

Conversion Factor

Notice of Revised Conversion Factor

Dear Customer:

Conversion factors are figures that are employed in many cases to calibrate an MFC by using an easily handled, safe surrogate gas to substitute for the intended process gas in the calibration equipment. A surrogate gas whose conversion factor is reasonably close to that of the intended gas is normally selected. Using a conversion factor allows one to correlate the flow of an intended gas to that of the surrogate gas. It is Advanced Energy's practice to calculate conversion factors using the specific heat and density of the intended gas, which then can be compared to the conversion factor of the surrogate gas. We also confirm the validity of the conversion factors with experimental testing using the intended gas.

Advanced Energy has revised conversion factors when either one of the following is confirmed:

1. The specific heat data under constant pressure of the intended gas is revised in the latest gas index.
2. Experimental testing using an improved measuring technology indicates an unacceptable difference from the calculation method.

Recently, however, our experimental testing on gases listed below have established that the conversion factor generated by calculation differs substantially from the results of our experimental testing. Therefore, we are issuing this letter to inform our customers of the revision of the conversion factor for these gases.

The conversion factor revision is as follows:

Gas	Revised Conversion Factor
Cl ₂	0.837
CF ₄ (R14)	0.424
CH ₂ F ₂ (R32)	0.610
CHF ₃ (R23)	0.517
CH ₂ FCF ₃ (R134a)	0.304
C ₅ F ₈ -cyclo	0.152
C ₄ F ₆ -1,3	0.183

The revised conversion factor for gases listed above will become effective on September 17, 2001. Calibrations using the previous conversion factor will still be available upon request. An identification label will be attached to the top face of the MFC cover.

If an MFC calibrated for one of the gases listed above is returned to Advanced Energy for service, we will use the same conversion factor with which the MFC was originally calibrated unless otherwise requested by the customer.

We will continue our efforts to develop the best technology for providing the most accurate flow control.

We sincerely appreciate your understanding and attention regarding the conversion factor revision.