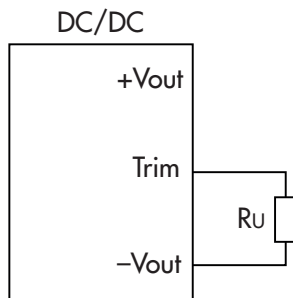


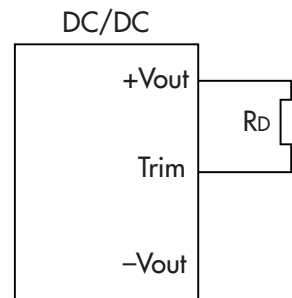
Output Voltage Adjustment (optional models only)

Optional models only: 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 needs to 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

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

Trim constants

Model	G	H	K	L
TEN 10-11010WIRH	5'110	2'050	0.8	2.5
TEN 10-11011WIRH			2.6	
TEN 10-11012WIRH	10'000	5'110	9.5	
TEN 10-11013WIRH			12.5	
TEN 10-11015WIRH	56'000	13'000	21.5	
TEN 10-11021WIRH	3'000	3'000	7.5	
TEN 10-11022WIRH	56'000	13'000	21.5	
TEN 10-11023WIRH	30'000		27.5	

Trim-Tables for single output converters

TEN 10-11010WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	3.333	3.366	3.399	3.432	3.465	3.498	3.531	3.564	3.597	3.630
R_u [kOhm]	385.07	191.51	126.99	94.73	75.37	62.47	53.25	46.34	40.96	36.66
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	3.267	3.234	3.201	3.168	3.135	3.102	3.069	3.036	3.003	2.970
R_p [kOhm]	116.72	54.78	34.13	23.81	17.62	13.49	10.54	8.33	6.60	5.23

TEN 10-11011WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	5.15	5.20	5.25	5.30	5.36	5.41	5.46	5.51	5.56	5.61
R_u [kOhm]	248.44	123.20	81.45	60.57	48.05	39.70	33.73	29.26	25.78	23.00
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	5.05	5.00	4.95	4.90	4.85	4.79	4.74	4.69	4.64	4.59
R_p [kOhm]	253.35	123.10	79.68	57.97	44.94	36.26	30.06	25.40	21.79	18.89

TEN 10-11012WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	12.12	12.24	12.36	12.48	12.60	12.72	12.84	12.96	13.08	13.20
R_u [kOhm]	203.22	99.06	64.33	46.97	36.56	29.61	24.65	20.93	18.04	15.72
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	11.88	11.76	11.64	11.52	11.40	11.28	11.16	11.04	10.92	10.80
R_p [kOhm]	776.56	380.72	248.78	182.81	143.22	116.83	97.99	83.85	72.85	64.06

Trim-Tables for single output converters

TEN 10-11013WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
Vout [V]	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	16.50
R_u [kOhm]	161.56	78.22	50.45	36.56	28.22	22.67	18.70	15.72	13.41	11.56
	11 %	12 %	13 %	14 %	15 %	16 %	17 %	18 %	19 %	20 %
Vout [V]	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	18.00
R_u [kOhm]	10.04	8.78	7.71	6.80	6.00	5.31	4.69	4.15	3.66	3.22
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
Vout [V]	14.85	14.70	14.55	14.40	14.25	14.10	13.95	13.80	13.65	13.50
R_p [kOhm]	818.22	401.56	262.67	193.22	151.56	123.78	103.94	89.06	77.48	68.22

TEN 10-11015WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
Vout [V]	24.24	24.48	24.72	24.96	25.20	25.44	25.68	25.92	26.16	26.40
R_u [kOhm]	570.33	278.67	181.44	132.83	103.67	84.22	70.33	59.92	51.82	45.33
	11 %	12 %	13 %	14 %	15 %	16 %	17 %	18 %	19 %	20 %
Vout [V]	26.64	26.88	27.12	27.36	27.60	27.84	28.08	28.32	28.56	28.80
R_u [kOhm]	40.03	35.61	31.87	28.67	25.89	23.46	21.31	19.41	17.70	16.17
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
Vout [V]	23.76	23.52	23.28	23.04	22.80	22.56	22.32	22.08	21.84	21.60
R_p [kOhm]	4'947.67	2'439.33	1'603.22	1'185.17	934.33	767.11	647.67	558.08	488.41	432.67

Trim-Tables for dual output converters

TEN 10-11021WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	±5.05	±5.10	±5.15	±5.20	±5.25	±5.30	±5.35	±5.40	±5.45	±5.50
R_u [kOhm]	72.00	34.50	22.00	15.75	12.00	9.50	7.71	6.38	5.33	4.50
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	±4.95	±4.90	±4.85	±4.80	±4.75	±4.70	±4.65	±4.60	±4.55	±4.50
R_p [kOhm]	219.00	106.50	69.00	50.25	39.00	31.50	26.14	22.13	19.00	16.50

TEN 10-11022WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	±12.12	±12.24	±12.36	±12.48	±12.60	±12.72	±12.84	±12.96	±13.08	±13.20
R_u [kOhm]	570.33	278.67	181.44	132.83	103.67	84.22	70.33	59.92	51.82	45.33
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	±11.88	±11.76	±11.64	±11.52	±11.40	±11.28	±11.16	±11.04	±10.92	±10.80
R_p [kOhm]	4'947.67	2'439.33	1'603.22	1'185.17	934.33	767.11	647.67	558.08	488.41	432.67

TEN 10-11023WIRH										
Trim-Up										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	±15.15	±15.30	±15.45	±15.60	±15.75	±15.90	±16.05	±16.20	±16.35	±16.50
R_u [kOhm]	237.00	112.00	70.33	49.50	37.00	28.67	22.71	18.25	14.78	12.00
Trim-Down										
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %
V_{out} [V]	±14.85	±14.70	±14.55	±14.40	±14.25	±14.10	±13.95	±13.80	±13.65	±13.50
R_p [kOhm]	2'707.00	1'332.00	873.67	644.50	507.00	415.33	349.86	300.75	262.56	232.00