Product & Services Data Sheets

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IMS102/IMS202 Information Management System

The Information Management System (IMS) runs the IMS service that sequences the Air Data Routers (ADR) to route the air packets from individual test areas to the Sensor Suite (SST) where it is sampled and measurements recorded. Data from the ADR and SST is uploaded to the IMS. With a BACnet® interface, the IMS also serves as the integration hub for data from the Building Automation System (BAS) and any independent ventilation control system. This data is incorporated in the desired room-level control strategy, and collected, merged with ADR and SST data, and uploaded to MyAircuity.com.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e6652cad121c9d7a658501/n/Aircuity_ProductDataSheet_InformationManagementSystem-IMS.pdf)

RS200 Room Probe

The Room Probe (RS) is designed with a semi-flush mounted cover that can be optionally painted to match the interior room finishes. The RS interfaces with the Air Data Router (ADR) for room level sensing of a multitude of environmental parameters including discrete temperature, and for drawing air samples back to the Sensor Suite (SST). The sensor configuration of the SST and the installed Cable/Tubing will determine which parameters the Aircuity system will detect. Refer to the OSC Structured Cable (OSC100) and OT Tubing (OT100) data sheets for a guide to selecting the appropriate options.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59a86191ec161cea55a5f459/n/roomprobe-rs.pdf)

AWP200 Architectural Wall Probe

The Architectural Wall Probe (AWP) is designed with an architecturally pleasing semi-flush mounted cover and interfaces with the Air Data Router (ADR) for room level sensing of a multitude of environmental parameters (excluding temperature), and for drawing air samples back to the Sensor Suite (SST). The sensor configuration of the SST and the installed Cable/Tubing will determine which parameters the Aircuity system will detect. Refer to the MicroDuct® Tubing (MD100), OSC Structured Cable (OSC100) and OT Tubing (OT100) data sheets for a guide to selecting the appropriate options.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/5cfbfc1bec161cde234cfa23/n/architecturalwallprobe-awp.pdf)

DPB200 Duct Probe

The Duct Probe (DPB) can be mounted directly on a duct or in an outdoor environment and interfaces with the Air Data

Router (ADR) for sensing a multitude of environmental parameters including discrete temperature, and for drawing air samples back to the Sensor Suite (SST). The sensor configuration of the SST and the installed Cable/Tubing will determine which parameters the Aircuity system will detect. Refer to the MicroDuct® Tubing (MD100), OSC Structured Cable (OSC100), and OT Tubing (OT100) data sheets for a guide to selecting the appropriate options.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/67e1a089c9c4762e720b7e8d/n/ductprobe-dpb200-2025-01.pdf)

DPB300 Duct Probe

The 300 series Duct Probe (DPB300) can be mounted directly on a duct and interfaces with the Air Data Router (ADR) for drawing air samples back to the Sensor Suite (SST). The sensor configuration of the SST and the installed Cable/Tubing will determine which parameters the Aircuity system will detect. Refer to the MicroDuct® Tubing (MD100), OSC Structured Cable (OSC100), and OT Tubing (OT100) data sheets for a guide to selecting the appropriate options.

Please note: Platinum Resistance Temperature Detector not available on DPB300 series. Refer to DPB200 for temperature options.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/67e1a138c9c4762e720b8132/n/ductprobe-dpb300-2025-01.pdf)

OSC100 Structured Cable

The OSC Structured Cable (OSC) is composed of a hollow inner tube used to transport air sample packets, interlaced low voltage power and data communications conductors, and a protective outer sheath. It isprimarily used between the Sensor Suite (SST) and its associated Air Data Routers (ADR) as the backbone for the Aircuity System and can also be used between the ADR and any test area location. The inner tube, known as MicroDuct®, is a technology breakthrough composed of a fluoropolymer resin and carbon nanotube blend. The patented design ensures the air sample packets remain uncontaminated and unrestricted as they travel throughout the Aircuity System. The MicroDuct is used for environments where carbon monoxide (CO), carbon dioxide (CO2), total volatile organic compounds (TVOCs), particle counts, and dewpoint may be monitored. The low voltage conductors allow discrete dry bulb temperature readings to be taken at the test area location in conjunction with an Aircuity probe having a resistance temperature detector (RTD). Without an RTD, calculated points including relative humidity and enthalpy are not available.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/67d9cf2922c293b3fa09e2fd/n/oscstructured-cable-osc100-2025-01.pdf)

MD100 MicroDuct Tubing

The MicroDuct Tubing (MD) is a technology breakthrough composed of a fluoropolymer resin and carbon nanotube blend used to transport air sample packets from the test area location back to the Air Data Router (ADR). This tubing provides a cost-effective solution for environments where carbon monoxide (CO), carbon dioxide (CO2), total volatile organic compounds (TVOC), particle counts, and dewpoint may be monitored. The absence of interlaced low voltage conductors does not allow discrete dry bulb temperature readings to be taken at the test area location. Therefore, calculated points including relative humidity and enthalpy are not available. Also, the lack of data communication and low voltage conductors makes MD not suitable for use as an alternative to OSC Structured Cable between the Sensor Suite and ADRs.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/67e543762ecd7ae6ff05d553/n/mdtubing-md100-2025-01.pdf)

OT100 OT Tubing

The OT Tubing (OT) is used to transport air sample packets from the test area location back to the Air Data Router (ADR). This tubing is dimensionally stable to allow for reliable use of push-to-connect fittings, is plenum rated, and can be installed in accordance with NFPA, Standard 90A. The tubing provides a cost-effective solution for environments where carbon monoxide (CO) and/or carbon dioxide (CO2) levels are being monitored. The characteristics of the OT Tubing make it inappropriate for accurately measuring total volatile organic compounds (TVOC), particle counts, and dewpoint. The absence of interlaced low voltage conductors does not allow discrete temperature readings to be taken at the test area location.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/67e54fe86b21eebf9209f473/n/ottubing-ot100-2025-01.pdf)

ADR504 Air Data Router

The Air Data Router (ADR) provides the means of routing air sample packets and temperature data from the desired test location back to the Sensor Suite (SST) for measurement. The SST and associated ADRs are connected via a backbone consisting of OSC Structured Cable (OSC). The ADR and its four individual test area locations can be connected via OSC, OT Tubing, or MicroDuct® depending on the application. Refer to the individual product data sheets OSC100, OT100, & MD100 for more information. Optional hardwired expansion modules allow for monitoring, signaling, and data collection of located HVAC equipment.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e62db56e121c1b353b66ca/n/airdatarouter-adr.pdf)

SST750 Sensor Suite

The Sensor Suite (SST) is built on a scalable architecture to accept a variety of sensors for multipoint sampling of a host of indoor environmental parameters. The sensor suite affords distributed, multiplexed based sensing of the monitored areas by automating the collection of real time, area specific data received from Air Data Routers. A shared sensor platform minimizes calibration and maintenance costs while maximizing potential energy savings.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e62dbbad121c526c6583cf/n/sensorsuite-sst.pdf)

SSSOVR Sensors Overview

Sensor Suite Sensors (SENs) are located within a Sensor Suite and they evaluate an array of environmental conditions using a shared sensor architecture. A range of sensors are available to measure: carbon dioxide (CO2), carbon monoxide (CO), dewpoint temperature, total volatile organic compounds (TVOCs) and airborne particulates.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/5907e3db8e121c904754984d/n/sensor-suite-sensors-overview-sssovr.pdf)

SSSCO2 Sensor Suite Sensors: Carbon Dioxide

Sensor Suite Sensors enable the Aircuity system to cost effectively monitor and control a breadth of environmental parameters throughout a facility. Located within a Sensor Suite, the sensors evaluate an array of environmental conditions using a shared sensing architecture. In lieu of locating individual discrete sensors in each space, the Aircuity system gathers air samples from the spaces and multiplexes them across the Aircuity network back to the Sensor Suite for analysis.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e65250ec161cfc69250fd1/n/carbondioxide-sssco2.pdf)

SSSDPT Sensor Suite Sensors: Dewpoint Temperature

Sensor Suite Sensors enable the Aircuity system to cost effectively monitor and control a breadth of environmental parameters throughout a facility. Located within a Sensor Suite, the sensors evaluate an array of environmental conditions using a shared sensing architecture. In lieu of locating individual discrete sensors in each space, the Aircuity system gathers air samples from the spaces and multiplexes them across the Aircuity network back to the Sensor Suite for analysis.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e652538e121cec7c955491/n/dewpointtemperature-sssdpt.pdf)

SSSPAR Airborne Particulates

Sensor Suite Sensors enable the Aircuity system to cost effectively monitor and control a breadth of environmental parameters throughout a facility. Located within a Sensor Suite, the sensors evaluate an array of environmental conditions using a shared sensing architecture. In lieu of locating individual discrete sensors in each space, the Aircuity system gathers air samples from the spaces and multiplexes them across the Aircuity network back to the Sensor Suite for analysis.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e6524e8e121cca7c9554eb/n/airborneparticulates-ssspar.pdf)

SSSTVOC Sensor Suite Sensors: Total Volatile Organic Compounds

Sensor Suite Sensors enable the Aircuity system to cost effectively monitor and control a breadth of environmental parameters throughout a facility. Located within a Sensor Suite, the sensors evaluate an array of environmental conditions using a shared sensing architecture. In lieu of locating individual discrete sensors in each space, the Aircuity system gathers air samples from the spaces and multiplexes them across the Aircuity network back to the Sensor Suite for analysis.

Download the Data Sheet
(https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e660bf6e121cb9453b64d7/n/totalvolatileorganiccompounds-ssstvc.pdf)

SSSCOM Sensor Suite Sensors: Carbon Monoxide

Sensor Suite Sensors enable the Aircuity system to cost effectively monitor and control a breadth of environmental parameters throughout a facility. Located within a Sensor Suite, the sensors evaluate an array of environmental conditions using a shared sensing architecture. In lieu of locating individual discrete sensors in each space, the Aircuity system gathers air samples from the spaces and multiplexes them across the Aircuity network back to the Sensor Suite for analysis.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e652526e121cc6403b6588/n/carbonmonoxide-ssscom.pdf)

HFP100/HFP200 High Flow Vacuum Pump

The HFP series High Flow Vacuum Pump provides a continuous vacuum through the OSC Structured Cable communications backbone, and is provided with a bracket assembly, backup redundancy, and status notifications. The pump connects to the Sensor Suite (SST), which sequences air samples from the Air Data Routers (ADRs). Multiple areas can be monitored from the ADRs, and the routers can be networked as part of a larger distributed system.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59e66c57ec161ca475250e72/n/highflowvacuumpump-hfp.pdf)

XFM124/XFM224 Transformer

The Transformer (XFM) provides low voltage power to the SST Series Sensor Suite and Air Data Router. Through the OSC Structured Cable, low voltage power, in addition to communications and sensing, is distributed throughout the network – eliminating the need to install separate cabling systems for each function.

Download the Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/59ae15f0ad121cc53abd1675/n/transformer-xfm.pdf)

ASC Assurance Services Commitment

Aircuity's Assurance Services Commitment keeps your system functioning just as well as the day it was commissioned. Aircuity will handle system and sensor maintenance while you enjoy the measurably better environment and access to building performance data. With an active ASC, Aircuity will continuously deliver accurate ventilation for healthy, sustainable buildings.

Download the Services Data Sheet (https://dyzz9obi78pm5.cloudfront.net/app/image/id/66056cdf03be9d7b054b4165/n/assuranceservicescommitment-asc-2024-03.pdf)