

Application Note AN-028

GVL 24V

Set/Reset Voltage and Coil Current vs. Temperature

Since Gigavac contactors are operated by a coil that changes resistance with temperature, Pick-up Voltage and Drop Out Voltage will decrease at temperatures below 25C and increase at temperatures above 25C. Coil current will be higher at lower temperatures and lower at higher temperatures. The figures below show the Set/Reset Voltages and Coil Current over the temperature range while Table 1 presents the data numerically.

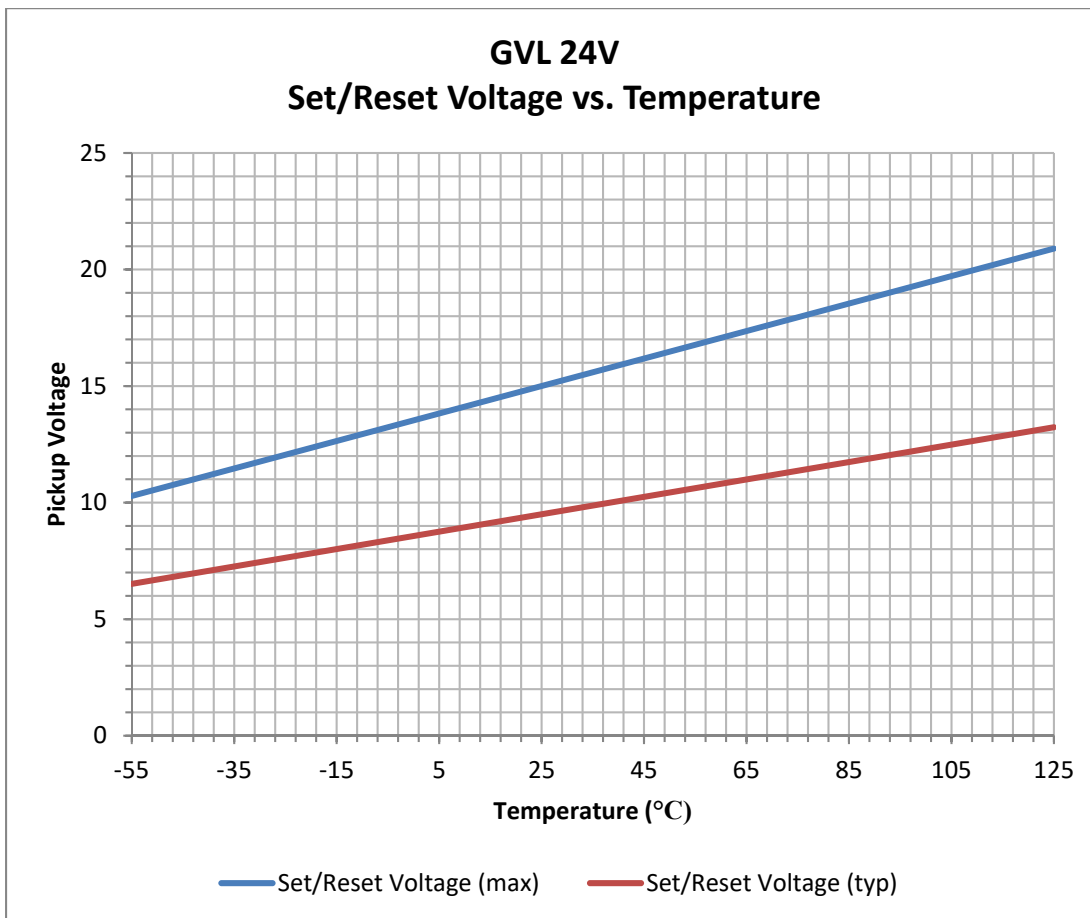


Figure 1.

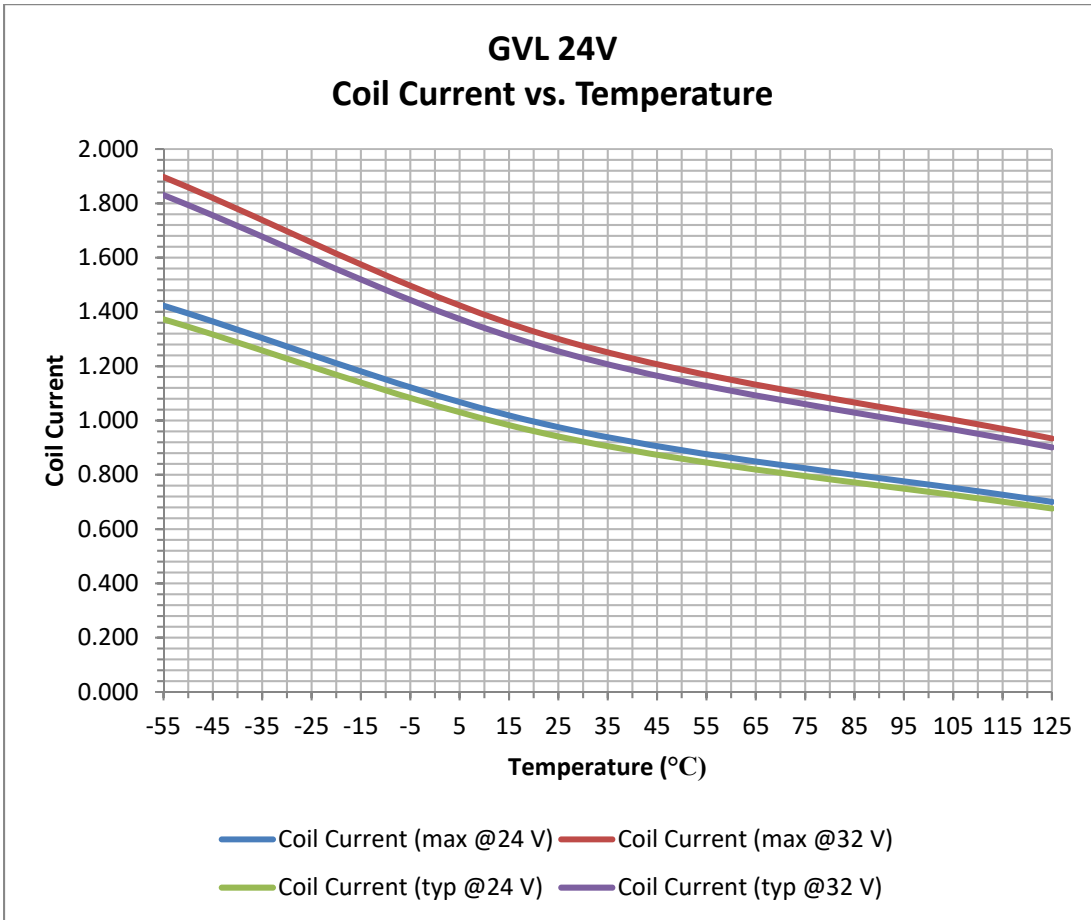


Figure 2.

APPLICATION NOTE

Table 1

Temp. °C	Set/Reset Voltage		Coil Current			
	Typ	Max	@24Vdc		@32Vdc	
	Typ	Max	Typ	Max	Typ	Max
-55	6.51	10.28	1.373	1.423	1.830	1.897
-50	6.70	10.58	1.335	1.383	1.779	1.844
-45	6.89	10.87	1.298	1.346	1.731	1.794
-40	7.07	11.17	1.264	1.310	1.685	1.747
-35	7.26	11.46	1.232	1.276	1.642	1.702
-30	7.45	11.76	1.201	1.244	1.601	1.659
-25	7.63	12.05	1.171	1.214	1.562	1.619
-20	7.82	12.35	1.143	1.185	1.525	1.580
-15	8.01	12.64	1.117	1.157	1.489	1.543
-10	8.19	12.94	1.091	1.131	1.455	1.508
-5	8.38	13.23	1.067	1.106	1.423	1.474
0	8.57	13.53	1.044	1.082	1.392	1.442
5	8.75	13.82	1.021	1.059	1.362	1.411
10	8.94	14.12	1.000	1.037	1.334	1.382
15	9.13	14.41	0.980	1.015	1.306	1.354
20	9.31	14.71	0.960	0.995	1.280	1.327
25	9.50	15.00	0.941	0.975	1.255	1.301
30	9.69	15.29	0.923	0.957	1.231	1.275
35	9.87	15.59	0.906	0.939	1.207	1.251
40	10.06	15.88	0.889	0.921	1.185	1.228
45	10.25	16.18	0.873	0.904	1.163	1.206
50	10.43	16.47	0.857	0.888	1.143	1.184
55	10.62	16.77	0.842	0.873	1.123	1.163
60	10.81	17.06	0.827	0.857	1.103	1.143
65	10.99	17.36	0.813	0.843	1.084	1.124
70	11.18	17.65	0.800	0.829	1.066	1.105
75	11.37	17.95	0.787	0.815	1.049	1.087
80	11.55	18.24	0.774	0.802	1.032	1.069
85	11.74	18.54	0.762	0.789	1.015	1.052
90	11.93	18.83	0.750	0.777	1.000	1.036
95	12.11	19.13	0.738	0.765	0.984	1.020
100	12.30	19.42	0.727	0.753	0.969	1.004
105	12.49	19.72	0.716	0.742	0.955	0.989
110	12.67	20.01	0.706	0.731	0.941	0.975
115	12.86	20.31	0.695	0.721	0.927	0.961
120	13.05	20.60	0.685	0.710	0.914	0.947
125	13.23	20.90	0.676	0.700	0.901	0.934

If you have any questions you can always call us at 805-684-8401.