

ADR504





Air Data Router



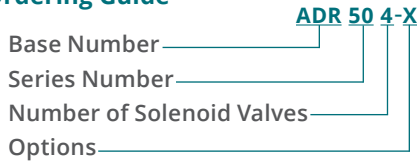
ADR504 Air Data Router

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.

Features

-  Up to 4 individual test areas can be monitored from each Air Data Router
-  Interfaces to a combination of discrete physical sensors & remote virtual sensors
-  Flexible input/output expansion capability for additional monitoring and interfacing to a BMS
-  Communicates via the Aircuity network connection to the SST

Ordering Guide



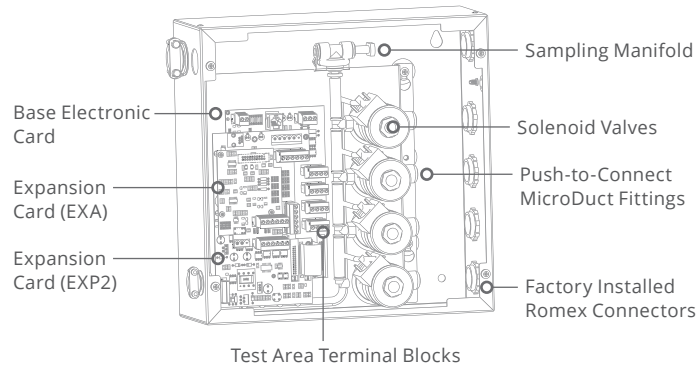
EXP2 Expansion Module Base Card: **4 Analog Outputs** (0–5 Vdc only), **4 Universal Inputs** (0–10 Vdc or 4–20 mA)
The add-on EXA expansion card provides additional inputs and outputs.

EXA Expansion Module Daughter Card (*requires EXP2 base card*): **4 Universal Outputs** (0–10 Vdc or 4–20 mA), **4 Universal Inputs** (0–10 Vdc or 4–20 mA)
Each output can be assigned to represent “virtual” outputs (i.e. a CO2 signal to the BMS for demand control ventilation).

Blank No options

ADR504

- Compatible with OSC100, MD100, and OT100 Tubing (with OT-E11 adapter)
- Designed for all applications



Specifications

Mechanical

Operating Environment:

40°–120°F (4.4°–49°C),
0–90% RH (non-condensing)

Enclosure Size:

ADR504: 12.125"H x 12.125"W x 4.375"D
(30.80 H x 30.80 W x 11.11 D cm)

Weight:

ADR504: 15 lbs (6.80 kg)

Enclosure Type:

NEMA-1

Mounting: Surface mount

Solenoids: ADR supports

4 solenoids - 1 per test area, latching style

Electrical

Power: 24 Vac, ±15% 60 Hz

Power Consumption:

ADR: 4 VA

EXP2: 4 VA

EXA: 2 VA

Communications (subnet)

Interface: RS-485, non-isolated

Speed: 19.2K baud

Maximum Length: 500' per limb

Electrical: 22 AWG,
twisted-shielded pair, with drain wire
(included within OSC100)

Connections

Power: 2-position, pluggable screw terminal

Inputs/Outputs:

ADR: 4-position, pluggable screw terminal

EXP2: 6-position, pluggable screw terminal

EXA: 6-position, pluggable screw terminal

Vacuum:

SST to ADR Backbone: OSC100,
push-to-connect fitting

ADR504 to Area Being Sampled:

Tubing: Compatible with all Aircoity
Structured Cable/Tubing (OSC100
MD100/OT100*) excluding vacuum
pump system tubing.

*OT100 requires OT-E11, must be
purchased separately

Communications:

Aircuity Network: 3-position, pluggable
screw terminal

Service Port: Female RJ11 jack, RS-232

Optional Expansion Modules

EXP2 Base Card: Provides galvanic
isolation, power, and signal processing
for I/O expansion. The Base Card
includes four (4) analog outputs
(0–5 Vdc only), and four (4) universal
inputs (0–10 Vdc or 4–20 mA).

EXA Daughter Card (requires EXP2
Base Card): Designed to plug into the
EXP2 Base Card to provide four (4)
universal outputs (0–10 Vdc or 4–20 mA)
and four (4) additional universal inputs
(0–10 Vdc or 4–20 mA).

U.S. Patents

7,415,901; 7,389,704; 7,389,158;
7,360,461; 7,302,313; 7,216,556;
6,425,297; 6,252,689; 6,125,710
8,147,302 B2 and others pending

Regulatory Compliance

 UL916 Energy
Management Equipment

 Part 15 Class A

