



MULTI-POINT AIR VELOCITY PROBES

TPVPMP FEATURES

- Improved accuracy through multipoint features
- Fully compatible with Titan Products pressure and velocity transmitters
- Available in 6 standard lengths

The Velocity Probes with multiple holes along the length are designed to measure the average velocity pressure across air ducts. The multi-point measurements offer an improved accuracy of measurement over the single point method.

The Velocity Probes are suitable for use with Titan TPAVT8 series of Velocity Transmitters.

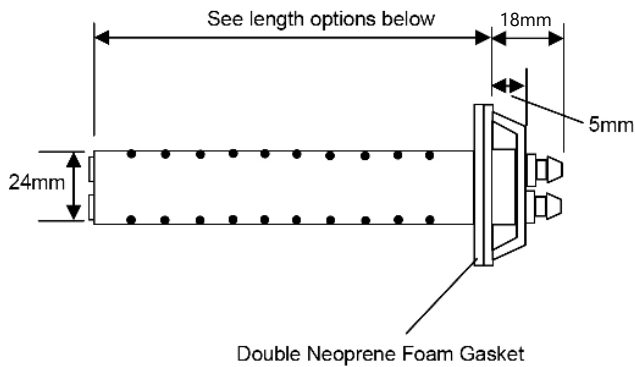
The TPVPMP Velocity Probes are available in six standard lengths and can be cut down to match the duct size.

SPECIFICATION

Material:	Extruded flame retardant PVC probe (UL94-VO) Brass plated mounting flange	
Connectors:	5mm tube connectors	
Country of Origin:	UK	
Product Codes:	TPVPMP/100	100mm
	TPVPMP/200	200mm
	TPVPMP/300	300mm
	TPVPMP/400	400mm
	TPVPMP/500	500mm
	TPVPMP/600	600mm



DIMENSIONS



INSTALLATION AND MAINTENANCE

The velocity probe should be mounted in the duct where it can measure the unrestricted airflow and at least 2 metres downstream from dampers, duct bends, fans, filters, humidifiers, heating or cooling coils.

- Avoid installation into systems with turbulent airflow.
- Ensure that the two end probe caps are fitted and not loose.
- Ensure that the probe is mounted with all the holes inside the ductwork and the mounting flange is providing a good airtight seal.
- Ensure that the probe is mounted with the arrow pointing in the direction of the airflow.
- Ensure that the tube connections for the Hi and Lo ports are matched on the measuring transmitter.

Calculations

To calculate the air velocity use the table or the equation.

$$\text{Air Velocity} = \sqrt{\frac{2 \times \text{Velocity Pressure}}{1.2}}$$

Air Velocity VS Differential Pressure Chart

		Velocity (m/s)									
		0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
Velocity (m/s)	0	0.00	0.01	0.02	0.05	0.10	0.15	0.22	0.29	0.38	0.49
	1	0.60	0.73	0.86	1.01	1.18	1.35	1.54	1.74	1.94	2.17
	2	2.40	2.65	2.90	3.17	3.46	3.75	4.06	4.37	4.70	5.05
	3	5.40	5.77	6.14	6.53	6.94	7.35	7.78	8.21	8.66	9.13
	4	9.60	10.09	10.58	11.09	11.62	12.15	12.70	13.25	13.82	14.41
	5	15.00	15.61	16.22	16.85	17.50	18.15	18.82	19.49	20.18	20.89
	6	21.60	22.33	23.06	23.81	24.58	25.35	26.14	26.93	27.74	28.57
	7	29.40	30.25	31.10	31.97	32.86	33.75	34.66	35.57	36.50	37.45
	8	38.40	39.37	40.34	41.33	42.34	43.35	44.38	45.41	46.46	47.53
	9	48.60	49.69	50.78	51.89	53.02	54.15	55.30	56.45	57.62	58.81
	10	60.00	61.21	62.42	63.65	64.90	66.15	67.42	68.69	69.98	71.29
	11	72.60	73.93	75.26	76.61	77.98	79.35	80.74	82.13	83.54	84.97
	12	86.40	87.85	89.30	90.77	92.26	93.75	95.26	96.77	98.30	99.85
	13	101.40	102.97	104.54	106.13	107.74	109.35	110.98	112.61	114.26	115.93
	14	117.60	119.29	120.98	122.69	124.42	126.15	127.90	129.65	131.42	133.21
	15	135.00	136.81	138.62	140.45	142.30	144.15	146.02	147.89	149.78	151.69
	16	153.60	155.53	157.46	159.41	161.38	163.35	165.34	167.33	169.34	171.37
	17	173.40	175.45	177.50	179.57	181.66	183.75	185.86	187.97	190.10	192.25
	18	194.40	196.57	198.74	200.93	203.14	205.35	207.58	209.81	212.06	214.33
	19	216.60	218.89	221.18	223.49	225.82	228.15	230.50	232.85	235.22	237.61
	20	240.00	242.41	244.82	247.25	249.70	252.15	254.62	257.09	259.58	262.09
	21	264.60	267.13	269.66	272.21	274.78	277.35	279.94	282.53	285.14	287.77
	22	290.40	293.05	295.70	298.37	301.06	303.75	306.46	309.17	311.90	314.65
	23	317.40	320.17	322.94	325.73	328.54	331.35	334.18	337.01	339.86	342.73
	24	345.60	348.49	351.38	354.29	357.22	360.15	363.10	366.05	369.02	372.01
	25	375.00	378.01	381.02	384.05	387.10	390.15	393.22	396.29	399.38	402.49
	26	405.60	408.73	411.86	415.01	418.18	421.35	424.54	427.73	430.94	434.17
	27	437.40	440.65	443.90	447.17	450.46	453.75	457.06	460.37	463.70	467.05
	28	470.40	473.77	477.14	480.53	483.94	487.35	490.78	494.21	497.66	501.13
	29	504.60	508.09	511.58	515.09	518.62	522.15	525.70	529.25	532.82	536.41
	30	540.00	543.61	547.22	550.85	554.50	558.15	561.82	565.49	569.18	572.89

The left hand column (velocity, in 1m/s increments) and the top row (velocity, in 0.1m/s increments), read across and down to find the corresponding differential pressure.

Example: For max air velocity at 10.5m/s - read across from the left to 0.5m/s and down from the top to 10m/s. Where the column and row meet gives a differential pressure of 66.15 Pa.

Therefore a differential pressure sensor, with a range of 0-100Pa would be ideal.

For further install and setup information please contact technical@titanproducts.com