## FEATURES

- Integral Three Position Manual On/Manual Off and Automatic Control Toggle Switch
- Transient Protection: Meets the requirements of IEEE 472, “Surge Withstanding Capability Test”
- UL, CSA Certified
- Optical Isolation
- G5 Modules Provide Replaceable 5x20 mm Glass Fuse
- Built-in Status LED



**Maximum Current Versus Ambient Temperature**

The chart indicates continuous current to limit the junction temperatures to 100°C. Information is based on steady state heat transfer in a two cubic foot sealed enclosure.

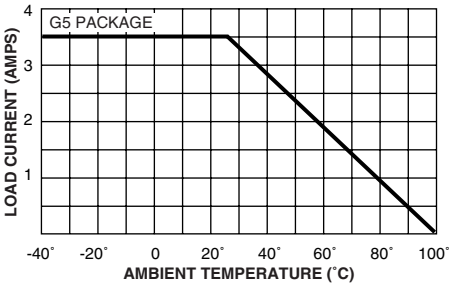
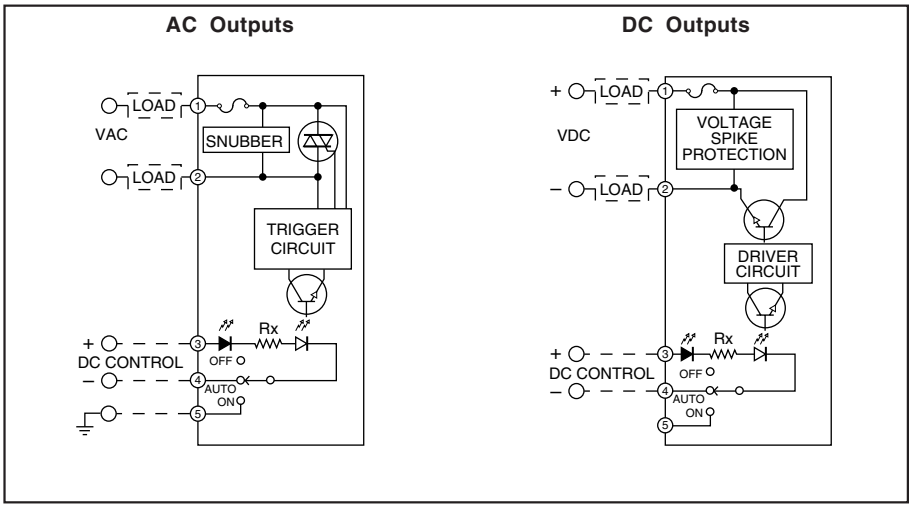



**Figure 1**

## CIRCUITRY




**Maximum Peak Surge Current Versus Surge Duration (AC Outputs)**

Information is based on a supply frequency of 60 Hz sinusoidal and a resistive or inductive load. Application of maximum surge current may not be repeated until the module temperature has returned to its steady state value.

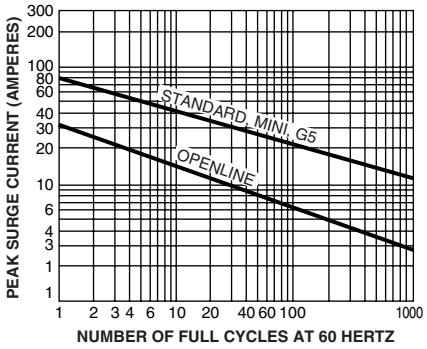



**Figure 2**

## FUSES

G5 Fuses are 5 Amp Littelfuse part number 217005 or equivalent.





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## SPECIFICATIONS: All Modules*

### Output Specifications

**Load Current Range (rms):** 0.03 to 3.5 Amps, Maximum current is derated as shown in Figure 1.
**Maximum Surge Current (peak):** 80 Amps at 60 Hz, 1 cycle as qualified by Figure 2 for AC outputs. 5 Amp maximum for 1 second for DC outputs.
**Turn-on Time (60 Hz):** 8.3 mSec maximum for AC outputs. 20 µSec maximum for DC outputs.
**Turn-off Time (60 Hz):** 8.3 mSec maximum for AC outputs. 50 µSec maximum for DC outputs.
**ON State Voltage Drop (peak):** 1.5 volts max.
**Power Dissipation:** 1.0 Watt/Amp typical

### General Characteristics

**Isolation Voltage Field to Logic:** 4000 Vac (rms) minimum
**Vibration:** 20 G's peak or .06" double amplitude 10–2000 Hz per MIL–STD–202, Method 204, Condition D
**Mechanical Shock:** 1500 G's 0.5 mS half-sine per MIL–STD–202, Method 213, Condition F
**Storage Temperature Range:** -40°C to +125°C
**Operating Temperature Range:** -40°C to +100°C

*Specifications apply over operating temperature range unless noted otherwise.

## SPECIFICATIONS: By Part Number

### AC Outputs

| Type/Function | | Grayhill Part Number | | | |
|---|---|---|---|---|---|
| G5, Zero Voltage Turn On, Manual Override | | 70G-OAC5MA | 70G-OAC5AMA | 70G-OAC24MA | 70G-OAC24AMA |
| **Specifications** | **Units** | | | | |
| Nominal Line Voltage | Vac | 120 | 240 | 120 | 240 |
| Load Voltage Range | Vac | 24-140 | 24-280 | 24-140 | 24-280 |
| Minimum Peak Blocking Voltage | Volts | 400 | 600 | 400 | 600 |
| Maximum Off-state Leakage @ 60Hz | mA, rms | 2 | 4 | 2 | 4 |
| Nominal Logic Voltage (Vcc) | Vdc | 5 | 5 | 24 | 24 |
| Logic Voltage Range | Vdc | 4-6 | 4-6 | 18-32 | 18-32 |
| Max. Logic Supply Current @ Nominal Vcc | mA | 20 | 20 | 8 | 8 |
| Nominal Input Resistance (Rx) | Ω | 100 | 100 | 2700 | 2700 |
| Minimum Drop-Out Voltage | Vdc | 1 | 1 | 1 | 1 |
| Maximum Reverse Logic Voltage | Vdc | -5 | -5 | -5 | -5 |
| Maximum Zero Voltage Offset | (Vpeak) | 8 | 8 | 8 | 8 |
| Frequency Range | (Hz) | 25-70 | 25-70 | 25-70 | 25-70 |

### DC Outputs

| Type/Function | | Grayhill Part Number | |
|---|---|---|---|
| G5 Manual Override | | 70G-ODC5MA | 70G-ODC24MA |
| **Specifications** | **Units** | | |
| Maximum Line Voltage | Vdc | 60 | 60 |
| Load Voltage Range | Vdc | 3-60 | 3-60 |
| Maximum Off-state Leakage @ 60 Vdc | mA | 1.5 | 1.5 |
| Maximum Turn-on Time | µSec | 20 | 20 |
| Maximum Turn-off Time | µSec | 50 | 50 |
| Nominal Logic Voltage (Vcc) | Vdc | 5 | 24 |
| Logic Voltage Range | Vdc | 4-6 | 18-32 |
| Max. Logic Supply Current @ Nominal Vcc | mA | 13 | 9 |
| Nominal Input Resistance (Rx) | Ω | 150 | 2700 |
| Minimum Drop-Out Voltage | Vdc | 1 | 1 |
| Maximum Reverse Logic Voltage | Vdc | -5 | -5 |
| Maximum Clamping Voltage | Vdc | 80 | 80 |

**Available from your local Grayhill Distributor.** For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.