HK INSTRUMENTS

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

Measurement ranges Velocity: (m/s) Temperature: °C (field selectable via jumper)	02 / 010 / 020 m/s 050 °C		
Description	Model Product code		
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		



AIR FLOW AND VELOCITY TRANSMITTERS Avt series

SPECIFICATIONS

Performance

Measurement ranges: Velocity: Range: 0-2 m/sRange: 0-20 m/sRange: 0-20 m/sTemperature: 0-50 °CAccuracy: Velocity: Range: 0...20 m/s + 5% from reading Range: 0...20 m/s : <0.2 m/s + 5% from reading Range: 0...20 m/s : <1.0 m/s + 5% from reading Thermal shift: $\pm 0.8\%$ 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 mm²) Relay Out: 3-screw terminal block 12-24 AWG (0.2-1.5 mm²) 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 k Ω 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 k Ω 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: AVT-D-R	Product series				
	AVT	Air velocity transmitter			
		Display			
		-D	With display		
			Without display		
			Relay		
			-R	With relay	
				Without relay	
Model	AVT	-D	-R		