TELAIRE®

# **Product Spotlight**

## SM-UART-04L - PM2.5 + PM10 Particulate Dust Sensor

#### Overview

SM-UART-04L Particulate Dust Sensor is designed for a wide range of air quality applications where fine particle dust needs to be measured. Applications include air quality meters and air purifiers for both residential and light industrial monitoring and control. The optical design leverages laser technology, which allows customers to achieve excellent performance with balanced reliability. SM-UART-04L is an ideal solution for industrial and consumer applications.



SM-UART-04L is a PM2.5 laser-based Particulate Dust Sensor that detects dust particle concentration in air by using an optical sensing method. A laser light

emitting diode (laser LED) and a photo sensor are optically arranged in the device. The photo sensor detects the reflected laser LED light by dust particles in air. The dust sensor can detect small particles from large house dust, by the pulse pattern of the signal output.

#### Features

- Laser Optical Dust
  - High Accuracy
  - Fast Response
- PM2.5 Output
- PM10 Calculated Output
- ROHS and REACH Compliant
- UART Series Digital Output
- Compact in Size
- Flexible Mounting Style
- Protected from EMC intrusion by metal case
- Wide detection range
- Average Time Before Re-calibration: 40,000 hrs

### Applications

- Indoor Air Quality Monitoring
- Air Cleaners and Purifiers
- Air Conditioners and HVAC
- Outdoor Dust Monitoring (with additional protection)

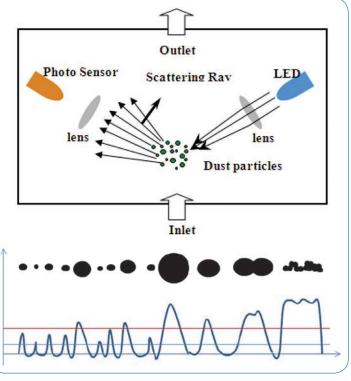


Figure 1: Detection Principle

#### www.telaire.com

#### www.amphenol-sensors.com

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