

AMS070V AIR MEASURING STATION CONTROLLER PACKAGE FOR USE WITH ALL CDRAMS, AMS AND AML SERIES MODELS WITH DAMPER

The AMS070V includes factory calibration and wiring of the controller, transformer and terminal strip in a painted NEMA1 electrical enclosure. The controller is an interoperable, LonMark® - compliant device. The package offers precise setpoint monitoring and adjustment for the models listed above. Units may also be used for flow validation and calibration. The controller accepts a 0-5 VDC input and provides a 4-20 mA CFM (l/s) output to communicate with the building automation system. It is programmed to be used in conjunction with either the LF24MFTF01 or AFB24MFTF01 actuator for accurate damper control.

CONTROLLER SPECIFICATIONS

CONTROLLER ENCLOSURE

Plenum-rated enclosure meets UL94-5V.

ELECTRICAL ENCLOSURE

12" x 12" x 6" (305 x 305 x 152) NEMA 1 (painted finish).

SUPPLY VOLTAGE

120/208/240 Vac, 50/60 Hz (24VAC secondary).

INPUT SIGNAL

0-5 VDC from BAS or other source.

OUTPUT SIGNAL

4-20 mA proportional to CFM (l/s).

UN-OCCUPIED SIGNAL

Dry contact by others (optional).

TRANSDUCER

Integral, self-calibrating flow sensor (differential pressure).

SURGE IMMUNITY COMPLIANCE

ANSI C62.41 (IEEE-587, Category A & B).

AGENCY LISTINGS

FCC, Class B and UL-916 (category PAZX).

OPERATING RANGE

32°F (0°C) to 131°F (55°C).

PROGRAM MEMORY

Nonvolatile EPROM.

VELOCITY PRESSURE INPUT

0.0 to 2.5 inches of water column (0.0 to 622 Pa).
0.01 to 2.00 inches of water column (0.0 to 498 Pa) (control).
±5% Accuracy @ 1.00 in. of W.C. (249 Pa) and 77°F (25° C).

FACTORY CONNECTIONS

24 Vac Leads - Factory wired to control panel.
Line voltage leads Factory wired to terminal strip.
Ground wire terminated at electrical enclosure.
High and Low pressure taps piped to controller.
Reference schematic (next page).

FIELD CONNECTIONS

Pipe from enclosure ports to AMS product ports
Wire from Actuator to Enclosure.
Tubing & Wire for Field connections by others.
Reference schematic (next page).

SCREW TERMINALS

Single AWG #14 wire (up to two AWG #18 or smaller wires).

TUBING CONNECTIONS

Brass barb fittings for .156" to .170" (3.96 to 4.32) I.D. tubing.
Limit length of tubing to five feet (1.5m).

Note: Dimensions shown in () indicate millimeters.



SPECIFICATION

Furnish and install, at locations shown on plans or as in accordance with schedules, an air measuring station controller with integral pressure transducer. The controller shall be plenum rated to meet UL94-5V and be factory installed in a painted NEMA 1 electrical enclosure. The controller surge immunity shall comply with ANSI C62.41 and the program memory shall be nonvolatile EPROM. The velocity pressure input range shall be 0.0 to 2.5 (0.0 to 622 Pa) inches of water column and control to 0.01 to 2.00 inches of water column (2.49 to 498 Pa). Unit shall control to within ±5% accuracy @ 1.00 inches (249 Pa) of water column and 77°F (25° C). All internal low voltage wiring and piping connections shall terminate in the NEMA 1 enclosure and shall be completed and tested at the factory. Control package shall be capable of receiving line voltage of 120 VAC or 240 VAC at a single point power connection internal to the enclosure. The control package shall be compatible with the air measuring station, control damper and actuator specified on the plans and shall be assembled into one turnkey solution by the same manufacturer. A 0-5 VDC input signal, from the BAS, shall result in the positioning of the damper actuator to maintain set point CFM (l/s) and yield a 4-20 mA output, to the BAS, that is proportional to the CFM (l/s).

Controller programmed exclusively for use with actuators noted as optional accessories.

ACCESSORIES

- LF24MFTF01 24VAC Electric Modulating Actuator (up to 6 sq. ft.) (0.56m²)
- AFB24MFTF01 24VAC Electric Modulating Actuator (up to 20 sq. ft.) (1.86m²) maximum 3 actuators per controller for use on dampers up to 60 sq. ft. (5.57m²).

OPTIONAL AMS070V CONTROLLER WIRING DETAILS

