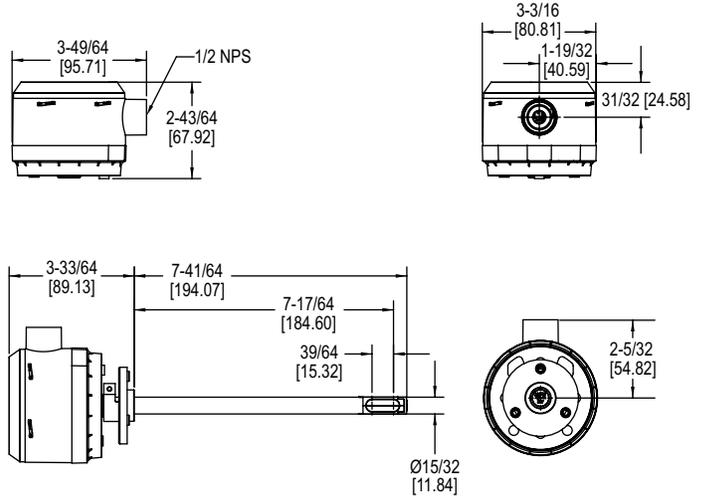


# AIR VELOCITY TRANSMITTERS

3% and 5% Models, Optional BACnet or Modbus® Communication Protocols



The **Series AVUL Air Velocity Transmitters** 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, 4-20 mA 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.

### BENEFITS/FEATURES

- Minimal preventative maintenance as sensing element is covered with an engineered protective coating
- Easy field setup via the on board dip switches for range and units

### APPLICATIONS

- VAV systems
- Building ducts
- HVAC systems

| MODEL CHART |      |    |   |    |      |   |
|-------------|------|----|---|----|------|---|
| Example     | AVUL | -3 | D | A1 | -LCD | AVUL-3DA1-LCD                                       |
| Model       | AVUL |    |   |    |      | Air velocity transmitter                            |
| Accuracy    |      | 5  |   |    |      | ±(0.2 m/s + 5% of reading)<br>@ standard conditions |
|             |      | 3  |   |    |      | ±(0.2 m/s + 3% of reading)<br>@ standard conditions |
| Mounting    |      |    | D |    |      | Duct mount  |
| Output      |      |    |   | A1 |      | Analog universal (0-5 VDC, 0-10 VDC, 4-20 mA)       |
|             |      |    |   | B1 |      | Analog + BACnet MS/TP                               |
|             |      |    |   | M1 |      | Analog + Modbus® RTU/ASCII                          |
| Options     |      |    |   |    | LCD  | LCD display   |
|             |      |    |   |    | FC   | Factory calibration certificate                     |
|             |      |    |   |    | NIST | NIST certificate                                    |
|             |      |    |   |    | GLD  | Electrical cable gland                              |
|             |      |    |   |    | SF   | Silicone Free                                       |

| 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      | 100-240 VAC/VDC to 24 VDC power supply    |

### SPECIFICATIONS

**Service:** Clean air and non-combustible, compatible gases.  
**Wetted Materials:** Consult factory.  
**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 Signals:** 4-20 mA, 0-5 VDC, 0-10 VDC.  
**Response Time (90%):** 10 s, typical.  
**Zero and Span Adjustments:** Digital push-buttons.  
**Output Load Resistance:** Current output: 0 to 1100 Ω max.; Voltage output: Minimum load resistance 1 k Ω.  
**Current Consumption:** 60 mA max.  
**Display (optional):** 5 digit LCD.  
**Electrical Connections (Analog):** Power and output: 4-wire removable European style terminal block for 16 to 26 AWG.  
**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:** 1/8th 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).  
**Mounting Orientation:** Flow direction must be parallel to the sensor tip.  
**Weight:** 6.0 oz (160 g).  
**Agency Approval:** BTL, CE.