



AV-DT Series

Duct Air Velocity Transmitter



Overview

The AV-DT series of air velocity transmitters is engineered for building automation in the HVAC/R industry. The AV-DT measures air velocity and temperature, with field selectable ranges and output options in a single device.

Designed with a duct mount probe and adjustable collar suitable for round or rectangular ducts. Options include a relay, and a backlit LCD available in Metric or Imperial measurements.

Applications

- Used to measure, regulate and/or monitor airflow speed via PLC / outstation / EMS

Features & Benefits

- Converts airspeed into 4-20mA or 0-10Vdc output signal
- Optional Display option
- Available in Metric or Imperial (w/ Display)
- Optional Relay Output
- Selectable airflow ranges

Model Selection

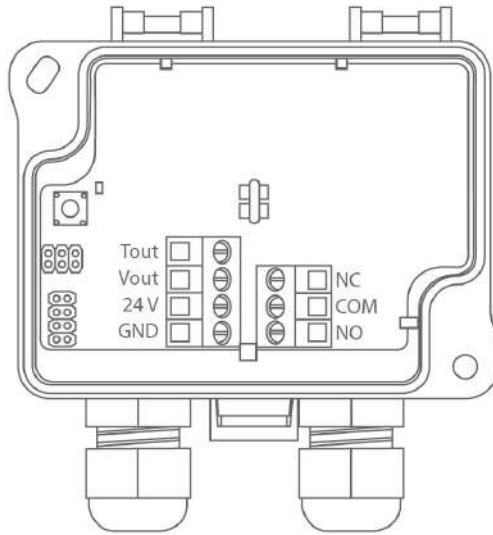
AV-DTXX	Duct Air Velocity Transmitter, No Display, no Relay
AV-DTMX	Duct Air Velocity Transmitter, with Display, Metric, no Relay
AV-DTIX	Duct Air Velocity Transmitter, with Display, Imperial, no Relay
AV-DTMR	Duct Air Velocity Transmitter, with Display, Metric, with Relay
AV-DTIR	Duct Air Velocity Transmitter, with Display, Imperial, with Relay

Product Specifications

Velocity Ranges	Base & Metric Models: 0-2, 10 & 20m/s, field selectable Imperial Model: 0-400, 2000 & 4000 fpm, field selectable
Velocity Accuracy	Metric: 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 Imperial: Range - 0...400 fpm: <20 fpm + 5% from reading Range - 0...2000 fpm: <100 fpm + 5% from reading Range - 0...4000 fpm: <200 fpm + 5% from reading
Thermal Shift	±0.8 %FS / °C
Calibration	Units calibrated at 22°C (71.6°F). Rapid thermal shift stabilization time 10 min.
Temperature Range	0 to 50°C (32 to 122°F)
Temperature Accuracy	<0.5°C for velocity >0.5 m/s (<0.9°F for v > 100 fpm)
Operating Conditions	0 to 50°C (32 to 122°F), 0 to 95 %RH, non-condensing
Storage Conditions	-20 to 70°C (-4 to 158°F)
Media Compatibility	Dry air or non-aggressive gases
Output Signal 1 (TOUT)	0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 Ω
Output Signal 2 (VOUT)	0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 Ω
Optional Relay Output	Potential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresis
Power Supply	24 Vdc / 24 Vac ±10%
Current Consumption	Current: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)
Optional Display	4 digit backlit display Size: 45.7mm W x 12.7mm H (1.79" x 0.5")
Display Units	Metric: m/s and °C Imperial: fpm and °F Alternating Velocity/Temperature in 5 second intervals
Enclosure	Case: ABS Cover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP
Dimensions	Case: 90mm W x 71.5mm H x 36mm D (3.5" x 2.8" x 1.4") Probe: OD 10mm (0.394"), length 210mm (8.26") from bottom of cover
Mounting	Mounting Flange: Ø4mm (11/64")
Insertion with flange	Adjustable 50 to 180mm (2" to 7.08")
Electrical Connections	Power Supply & Signal Out: 4-screw terminal block 12-24 AWG (0.2 to 1.5mm ²) Relay Out: 3-screw terminal block 12-24 AWG (0.2 to 1.5mm ²)
Cable Entry	M16 (0.625") cable gland
Weight	220g (7.76oz)
Approvals	CE, RoHS
Country of Origin	Finland

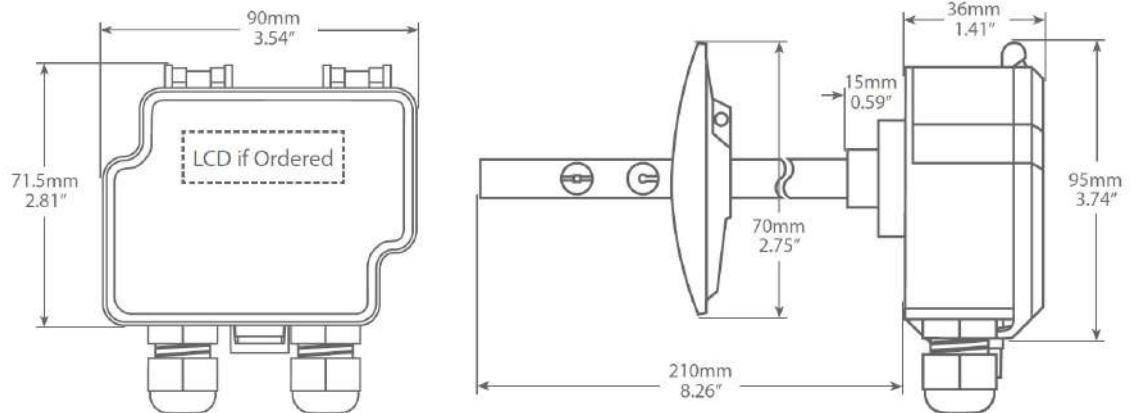


Wiring Information



TERMINAL	FUNCTION
Tout	Analog Output
Vout	Analog Output
24 V	Power Supply
GND	Common
NC	Digital Output
COM	Common
NO	Digital Output

Dimensions



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