

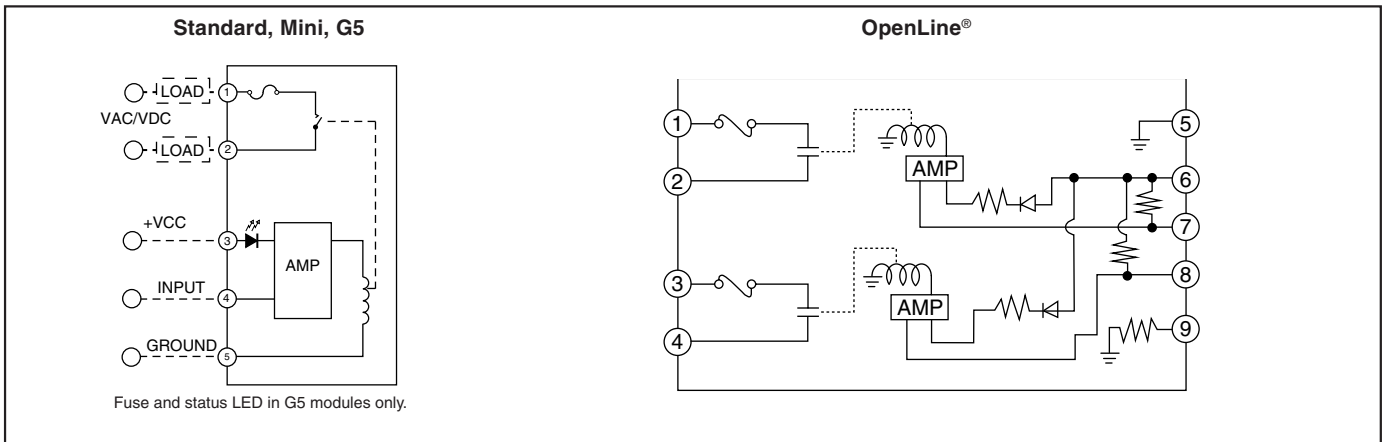
## FEATURES

- SPST, Normally Open
- UL, CSA Certified
- 1500 Vac Optical Isolation
- G5 and OpenLine® Modules Provide Replaceable 5x20mm Glass Fuse
- Built-in Status LED
- Lifetime Warranty
- Switch AC or DC with the Same Module
- Very Low Off-State Leakage Current for AC loads
- No Off-State Leakage Current for DC loads



70L-ODC5R 70G-ODCR/OACRLY 70-ODCR/OACRLY 70M-ODCR

## CIRCUITRY



## SPECIFICATIONS BY PACKAGE STYLE

Package Style		Std (70-)	Mini (70M-)	G5 (70G-)	OpenLine® (70L-)
<b>Specifications</b>	<b>Units</b>				
Isolation Voltage <sup>1</sup>	Vrms	1500	1500	1500	1500
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	IEC68-2-7
Storage Temp. Range	°C	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Operating Temp. Range	°C	-40 to 70	-40 to 70	-40 to 70	-40 to 70

<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, Normally Open		70M-ODC5R		70M-ODC24R
Standard, Normally Open		70-ODC5R	70-OAC5RLY	70-ODC24R
Specifications	Units			
Maximum Line Voltage	Vdc/Vac	100/120	110/250	100/120
Load Voltage Range	Vdc/Vac	0-100/0-120	0-110/0-250	0-100/0-120
Maximum Contact Rating	W	10	90	10
Maximum Switching Current <sup>1</sup>	A	0.5	3.0	0.5
Maximum Carry Current <sup>1</sup>	A	1.0	5.0	1.0
Minimum Life Expectancy				
@ 10 Vdc/10 mA	Cycles	200 x 10 <sup>6</sup>	—	200 x 10 <sup>6</sup>
@ 48 Vdc/100 mA	Cycles	500 x 10 <sup>3</sup>	—	500 x 10 <sup>3</sup>
@ 120 Vac/80 mA	Cycles	500 x 10 <sup>3</sup>	—	500 x 10 <sup>3</sup>
@ 30 Vdc or 230 Vac/3A	Cycles	—	100 x 10 <sup>6</sup>	—
Maximum Contact Resistance	mΩ	250	250	250
Maximum Off-State Leakage	mA	.002	.002	.002
Maximum Turn-On Time <sup>2</sup>	mSec	1	11	1
Maximum Turn-Off Time <sup>2</sup>	mSec	1	11	1
Nominal Logic Voltage (Vcc)	Vdc	5	5	24
Logic Voltage Range	Vdc	4.8-6.0	4.8-6.0	20-30
Maximum Logic Supply Current				
@ Nominal Vcc	mA	10	26	16
Nominal Input Resistance (Rx)	Ω	500	200	1700
Minimum Drop-Out Voltage	Vdc	2.5	4.8	23
Maximum Reverse Logic Voltage	Vdc	-5	-5	-5

**G5 and OpenLine® Modules**

Type/Function		Grayhill Part Number			
G5 Fusible, Normally Open		70L-ODC5R	70G-ODC5R	70G-OAC5RLY	70G-ODC24R
Specifications	Units				
Maximum Line Voltage	Vdc/Vac	200/200	100/120	110/250	100/120
Load Voltage Range	Vdc/Vac	0-200/0-200	0-100/0-120	0-110/0-250	0-100/0-120
Maximum Contact Rating	W	10	10	90	10
Maximum Switching Current <sup>1</sup>	A	0.5	0.5	3.0	0.5
Maximum Carry Current <sup>1</sup>	A	1.5	1.0	5.0	1.0
Minimum Life Expectancy					
@ 1Vdc/10 mA	Cycles	1000 x 10 <sup>6</sup>	—	—	—
@ 10 Vdc/10 mA	Cycles	—	200 x 10 <sup>6</sup>	—	200 x 10 <sup>6</sup>
@ 48 Vdc/100 mA	Cycles	—	500 x 10 <sup>3</sup>	—	500 x 10 <sup>3</sup>
@ 120 Vac/80 mA	Cycles	500 x 10 <sup>3</sup>	500 x 10 <sup>3</sup>	—	500 x 10 <sup>3</sup>
@ 30 Vdc or 230 Vac/3A	Cycles	—	—	100 x 10 <sup>6</sup>	—
Maximum Contact Resistance	mΩ	300	250	250	250
Maximum Turn-On Time <sup>2</sup>	mSec	1	1	11	1
Maximum Turn-Off Time <sup>2</sup>	mSec	1	1	11	1
Max. Off-State Leakage @ Max. Line	mA	.002	.002	.002	.002
Nominal Logic Voltage (Vcc)	Vdc	5	5	5	24
Logic Voltage Range	Vdc	4.5-6.0	4.8-6.0	4.8-6.0	18-32
Max. Logic Supply Current					
@ Nominal Vcc	mA	30 max./channel	10	26	23
Nominal Input Resistance (Rx)	Ω	167	500	200	1200
Minimum Drop-Out Voltage	Vdc	4.5	1	1	23

<sup>1</sup> Inductive loads require diode suppression or RC network.  
<sup>2</sup> Times include debounce.

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

I/O Modules