Ref: ds_AV-MP_0908 Ver1.0



Multi-Point Air Velocity Pitot Tubes AV-MP

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Description

The AV-MP range of Air Velocity Pitot Tubes can be used with our ranges of Air Differential Pressure Sensors to calculate airflow in larger ducts or in areas of turbulent airflow. The units come in pairs suitable for duct sizes up to 2 metres (larger upon request).

Features

- 316 stainless steel construction
- Gaskets included for duct sealing
- Push on connectors for 6mm ID PVC tubing
- Use with DF or PA-LP range of Air DP sensors

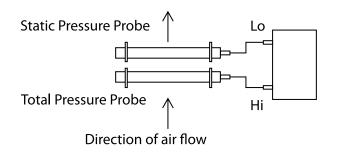
Technical Specification

Probe:	26mm diameter 316 stainless steel
Nipples:	Plated brass to suit 6mm ID PVC tubing
Flange:	52mm diameter 316 stainless steel
Lengths:	See order codes

Order Codes

AV-MP600	Multi-point Velocity Probe - 600mm
AV-MP700	Multi-point Velocity Probe - 700mm
AV-MP800	Multi-point Velocity Probe - 800mm
AV-MP1000	Multi-point Velocity Probe - 1000mm
AV-MP1250	Multi-point Velocity Probe - 1250mm
AV-MP1500	Multi-point Velocity Probe - 1500mm
AV-MP1750	Multi-point Velocity Probe - 1750mm
AV-MP2000	Multi-point Velocity Probe - 2000mm

Connection to DP Sensor



Calculation

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

The measurement of a suitably connected Air Differential Pressure sensor can be used to calculate the Air Velocity and is represented by the equation above.

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Installation

For round ducts, install probes side-by-side approx. 100mm apart. If they are to be mounted near a bend in the duct then mount them above each other approx. 100mm apart. Mark and drill the duct work using the mounting flange provided as a template.

- **1.** The total pressure probe should be turned so that the holes face directly into the airflow and locked into position using the screws on the flange.
- **2.** Adjust the static pressure probe so that the holes face the direction when the differential pressure measured corresponds to the measurement of air velocity using a vane anemometer.



Multi-Point Air Velocity Pitot Tubes AV-MP

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Air Velocity to Differential Pressure Chart

M/sec	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	18.16	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	35.66	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	53.01	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	163.34	165.34	167.33	169.34	171.39
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
M/sec	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
M/sec 20	0 240.00	0.1 242.41	0.2 244.82	0.3 247.25	0.4 249.70	0.5 252.15	0.6 254.62	0.7 257.09	0.8 259.58	0.9 262.09
20	240.00	242.41	244.82	247.25	249.70	252.15	254.62	257.09	259.58	262.09
20 21	240.00 264.60	242.41 267.13	244.82 269.66	247.25 272.21	249.70 274.78	252.15 277.35	254.62 279.94	257.09 282.53	259.58 285.14	262.09 287.77
20 21 22	240.00 264.60 290.40	242.41 267.13 293.05	244.82 269.66 295.70	247.25 272.21 298.37	249.70 274.78 301.06	252.15 277.35 303.75	254.62 279.94 306.46	257.09 282.53 309.17	259.58 285.14 311.90	262.09 287.77 314.65
20 21 22 23	240.00 264.60 290.40 317.40	242.41 267.13 293.05 320.17	244.82 269.66 295.70 322.94	247.25 272.21 298.37 325.73	249.70 274.78 301.06 328.54	252.15 277.35 303.75 331.35	254.62 279.94 306.46 334.18	257.09 282.53 309.17 337.01	259.58 285.14 311.90 339.86	262.09 287.77 314.65 342.73
20 21 22 23 24	240.00 264.60 290.40 317.40 345.60	242.41 267.13 293.05 320.17 348.49	244.82 269.66 295.70 322.94 351.38	247.25 272.21 298.37 325.73 354.29	249.70 274.78 301.06 328.54 357.22	252.15 277.35 303.75 331.35 360.15	254.62 279.94 306.46 334.18 363.10	257.09 282.53 309.17 337.01 366.05	259.58 285.14 311.90 339.86 369.02	262.09 287.77 314.65 342.73 372.01
20 21 22 23 24 25	240.00 264.60 290.40 317.40 345.60 375.00	242.41 267.13 293.05 320.17 348.49 378.01	244.82 269.66 295.70 322.94 351.38 381.02	247.25 272.21 298.37 325.73 354.29 384.05	249.70 274.78 301.06 328.54 357.22 387.10	252.15 277.35 303.75 331.35 360.15 390.15	254.62 279.94 306.46 334.18 363.10 393.22	257.09 282.53 309.17 337.01 366.05 396.29	259.58 285.14 311.90 339.86 369.02 399.38	262.09 287.77 314.65 342.73 372.01 402.49
20 21 22 23 24 25 26	240.00 264.60 290.40 317.40 345.60 375.00 405.60	242.41 267.13 293.05 320.17 348.49 378.01 408.73	244.82 269.66 295.70 322.94 351.38 381.02 411.86	247.25 272.21 298.37 325.73 354.29 384.05 415.01	249.70 274.78 301.06 328.54 357.22 387.10 418.18	252.15 277.35 303.75 331.35 360.15 390.15 421.35	254.62 279.94 306.46 334.18 363.10 393.22 424.54	257.09 282.53 309.17 337.01 366.05 396.29 427.73	259.58 285.14 311.90 339.86 369.02 399.38 430.94	262.09 287.77 314.65 342.73 372.01 402.49 434.17
20 21 22 23 24 25 26 27 28 29	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05
20 21 22 23 24 25 26 27 28	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13
20 21 22 23 24 25 26 27 28 29 30 31	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41
20 21 22 23 24 25 26 27 28 29 30 31 32	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60 540.00	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09 543.61	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58 547.22	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09 550.85	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62 554.50	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15 558.15	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70 561.82	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25 585.49	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82 569.18	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41 572.89
20 21 22 23 24 25 26 27 28 29 30 31 32 33	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60 540.00 576.60	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09 543.61 580.33	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58 547.22 584.06	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09 550.85 587.81	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62 554.50 591.58	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15 558.15 595.35	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70 561.82 599.14	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25 585.49 602.93	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82 569.18 606.74	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41 572.89 610.57
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60 540.00 576.60 614.40	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09 543.61 580.33 618.25	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58 547.22 584.06 622.10	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09 550.85 587.81 625.97	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62 554.50 591.58 629.86	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15 558.15 595.35 633.75	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70 561.82 599.14 637.66	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25 585.49 602.93 641.57	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82 569.18 606.74 645.50	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41 572.89 610.57 649.45
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60 540.00 576.60 614.40 653.40	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09 543.61 580.33 618.25 657.37	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58 547.22 584.06 622.10 661.34	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09 550.85 587.81 625.97 665.33	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62 554.50 591.58 629.86 669.34	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15 558.15 595.35 633.75 673.35	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70 561.82 599.14 637.66 677.38	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25 585.49 602.93 641.57 681.41	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82 569.18 606.74 645.50 685.46	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41 572.89 610.57 649.45 689.53
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60 540.00 576.60 614.40 653.40 693.60	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09 543.61 580.33 618.25 657.37 697.69	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58 547.22 584.06 622.10 661.34 701.78	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09 550.85 587.81 625.97 665.33 705.89	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62 554.50 591.58 629.86 669.34 710.02	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15 558.15 595.35 633.75 673.35 714.15	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70 561.82 599.14 637.66 677.38 718.30	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25 585.49 602.93 641.57 681.41 722.45	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82 569.18 606.74 645.50 685.46 726.62	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41 572.89 610.57 649.45 689.53 730.81
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60 540.00 576.60 614.40 653.40 693.60 735.00	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09 543.61 580.33 618.25 657.37 697.69 739.21	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58 547.22 584.06 622.10 661.34 701.78 743.42	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09 550.85 587.81 625.97 665.33 705.89 747.65	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62 554.50 591.58 629.86 669.34 710.02 751.90	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15 558.15 595.35 633.75 673.35 714.15 756.15	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70 561.82 599.14 637.66 677.38 718.30 760.42	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25 585.49 602.93 641.57 681.41 722.45 764.69	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82 569.18 606.74 645.50 685.46 726.62 768.98	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41 572.89 610.57 649.45 689.53 730.81 773.29
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	240.00 264.60 290.40 317.40 345.60 375.00 405.60 437.40 470.40 504.60 540.00 576.60 614.40 653.40 693.60 735.00 777.60	242.41 267.13 293.05 320.17 348.49 378.01 408.73 440.65 473.77 508.09 543.61 580.33 618.25 657.37 697.69 739.21 781.93	244.82 269.66 295.70 322.94 351.38 381.02 411.86 433.90 477.14 511.58 547.22 584.06 622.10 661.34 701.78 743.42 786.26	247.25 272.21 298.37 325.73 354.29 384.05 415.01 447.17 480.53 515.09 550.85 587.81 625.97 665.33 705.89 747.65 790.61	249.70 274.78 301.06 328.54 357.22 387.10 418.18 450.46 483.94 518.62 554.50 591.58 629.86 669.34 710.02 751.90 794.98	252.15 277.35 303.75 331.35 360.15 390.15 421.35 453.75 487.35 522.15 558.15 595.35 633.75 673.35 714.15 756.15 799.35	254.62 279.94 306.46 334.18 363.10 393.22 424.54 457.06 490.78 525.70 561.82 599.14 637.66 677.38 718.30 760.42 803.74	257.09 282.53 309.17 337.01 366.05 396.29 427.73 460.37 494.21 529.25 585.49 602.93 641.57 681.41 722.45 764.69 808.13	259.58 285.14 311.90 339.86 369.02 399.38 430.94 463.70 497.66 532.82 569.18 606.74 645.50 685.46 726.62 768.98 812.54	262.09 287.77 314.65 342.73 372.01 402.49 434.17 467.05 501.13 536.41 572.89 610.57 649.45 689.53 730.81 773.29 816.97

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