

Corporate

Public Sector

Industry



Think Air

CREATED BY VINDICO

www.vindico.net/thinkair

2020 Sensor Datasheet
AQ in the workplace
school
factory



Sensor Node Overview

The Think Air node is a low cost Air quality node capable of LoRaWAN, 3G, Wired or WiFi connectivity, equipped with a Multi-sensor modular unit that can integrate into existing Think Air networks.

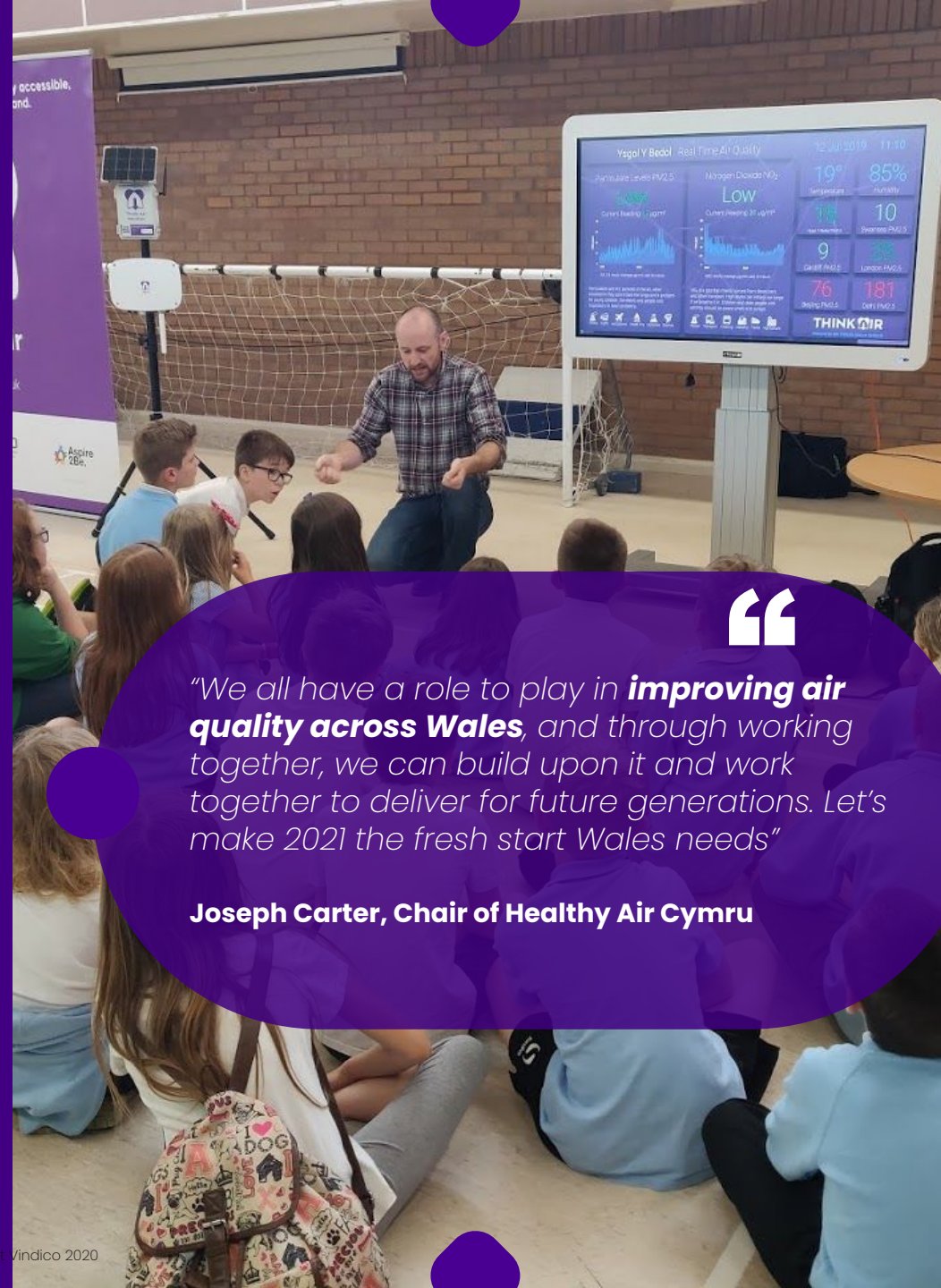
The node offers extremely accurate **PM10, PM2.5, CO1, NO2, C2H6OH, H2I, NH3I, CH4, C3H8, C4H10, temperature and humidity** readings confined within a small solar powered unit.

The unit is calibrated against AURN monitoring networks to ensure the values displayed have correlation that parallels that of the current government reporting network.

Detectable Gases

- Carbon monoxide CO 1 – 1000ppm
- Nitrogen dioxide NO2 0.05 – 10ppm
- Ethanol C2H6OH 10 – 500ppm
- Hydrogen H2 1 – 1000ppm
- Ammonia NH3 1 – 500ppm
- Methane CH4 >1000ppm
- Propane C3H8 >1000ppm
- Iso-butane C4H10 >1000ppm

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*“We all have a role to play in **improving air quality across Wales**, and through working together, we can build upon it and work together to deliver for future generations. Let’s make 2021 the fresh start Wales needs”*

Joseph Carter, Chair of Healthy Air Cymru

THINKAIR

Sensor Datasheet

Modular potential for simple expansion of sensing capabilities.

The Think Air Node has controlled air sampling.

Low power environmental optimization on all configurations.

PARTICULATES

PM 1	Range (PM2.5 standard value) 1~500µg/ m ³ (Effective range) 1000 µg/ m ³ (Maximum range)
PM 2.5	
PM 10	

ENVIRONMENTAL

Temperature	±0.1 °C
Humidity	±1.5 %RH

NO2

CE Sensitivity nA/ppm at 2ppm NO2	-200 to -650
Response time t90 (s) from zero to 2ppm NO2	< 80
Zero current nA in zero air at 20°C	-80 to +80
Noise* ±2 standard deviations (ppb equivalent)	15
Range ppm NO2 limit of performance warranty	20
Linearity ppb error at full scale, linear at zero and 20ppm NO2	< ±0.5
Overgas limit maximum ppm for stable response to gas pulse	50

Evaluated vs the highest tier of monitoring network (AURN) 90%+ correlation

* Tested with Alphasense ISB low noise circuit

Zero drift ppb equivalent change/year in lab air	0 to 20
Sensitivity drift % change/year in lab air, monthly test	-20 to -40
Operating life months until 50% original signal (24m warranted)	> 24

Evaluated in our own Think Air testing facilities.

Live ongoing evaluation and drift predictive analysis vs numerous Copernicus ensemble models and satellite data.

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Live data Think Air Dashboards

COMPATIBLE WITH



Access your data from anywhere, all data is collected by our Think Air cloud based analytics database and visualised in easy to understand dashboards.

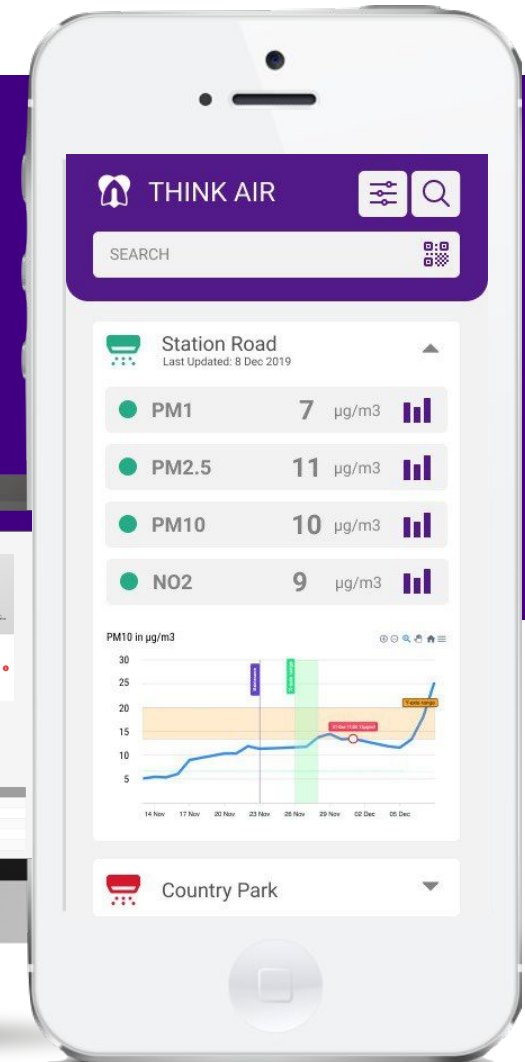
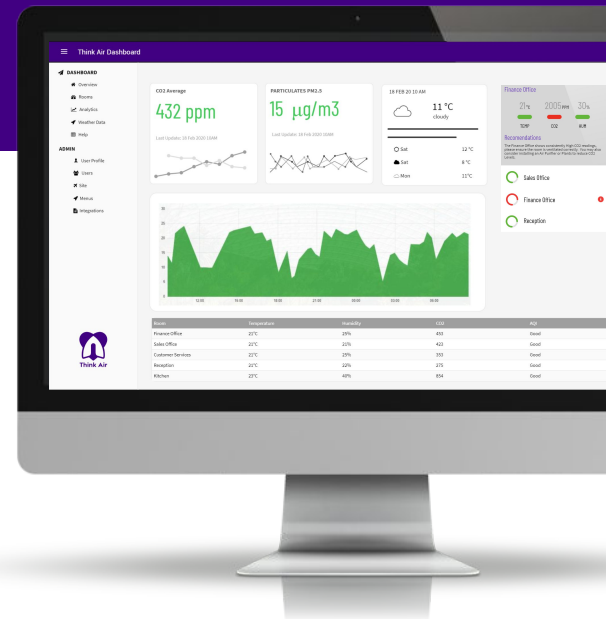
Reports and charts are simple to export to PDF or Excel.

The entire platform is responsive for complete mobile access on Windows, IOS and Android.



OPTIONAL TRIGGERS AND NOTIFICATIONS

- Email or Text alerts
- **Integrations in to Third Party software**
- Mobile Push notifications
- Desktop notifications
- Digital Signage Integration (Vindishow)



Thank you

About **Think Air**

Think Air is a collaboration between Vindico, an established Innovation company and Professor Paul Lewis who sits on government advisory panels and committees advising on air pollution and the impacts on health

Vindico have installations in Town Centres, Attractions and in Transport to promote poor air quality awareness and together with Paul have created a new suite of sensors for a variety of environments, all with live communication to the Think Air cloud based platform.

Made in Wales.

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