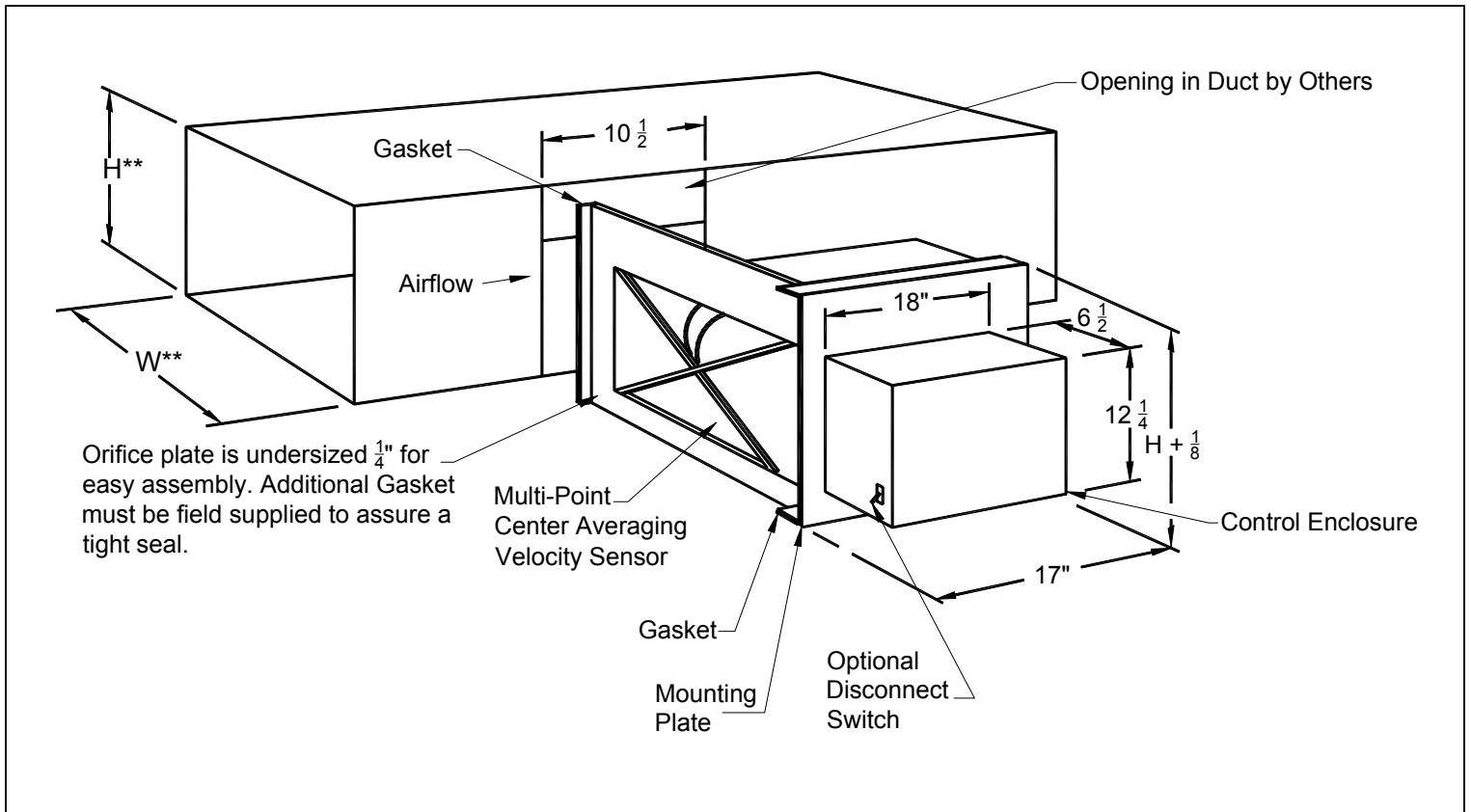


## QCV Series Retrofit Terminals



### Installation

To install, simply cut a rectangular opening in the side of the duct. The opening should be the height of the duct and 10  $\frac{1}{2}$  inches wide as shown above. If the duct is internally lined with insulation, cut out a 1 inch wide groove of insulation down to the sheet metal duct. The groove should be in line with the duct plate which has the multi-point center averaging velocity sensor mounted in it. Duct sealer can now be applied to the bottom inside section of the duct, which aligns with the duct plate. The duct plate has a 1 inch wide flange for duct sealer to be applied to the top edge as well. The flange can be used as well for attachment to the duct with sheet metal screws. After the retrofit valve is inserted into the duct with duct sealer on the top and bottom edges of the duct plate, the valve assembly should be firmly attached to the duct with sheet metal screws in the mounting plate and the duct plate flanges. The corner reinforcing angles should be attached to the top and bottom of the mounting plate as shown. A sealer may also be used to decrease leakage along the reinforcing angles. The controls are now ready to be piped and activated. Please note that the valve is always installed so the damper is down stream from the air flow sensor.

### Important:

See sheet 2 for the QCV K-factors.

## AeroCross Sensor - Calibration Curves

### Inlet Sensor Applications (For QCV's)

Unit Size	Damper	K-Factor		Sensor	
	SQ FT	CFM	FPM	Quantity	Size
A	0.174	320	1837	1	4/5
B	0.250	477	1908	1	4/5
C	0.333	629	1890	1	4/5
D	0.555	1047	1886	1	8
E	0.778	1539	1978	1	8
F	0.750	1472	1962	2	4/5
G	0.833	1676	2012	1	10
H	1.250	2619	2095	2	10
J	1.500	3036	2024	1	12
K	1.944	4385	2256	1	16
L	2.500	5582	2233	2	12
M	2.444	5847	2392	1	16
N	3.000	7413	2471	1	16
P	4.167	11224	2693	2	16
R	5.555	16496	2970	2	16

Equations:

$$CFM = K \sqrt{\Delta P}$$

$$\Delta P = \left(\frac{CFM}{K}\right)^2$$

$\Delta P$  = Differential Pressure On AeroCross, IN WG

K = Flow Required To Produce A 1.0 IN WG Differential Pressure On AeroCross, CFM