Vape Guardian



The end-to-end solution for vape detection, drug detection and air quality reporting.

2026

vapeguardian.sg

Takes air readings every second

Monitoring

Readings referenced against formulas

Checking



Something detected? An alert is sent

Alerts

The device securely sends air-quality data to the Vape Guardian Cloud, where it's analysed against detection models for vaping, THC and other signals. Readings are then cross-checked against common confounders, like aerosols and cleaning products, to minimise false alarms before alerts are issued.

How It Works

1) Multi-sensor array samples the air every second and pre-filters noise.

2) Readings are encrypted and sent via Wi-Fi / 4G / PoE to the Vape Guardian Cloud.

3) Models compare patterns to vaping/THC/Spice profiles and estimate confidence.

4) Signals are cross-checked against confounders (e.g., aerosols/cleaners) to reduce false alarms.

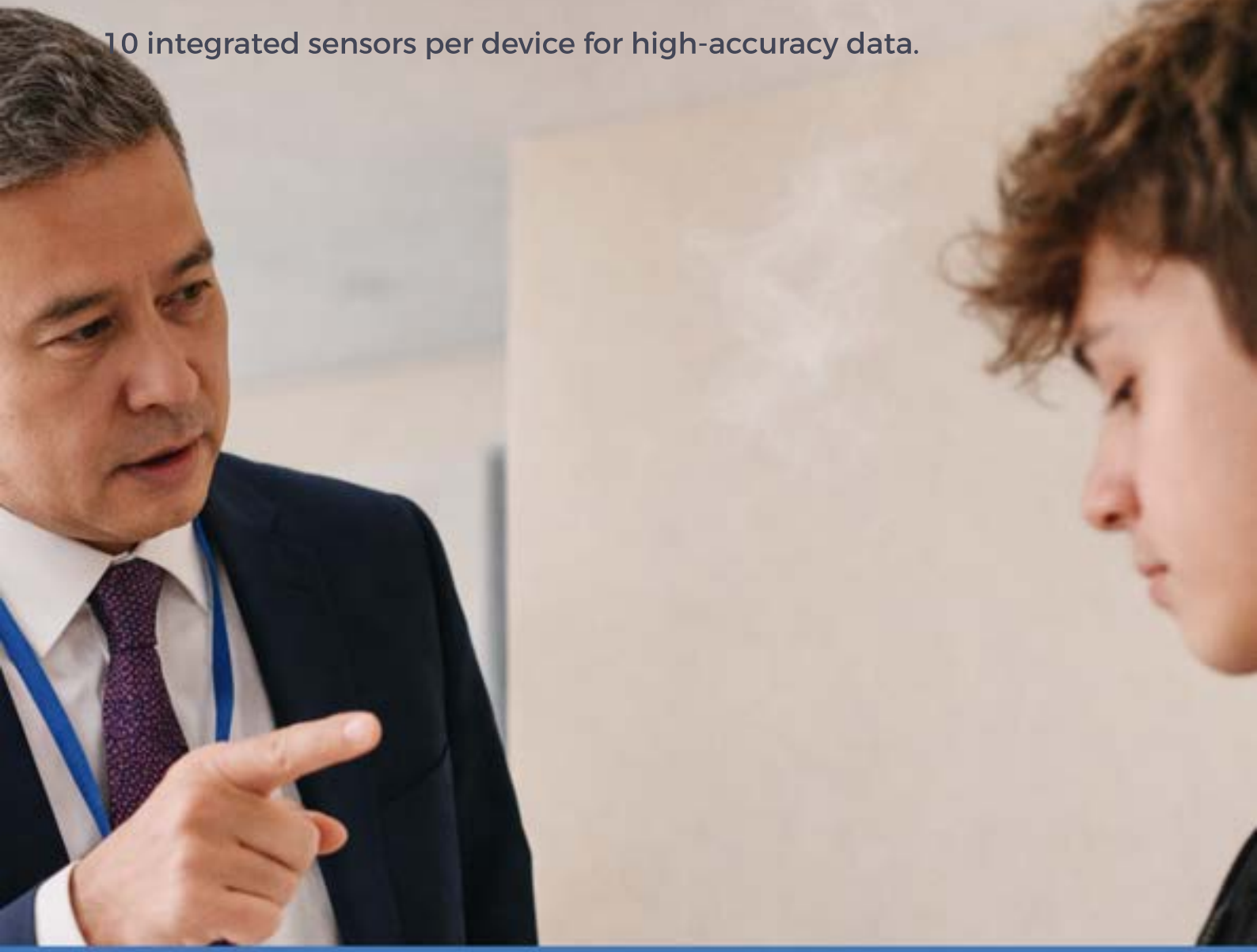
5) If thresholds are met, an event is created and alerts are routed by room, role, and schedule (app / SMS / email / web).

6) Events feed dashboards and weekly/monthly reports; outcomes improve detection over time.

Detection

VAPING | THC | SPICE | OVER-OCCUPANCY | NOISE | AIR-QUALITY REPORTS

10 integrated sensors per device for high-accuracy data.



Industry leading accuracy backed by PhD research

THC
Custom alerts

Vaping
>95% acuracy

Spice
Likelihood of presence

Over-Occupancy
Too many people in a confined space

Noise
Sudden loud noises such as screams

Air-Quality Reports
With actionable insights

Alerts

EMAIL | SMS | iOS | ANDROID | WEB-APP | ANDROID TV

Fast, reliable alerts. Delivered your way.

- Make sure the right people see the right alerts at the right time.
- Choose the channel: Each staff member receives alerts via their preferred medium.
- Targeted routing: Assign staff to specific rooms, sensors, or room groups.
- Smart scheduling: Send alerts only within chosen time windows.
- Integrations to existing systems such as BMSs and security systems.

Custom alert types for every team member: set who gets what, when, and how.

Vaping Alert now

Vaping detected in 'Girls Toilet' 'Stall 1' at 11.21am on June 10th 2025

THC Alert now

THC use detected in 'Girls Toilet' 'Stall 1' at 11.30am on June 11th 2025

Over-Occupoancy Alert now

An unusually high number of people have been detected in 'Girls Toilet' 'Stall 1' at 9.41am on June 11th 2025

"Spice" Alert now

A high likelihood of Spice use has been detected in 'Girls Toilet' 'Stall 1' at 2.31pm on June 13th

Device Tampering Alert now

The device 'Stall 1' in 'Girls Toilet' is showing as offline at 2.31pm on June 13th 2025

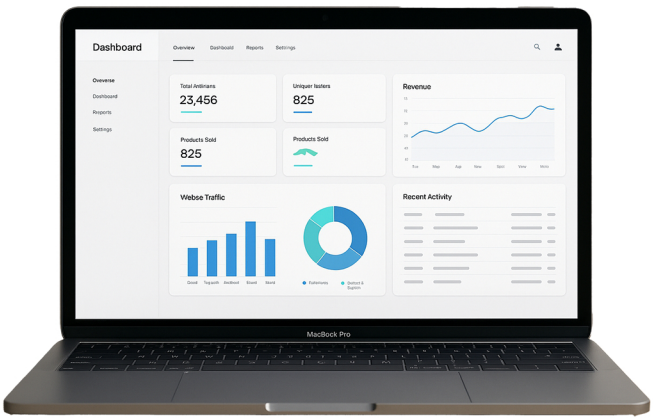


Pictured are iOS Push Notifications

Software Suite

Work your way
Native apps for macOS and Windows, plus intuitive mobile apps for on-the-go management and use.





iOS & Android apps for quick sensor onboarding, end-to-end system and staff management, and instant alerts - wherever you are.

Access reports and analytics from any browser - no installs required - through the Vape Guardian web app.



Reports

Alerts can pile up fast. Our reporting distils the signal from the noise so you see what matters. And what to do next.

- **Flexible delivery:**
  Delivered daily, weekly, or monthly
- **At-a-glance summaries:**
  Clear overview of alert trends and hotspots
- **Actionable guidance:**
  AI-generated recommendations to tackle issues
- **Deep dive logs:**
  Filter by room, device, time, reading type, and more
- **Connected context:**
  Link alerts with other Building Management System features (e.g., CCTV)

Result: fewer distractions, faster decisions, better outcomes.

Example Report





Total Incidents (last week)

35

19 vaping
13 THC
3 over-occupancy

Response Rate

15.6%

5 incidents were marked as attended

Hotspot Insight

Peak Risk

Girls' Bathroom, Second Floor
Highest activity window: 13:00-14:00 on Tuesday

Reccomendation

Asign a staff member to the Girls' Bathroom on the Second Floor between 13:00-14:00 next Tueaday.
This time bound presence is predicted to deliver the greatest reduction in incidents with the least staffing impact

Smart system and expert intervention to **reduce false alerts**

Deoderants, cleaning products, antipersirapnts and more..

Algorithm

Each positive detection is analysed by our multi-stage classifier against a library of aerosol signatures known to cause false alarms. If the pattern matches a non-vape source, no alert is triggered or incident registered.



Manual Monitoring & interventions

To maximise accuracy, the Vape Guardian team conducts manual reviews on selected accounts, cross-checking alerts against in-app acknowledgements. If any discrepancies are found, we investigate and make the necessary adjustments.



False Alerts

Education

Schools urgently need effective solutions. In partnership with thousands of educators, Vape Guardian has been developed beyond pure technology to tackle the issue end-to-end.

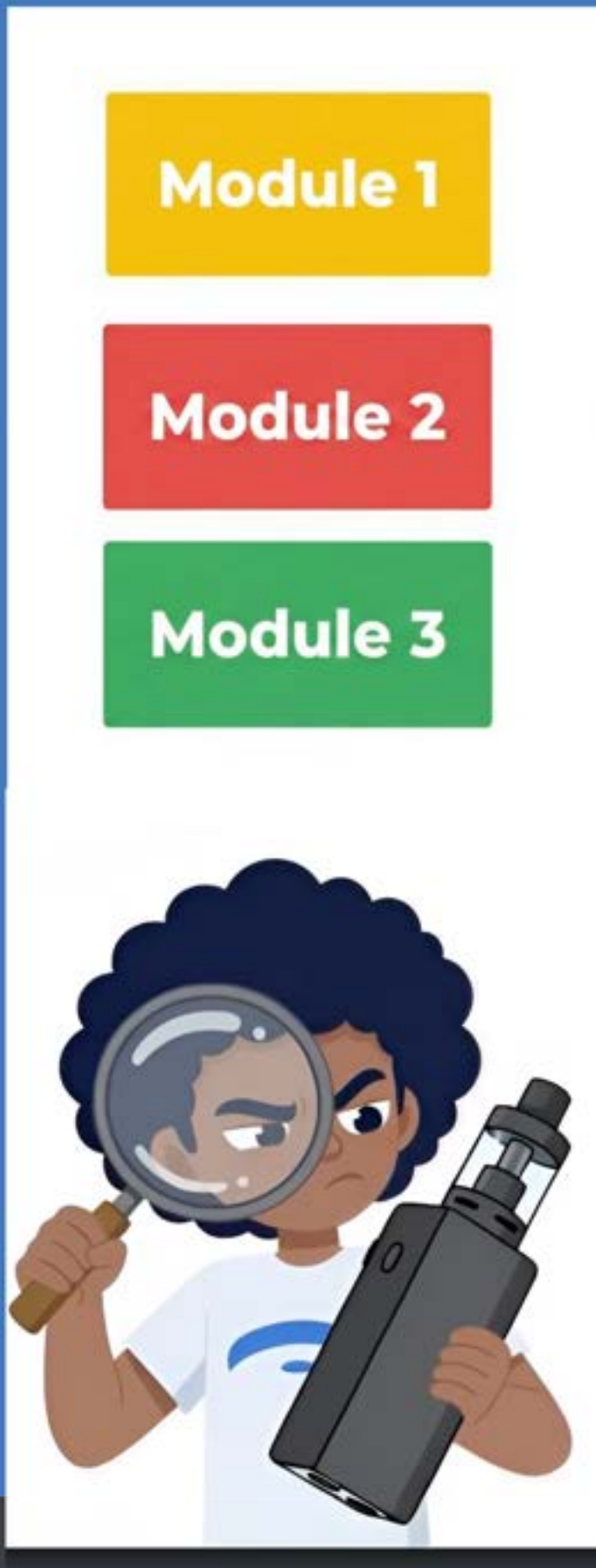
- **vapeguardian.education**
  A video course for students found to be vaping. Teaching them about the negative effects of vaping, addiction, marketing and more. All designed to discourage future vaping.

- **Safeguarding Materials:**
  In the absence of DfE guidance, we provide clear guidelines and tracking tools, including best practice, a tiered discipline framework, and incident logging.

- **Awareness:**
  On-campus posters and digital assets, plus emails and shareable content for stakeholders explaining the system, why it's used, and how it works.

- **Effective:**
  Proven impact: participating schools report up to a 94% reduction in vaping incidents within five weeks of installation.

To access the materials contact the team and they'll provide you with a link and login information for access to the most up-to-date materials.



Powered Over Ethernet

Smart Sensor

POE + WiFi / Mains Backup
Primary Ethernet connectivity with IEEE 802.3af PoE (12V adapter fallback) and robust 2.4 GHz Wi-Fi backup.

Rock-solid uptime
PoE ensures stable power (UPS-ready at the switch) for continuous monitoring and instant alerts.

Detects
vaping, THC, Spice, over-occupancy, and loud noises; alerts via SMS, email, mobile app, or web app.

Air-quality insights
In-app or email reports with advice to improve or maintain a healthy environment.

Dimensions
19x19cm and 3.5-4.5cm height, depending on mount



Privacy first | Encrypted Alerts | Nothing recorded | No Audio or Video

4G SIMLINK

Smart Sensor



4G SIM card installed
Supplying ease in set-up and signal reliability using NB-IoT.

Real-time detection & alerts:
Vaping, THC, Spice, loud noise, and over-occupancy, with alerts via SMS, email, mobile app, or web—delivered within seconds.

Fast Installation
Install in minutes with a slide-to-lock mount.

Connectivity
Add to your account via the desktop (PC & MacOS) app and set up in-app - iOS & Android. Step-by-step video training proivided online and support from our UK based team.

Direct Power
Each sensor is proivided with a 2-pin terminal block connector (and mains plug). Great for linking with existing power when installing. Low-voltage DC power input (supports 18-24 AWG wire).

On-going Costs
A monthly fee applies per sensor to cover cellular data usage (SIM) for transmitting readings to the Vape Guardian system and for receiving alerts.

Dimensions
14.5x14.5cm and 3.5-4.0cm in height, depending on mount.

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WiFi

Smart Sensor

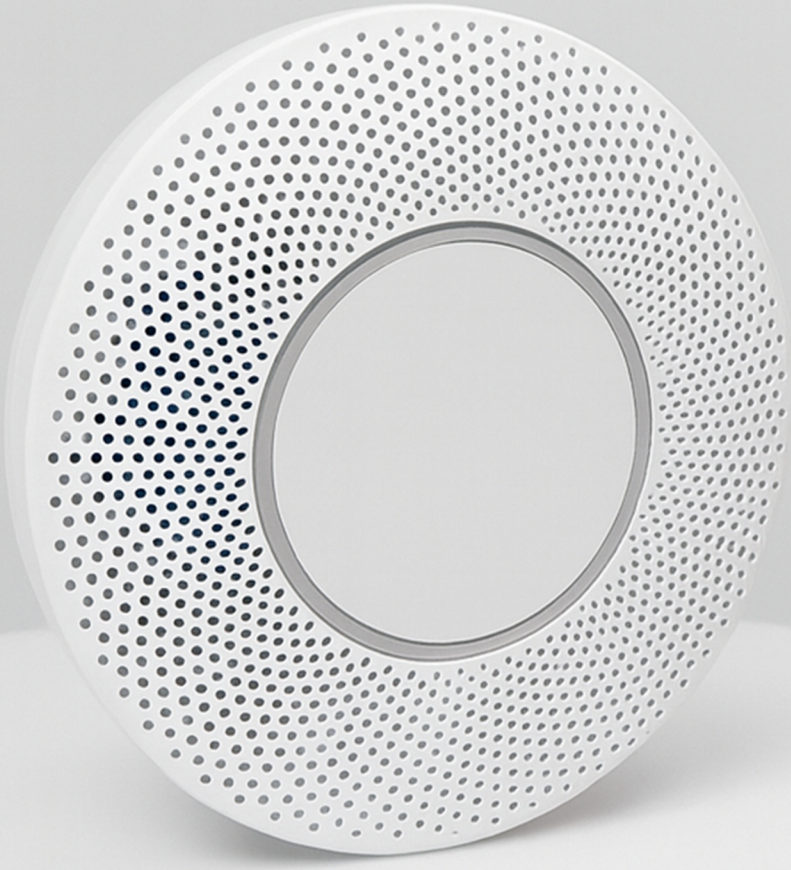
2.4GhZ Wifi
Perfect for reliable, long-range connectivity on existing networks.

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Power

Wi-Fi and 4G models are powered via the included mains power block (plug supplied). The PoE model draws power over Ethernet (802.3af) for a single-cable install, with an optional 12 V mains backup for resilience.

Hardware

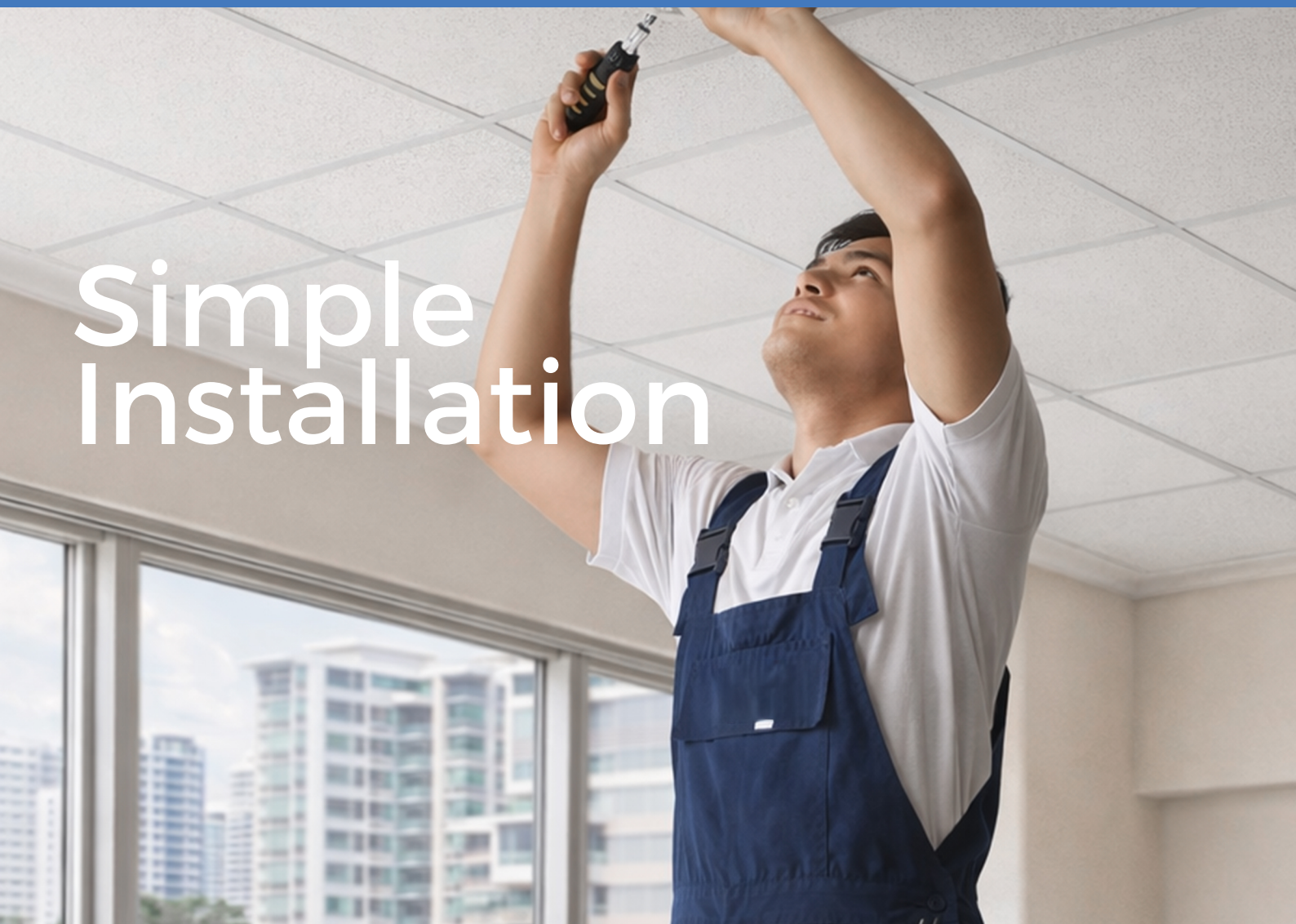
Mount the ceiling bracket with two screws, then slide the device onto the bracket until it clicks securely into place. The unit sits flush to the surface with all cabling concealed - no visible wires, clean finish.

Connectivity

Choose the connectivity that fits your site: Wi-Fi for quick drop-ins, 4G for locations without network access, or PoE for single-cable power and data (ideal for switch-side UPS resilience). Full connectivity specifications are provided in the datasheet.

Training & Support

Setup and training are available online with step-by-step video guides. Our UK support team is always on hand, and we can connect you with a trusted nationwide network of installers across the UK.



Simple Installation