



**OptiNet®**  
Optimizing Ventilation Performance



**FEATURES**

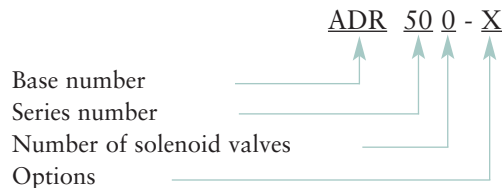
- Up to 4 individual test areas can be monitored from each Air Data Router
- Interfaces to a combination of discrete physical sensors, and remote virtual sensors
- Flexible input/output expansion capability for additional monitoring and interfacing to a Building Management System
- Communicates via the OptiNet® network connection to the SST700 Sensor Suite

**ADR500 Air Data Router**

The ADR500 Air Data Router provides distributed air and data packet routing of a host of environmental conditions throughout a facility. The Air Data Routers receive commands from the SST700 Sensor Suite to open the router's on-board solenoid valve for the test area to be monitored while simultaneously closing all the other solenoid valves in the system. Air "packets" are then drawn from the test area through the OptiNet structured cable back to the sensors within the Sensor Suite.

Multiple areas can be monitored from one Air Data Router, while routers can be networked as part of a larger distributed system. Point expansion capabilities at the Air Data Router are also available for interfacing with a Building Management System and other HVAC equipment.

**Ordering guide**



**Blank** = no options

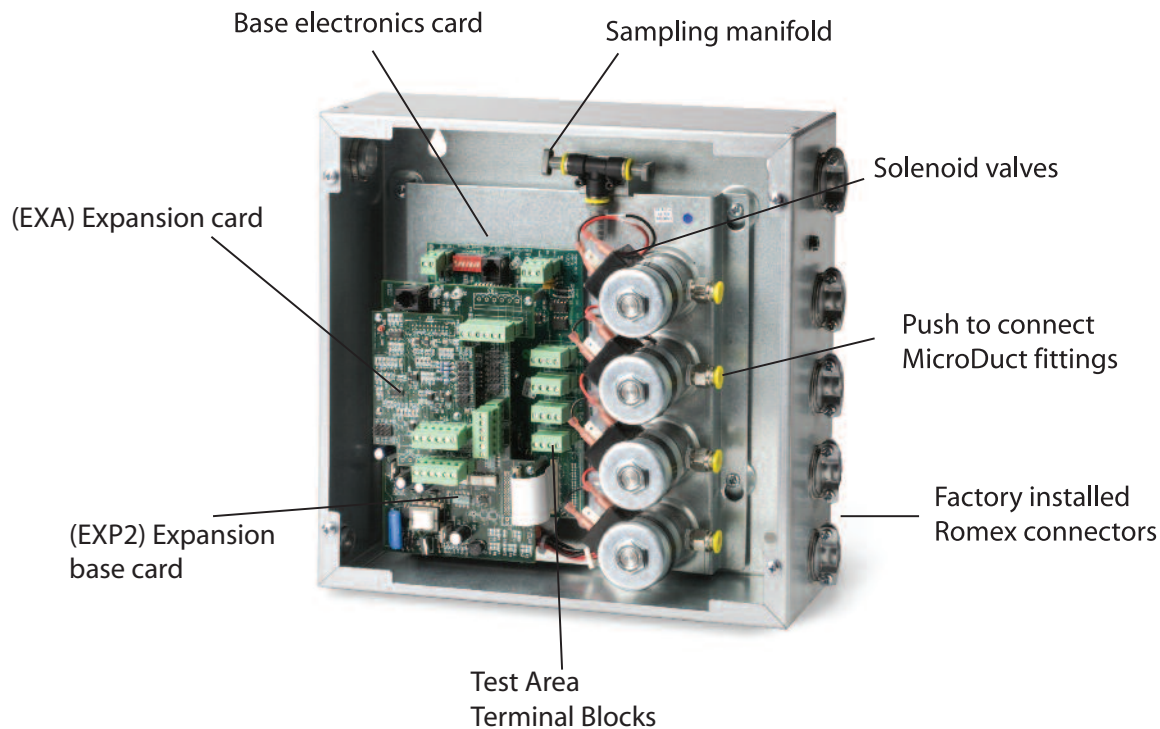
**Expansion Point Module**

**EXP2** = Base card - 4 network writable analog outputs (0-5Vdc), and 4 universal inputs (configuration options for 0-10Vdc, 4-20mA). The add-on EXA expansion card provides additional network writeable universal inputs and outputs.

**EXA** = Expansion card (requires base card) - 4 universal inputs (configuration options for 0-10Vdc, 4-20mA) and 4 network writable universal outputs (configuration options for 0-10Vdc, 4-20mA).

**Other**

**ZVL** = Zone valve kit includes solenoid valve, mounting hardware, wiring harness, and push to connect fittings to add one additional zone to an existing ADR500.



## SPECIFICATIONS

### Mechanical

**Operating environment:** 40° - 120°F (4.4° - 49°C), 0-90% RH (non-condensing)

**Size:** 12"H x 12"W x 4.5"D

**Weight:** 15 lbs.

**Enclosure type:** NEMA 1

**Mounting:** Wall mount

**Solenoids:** Each router supports up to 4 solenoids – 1 per test area, latching style

### Electrical

**Power:** 24Vac, ±15% 60 Hz

**Power consumption:**

ADR: 4VA

EXP2 Base Card: 4 VA

EXA Card: 2 VA

### Communications

**Network interface:** OptiNet RS-485

**Network speed:** 19.2K baud

**Network length:** 500 ft. standard

**Network media:** OptiNet structured cable with composite 22ga twisted shielded pair and internal MicroDuct®.

### Connections

**Power:** 2-position, pluggable screw terminal

**Inputs/Outputs:**

**ADR:** 4-position, pluggable screw terminal

**EXP2:** 6-position, pluggable screw terminals

**EXA:** 6-position, pluggable screw terminals

### Communications

**OptiNet:** 3-position, pluggable screw terminal connector

**MicroDuct:** Push-to-connect

**Service port:** Female RJ11 jack, RS-232

### Optional Expansion Point Module (EXP2):

- **Base card:** Provides galvanic isolation, power, and signal processing for I/O expansion. The Base Card includes four (4) network writeable analog outputs (0-5Vdc), and four (4) network readable universal inputs (UI configuration options 0-10Vdc/4-20mA).
- **EXA daughter card:** Designed to plug into the EXP2 base card to provide four (4) additional network readable universal inputs (0-10Vdc/4-20mA) and four (4) network writeable universal outputs (0-10Vdc/4-20mA).

### 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

### UL Listed

UL916 Energy Management Equipment