

# MEASURE IT WITH KENSENSE

**Low-cost, fully customisable**  
range of monitoring systems  
from Kenelec Scientific

Part of our customised monitoring system range, the KenSense is a **lightweight, portable measurement solution** with the capacity to configure multiple channels of measurement for dust, aerosol and gas monitoring.

With simple mounting options and a lockable weatherproof enclosure, the system is **extremely low maintenance** and can be set up where you need it.

Designed and built by our skilled technical team, **just tell us what measurements you need** and we can build a system to meet your specific monitoring requirements.



## FEATURES

- Simultaneously measurements of PM1, PM2.5 and PM10, as well as ambient temperature and relative humidity.
- Onboard datalogger – data is logged on a removable onboard SD card.
- Equipped with GPS technology for location data tagging.
- Cloud data transmission using cellular communications.
- Flexible power options – can be powered with mains adapter or solar battery system.

## APPLICATIONS

- Air quality monitor for smart cities and communities
- Outdoor environmental monitoring
- Site perimeter monitoring
- Fence-line monitoring
- Dust control operations
- Construction site monitoring
- Urban pollution studies

# SPECIFICATIONS

Note: Below specifications are based on Alphasense OPC-N3 particle sensor. These may change should a different sensor be chosen.

## PM SENSOR

Measurement method	Light scattering optical particle counter (OPC)
Default measurements	PM1, PM2.5 and PM10
Particle size range	0.35 to 40 µm spherical equivalent size (based on RI of 1.5)
Size categorisation	24 (number of software bins)
Sampling interval	1 to 30 s (histogram period)
Total flow rate	5.5 L/min (typical)
Sample flow rate	280 mL/min (typical)
Max particle count rate	10,000 particles/second
Aerosol concentration range	1 to 2,000 µg/m <sup>3</sup>
Resolution	0.1 µg/m <sup>3</sup> (software)
Laser classification	Class 1 as enclosed housing
Temperature range	-10 to 50 °C
Humidity range	0 to 95 %RH (non-condensing, continuous)

## RELATIVE HUMIDITY SENSOR

Operating range	0 to 100 %RH (extended)
Resolution	0.04 %RH
Accuracy tolerance	±3.0 %RH (typical)
Repeatability	±0.1 %RH
Hysteresis	±1 %RH
Nonlinearity	<0.1 %RH
Response time	8 s (τ 63%)
Long term drift	< 0.25 %RH/year

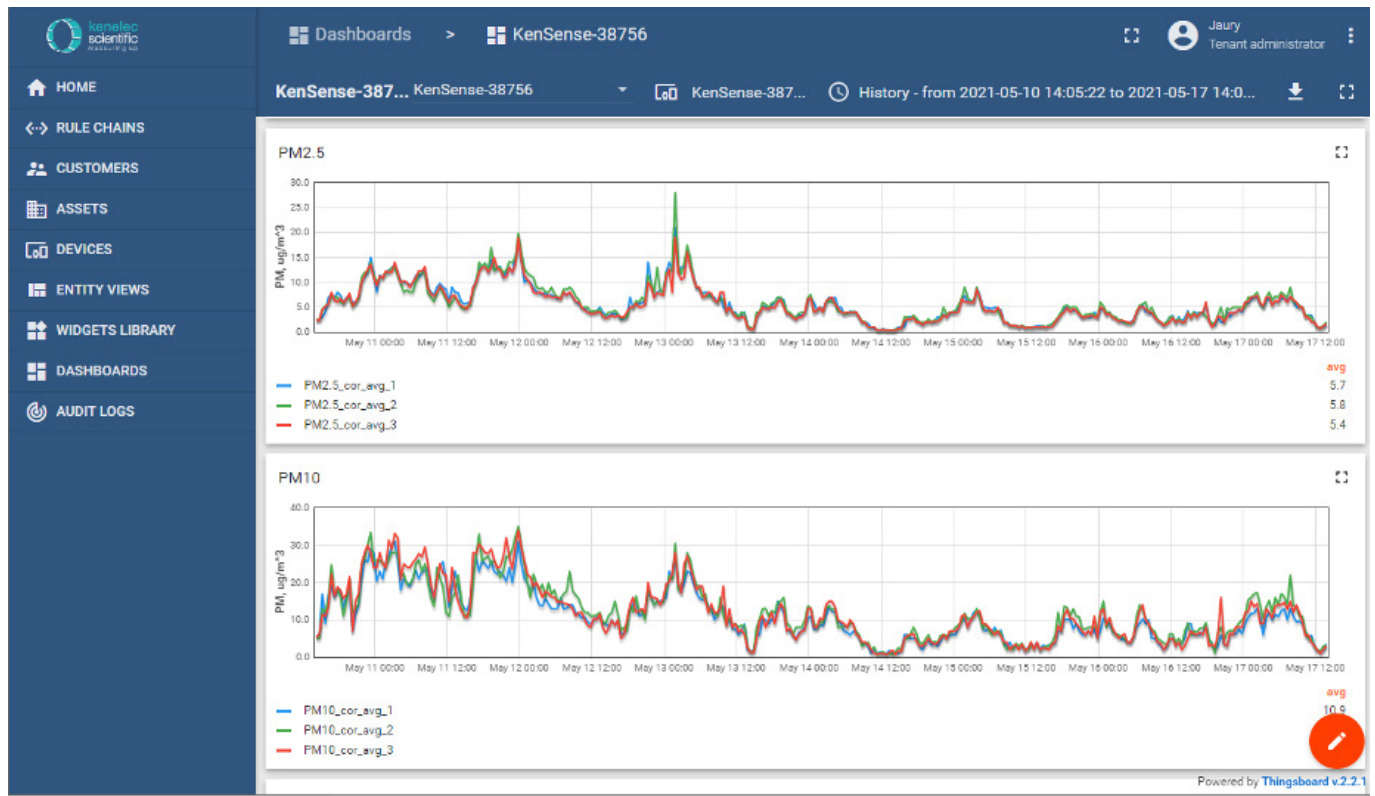
## TEMPERATURE SENSOR

Operating range	-40 to 125 °C (extended)
Resolution	0.01 °C
Accuracy tolerance	±0.3 °C (typical)
Repeatability	±0.1 °C
Response time	5 to 30 s (τ 63%)
Long term drift	< 0.02 °C/year

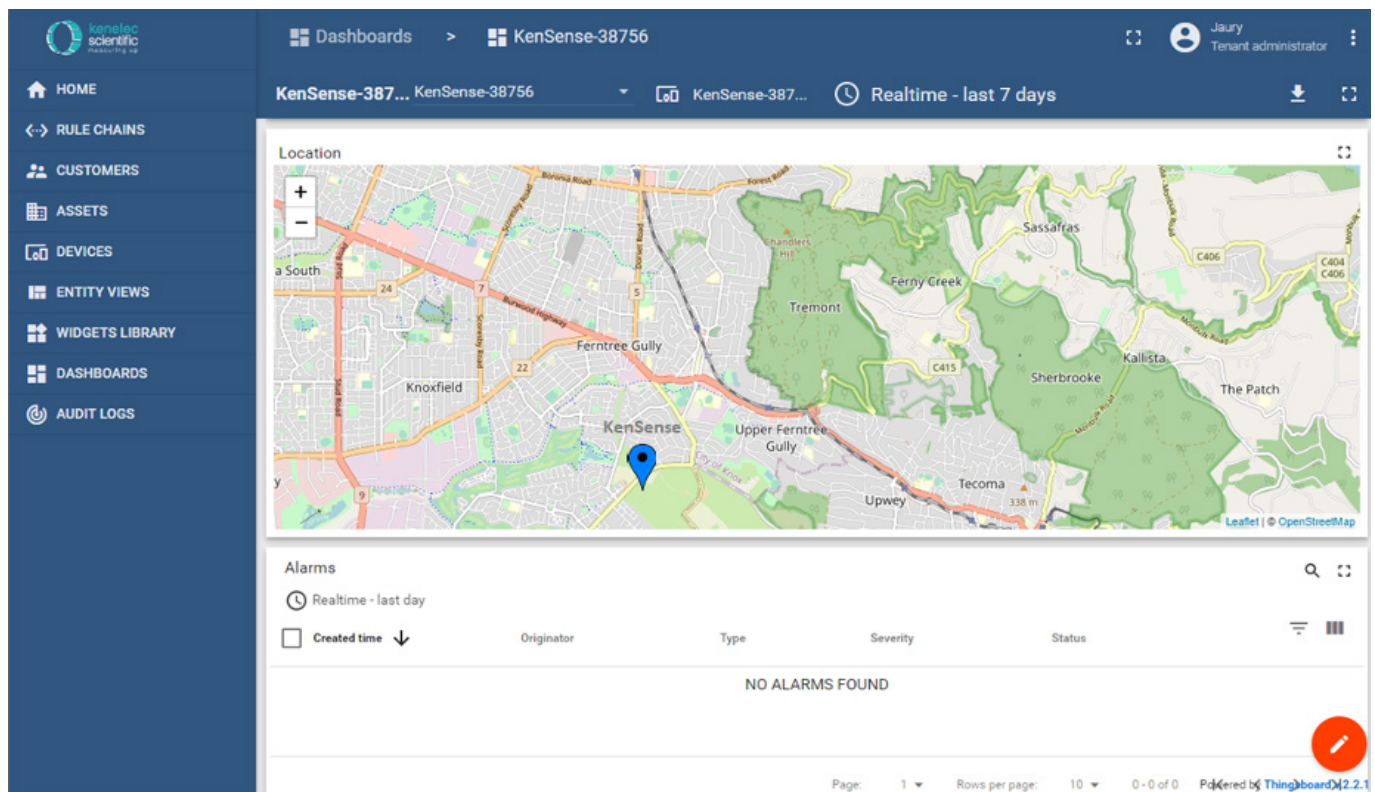
## SYSTEM

Power requirements	12 VDC 15W
Communications	LTE-M (Cat-M1)
Datalogging	Onboard 8 GB MicroSD card
GNSS	GNSS module support for GPS or GLONASS
Enclosure	Polycarbonate weatherproof case
Mounting	Pole and wall mounting brackets included
Dimensions	210 H x 160 W x 130 D mm (enclosure only) 290 H mm measure with power connector and T&RH sensor
Weight	< 1.1 kg

## REAL-TIME AND HISTORICAL CHART



## MAP GPS LOCATION



# KENELEC SCIENTIFIC

## Our company:

Established in 1962, Kenelec Scientific is one of Australia's leading scientific and environmental technology companies. Based in Melbourne, with distributors located throughout Australia and New Zealand, we are industry leaders in the supply of globally sourced, latest generation technologies at competitive prices.

## Our services:

### Sales

Buy the latest equipment from some of the most trusted brands in the industry.

### Rental

Short and long term hire available on an extensive range of instruments.

### Calibration

Professional calibration of your instruments in our accredited laboratories.

### Validation

Wide range of validation services to ensure compliance with regulations.

### Service & Repairs

Local after-sales service and support from our experienced technicians.

### Education

Product education and support available in-house, onsite or online.

### Financing

Secure your equipment without relying on up-front capital funding.

## More custom solutions:

In addition to the KenSense, we also offer a number of other specialised monitoring solutions as well as being able to build a system to meet your exact requirements. With **hundreds of custom-designed systems** under our belts, we're sure to have a solution for you:



### KENSENSE TRIPLE

A custom-designed low-cost air quality monitoring system equipped with three sensors of the same parameter for statistical comparison and redundancy.

### SMOKESWITCH

A unit designed for applications such as computer data centres and large shopping complexes, where high smoke levels in the environment can cause issues.



## Don't see your solution here?

Just tell us what you're looking to measure, and we can create a system tailored to your specific needs.



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We look forward to  
working with you.

