AIR QUALITY PARTICLE COUNTING

PCE-CPC 50



- **Real-time measurement from 0.3 µm ... 10 µm**
- **Output in particles/m³, particles/l or particles/28.3L**
- **Modbus RTU and MQTT via RS485**
- **Robust housing for wall mounting**

The state-of-the-art air quality particle counting enables precise real-time measurement in the range from 0.3 µm to 10 µm to provide a comprehensive picture of the air quality. The results are presented in two units, either in number per m³, number per litre or number per 28.3l. Air sampling is performed by an internal pump. When the particles pass the light source (laser), light scattering occurs; the scattered light is converted into an electrical signal (pulse) by a photoelectric transducer, and the larger the particles, the larger the pulse signal.

The integration of Modbus and MQTT ensures seamless integration into existing networks and enables efficient data communication. The sampling time can be set from 1 to 10 min and the pause time from 1 to 1000 min. This function makes it possible to continuously monitor the cleanliness level and ensure that the premises meet the required standards.

Specification

Particle	
Measuring channel sizes	0.3, 0.5, 1.0, 2.5, 5.0, 10
Measuring range	0 ... 10000000 pcs/L
Counting efficiency	below 100 pcs/l: ±30 pcs/l above 100 pcs/l: ±30 % of Rd at 0 ... 40 °C / 60 % RH
Flow volume	2,83 l/min
Relative humidity	
Measuring range	0 ... 20 %
Resolution	0,1 % RH
Accuracy	±5 %

General technical data	
Analogue output	4 ... 20 mA
Display type	without display
Interface	RS485
Sensor	Laser scattered light
Response time	8 s
Menu language	English, Chinese
Protection class (device)	IP30
Power supply	12 VDC, <1 A
Connector type	Schuko plug
Operating conditions	-30 ... 70 °C , 0 ... 95 % RH
Storage conditions	-20 ... 60 °C , 0 ... 95 % RH
Dimensions (L x W x H x D)	218 x 235 x 272 x 87 mm
Weight	1495 g