

Mobile Application PhysFog



Overview

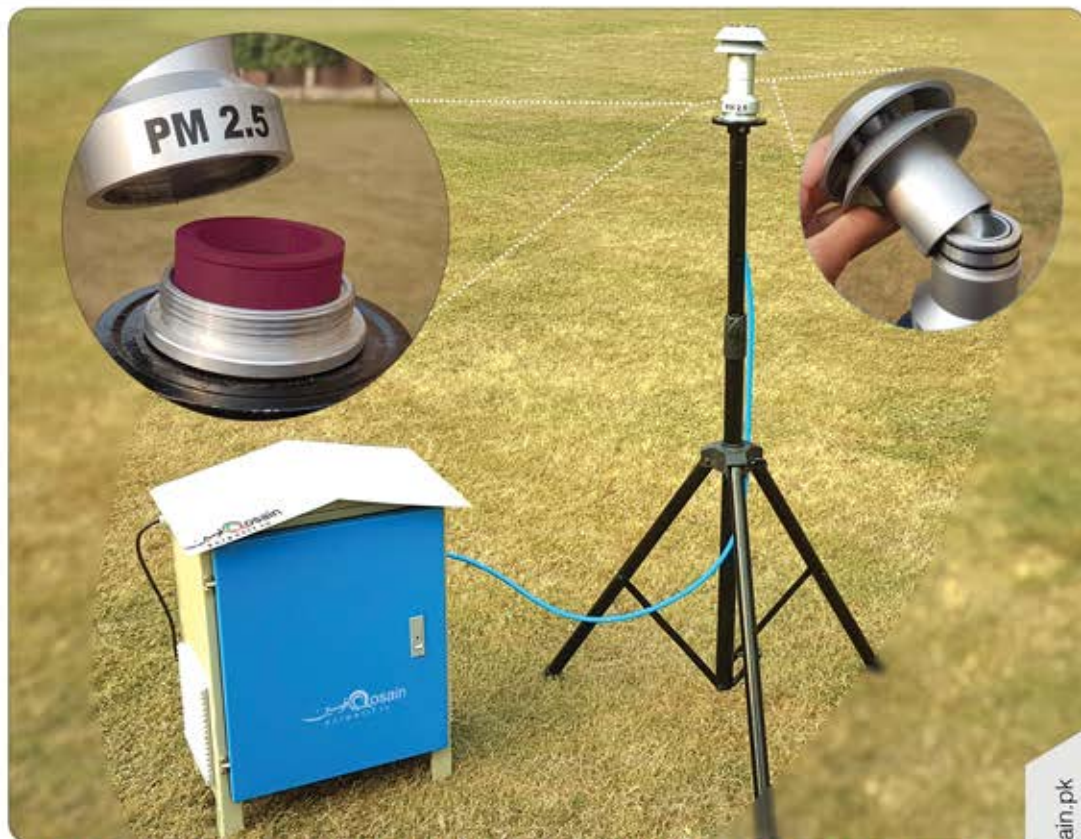
- Monitoring of air quality
- Multiple sample heads
- Weather monitoring
- Smartphone interface
- Work without internet/WiFi connection
- IP54 dust and water ingress tested
- Equipped with PM2.5 and PM10 filters for fog and dust sampling

Description

PhysFog is standalone equipment to collect air for the measurement of Total Suspended Particles (TSP) at ambient conditions. It is equipped with a configurable filter head for PM2.5 or PM10. A vacuum pump forces air to run through the filters while keeping a track of the flow rate, humidity and temperature of the ambient air. Suspended particles are collected on expandable filter papers that are later used for analysis. In addition to the basic characteristics of air listed earlier, PhysFog can also be used with many COTS weather stations on RS485 protocol recording weather variables including wind speed, UV index and rain count. Not only research, but PhysFog can also be deployed to periodically monitor the air quality in critical environments.

The digital controller can be configured using an installation-free web-application on any smartphone having a working WiFi. The same web application can be used to configure, control and even continuously monitor the system in the WiFi range which can expand up to 200 feet in the open. For a typical session, PhysFog can be configured for maximum run time, sampling period and maximum allowed flow rate using mechanical control valves. Samples of up to 20 days can be stored within the in-built memory chip and viewed interactively any time using the web-app.

With a durable mechanical structure, IP54 dust and water ingress protection, tolerance against failed power supply, and a modern user interface PhysFog can serve the need for robust yet affordable dust and weather monitoring station.



Parts included :

- Dust sampler pumping station
- PM2.5 or PM10 filter head
- Tubing
- Tripod stand for the heads
- Sampler filter papers
- Optional COTS weather station
- 6ft long Power cord

Filter heads	PM2.5 and PM10
Flow range	5-25 liter/min
In-built sensors	Ambient temperature, Fluid flow rate sensor and humidity sensor
Optional weather station sensors	Temperature, humidity, wind speed, wind direction, gust speed, gust direction, ambient light, UV, UV index, rain meter, atmospheric pressure