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Find the *Opto-22 G4PB24* at our website: *Click HERE*

G4 DIGITAL DRY CONTACT OUTPUT MODULES

Features

- Used to switch low-voltage resistive loads
- Contact resistance of 200 milliohms maximum
- Mechanical life of 5 million cycles
- Coil 5 VDC at 14 mA
- Operating temperature: -30 °C to 70 °C
- CE approved
- Passes NEMA Showering Arc Test (ICS 2-230)
- Meets IEEE Surge Withstand Specification (IEEE-472)



G4 Dry Contact Output Modules



DESCRIPTION

Opto 22's G4 family of modules includes two dry-contact, low-contact-resistance DC output modules, the G4ODC5R and the G4ODC5R5.

- The **G4ODC5R** is a single-pole, single-throw, normally open mechanical relay (Form A, SPST-NO).
- The **G4ODC5R5** is a single-pole, single-throw, normally closed mechanical relay (Form B, SPST-NC).

Factory Mutual-approved versions of these modules are also available.

Typical applications for these modules include analog signal and communication line multiplexing.

Because of their low 10 VA rating, these modules are not recommended for inductive or capacitive loads (even very small loads), because the inrush current is likely to exceed the 10 VA rating.

IMPORTANT: Applications using 120 VAC are typically NOT suited to these modules. If you are considering using one of these modules for any application other than low-voltage purely resistive loads, see the detailed notes and rating curve on page 2, and call Pre-sales Engineering for specific guidance.

Part Numbers

Part	Description
G4ODC5R	G4 Dry Contact Output, 5 VDC Logic, Normally Open
G4ODC5RFM	G4 Dry Contact Output, 5 VDC Logic, Normally Open, Factory Mutual Approved
G4ODC5R5	G4 Dry Contact Output, 5 VDC Logic, Normally Closed
G4ODC5R5FM	G4 Dry Contact Output, 5 VDC Logic, Normally Closed, Factory Mutual Approved

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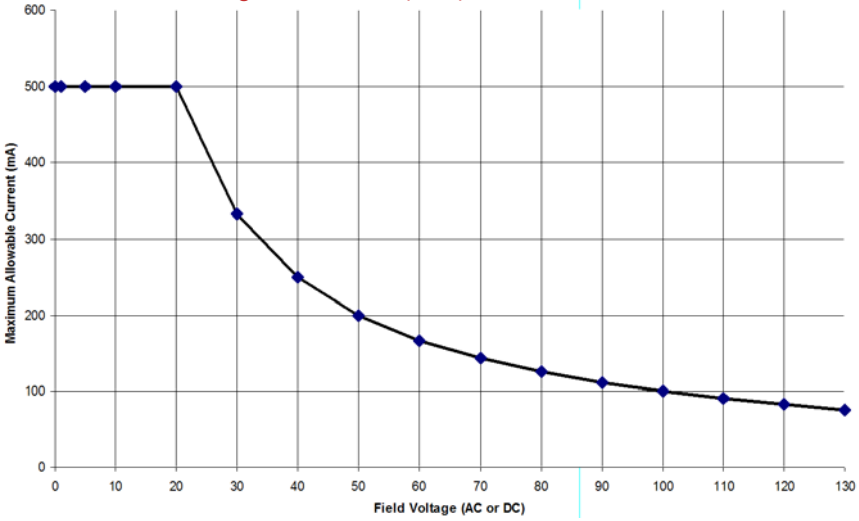
SPECIFICATIONS

	Units	G4ODC5R G4ODC5RFM*	G4ODC5R5 G4ODC5R5FM*
Contact form		Form A SPST mechanical relay	Form B SPST mechanical relay
Normal position		Open	Closed
Contact rating	VA	10	10
Maximum switching voltage (see NOTE)	VDC	100	100
	VAC	130	130
Maximum switching current	A	0.5 (see NOTE)	0.5 (see NOTE)
Contact resistance	Milliohms	200	200
Turn-on time	microseconds	500	500
Turn-off time	microseconds	500	500
Contact bounce	microseconds	250	250
Mechanical life	cycles	5 million	5 million
Logic voltage range	VDC	4.8–6	4.8–6
Logic OFF voltage range	VDC	0.0–0.8	0.0–0.8
Logic ON voltage range	VDC	3.8–6	3.8–6
Indeterminate range	VDC	0.8–3.8	0.8–3.8
Logic input current at nominal logic voltage	milliamps	14	14
Isolation voltage (transient) input-to-output	VDC	1,500	1,500
Ambient temperature: Operating Storage	 °C °C	 0 to 70 -60 to +105	 0 to 70 -60 to +105

*Part numbers ending in FM are Factory Mutual approved.

NOTE: The application of the dry contact module must not exceed 10 VA under steady-state or momentary in-rush conditions.
For voltages at or below 20 volts, the current limit is 0.5 amps.
For voltages above 20 volts, the maximum allowable current is determined by the following equation:
Maximum Current = 10 VA / Voltage

10 VA Rating for Reed Relay (Dry Contact) Modules



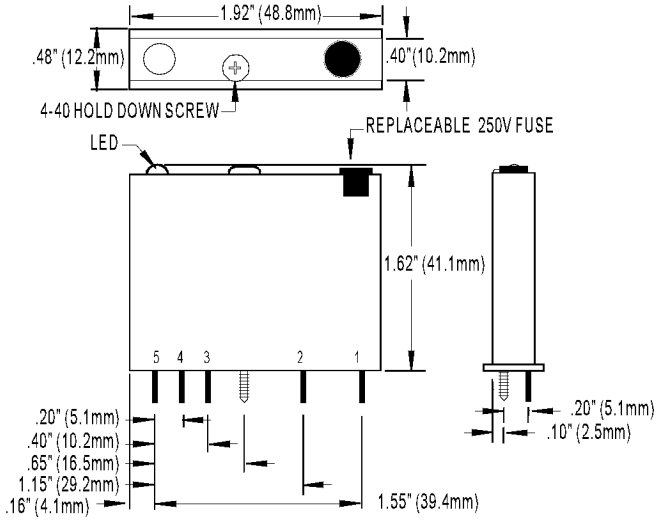
Current Limit at Key Voltages	
V	mA
5	500
12	500
24	416
100[1]	100
120	83
130[2]	76

[1] Maximum DC voltage is 100 VDC.
[2] Maximum AC voltage is 130 VAC.

MADE IN THE USA

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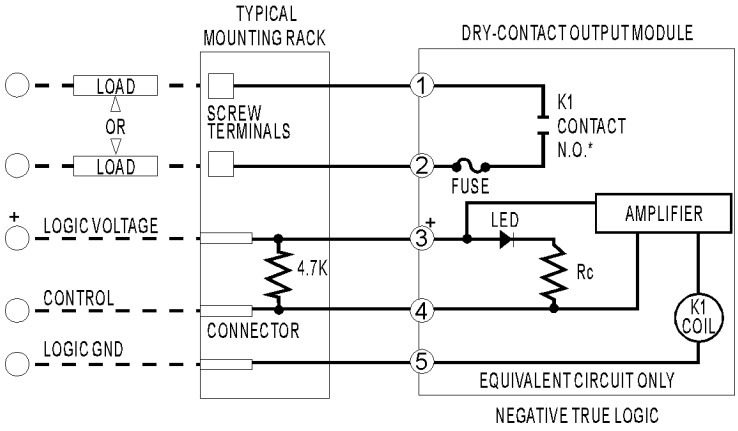
DIMENSIONS



SCHEMATICS

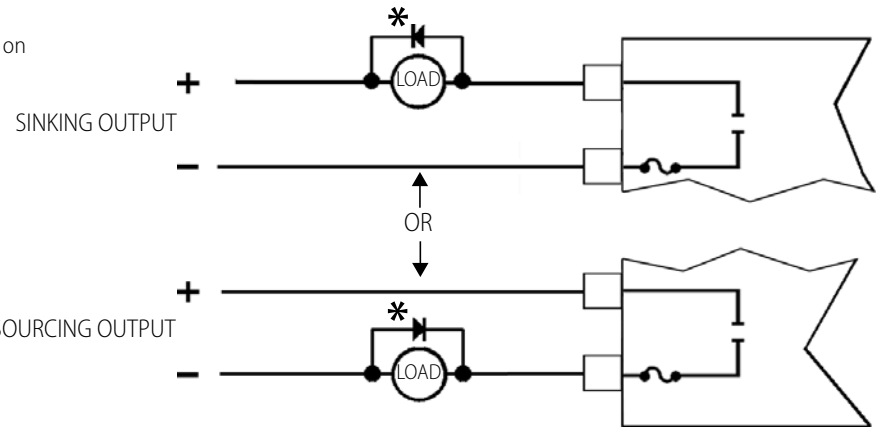
NOTE: Also compatible with Totem Pole or Tri-State Output. Will not plug into G4PB4R mounting rack.

*Normally open for G4ODC5R. Normally closed for G4ODC5R5.



TYPICAL WIRING EXAMPLES

NOTE: Commutating diode* must be used on inductive loads (Typical: 1N4005)



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More about Opto 22

OPTO 22

PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products.

Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov EPIC® System

Opto 22's *groov* Edge Programmable Industrial Controller (EPIC) system is the culmination of over 40 years of experience in designing products for the automation industry.

groov EPIC gives you an industrially hardened system with guaranteed-for-life I/O, a flexible Linux®-based controller with gateway functions, and software for your IIoT application or any application.

groov EPIC I/O

I/O provides the local connection to sensors and equipment. *groov* I/O offers up to 24 channels on each I/O module, with a spring-clamp terminal strip, integrated wireway, and swing-away cover.

Opto 22 I/O is so reliable, we can afford to guarantee it for life. *groov* I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.



groov EPIC Controller

The heart of the system is the *groov* EPIC controller. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, online services, and more, both on premises and in the cloud.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution touchscreen. Authorized users can see your *groov* View HMI locally on the touchscreen or on a monitor connected via the HDMI or USB ports.

groov EPIC Software

Software includes:

- Flowchart-based PAC Control for control programming, or build your own custom application with optional secure shell access
- *groov* View for building and viewing your own device-independent HMI
- Node-RED for creating simple logic flows from pre-built nodes
- Ignition Edge® from Inductive Automation®, with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT/Sparkplug communications for efficient IIoT data transfer

groov Edge Appliance



Visualization, data handling, and connectivity in a compact, industrial box: that's the *groov* Edge Appliance. Included are:

- *groov* View for building and viewing operator interfaces on PCs and mobile
- Node-RED for building simple logic flows
- Ignition Edge® from Inductive Automation®, for OPC-UA drivers and MQTT/Sparkplug IIoT communications

Older products

From solid state relays (our first products) to world-famous G4 and SNAP I/O, to SNAP PAC controllers, Opto 22 products last a long time. You can count on us to give you the reliability and service you expect.

QUALITY

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can guarantee most solid-state relays and optically isolated I/O modules for life.

FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free, comprehensive technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including how-to videos, user's guides, the Opto 22 KnowledgeBase, troubleshooting tips, and OptoForums. In addition, free hands-on training is available at our Temecula, California headquarters, and you can register online.

PURCHASING OPTO 22 PRODUCTS

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.

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