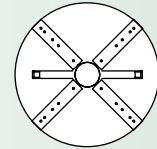


TABLE 60: K-FACTORS FOR AIR FLOW SENSORS

VELOCITY WING SENSOR										
Inlet Size	CFM									
	5	6	7	8	9	10	12	14	16	24x16
K-Factor	287	469	612	867	1098	1353	1802	2469	3366	6358
Area (sq. ft)	0.130	0.188	0.258	0.338	0.430	0.532	0.769	1.050	1.375	2.667



Airflow Calculations

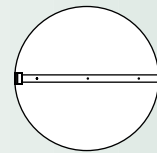
Velocity Wing Sensors
 Sensor $\Delta P = (CFM/K)^2$
 CFM = $K(\sqrt{\Delta P})$

Example: For a 12" inlet unit with a sensor ΔP signal of 0.60 inches w.g., the CFM is calculated to be 1400 CFM.

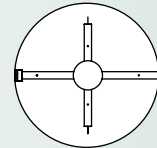
$CFM = K(\sqrt{\Delta P}) = 1802(\sqrt{0.60}) = 1400$ For a 12" inlet unit with 1400 CFM,
 the sensor ΔP signal is calculated to be 0.60 inches w.g. $\Delta P = (CFM/K)^2 = (1400/1802)^2 = 0.60$ " w.g.

Note: K factors shown in 1.0 ΔP row.

Inlet Size	TRAVERSING STYLE AIR FLOW SENSOR						
	High Range	Lo Range	ORIFICE AMPLIFYING PLATES				
5	380 (H)	250 (L)	217 (S)	134 (S12)	90 (S29)		
6	584 (H)	400 (L)	316 (S)	221 (S3)	148 (S2)	110 (S1)	
7	801 (H)	595 (L)	560 (S17)	445 (S)	300 (S18)		
8	1088 (H)	800 (L)	770 (S19)	600 (S)	436 (S4)	316 (S5)	
10	1767 (H)	1300 (L)	1350 (S15)	950 (S)	713 (S11)	626 (S7)	515 (S6)
12	2542 (H)	2000 (L)	2000 (S20)	1407 (S)	1265 (S8)	840 (S14)	
14	3629 (H)	2800 (L)	2950 (S23)	2483 (S28)	2074 (S)	1505 (S10)	1090 (S9)
16	4427 (H)	4000 (L)	3800 (S25)	3300 (S24)	2728 (S)	1490 (S27)	



Inlet Size	MODEL PX-2 CROSS AIR FLOW SENSOR						
	High Range	Lo Range	ORIFICE AMPLIFYING PLATES				
5	380 (P)	250 (Q)	217 (S)	134 (S12)	90 (S29)		
6	584 (P)	400 (Q)	316 (S)	221 (S3)	148 (S2)	110 (S1)	
7	801 (P)	595 (Q)	560 (S17)	445 (S)	300 (S18)		
8	1088 (P)	800 (Q)	770 (S19)	600 (S)	436 (S4)	316 (S5)	
10	1767 (P)	1300 (Q)	1350 (S15)	950 (S)	713 (S11)	626 (S7)	515 (S6)
12	2542 (P)	2000 (Q)	2000 (S20)	1407 (S)	1265 (S8)	840 (S14)	
14	3629 (P)	2800 (Q)	2950 (S23)	2483 (S28)	2074 (S)	1505 (S10)	1090 (S9)
16	4427 (P)	4000 (Q)	3800 (S25)	3300 (S24)	2728 (S)	1490 (S27)	



K-factors shown represent the flow rate, CFM, resulting in a sensor signal $\Delta P = 1.00$ " wg (non-dynamic signal measurement)

Example: 10" Model XAFT valve with PX-2 cross sensor, S orifice plate, operating at 500 CFM. Find K-factor of 950 CFM.
 To determine sensor signal: $\Delta P = (CFM/K)^2 = (500/950)^2 = .28$ " wg.

Critical Space Terminals

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