

AIR VELOCITY / AVERAGING PITOT TUBES

EVPL..

These units consist of tubes with holes along the length which can be used to sense the average air velocity across air ducts. Suitable for use with our EDT.. Air Differential Pressure Transmitters.

INSTALLATION:

For smaller ducts the tubes can be cut to length. The end plugs must then be refitted.

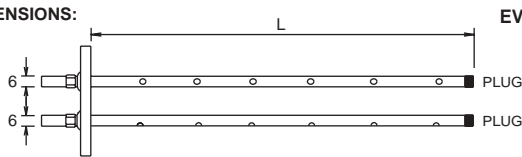
Mount away from bends, elbows and turbulent areas.

Each flange has a neoprene gasket.

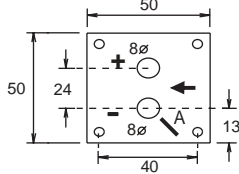
EVP-300 / EVP-500 - These units can be installed from outside the duct and the tubes are self-supporting.

Type	Length between flange(s) mm	Mounting	Pressure Connection	Tube Material
EVP-300	300	1 Flange	Brass 6mm Push-on	Brass 6mm OD
EVP-500	500	1 Flange	Brass 6mm Push-on	Brass 6mm OD
EVPL-600	600	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-700	700	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-800	800	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-1000	1000	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-1250	1250	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-1500	1500	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-1750	1750	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-2000	2000	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-2250	2250	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-2500	2500	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-2750	2750	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-3000	3000	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD
EVPL-3250	3250	2 Adjustable Flanges	Brass 6mm Push-on	Stainless Steel 25.4mm OD

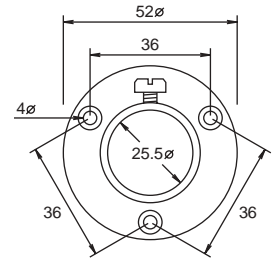
DIMENSIONS:



EVP..



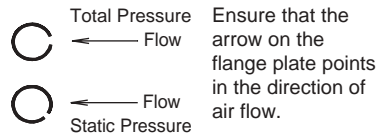
EVPL..



Mounting Flange dimensions

+ Senses total pressure. Holes must face air flow directly

- Senses static pressure. Rotate tube up or down towards position 'A' approx angle 36-42° to obtain correct Velocity Pressure for the required Air Velocity.
Velocity Pressure = Total Pressure - Static Pressure



CALCULATIONS:

To calculate the Air Velocity, use table below or the following equation:

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

Example: Velocity Pressure is 62.42 Pa
This equates to **10.2m/s** Air Velocity *

When velocity pressure is established, the ADP Transmitter can be selected, ie with a range of 0 - 100 Pa.

TABLE OF VELOCITY PRESSURE IN PASCALS AGAINST VELOCITY IN METRES PER SECOND

m/s	0	0.1	0.2 *	0.3	0.4	0.5	0.6	0.7	0.8	0.9
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	1.73	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

CAUTION: Always ensure the device operates correctly. If failure of the device can cause damage a safety backup control should be fitted. All data is for guidance purposes only, subject to change without prior notice and not guaranteed to be absolutely correct unless confirmed by us in writing.