



Wireless Sigfox Laser-Based Particle Sensor

FEATURES

- **Laser-based light scattering particle sensing**
- **Concentration Range: 0 $\mu\text{g}/\text{m}^3$ to 1000 $\mu\text{g}/\text{m}^3$**
- **Sensor Type: Laser**
- **Particle Size: $\leq 2,5\mu\text{m}$ Option: $\leq 10\mu\text{m}$**
- **Digital Temperature & Humidity Sensor**
- **Communication Network: SIGFOX Europe**
- **Worldwide Network Access via API**
- **Operating Frequency: 868.130 MHz**
- **RF Power: 14dBm**
- **Option: wireless -MBus, -KNX, ZigBee-ZNM**
- **Antenna: internal / option: external SMA female**
- **Transmission Cycle: max. 6 / hour or less**
- **Dashboards: available from several Vendors**
- **Power Supply: external 5V DC @ 100mA**
- **Operating Temperature Range: -20°C to +50°C**
- **Enclosure: IP65**
- **Dimensions: 150 x 70 x 40 mm**

APPLICATIONS

- **Environmental Monitoring**
- **Air Quality Monitors**
- **Air Cleaners**
- **Air Purifiers**
- **Heating Ventilation Air Conditioning (HVAC)**

DESCRIPTION

The LASER LIGHT sensor is a laser-based sensor which uses the light scattering method to detect and count particles in the concentration range of 0 $\mu\text{g}/\text{m}^3$ to 1000 $\mu\text{g}/\text{m}^3$ in a given environment. A laser light source illuminates a particle as it is pulled through the detection chamber. As particles pass through the laser beam, the light source becomes obscured and is recorded on the photo detector. The light is then analyzed to calculate concentrations in real-time.

For data communication the LASER LIGHT is using the worldwide available wireless network SIGFOX which does not need any SIM cards.

For hand-held and mobile applications roaming is included without any additional cost.

Dashboards for visualization are available from different vendors like Tridium NIAGARA, Mitsubishi MAPS or Cumulocity.

