

Application Note AN-027 GVL 12V 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.

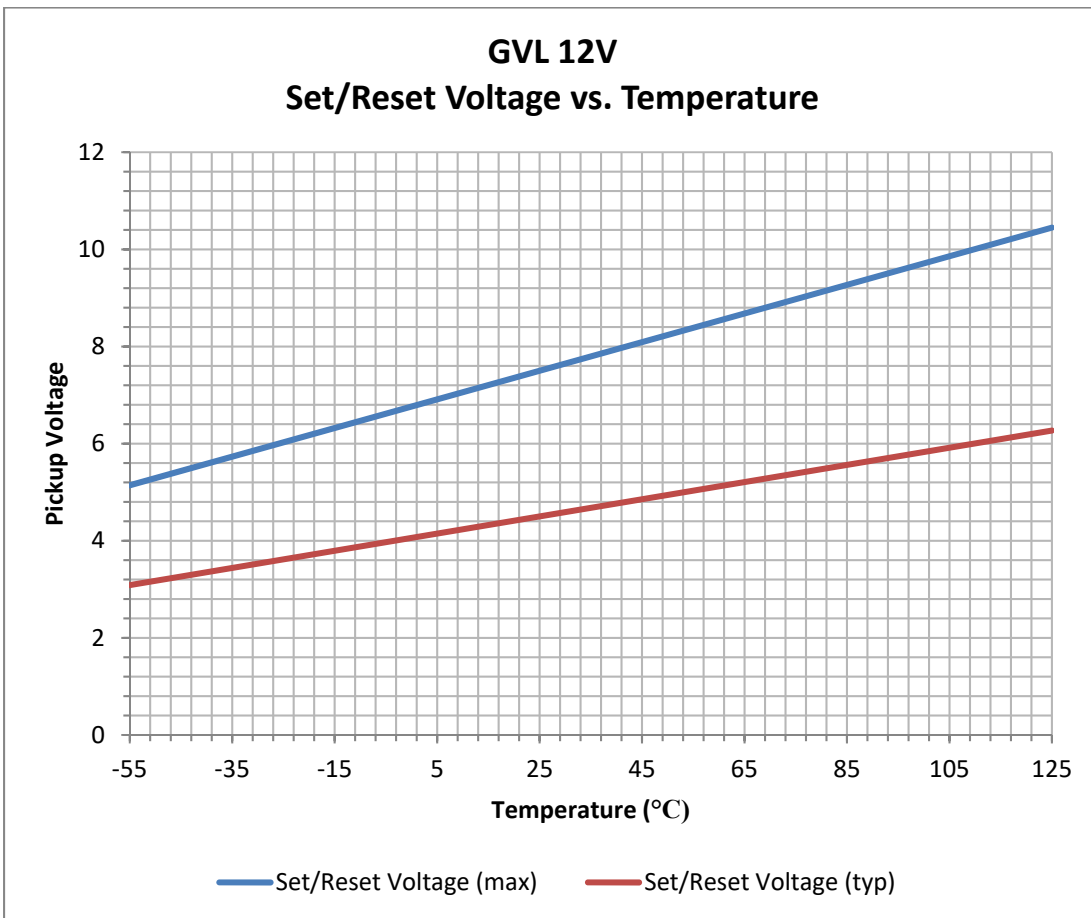


Figure 1.

APPLICATION NOTE

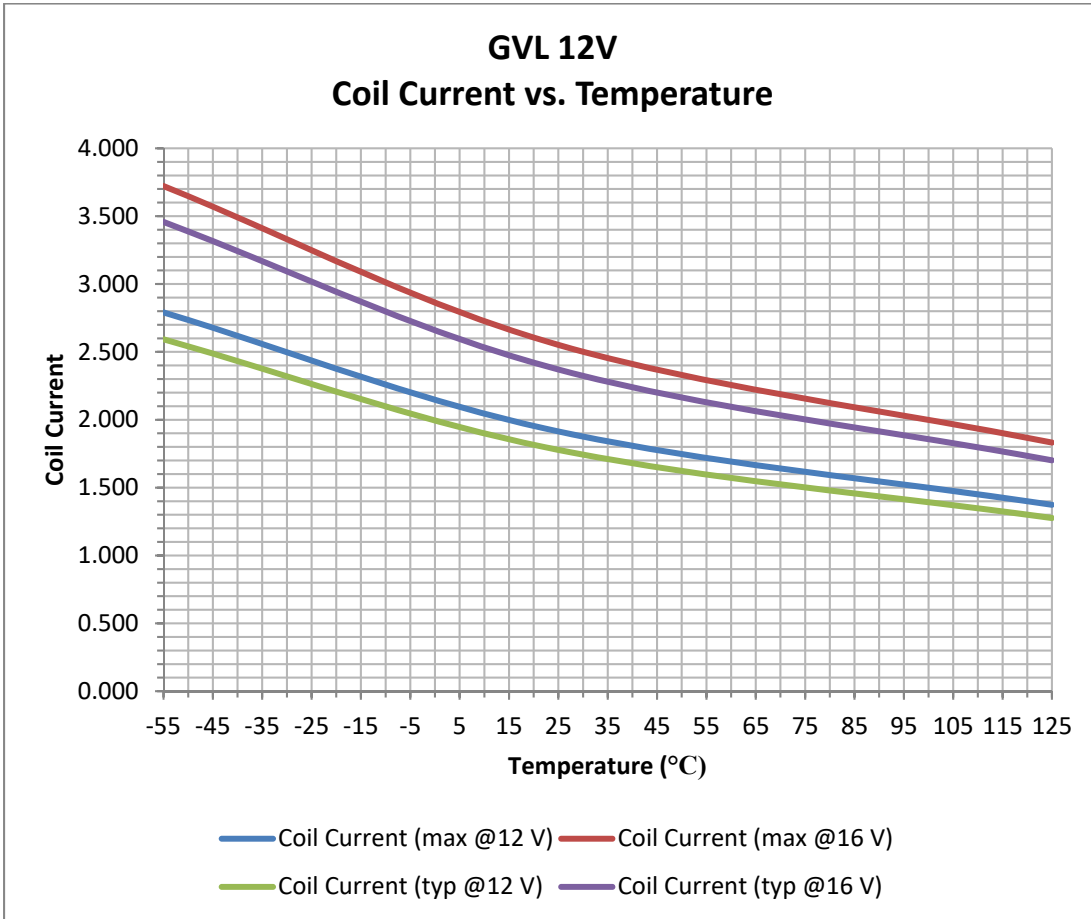


Figure 2.

APPLICATION NOTE

Table 1

Temp. °C	Set/Reset		Coil Current			
	Voltage		@12Vdc		@16Vdc	
	Typ	Max	Typ	Max	Typ	Max
-55	3.09	5.14	2.593	2.792	3.457	3.722
-50	3.17	5.29	2.521	2.714	3.361	3.618
-45	3.26	5.44	2.452	2.640	3.270	3.520
-40	3.35	5.58	2.388	2.571	3.184	3.427
-35	3.44	5.73	2.326	2.504	3.102	3.339
-30	3.53	5.88	2.268	2.442	3.024	3.256
-25	3.62	6.03	2.213	2.382	2.950	3.176
-20	3.70	6.17	2.160	2.325	2.880	3.100
-15	3.79	6.32	2.109	2.271	2.812	3.028
-10	3.88	6.47	2.061	2.219	2.748	2.959
-5	3.97	6.62	2.015	2.170	2.687	2.893
0	4.06	6.76	1.971	2.122	2.629	2.830
5	4.15	6.91	1.929	2.077	2.573	2.770
10	4.23	7.06	1.889	2.034	2.519	2.712
15	4.32	7.21	1.851	1.992	2.467	2.656
20	4.41	7.35	1.813	1.952	2.418	2.603
25	4.50	7.50	1.778	1.914	2.370	2.552
30	4.59	7.65	1.744	1.877	2.325	2.503
35	4.68	7.79	1.711	1.842	2.281	2.455
40	4.77	7.94	1.679	1.807	2.238	2.410
45	4.85	8.09	1.648	1.774	2.198	2.366
50	4.94	8.24	1.619	1.743	2.158	2.324
55	5.03	8.38	1.590	1.712	2.120	2.283
60	5.12	8.53	1.563	1.682	2.084	2.243
65	5.21	8.68	1.536	1.654	2.048	2.205
70	5.30	8.83	1.511	1.626	2.014	2.168
75	5.38	8.97	1.486	1.600	1.981	2.133
80	5.47	9.12	1.462	1.574	1.949	2.098
85	5.56	9.27	1.439	1.549	1.918	2.065
90	5.65	9.42	1.416	1.524	1.888	2.033
95	5.74	9.56	1.394	1.501	1.859	2.001
100	5.83	9.71	1.373	1.478	1.831	1.971
105	5.91	9.86	1.353	1.456	1.803	1.941
110	6.00	10.01	1.333	1.435	1.777	1.913
115	6.09	10.15	1.313	1.414	1.751	1.885
120	6.18	10.30	1.294	1.394	1.726	1.858
125	6.27	10.45	1.276	1.374	1.702	1.832

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