

# BLUESKY™ AIR QUALITY MONITOR

TSI has expanded its environmental offerings with the BlueSky™ Air Quality Monitor (Model 8143). Each lightweight, 6-channel particle counter is designed to simultaneously measure PM1, PM2.5, PM4 and PM10 mass concentrations, as well as temperature and relative humidity all in real-time! As an Internet of Things (IoT) solution, these hyperlocal, cloud-based monitors offer data interfacing using WiFi and comes standard with an SD memory card for duplicate data storage. While specifically designed for outdoor environmental monitoring, BlueSky air quality monitors can also be utilized inside buildings, homes and manufacturing facilities to measure indoor air quality.



## Features and Benefits

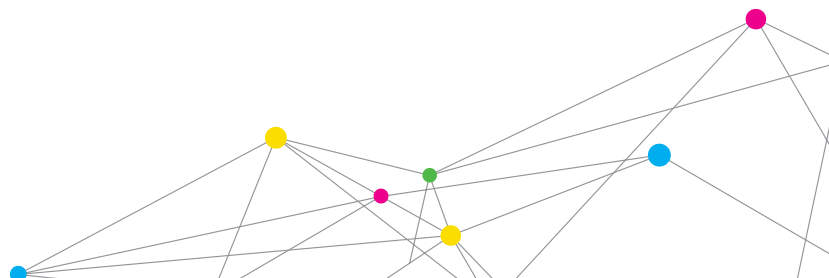
- + **Precision data** - TSI factory-calibrated PM sensor with the option to program a custom calibration factor
- + **Real-time map of live data** - ability to stream and display real-time data from the cloud using WiFi, without additional software or an app
- + **Unique laser-based light scattering particle sensors** - simultaneously outputs PM1, PM2.5, PM4, PM10, temperature and humidity
- + **Self diagnostics** - notify user of poor sensor performance while maintaining data integrity
- + **Designed for outdoor use** - performs consistently in a wide range of humidity and temperatures, and protected from rain, bugs and direct sunlight
- + **Two ways to download data** - from the cloud (.csv file) and removable SD card
- + **Data buffering** - internally logs data (up to 1 week at 15 min interval via on board memory) for data redundancy
- + **Easy and quick installation**
- + **Low power consumption** - powered using an IP67 rated AC adaptor with a 120V power cord
- + **ROHS compliant with CE Mark**

## Applications

- + Fenceline/Perimeter Monitoring
- + Municipalities & Smart Cities
- + Community Monitoring Programs
- + Hot Spot Detection
- + Indicative Comparisons to Federal Reference Air Quality Data



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# SPECIFICATIONS

## BLUESKY™ AIR QUALITY MONITOR

### PM Sensor

Sensor Type	Light-scattering single particle counter
Aerosol Concentration Range	0 to 1000 µg/m <sup>3</sup>
Measurements	PM1, PM2.5, PM4 and PM10
Measurement Resolution	1 µg/m <sup>3</sup>
Counting Efficiency	50% @ 0.3 µm and 98% at 0.5 µm
Accuracy (measured against TSI DustTrak DRX)	±10 % @ 100 to 1000 µg/m <sup>3</sup> ±10 µg @ 0 to 100 µg/m <sup>3</sup>
Zero Stability	±1 µg/m <sup>3</sup>
Sample Flow Rate	~ 0.3 LPM
Operational Temperature	-10°C to 60°C
Storage Temperature	-40°C to 70°C
Operational Humidity	0 to 95% RH (Non-condensing)
Response Time	1 second
Start-up Time	< 8 seconds
Acoustic Emissions Level	25 dBA @ 0.2 m
Calibration	Factory pre-calibrated sensor
Dimensions	6 inch x 5.5 inch x 4.5 inch
Weight	0.35 lbs (~6 oz.)

### Temperature Sensor

Range	-40°C to 125°C
Accuracy	±0.2°C
Response Time	5 to 30 sec
Resolution	0.04°C (12 BIT A/D)

### Humidity Sensor

Range	0 to 100% RH
Accuracy	±1.8% RH
Response Time	8 seconds
Resolution	0.04% RH (12 BIT A/D)

### Power Requirements

Input Voltage to Power Supply	100-240 VAC*
Output Voltage	5 VDC
Power Consumption	<5W (5 VDC @ 1 Amp)

### Accessories/Replacement Parts

814301	Power Supply (NA style plug)
814302	Power Supply (EU style plug)
814303	Power Supply (UK style plug)
814304	Replacement PM Sensor
814305	Replacement PM Sensor 5pk
814306	Replacement Mounting Bracket
814307	Maintenance Kit
814308	16GB Micro SD Card

\*Always use the power supply provided with the BlueSky monitor, as it is designed for outdoor use. Please see the manual for more details.

Specifications are subject to change without notice.

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