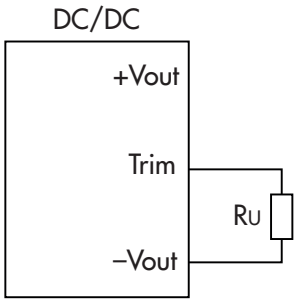
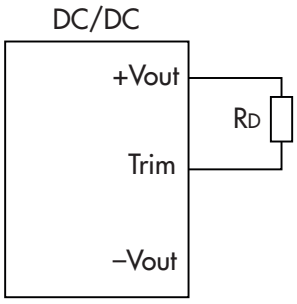
Output Voltage Adjustment

Output voltage set point adjustment allows the user to increase or decrease the output voltage set point of the module. This is accomplished by connecting an external resistor between the Trim pin and either the +Vout or -Vout pins. With an external resistor between the Trim and -Vout pin, the output voltage set point increases. With an external resistor between the Trim and +Vout pin, the output voltage set point decreases. The external TRIM resistor must be at least 1/16 W of rated power.

Connection of trim up resistor



Connection of trim down resistor



Trim-Up equation

$$R_U[\Omega] = \frac{G \times L}{V_{out\_up} - L - K} - H$$

Trim-Down equation

$$R_D[\Omega] = \frac{(V_{out\_down} - L) \times G}{V_{out} - V_{out\_down}} - H$$

Note: For dual output models both output voltages as absolute values must be added in the equation. This must be applied to nominal output voltage $U_{out,nom}$, trimmed up output voltage $U_{out,up}$, and trimmed down output voltage $U_{out,down}$.

Trim Constants

OrderCode	G	H	K	L
Optional model with single 5 Vout	5‘110	2‘050	2.5	2.5
Optional model with single 12 Vout	10‘000	5‘110	9.5	
Optional model with single 15 Vout			12.5	
Optional model with dual 5 Vout	3‘000	3‘000	7.5	
Optional model with dual 12 Vout	56‘000	13‘000	21.5	
Optional model with dual 15 Vout	30‘000		27.5	

For example: Trim up single model with 5 Vout with ΔU = 10 %:

$$R_U = \frac{G \times L}{V_{out\_up} - L - K} - L = \frac{5'110 \times 2.5}{(5.5 - 2.5 - 2.5)} - 2'050 = 23'500\ \Omega$$

For example: Trim down dual model with 12 Vout with ΔU = 5 %:

$$R_D = \frac{((|V_{out\_down\_1}| + |V_{out\_down\_2}|) - L) \times G}{((|V_{out\_1}| + |V_{out\_2}|) - (|V_{out\_down\_1}| + |V_{out\_down\_2}|))} - H = \frac{\big((11.4 + 11.4) - 2.5\big) \times 56'000}{\big((12.0 + 12.0) - (11.4 + 11.4)\big)} - 13'000 = 934'333\ \Omega$$