



## FEATURES

- Transient Protection: Meets the requirements of IEEE 472, "Surge Withstanding Capability Test"
- UL, CSA, CE, TÜV Certified (TÜV not available on OpenLine)
- Optical Isolation
- OpenLine® and G5 Modules have Built-in Status LED
- Lifetime Warranty



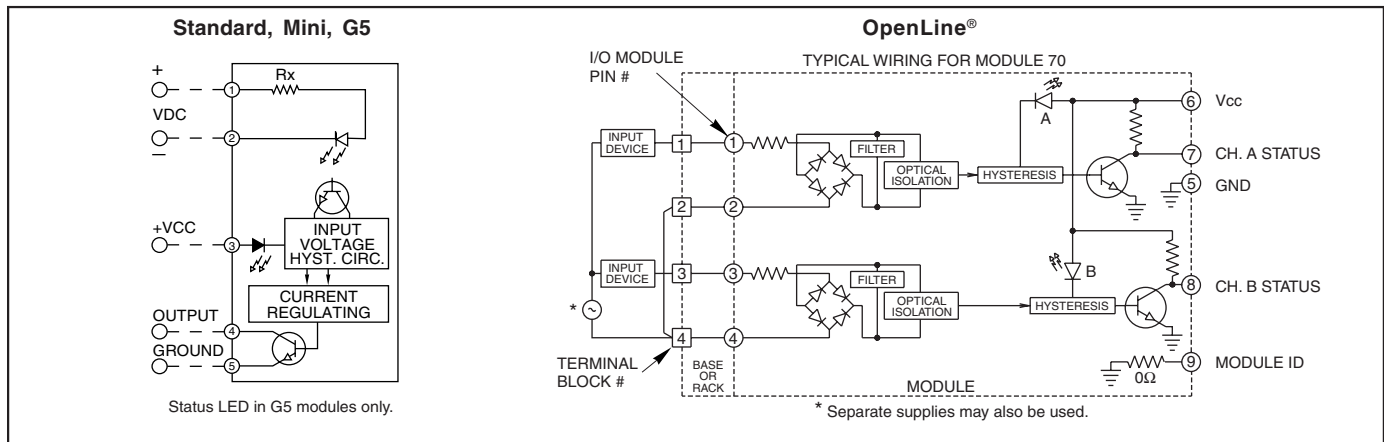
70L-IAC

70G-IAC

70-IAC

70M-IAC

## CIRCUITRY



## SPECIFICATIONS: By Package Style

| Package Style                    |       | Std (70-)   | Mini (70M-) | G5 (70G-)   | OL (70L-)   |
|----------------------------------|-------|-------------|-------------|-------------|-------------|
| Specifications                   | Units |             |             |             |             |
| Output Current Range             | mA    | 1-50        | 1-50        | 1-50        | 1-50        |
| Minimum Output Breakdown Voltage | Vdc   | 50          | 50          | 50          | 50          |
| Maximum Turn-On Time             | mS    | 20          | 20          | 20          | 20          |
| Maximum Turn-Off Time            | mS    | 20          | 20          | 20          | 20          |
| Isolation Voltage <sup>1</sup>   | Vrms  | 4000        | 4000        | 4000        | 2500        |
| Vibration <sup>2</sup>           |       | MIL-STD-202 | MIL-STD-202 | MIL-STD-202 | IEC68-2-6   |
| Mechanical Shock <sup>3</sup>    |       | MIL-STD-202 | MIL-STD-202 | MIL-STD-202 | IEC68-2-27  |
| Storage Temp. Range              | °C    | -40 to +125 | -40 to +125 | -40 to +125 | -40 to +100 |
| Operating Temp. Range            | °C    | -40 to +100 | -40 to +100 | -40 to +100 | -40 to +85  |
| Warranty                         |       | Lifetime    | Lifetime    | Lifetime    | Lifetime    |

<sup>1</sup> Field to logic and channel-to-channel if Grayhill racks are used.

<sup>2</sup> MIL-STD-202, Method 204, 20 G, 10-2000 Hz or IEC68-2-6, 0.15 mm/sec<sup>2</sup>, 10-150 Hz.

<sup>3</sup> MIL-STD-202, Method 213, Condition F, 1500 G or IEC68-2-27, 11 mS, 15g.

### SPECIFICATIONS: By Part Number

#### Standard and Miniature Modules

| Type/Function                           |         | Grayhill Part Number |           |           |            |           |            |
|-----------------------------------------|---------|----------------------|-----------|-----------|------------|-----------|------------|
| Miniature                               |         | 70M-IAC5             | 70M-IAC5A | 70M-IAC15 | 70M-IAC15A | 70M-IAC24 | 70M-IAC24A |
| Standard                                |         | 70-IAC5              | 70-IAC5A  |           | 70-IAC15A  | 70-IAC24  | 70-IAC24A  |
| Specifications                          | Units   |                      |           |           |            |           |            |
| Nominal Input Voltage                   | Vac     | 120                  | 240       | 120       | 240        | 120       | 240        |
| Input Voltage Range <sup>1</sup>        | Vac/Vdc | 90-140               | 180-280   | 90-140    | 180-280    | 90-140    | 180-280    |
| Input Current @ Maximum Input Voltage   | mA, rms | 8                    | 6         | 8         | 6          | 8         | 6          |
| Nominal Input Resistance (Rx)           | W       | 22K                  | 60K       | 22K       | 60K        | 22K       | 60K        |
| Maximum Pick-Up Voltage (Output Low)    | Vac     | 90                   | 180       | 90        | 180        | 90        | 180        |
| Minimum Drop-Out Voltage (Output High)  | Vac     | 25                   | 50        | 25        | 50         | 25        | 50         |
| Nominal Logic Voltage (Vcc)             | Vdc     | 5                    | 5         | 15        | 15         | 24        | 24         |
| Logic Voltage Range                     | Vdc     | 3-6                  | 3-6       | 8-18      | 8-18       | 15-30     | 15-30      |
| Max. Logic Supply Current @ Nominal Vcc | mA      | 10                   | 10        | 10        | 10         | 10        | 10         |

### G5 Modules

| Type/Function                           |         | Grayhill Part Number |           |           |            |           |            |
|-----------------------------------------|---------|----------------------|-----------|-----------|------------|-----------|------------|
| G5, Status LED                          |         | 70G-IAC5             | 70G-IAC5A | 70G-IAC15 | 70G-IAC15A | 70G-IAC24 | 70G-IAC24A |
| Specifications                          | Units   |                      |           |           |            |           |            |
| Nominal Input Voltage                   | Vac     | 120                  | 240       | 120       | 240        | 120       | 240        |
| Input Voltage Range <sup>1</sup>        | Vac/Vdc | 90-140               | 180-280   | 90-140    | 180-280    | 90-140    | 180-280    |
| Input Current @ Maximum Input Voltage   | mA, rms | 8                    | 6         | 8         | 6          | 8         | 6          |
| Nominal Input Resistance (Rx)           | W       | 22K                  | 60K       | 22K       | 60K        | 22K       | 60K        |
| Maximum Pick-Up Voltage (Output Low)    | Vac     | 90                   | 180       | 90        | 180        | 90        | 180        |
| Minimum Drop-Out Voltage (Output High)  | Vac     | 25                   | 50        | 25        | 50         | 25        | 50         |
| Nominal Logic Voltage (Vcc)             | Vdc     | 5                    | 5         | 15        | 15         | 24        | 24         |
| Logic Voltage Range                     | Vdc     | 4.5-6                | 4.5-6     | 10-18     | 10-18      | 17-30     | 17-30      |
| Max. Logic Supply Current @ Nominal Vcc | mA      | 10                   | 10        | 10        | 10         | 10        | 10         |

### OpenLine® Modules

| Type/Function                           |         | Grayhill Part Number |          |
|-----------------------------------------|---------|----------------------|----------|
| Dual, Status LED                        |         | 70L-IAC              | 70L-IACA |
| Specifications                          | Units   |                      |          |
| Nominal Input Voltage                   | Vac     | 120                  | 240      |
| Input Voltage Range <sup>1</sup>        | Vac/Vdc | 0-140                | 0-280    |
| Input Current @ Max. Input Voltage      | mA, rms | 8                    | 6        |
| Nominal Input Resistance (Rx)           | W       | 22K                  | 64K      |
| Max. Pick-Up Voltage (Output Low)       | Vac     | 90                   | 180      |
| Min. Drop-Out Voltage (Output High)     | Vac     | 25                   | 50       |
| Nominal Logic Voltage (Vcc)             | Vdc     | 5                    | 5        |
| Logic Voltage Range                     | Vdc     | 4.5-28               | 4.5-28   |
| Max. Logic Supply Current @ Nominal Vcc | mA      | 6/CH                 | 6/CH     |
| Module ID Resistance to Logic Ground    | W       | 0                    | 0        |

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

<sup>1</sup> For input voltages in the range of 15-32 Vac, or 35-60 Vac, see DC input Modules with the NP or G suffix.