



AirWits PM Datasheet

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Australia - New Zealand - Hong Kong - Macau

www.thinxtra.com


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Connected AirWits PM

RC1, RC2, RC4, RC7

 Battery Included  Particulate Matter Monitoring  Temperature  Humidity  Sigfox Bidirectional Communication

The Connected AirWits PM is a particulate matter (PM), temperature and humidity measuring device to monitor air quality remotely. The device sends the measurement data in configurable time intervals (typically every 30 min) through the Sigfox OG network.

- Measures and sends the particulate matter mass concentrations PM1.0, PM 2.5 and PM10 as $\mu\text{g}/\text{m}^3$ plus temperature and humidity data, every 30 minutes,
- Measurement interval can be configured remotely via the network from 10 minutes to 24 hours,
- Sigfox Single-zone capable (RC1, RC2, RC4 & RC7),
- Particulate matter range: 0 ~ 1000 $\mu\text{g}/\text{m}^3$,
- Temperature range: 0 ~ 60 °C,
- Humidity range: 0 ~ 95 %,
- 5 years battery with 30 minute measurement interval,
- Simple installation, no special tools required,
- Maintenance-free (plug n play),
- Ultra low cost, powerful, accurate,
- Warranty 1 year



Manufactured by
**Connected
Inventions**



Mounting Bracket and pre-cut 3M tape Included (Mounting screws not included)

Applications



Indoor
Environment
monitoring



Indoor
particulate
matter
monitoring



Indoor
temperature
monitoring



Indoor
humidity
monitoring



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<https://thinXtra.com/connected-airwits-pm/>

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Mechanical Specifications

Housing	ABS plastic
IP rating	IP20 - For indoor use only
Operating Temperature	0°C to +60°C
Dimensions	100 x 100 x 33 mm
Weight	248 g (including batteries)
Mounting Options	Wall mount plate & 3M Tape included (Screw not included, 'A2 Self-Tapping Screw' is recommended)
Labelling	External Label - QR code and text

Components & Sensors

Sigfox Transceiver	Single-region RC1,2,4, 7 - Bi-directional comms - Class 0u
Sigfox Antenna	Internal helical antenna
Power switch	Power device on and off via discreet micro switch
Particulate Matter Sensor	Sensirion SPS30 Range: 0 ... 1,000 µg/m ³ Accuracy: ±10µg/m ³ (between 0-100µg/m ³) or ±10% (between 100-1,000µg/m ³)
Temperature Sensor	Sensirion SHTC3 Range: 0 to 60 °C Accuracy: 0.2 °C / 3 %
Humidity Sensor	Sensirion SHTC3 Range: 0 to 95 % Accuracy: 2 %

Battery

Battery type	Battery pack consisting of 1x D size Lithium-Thionyl Chloride (Li-SOCI ₂) 3.6V
Quantity per device	1 battery pack
Replaceable	Yes - Contact Thinextra
Included with device	Yes, pre-installed
Battery capacity	19,000 mAh
Battery life	5 years
Battery life assumptions	30 minute measurement interval

Device Functionality

Data Communicated in each message	PM10 - Particles with a diameter of 10 micrometres or less, PM2.5 - Particles with a diameter of 2.5 micrometres or less, PM1.0 - Particles with a diameter of 1.0 micrometres or less, Current temperature in °C, Current humidity in %.
Sensor Measurement Interval	Configurable from 10 minutes to 24 hours.
Configuration update	Device requests new settings approximately every 24 hours via a Sigfox downlink
Adaptive Power Control	If the adaptive power control feature is activated, the device will automatically adjust the transmit power to the optimum level to save battery and create less unnecessary interference to radio network. Note: Adaptive power control feature is available only in RC1 device

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