BFN-CMS3301
Particle Online Monitor

The CMS3301 Particle Monitor is a New Device for Real-time Measurement of Environmental Particle Count and Size Distribution. It Allows Customized Environmental Monitoring by Enabling Users to Set Particle Concentration Limits and Provides Real-time Alerts When Thresholds are Exceeded. This Product Features Online Network Monitoring Functionality, Utilizing the Highly Reliable and Real-time Industrial -Grade 485 bus Protocol. It Transmits the Monitor's Operating Status in Real-time to a Computer Client Via the Data bus for Data Storage and Analysis.

Wired:1.5.01.00.0154 Wireless:1.5.01.00.0141

Function Introduction

◆ **Particle Measurement**

Measurement Range: 0.3~1.0; 1.0~2.5; 2.5~10 (μm); Counting Efficiency: 50%@0.3μm, 98%@>0.5μm; Standard Volume: 0.1L.

◆ **Communication Networking (CMS Protocol Compatible)**

Integration into CMS Systems; Supports RS485 and Wireless Communication Protocol Interfaces.

◆ **Display and Indication**

Startup Interface: Standard BEN Branding; Operating Interface: Displays Operating Status and Real-time Data During Normal Operation - A: Operating Status, B: Particle Count, C: Particle Size; Abnormal Condition Interface: Prominent Alert Method.

◆ **Buzzer Alarm**

Built-in Buzzer Sounds an Alert When Particle Count or Size Exceeds Limits; Supports Connection to External Alarm Lights for Workshop Visual Management Requirements.

◆ **Local Storage**

Utilizes Serial Flash Memory for Cyclic Data Storage, Ensuring Data is Saved Locally During Communication Disruptions.

◆ **Factory Reset**

Supports Factory Reset Operation.

Application Scope

Suitable for Clean Workshops in Production Enterprises Such as Electronics Manufacturing, Medical Pharmaceuticals, Semiconductors, Optical or Precision Machining, Plastics, Painting, Hospitals, Environmental Protection, Testing Laboratories, And Food Processing.

Product Parameters

Power Supply	DC 12V
Communication	Supports RS485, Wireless Communication
Backend Power	Ethernet Cable 5V (Customizable Voltage Available)
Measurement Range	0.3~1.0; 1.0~2.5; 2.5~10 (μm)
Power Consumption	1.0 A
Operating Environment	Temperature: -20°C~60°C; Relative Humidity: 0%~99% RH; Indoor Use
Sampling Flow Rate	2.83 L/min ±5%
Particle Sizes	0.3μm, 0.5μm, 1.0μm, 3.0μm, 5.0μm, 10.0μm (0.5μm, 5.0μm Default)
Light Source	Laser Diode