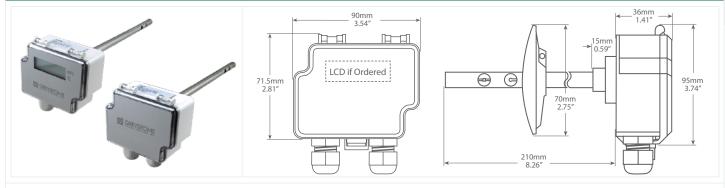


## DUCT AIR VELOCITY TRANSMITTER



### AVDT SERIES

#### DESCRIPTION

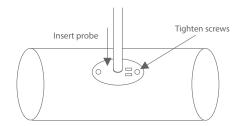
The AVDT series of air velocity transmitters is engineered for building automation in the HVAC/R industry. The AVDT measures air velocity and temperature, with field selectable ranges and output options in a single device. Designed with a duct mount probe and adjustable collar suitable for round or rectangular ducts. Options include a relay, and a backlit LCD available in Metric or Imperial measurements.

## TYPICAL INSTALLATION

For complete installation and wiring details, please refer to the product installation instructions.

The AVDT should be mounted in an easily accessible location in a straight section of duct at least five feet from corners or other items that may cause disturbances in the air flow.

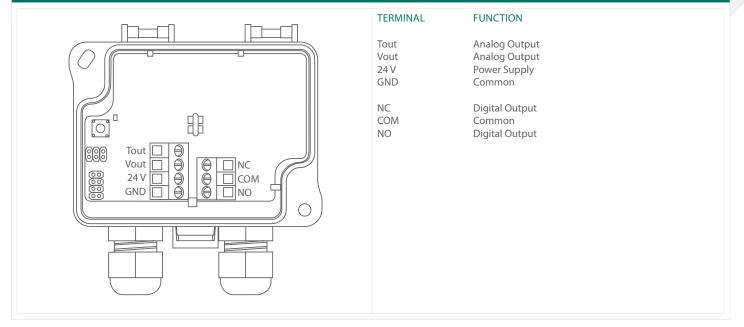
Ensure that the end of the probe reaches the middle of the duct. Tighten the screws on the flange to hold the probe in position.



VELOCITY RANGESBase & Metric Models: 0-2, 10 & 20m/s, field selectableImperial Model: 0-400, 2000 & 4000 fpm, field selectableVELOCITY ACCURACYMetric: Range - 02 m/s: <0.2 m/s + 5% from reading Range - 020 m/s: <0.5 m/s + 5% from reading Range - 0200 fpm: <100 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm: <100 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 04000 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm + 100 fpm +				
Imperial Model: 0-400, 2000 & 4000 fpm, field selectableVELOCITY ACCURACYMetric: Range - 02 m/s: <0.2 m/s: <0.2 m/s: s0.5 m/s + 5% from reading Range - 020 m/s: <0.5 m/s + 5% from reading Range - 0200 fpm: <20 fpm + 5% from reading Range - 02000 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm: <200 fpm + 5% from reading Range - 0400 fpm + 0.100 fpmOUTPUT SIGNAL 1 (TOUT)<	SPECIFICATIONS			
Range - 010 m/s: <0.5 m/s + 5% from reading Range - 0200 m/s: <1.0 m/s + 5% from reading Imperial: Range - 0200 pm + 5% from reading Range - 0200 pm + 50 fm + 100 pm	VELOCITY RANGES			
CALIBRATIONUnits calibrated at 22°C (71.6°F). Rapid thermal shift stabilization time 10 mTEMPERATURE RANGE0 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 CONDITIONS0 to 50°C (32 to 122°F), 0 to 95 %RH, non-condensingSTORAGE TEMPERATURE-20 to 70°C (-4 to 158°F)MEDIA COMPATIBILITYDry air or non-aggressive gasesOUTPUT SIGNAL 1 (TOUT)0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUT24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAY4 digit backlit display size: 45.7mm W x 12.7mm H (1.79″ x 0.5″)DISPLAY UNITSMetric: m/s and °C Imperial: fpm and °F Alternating Velocity/Temperature in 5 second intervalsENCLOSURECase: ABS Cover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	VELOCITY ACCURACY	Range - 010 m/s: <0.5 m/s + 5% from reading Range - 020 m/s: <1.0 m/s + 5% from reading Imperial: Range - 0400 fpm: <20 fpm + 5% from reading Range - 02000 fpm: <100 fpm + 5% from reading		
TEMPERATURE RANGE0 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 CONDITIONS0 to 50°C (32 to 122°F), 0 to 95 %RH, non-condensingSTORAGE TEMPERATURE-20 to 70°C (-4 to 158°F)MEDIA COMPATIBILITYDry air or non-aggressive gasesOUTPUT SIGNAL 1 (TOUT)0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUTPotential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresisPOWER SUPPLY24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAYMetric: m/s and °C Imperial: fpm and °F Alternating Velocity/Temperature in 5 second intervalsENCLOSURECase: ABS Cover: Polycarbonate Ratings: IP54 (NEMA 3) 	THERMAL SHIFT			
TEMPERATURE ACCURACY<0.5°C for velocity >0.5 m/s (<0.9°F for v > 100 fpm)OPERATING CONDITIONS0 to 50°C (32 to 122°F), 0 to 95 %RH, non-condensingSTORAGE TEMPERATURE-20 to 70°C (-4 to 158°F)MEDIA COMPATIBILITYDry air or non-aggressive gasesOUTPUT SIGNAL 1 (TOUT)0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUTPotential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresisPOWER SUPPLY24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAYMetric: m/s and °C Imperial: fpm and °F Alternating Velocity/Temperature in 5 second intervalsENCLOSURECase: ABS Cover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	CALIBRATION	Units calibrated at 22°C (71.6°F). Rapid thermal shift stabilization time 10 min.		
OPERATING CONDITIONS0 to 50°C (32 to 122°F), 0 to 95 %RH, non-condensingSTORAGE TEMPERATURE-20 to 70°C (-4 to 158°F)MEDIA COMPATIBILITYDry air or non-aggressive gasesOUTPUT SIGNAL 1 (TOUT)0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUTPotential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresisPOWER SUPPLY24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAYAdigit backlit display Size: 45.7mm W x 12.7mm H (1.79″ x 0.5″)DISPLAY UNITSMetric: m/s and °C Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	TEMPERATURE RANGE	0 to 50°C (32 to 122°F)		
STORAGE TEMPERATURE-20 to 70°C (-4 to 15%°F)MEDIA COMPATIBILITYDry air or non-aggressive gasesOUTPUT SIGNAL 1 (TOUT)0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUTPotential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresisPOWER SUPPLY24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAY4 digit backlit display Size: 45.7mm W x 12.7mm H (1.79″ x 0.5″)DISPLAY UNITSMetric: m/s and °C Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	TEMPERATURE ACCURACY	<0.5°C for velocity >0.5 m/s (<0.9°F for v > 100 fpm)		
MEDIA COMPATIBILITYDry air or non-aggressive gasesOUTPUT SIGNAL 1 (TOUT)0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUTPotential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresisPOWER SUPPLY24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAY4 digit backlit display Size: 45.7mm W x 12.7mm H (1.79" x 0.5")DISPLAY UNITSMetric: m/s and °C Imperial: fpm and °F Alternating Velocity/Temperature in 5 second intervalsENCLOSURECover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 0 to 95 %RH, non-condensing		
OUTPUT SIGNAL 1 (TOUT)0-10 Vdc (linear to temperature) L min 1K Ω 4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUTPotential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresisPOWER SUPPLY24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAY4 digit backlit display Size: 45.7mm W x 12.7mm H (1.79" x 0.5")DISPLAY UNITSMetric: m/s and °C Imperial: fpm and °F Alternating Velocity/Temperature in 5 second intervalsENCLOSURECase: ABS Cover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	STORAGE TEMPERATURE			
4-20 mA (linear to temperature) L max 400 ΩOUTPUT SIGNAL 2 (VOUT)0-10 Vdc (linear to m/s) L min 1K Ω 4-20 mA (linear to m/s) L max 400 ΩOPTIONAL RELAY OUTPUTPotential free SPDT (NC, COM, NO) 250 Vac, 6A / 30 Vdc, 6A adjustable switching point and hysteresisPOWER SUPPLY24 Vdc / 24 Vac ±10%CURRENT CONSUMPTIONCurrent: 75 mA (90 mA with relay) Voltage: 35 mA (50 mA with relay)OPTIONAL DISPLAY4 digit backlit display size: 45.7mm W x 12.7mm H (1.79" x 0.5")DISPLAY UNITSMetric: m/s and °C Imperial: fpm and °F Alternating Velocity/Temperature in 5 second intervalsENCLOSURECase: ABS Cover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	MEDIA COMPATIBILITY	Dry air or non-aggressive gases		
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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	OPTIONAL RELAY OUTPUT			
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	POWER SUPPLY	24 Vdc / 24 Vac ±10%		
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	CURRENT CONSUMPTION			
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	OPTIONAL DISPLAY			
Cover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel Mounting Flange: LLPDP	DISPLAY UNITS	Imperial: fpm and °F		
DIMENSIONS Case: 90mm W x 71 5mm H x 36mm D ( $3.5^{"}x 2.8^{"}x 1.4^{"}$ )	ENCLOSURE	Cover: Polycarbonate Ratings: IP54 (NEMA 3) Probe: 304 series stainless steel		
Probe: OD 10mm (0.394"), length 210mm (8.26") from bottom of cover	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")	MOUNTING	Mounting Flange: Ø4mm (11/64")		
INSERTION LENGTH WITH FLANGE Adjustable 50 to 180mm (2" to 7.08")	INSERTION LENGTH WITH FLANGE	Adjustable 50 to 180mm (2" to 7.08")		
DUCT WIDTH/DIAMETER 100 to 380 mm (4" to 15")	DUCT WIDTH/DIAMETER	100 to 380 mm (4" to 15")		
ELECTRICAL CONNECTIONS Power Supply & Signal Out: 4-screw terminal block 12'24 AWG (0.2 to 1.5mm Relay Out: 3-screw terminal block 12-24 AWG (0.2 to 1.5mm <sup>2</sup> )	ELECTRICAL CONNECTIONS	Power Supply & Signal Out: 4-screw terminal block 12'24 AWG (0.2 to 1.5mm <sup>2</sup> ) Relay Out: 3-screw terminal block 12-24 AWG (0.2 to 1.5mm <sup>2</sup> )		
CABLE ENTRY M16 (0.625") cable gland	CABLE ENTRY	M16 (0.625") cable gland		
WEIGHT 220g (7.76oz)	WEIGHT	220g (7.76oz)		
APPROVALS CE, RoHS	APPROVALS	CE, RoHS		
COUNTRY OF ORIGIN Finland	COUNTRY OF ORIGIN	Finland		



#### WIRING INFORMATION



ORDERING			PART NUMBER
PRODUCT	AVDT	Duct Air Velocity Transmitter	AVDT
DISPLAY (REQUIRED IF RELAY OPTION SELECTED)	X M I	None Metric (m/s, °C) Imperial (fpm, °F)	
RELAY	XR	None Adjustable relay (requires LCD)	

Clean Rooms | Pharma | Hospital | HVAC | BulkDrugs | Chemicals | Heavy Machinery Hydraulics & Vacuum Industry | Green House | Server Room | Confined Space | Cold Storage

# **Instrukart Holdings**

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