

## G4 DIGITAL DC OUTPUT MODULES

### Features

- > 4000 volts optical isolation (transient)
- > Built-in LED status indicator
- > Logic levels of 5, 15, and 24 VDC
- > Removable fuse
- > Ability to withstand one-second surge of 5 amps
- > Operating temperature: -30 °C to 70 °C
- > UL recognized, CSA certified, CE approved
- > Passes NEMA Showering Arc Test (ICS 2-230)
- > Meets IEEE Surge Withstand Specification (IEEE-472)



G4ODC5

### DESCRIPTION

Opto 22's G4 DC output modules are used to control or switch DC loads. Each module provides up to 4000 volts of optical isolation (transient) between field devices and control logic.

The G4ODC5MA is a special module featuring a manual-on/manualoff/automatic switch, ideal for diagnostic testing of control applications.

Typical applications for DC output modules include switching loads such as DC relays, solenoids, motor starters, lamps, and indicators.

#### Compatible with Raspberry Pi

The following G4 digital DC output modules can be used with the Digital I/O Carrier Board for Raspberry Pi® (part number [OPTO-P1-40P](#)) to monitor and control industrial devices with your Raspberry Pi:

- G4ODC5
- G4ODC5A
- G4ODC5MA

### Part Numbers

Part	Description
G4ODC5*	G4 DC Output 5–60 VDC, 5 VDC Logic
G4ODC5FM	G4 DC Output 5–60 VDC, 5 VDC Logic, Factory Mutual approved
G4ODC5A*	G4 DC Output 5–200 VDC, 5 VDC Logic
G4ODC5AFM	G4 DC Output 5–200 VDC, 5 VDC Logic, Factory Mutual approved
G4ODC5MA*	G4 DC Output 5–60 VDC, 5 VDC Logic with Manual/Auto Switch
G4ODC15	G4 DC Output 5–60 VDC, 15 VDC Logic
G4ODC24	G4 DC Output 5–60 VDC, 24 VDC Logic
G4ODC24A	G4 DC Output 5–200 VDC, 24 VDC Logic

\* Compatible with Raspberry Pi

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## SPECIFICATIONS

	Units	G4ODC5* G4ODC5FM**	G4ODC5A* G4ODC5AFM**	G4ODC5MA*	G4ODC15***	G4ODC24***	G4ODC24A***
Maximum line voltage	VDC	60	200	60	60	60	200
Output voltage range	VDC	5–60	5–200	5–60	5–60	5–60	5–200
Key feature	—	—	—	Diagnostic switch	—	—	—
Current rating: At 45 °C ambient At 70 °C ambient	A A	3 2	1 0.55	3 2	3 2	3 2	1 0.55
Isolation input-to-out-put (transient): 1 ms 1 minute	volts	4000 1500	4000 1500	4000 1500	4000 1500	4000 1500	4000 1500
Off-state leakage at maximum voltage	mA	1	1	1	1	1	1
Control resistance (R <sub>c</sub> in schematic)	W	220	220	220	1 K	2.2 K	2.2 K
One-second surge	A	5	5	5	5	5	5
Turn-on time	micro-seconds	100	100	100	100	100	100
Turn-off time	micro-seconds	750	750	750	750	750	750
Output voltage drop maximum peak	V	1.6	1.6	1.6	1.6	1.6	1.6
Nominal logic voltage	VDC	5	5	5	15	24	24
Logic voltage range	VDC	4–8	4–8	4–8	10.5–16	19.5–32	19.5–32
Logic pickup voltage	VDC	4	4	4	10.5	19.5	19.5
Logic dropout voltage	VDC	1	1	1	1	1	1
Logic input current at nominal logic voltage	mA	12	12	12	15	18	18
Temperature: Operating Storage	°C °C	-30 to +70 -30 to +85	-30 to +70 -30 to +85	-30 to +70 -30 to +85	-30 to +70 -30 to +85	-30 to +70 -30 to +85	-3- to +70 -30 to +85

\* Compatible with Raspberry Pi

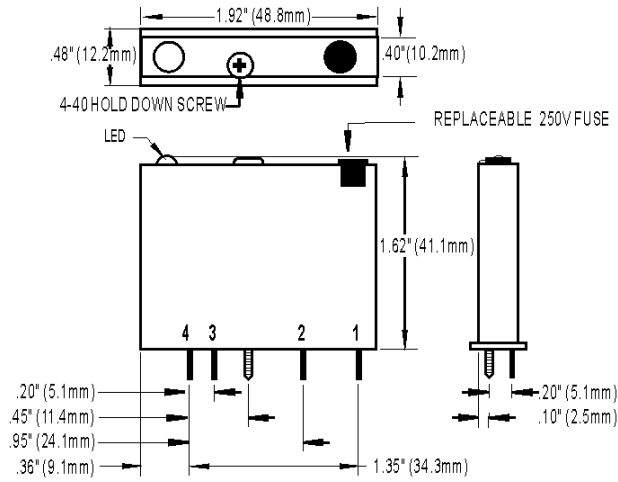
\*\* Part numbers ending in FM are Factory Mutual approved

\*\*\* Not for use with Opto 22 brains

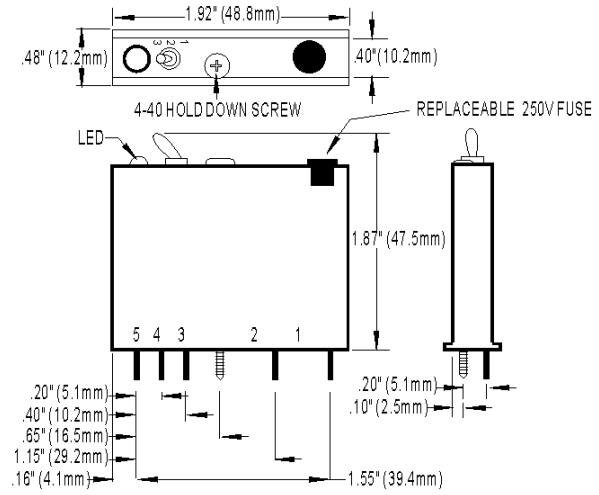


## DIMENSIONS

### All Models Except MA

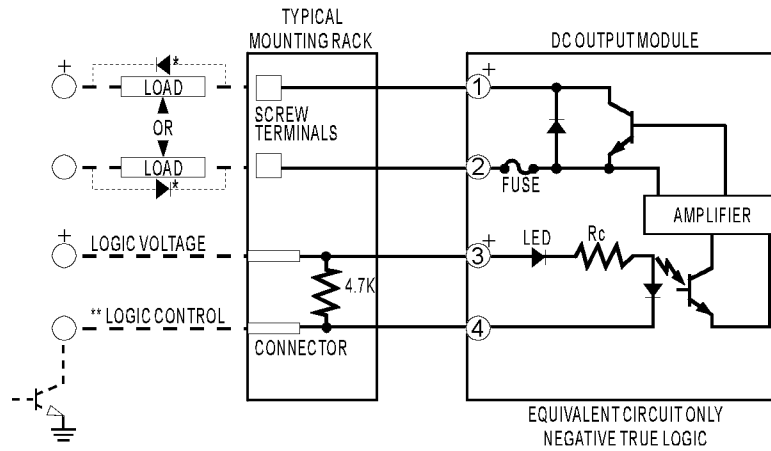


### MA Models



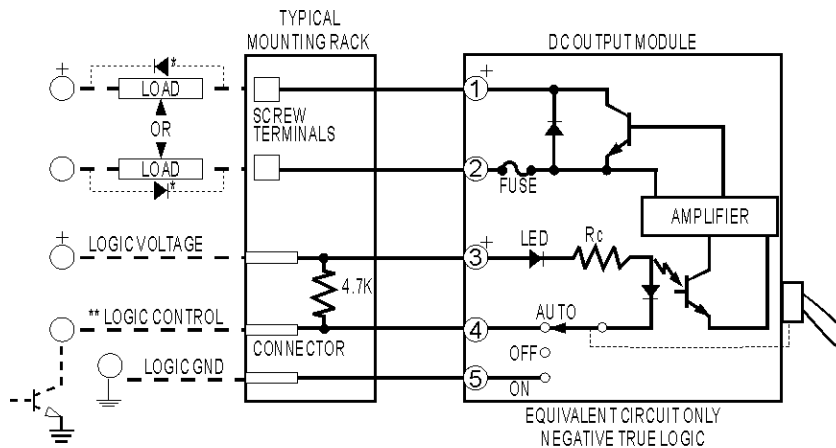
## SCHEMATICS

### All Models Except MA



\* Commutation diode must be used on inductive loads. Typically, use diode IN4005.  
\*\* Control line is compatible with totem pole or tri-state output device.

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