0 ~ 10,000 CPM 0 ~ 1 V
	0 ~ 1,000 CPM 0 ~ 1 V, 1,000 ~ 10,000 CPM 0.1 ~ 1V (AUTO)
	Pulse output (Photo-coupler output), Alarm output (Photo-coupler output)
Calibration Function	Auto background
Mass Concentration Conversion Coefficient Factor	Settable range: 0.1 ~ 9.9, in increments of 0.1
Power Source	AA batteries (1.5V $\times$ 6 pcs: Manganese cell, Alkaline cell, Ni-MH cell)
Dimensions	162(W) x 60(D) x 102(H) mm (excluding projections)
Weight	1kg excluding batteries
Accessories	AC adapter (1pc), Filters (2 pcs), Shoulder strap (1pc), Operation manual (1pc),
	LC protecting sheet (1pc), Rubber cap (1pc), Rubber cap string (1pc),
	Manganese cells (6pcs for testing purpose)
Optional Extra	Output cable (for analog pulse and alarm output), Rubber cap, Filter (10 pcs for 1 set),
(sold separately)	LC protecting sheet (2 pcs for 1 set), AC adapter

\* Optional at the time of purchase only

CAUTION For safe and trouble-free operations, please read Operation Manual carefully before using the instrument.



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Specifications subject to change without prior notice