

Air Velocity transducer TSI

Model 8455

General purpose: protected probe tip, rugged ceramic sensor, wide range of measurement applications, fast response time.

SPECIFICATIONS

Accuracy: $\pm 2.0\%$ of reading¹, ¹From 64.4 to 82.4°F (18 to 28°C), outside this range and within temperature compensation range add 0.11% per °F (0.2% per °C)

$\pm 0.5\%$ of full scale of selected range

Field selectable range:

25 ft/min to 200, 250, 300, 400, 500, 750, 1,000, 1,250, 1,500, 2,000, 2,500, 3,000, 4,000, 5,000, 7,500,
10,000 ft/min (0.125 m/s to 1.0, 1.25, 1.50, 2.0, 2.5, 3.0, 4.0, 5.0, 7.5, 10.0, 12.5, 15.0, 20.0, 25.0, 30.0, 40.0, 50.0 m/s)

Repeatability: $\leq \pm 1.0\%$ of reading³, ³Standard deviation based on one minute average from 100 to 1,000 fpm (0.5 to 5.0 m/s)

Response to flow: 0.2 sec⁴, ⁴For 63% of final value, tested at 1,500 fpm (7.5 m/s)

Temperature range:

Compensation 32 to 140°F (0 to 60°C)
Operating (electronics) 32 to 200°F (0 to 93°C)
Operating (sensor) 32 to 200°F (0 to 93°C)
Storage 32 to 200°F (0 to 93°C)

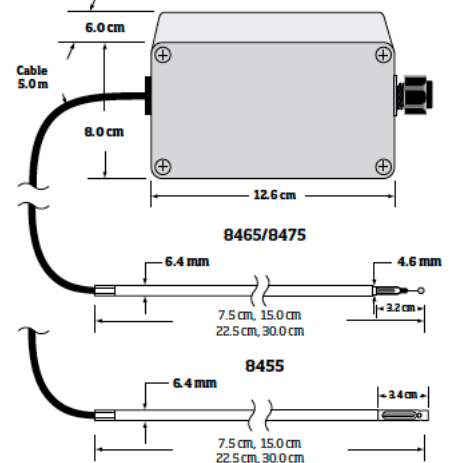
Resolution (minimum): 0.07% of selected full scale

Input power: 11 to 30 VDC or 18 to 38 VAC, 350 mA max⁶
⁶Input voltage must be maintained within specifications at the transducer

Output:

Impedance Voltage mode: less than 1 ohm, 20mA max source current
Resistance Current mode: 500 ohms maximum load
Signal Field selectable 0 to 5V, 0 to 10V, 0 to 20, 2 to 10V, mA, 4 to 20 mA
Time constant Field selectable 0.05 to 10 seconds

Probe length: 3 in., 6 in., 9 in., 12 in. (7.5 cm, 15 cm, 22.5 cm, or 30 cm)



All models contain on-board electronics and calibration curves that provide a linear signal output. This linear signal is sent out as either a current (mA) or a voltage (V) signal, allowing output to a variety of data loggers or data acquisition systems. In addition, the current and voltage output ranges are user-selectable for your convenience.

8455	
Range	25 to 10,000 fpm (0.127 to 50.8 m/s), selectable
Accuracy	$\pm(2\%$ of reading at 64.4 to 82.4°F (18-28°C) +0.5% of full scale of selected range)
Response time	0.2 seconds
Input power	11 to 30 VDC or 18 to 28 VAC, 350 mA maximum