

INTEGRATED SYSTEM "IOMS"



**HIGH SPATIAL
RESOLUTION
SAMPLER (HSRS)**

AIR SAMPLER

**OPTRACER AIR
QUALITY
MONITOR SYSTEM**



**OUTDOOR OPTICAL
PARTICLE COUNTER**

The grouping of the HSRS instrument together with the OPTracer is called the 'Integrated IOMS System'. The availability of samples for chemical analysis and good quality real-time data for the main environmental and air quality parameters make the IOMS a complete system for pollutant characterisation and epidemiological studies with an impact on health.

HIGH SPATIAL RESOLUTION SAMPLER (HSRS)

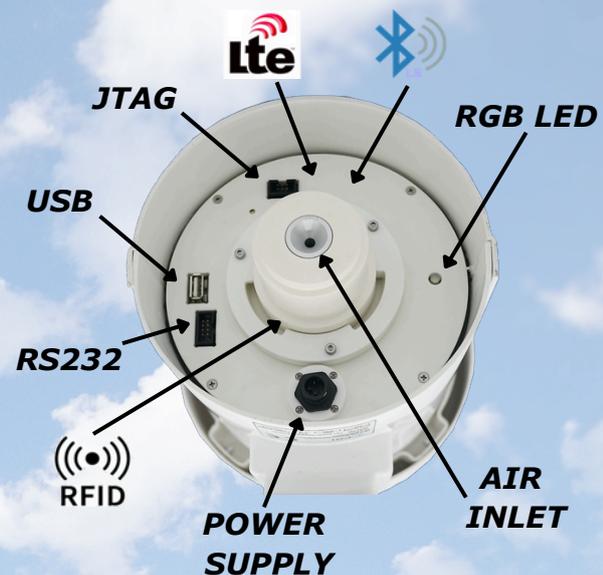
Air Sampler

The HSRS High Spatial Resolution Sampler is an ambient air sampler with an operating flow rate of 2 lpm for high spatial resolution sampling networks, capable of accumulating PM 2.5, PM 10 or TSP particles on all types of membranes with a diameter of 47 mm .

MAIN FEATURES

- Low flow rate (2 l/min) for long-term sampling (1 week -1 month)
- Sample available for chemical analysis
- Selection of user filter media (PTFE, Quartz, etc.)
- Sampling data recorded directly on the filter cartridge (RFID technology) to minimise operational errors
- Environmental conditions recorded in real time
- Remote access to the instrument to verify sampling conditions

The filter is coupled to the NFC Tag system for quick and easy programming and recording of sampled volumes. The main board measures flow and controls the pump to maintain a constant flow. It can measure the main parameters of environmental conditions (T, P, RH) via dedicated precision sensors. In addition, the main board stores the last two sampling campaign data (maximum 2 months) 1h records and uses a cloud-based 4G modem connection system. The sampler allows monitoring of instrument activity through RS232, BlueTooth, USB and LTE sensor connectivity. The HSRS is available with 110/220V power supply. The HSRS is available with a 40 W solar panel power system that allows installation in remote sites or anywhere standard power cannot be used.



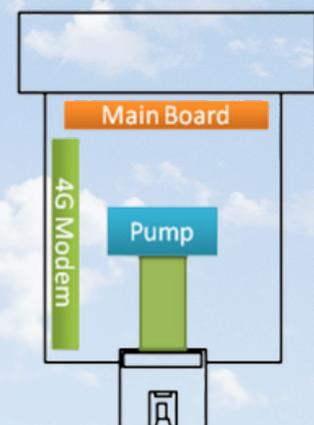
HSRS DATASHEET



Web Dashboard (Cloud Info Management)

Device HSRS_01	
Detail from last data revelation	
ID	1549
Device Name	HSRS_01
State	● Sampling
Cartridge ID	Cartridge_T01
Modem Record Date And Time	Feb 4, 2019 5:17:00 PM

[Device Detail](#)



OPTRACER AIR QUALITY MONITOR SYSTEM

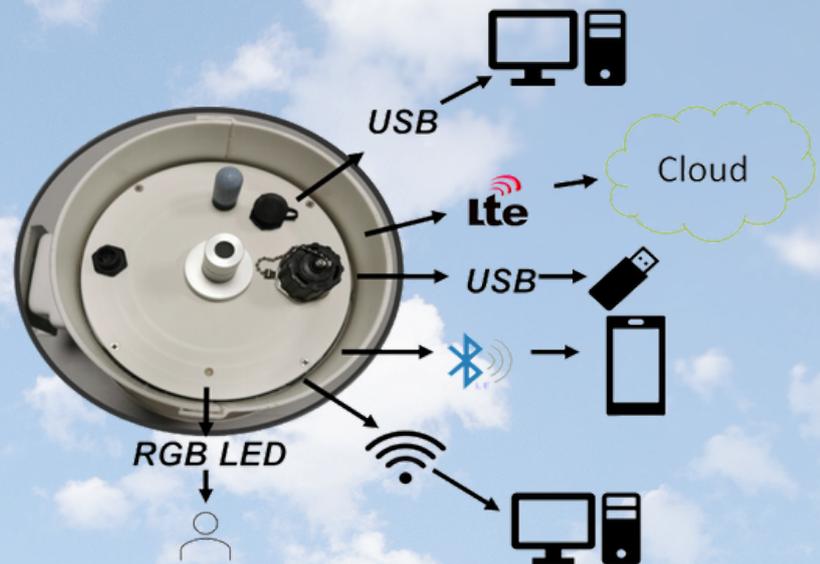
Outdoor optical particle counter

The OPTracer is an optical particle counter for outdoor environments capable of measuring the concentration of particulate matter dispersed in the air in real time, discriminating it in 30 dimensional classes between 0.3 and 10 μm . The instrument is able to estimate the mass of the particles by providing the concentration data of PM 10 and PM 2.5

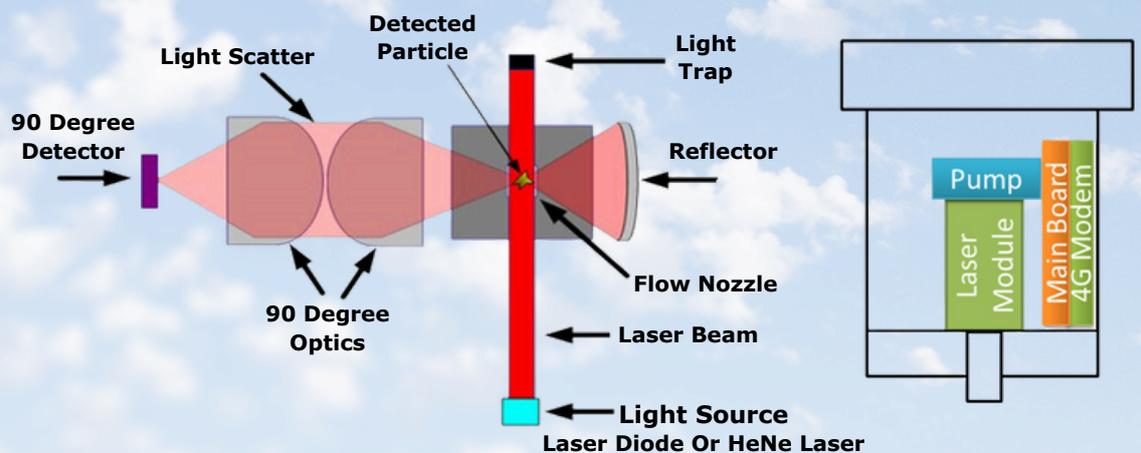
MAIN FEATURES

- Real-time measurement of the concentration of particles from 0.3 to > 10 μm , discriminating them in 30 particle size classes
- Real-time estimate of the value of PM 10 and PM 2.5
- Recording of the main environmental parameters (Temperature, Pressure and Relative Humidity)
- Control via Bluetooth
- Data available via USB key and via Wifi (access point)

The instrument operates at a flow rate of 2.831 l / min (0.1 ft³). The system performs dozens of flow measurements per second to adjust the pump speed and have a constant flow in the optical chamber as environmental conditions change. The quality of the pump control system and the sensors used allows for excellent flow accuracy (<3%). The measurement of the concentration of the particles is entrusted to an optical counter which detects and classifies the particles dimensionally.



Top Down View of Particle Counter



OPTRACER DATASHEET



SCAN ME