

SERIES AVUL | AIR VELOCITY TRANSMITTER

FEATURES/BENEFITS

- Sensing elements have been coated with an engineered conformal coating to ensure durability and longevity
- 3% and 5% accuracy models are available to suit different application requirements
- Available with optional BACnet MS/TP or Modbus® Communication Protocol
- All models can be configured for current, voltage, or simultaneous current and voltage output, providing a universal connection to PLCs and monitoring equipment
- Onboard DIP switches allow users to quickly and easily install and configure the unit



- · Building ducts
- VAV systems
- · HVAC systems



The **SERIES AVUL** Air Velocity Transmitter quickly and accurately measures air velocity or volumetric flow in imperial or metric units. Simultaneous current and voltage outputs on all models provide universal inputs to monitoring equipment while the output range, units, and 0 to 5/10 VDC output can be configured via local DIP switches. The optional integral display, or the portable remote display tool, provide a convenient way to locally monitor process values and configure the unit.

Models are available in 3% and 5% accuracy models to suit a variety of needs, and the optional BACnet MS/TP or Modbus® RTU/ASCII communication protocol allows units to be daisy-chained while providing access to all of the velocity and flow data, as well as additional information such as air temperature.



SPECIFICATIONS

Service Clean air and non-combustible, compatible gases. Range 1000, 2000, 3000, 4000 FPM (5, 10, 15, 20 m/s; Field selectable. Accuracy ± (5% of reading +0.2 m/s) or ±(3% of reading +0.2 m/s) @ standard conditions, depending on model. Temperature Limits 32 to 122°F (0 to 50°C). Power Requirements 24 VDC ±20% or 24 VAC ±20%. Humidity Limits 5 to 95% RH, non-condensing. Output Signal 4 to 20 mA, 0 to 5 VC, 0 to 10 VDC. Response Time (90%) 10 seconds (typ). Zero & Span Adjustments Digital push buttons. Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2° NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).		
Accuracy ±(5% of reading +0.2 m/s) or ±(3% of reading +0.2 m/s) @ standard conditions, depending on model. Temperature Limits 32 to 122° F (0 to 50° C). Power Requirements 24 VDC ±20% or 24 VAC ±20%. Humidity Limits 5 to 95% RH, non-condensing. Output Signal 4 to 20 mA, 0 to 5 VC, 0 to 10 VDC. Response Time (90%) 10 seconds (typ). Zero & Span Adjustments Digital push buttons. Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Service	Clean air and non-combustible, compatible gases.
Temperature Limits 32 to 122°F (0 to 50°C). Power Requirements 24 VDC ±20% or 24 VAC ±20%. Humidity Limits 5 to 95% RH, non-condensing. Output Signal 4 to 20 mA, 0 to 5 VC, 0 to 10 VDC. Response Time (90%) 10 seconds (typ). Zero & Span Adjustments Digital push buttons. Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Range	1000, 2000, 3000, 4000 FPM (5, 10, 15, 20 m/s; Field selectable.
Power Requirements 4 VDC ±20% or 24 VAC ±20%. Humidity Limits 5 to 95% RH, non-condensing. Output Signal 4 to 20 mA, 0 to 5 VC, 0 to 10 VDC. Response Time (90%) 2ero & Span Adjustments Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Accuracy	±(5% of reading +0.2 m/s) or ±(3% of reading +0.2 m/s) @ standard conditions, depending on model.
Humidity Limits Output Signal Output Signal 4 to 20 mA, 0 to 5 VC, 0 to 10 VDC. Response Time (90%) 10 seconds (typ). Zero & Span Adjustments Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Temperature Limits	32 to 122°F (0 to 50°C).
Output Signal 4 to 20 mA, 0 to 5 VC, 0 to 10 VDC. Response Time (90%) 10 seconds (typ). Zero & Span Adjustments Digital push buttons. Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Power Requirements	24 VDC ±20% or 24 VAC ±20%.
Response Time (90%) 10 seconds (typ). Zero & Span Adjustments Digital push buttons. Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Humidity Limits	5 to 95% RH, non-condensing.
Zero & Span Adjustments Current Consumption Display (Optional) Communication (Optional) Device Load Electrical Entry Enclosure Rating Digital push buttons. Digital push buttons. Digital push buttons. Signal push b	Output Signal	4 to 20 mA, 0 to 5 VC, 0 to 10 VDC.
Current Consumption 60 mA max. Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Response Time (90%)	10 seconds (typ).
Display (Optional) 5 digit LCD. Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Zero & Span Adjustments	Digital push buttons.
Communication (Optional) Connections: BACnet MS/TP or Modbus® RTU/ASCII: 3-wire removable European style terminal block for 16 to 26 AWG; Supported baud rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Current Consumption	60 mA max.
Communication (Optional) rates: 9600, 19200, 38400, 57600, 76800, 115200. Device Load 1/8 unit load. Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Display (Optional)	5 digit LCD.
Electrical Entry 1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable. Enclosure Rating NEMA 4X (IP66).	Communication (Optional)	
Enclosure Rating NEMA 4X (IP66).	Device Load	1/8 unit load.
	Electrical Entry	1/2" NPS thread; Accessory (A-151): Cable gland for 5 to 10 mm diameter cable.
······································	Enclosure Rating	NEMA 4X (IP66).
Weight 6.0 oz (160 g).	Weight	6.0 oz (160 g).
Agency Approval CE.	Agency Approval	CE.

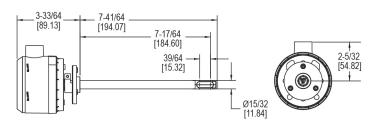






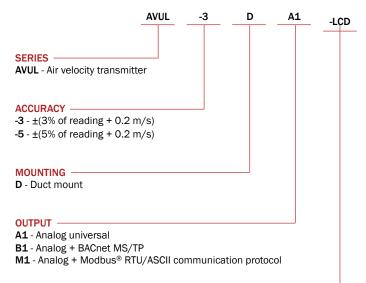
DIMENSIONS





HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.



OPTIONS -

-FC - Factory calibration certificate

-LCD - LCD display

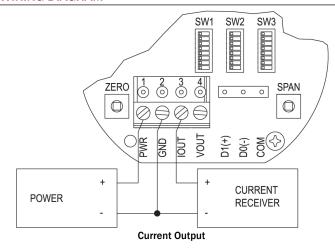
-NIST - NIST traceable calibration certificate

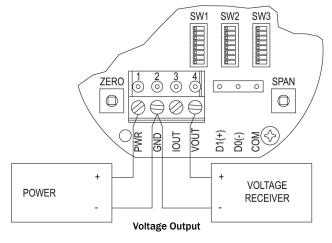
-GLD - Electrical cable gland

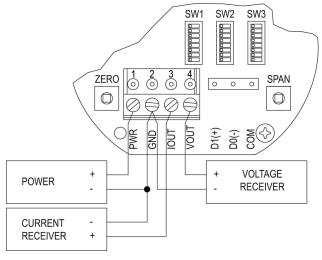
ACCESSORIES

Model	Description
A-151	Cable gland for 5 to 10 mm diameter cable
A-435-A	Remote display tool
A-AVUL-LCD	Field upgradeable display
A-AVUL-MTG	Replacement mounting flange
SCD-PS	100 to 240 VAC/VDC to 24 VDC power supply

WIRING DIAGRAM







Simultaneous Current and Voltage Output

Important Notice: Dwyer Instruments, Inc. reserves the right to make changes to or discontinue any product or service identified in this publication without notice. Dwyer advises its customers to obtain the latest version of the relevant information to verify, before placing any orders, that the information being relied upon is current.

