

# AIR FLOW AND VELOCITY TRANSMITTERS

## AVT SERIES

Multifunctional air velocity transmitters for building automation systems

The AVT series air velocity transmitters are engineered for building automation in the HVAC/R industry. The AVTs measure air velocity and temperature, with field selectable range and output options in a single device. Designed with a duct mount probe and adjustable collar suitable for round or rectangular ducts.

### AVT series devices include:

- 3 field selectable measurement ranges for air velocity, selectable via jumper (see Model Summary).
- Separate readings and outputs for air velocity and temperature.
- Proportional output options include: voltage (0–10 V) and current (4–20 mA).

### AVT series device options offer:

- Backlit display
- Field adjustable relay

The versatility of the AVT series air velocity transmitters ensures that the right product for your application is available.



## SIMILAR PRODUCTS

- DPT-FLOW series air flow transmitters

## APPLICATIONS

AVT series devices are commonly used in HVAC/R systems for:

- in-duct air flow and velocity monitoring
- in-duct temperature monitoring
- VAV applications

## MODEL SUMMARY

<b>Measurement ranges</b> <b>Velocity: (m/s)</b> <b>Temperature: °C</b> (field selectable via jumper)	0...2 / 0...10 / 0...20 m/s 0...50 °C	
<b>Description</b>	<b>Model</b>	<b>Product code</b>
All-in-one air velocity transmitters	AVT	117.004.001
- with display	AVT-D	117.004.002
- with display and relay	AVT-D-R	117.004.003

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## AVT SERIES

### SPECIFICATIONS

#### Performance

##### Measurement ranges:

Velocity:  
 Range: 0–2 m/s  
 Range: 0–10 m/s  
 Range: 0–20 m/s  
 Temperature: 0–50 °C

##### Accuracy:

Velocity:  
 Range: 0...2 m/s: <0.2 m/s + 5 % from reading  
 Range: 0...10 m/s: <0.5 m/s + 5 % from reading  
 Range: 0...20 m/s: <1.0 m/s + 5 % from reading  
 Thermal shift: ±0.8 % FS / °C  
 Units calibrated at 22 °C. Rapid thermal shift stabilisation time 10 min.  
 Temperature: <0.5 °C (velocity > 0.5 m/s)

#### Technical Specifications

##### Media compatibility:

Dry air or non-aggressive gases

##### Measuring units:

m/s and °C

##### Measuring element:

Temperature: ntc10k  
 Velocity: Pt1000

##### Environment:

Operating temperature: 0...50 °C  
 Storage temperature: -20...70 °C  
 Humidity: 0 to 95 % rH, non-condensing

#### Physical

##### Dimensions:

Case : 90.0 x 95.0 x 36.0 mm  
 Probe: OD 10 mm, length 210 mm from bottom of the cover  
 Immersion Length with Flange: Adjustable 50–180 mm

##### Weight:

220 g

##### Mounting:

Mounting flange, ø 4.0 mm

##### Materials:

Case: ABS  
 Lid: PC  
 Probe: Stainless steel 304  
 Mounting flange: LLPDP

##### Protection standard:

IP54

##### Display:

3 1/2 digit LCD backlit display  
 Size: 45.7 x 12.7 mm

##### Electrical connections:

Power supply & signal out: 4-screw terminal block  
 12–24 AWG (0.2–1.5 mm<sup>2</sup>)  
 Relay Out: 3-screw terminal block  
 12–24 AWG (0.2–1.5 mm<sup>2</sup>)

##### Cable entry:

M16

#### Electrical

Input: 24 VDC / 24 VAC ± 10 %  
 Current consumption 35 mA (50 mA with relay)  
 + 40 mA with mA-outs

##### Output signal 1: (T out)

0–10 V (linear to temperature)

L min 1 kΩ

4–20 mA (linear to temperature)

L max 400 Ω

##### Output signal 2: (v out)

0–10 V (linear to m/s)

L min 1 kΩ

4–20 mA (linear to m/s)

L max 400 Ω

Relay Out: 3-screw terminal block  
 (NC, COM, NO)

##### Potential free SPDT

250 VAC, 6A / 30 VDC, 6 A adjustable switching point and hysteresis

#### Conformance

Meets the requirements for CE marking:  
 EMC Directive 2014/30/EU  
 RoHS Directive 2011/65/EU  
 LVD Directive 2014/35/EU  
 WEEE Directive 2012/19/EU

COMPANY WITH  
 MANAGEMENT SYSTEM  
 CERTIFIED BY DNV GL  
 = ISO 9001 = ISO 14001 =



### HOW TO GENERATE A MODEL?

Example:	Product series		
	AVT-D-R	AVT	Air velocity transmitter
		Display	
		-D	With display
			Without display
		Relay	
		-R	With relay
			Without relay
Model	AVT	-D	-R