

iAQ Pro -D

Duct mount indoor air quality monitor¹



Applications

Real time in-HVAC-duct monitoring of 16 different air quality indicators– particulate matter, CO2, volatile organic compounds, humidity, temperature, filter pressure drop, duct air velocity

Key Features

- ZERO setup - hybrid Power Line + RF communications for a truly plug and play installation.
- Fully factory calibrated sensors with a guaranteed 10-year operation.
- [MCERTS certified](#) measurement of PM1.0, PM2.5, PM4 and PM10.
- Non NDIR / calibration free CO2 sensor.
- High sensitivity VOC sensor with a low-level limit of 0.05ppm.
- High sensitivity pressure sensor for precise filter pressure drop monitoring.

Technical

Particulate Matter	<ul style="list-style-type: none">▪ Both Mass concentration ($\mu\text{g}/\text{m}^3$) and number concentration outputs▪ Particle detection sizes: PM0.5 (number concentration only), PM0.5, PM1.0, PM2.5 and PM10▪ UK environment agency MCERT certified sensor▪ Measurement range of 1 to 1000 $\mu\text{g}/\text{m}^3$. Lower limit of detection is 0.3μm.▪ Measurement resolution of 1 $\mu\text{g}/\text{m}^3$▪ Measurement precision $\pm 10 \mu\text{g}/\text{m}^3$ from 0 to 100$\mu\text{g}/\text{m}^3$, $\pm 10\%$ from 100 to 1000 $\mu\text{g}/\text{m}^3$▪ Lifetime > 10 years with 24h/day operation
CO2	<ul style="list-style-type: none">▪ Measurement range of 400 to 5000 ppm▪ Accuracy of ± 40 ppm + 5% of reading▪ Non NDIR measurement of CO2
VOC	<ul style="list-style-type: none">▪ Measurement range of 0 to 1000 ppm of ethanol equivalents▪ Limit of detection: < 0.05 ppm or ethanol equivalents or <10% of concentration setpoint (larger of the two)▪ Lifetime of over 10 years of continuous operation
Humidity	<ul style="list-style-type: none">▪ Accuracy of $\pm 1.8\%$ RH▪ Temperature accuracy of $\pm 0.2^\circ\text{C}$▪ Operating range of 0 – 100% RH▪ Response time of 6 sec (tau63%)
Temperature	<ul style="list-style-type: none">▪ Accuracy of $\pm 0.2^\circ\text{C}$▪ Measurement range of 0 to 90 $^\circ\text{C}$▪ Response time of 2 sec (tau63%)
Pressure	<ul style="list-style-type: none">▪ Pressure differential across the duct filter for monitoring filter performance▪ Accuracy of ± 2 milli bar▪ Range of 0 to 2000 milli bar
Air Velocity	<ul style="list-style-type: none">▪ Differential pressure technique for monitoring air velocity in the duct▪ Multiple ranges from 0.1 to 20m/s▪ Precision $\pm 0.2\%$ of FS
Optional	<ul style="list-style-type: none">▪ Current sensors for power monitoring of compressor and blower motors using split core transformers▪ UV sensor for monitoring disinfectant systems installed in the duct
NETWORK	<ul style="list-style-type: none">▪ Hybrid Power Line + RF technology allowing truly ZERO field configuration installs▪ All PLAN sensors are fully compatible with the PLAN Powerline network and can communicate with pre-existing PLAN gateways with ZERO field configuration▪ Optional factory installed Cellular modem for installs where suitable neutral wiring is not present; typically, the case with large older roof top units.
Mechanical & Power	<ul style="list-style-type: none">▪ 80 to 220VAC, 50/60Hz, 2W. IEC 2 pin power cord included▪ Duct mount enclosure 7.20" x 4.54" x 4.12"

¹ PLAN improves products continuously. Product pictures and specifications shown here are subject to change without notice.