

# Standard DC Output Modules

## Features

- ▶ Rugged construction
- ▶ 4,000 Vrms of optical isolation between the field devices and the control logic



ODC5 Module

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-54151736  
勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## Description

DC output modules are used for controlling or switching DC loads. Each module provides 4,000 Vrms of optical isolation between the field devices and the control logic.

Typical uses and applications for DC output modules include switching the following loads:

- DC Relays
- DC Solenoids
- DC Motor Starters
- DC Lamps or Indicators
- PLC Logic

## Part Numbers

Part	Description
ODC5	DC Output 5-60 VDC, 5 VDC Logic
ODC5A	DC Output 5-200 VDC, 5 VDC Logic
ODC15	DC Output 5-60 VDC, 15 VDC Logic
ODC15A	DC Output 5-200 VDC, 15 VDC Logic
ODC24	DC Output 5-60 VDC, 24 VDC Logic
ODC24A	DC Output 5-200 VDC, 24 VDC Logic

# Standard DC Output Modules

## Specifications

### General Specifications

One-second Surge	5 A
Operating Ambient Temperature	-30 °C to 70 °C
Isolation Input-to-Output	4,000 Vrms
Turn-on Time	50 $\mu$ s (100 $\mu$ s for ODC5A, ODC15A, ODC24A)
Turn-off Time	50 $\mu$ s (750 $\mu$ s for ODC5A, ODC15A, ODC24A)
Output Voltage Drop Maximum Peak	1.6 volts

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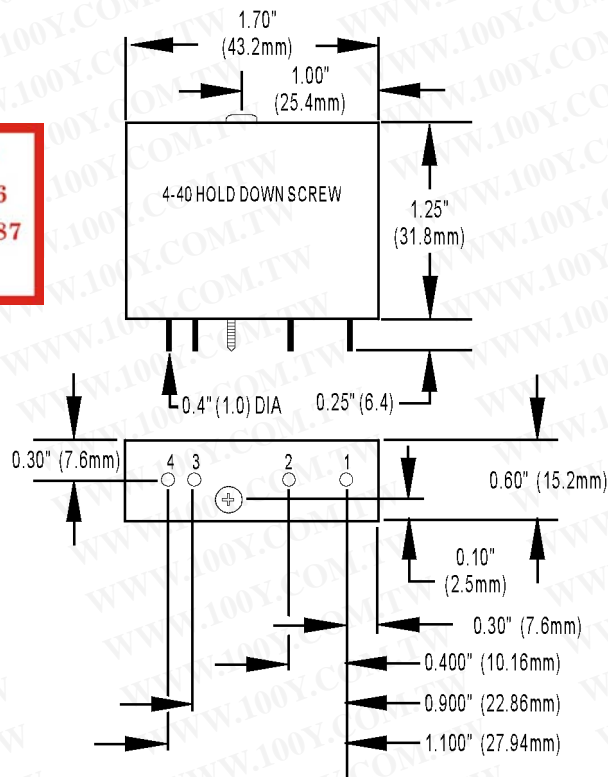
### Module Specifications

	UNITS	ODC5	ODC5A	ODC15	ODC15A	ODC24	ODC24A
Line voltage - max.	VDC	60	200	60	200	60	200
Operating voltage range	VDC	5 - 60	5 - 200	5 - 60	5 - 200	5 - 60	5 - 200
Current rating @ 45 °C ambient @ 70 °C ambient	Amps Amps	3 2	1 0.55	3 2	1 0.55	3 2	1 0.55
UL Motor Load rating	Amps	1.5	1	1.5	1	1.5	1
Off-state leakage @ max. voltage	mA	1	2	1	2	1	2
Logic voltage - nominal	VDC	5	5	15	15	24	24
Logic voltage range (Vcc)	VDC	2.5 - 8	2.5 - 8	9 - 16	9 - 16	18 - 32	18 - 32
Logic pickup voltage	VDC	2.5	2.5	9	9	18	18
Logic dropout voltage	VDC	1	1	1	1	1	1
Logic input current @ nominal logic voltage	mA	12	12	15	15	18	18
Control resistance (R <sub>c</sub> in schematic diagram)	Ohms	220	220	1K	1K	2.2K	2.2K

# Standard DC Output Modules

## Dimensions, All Models

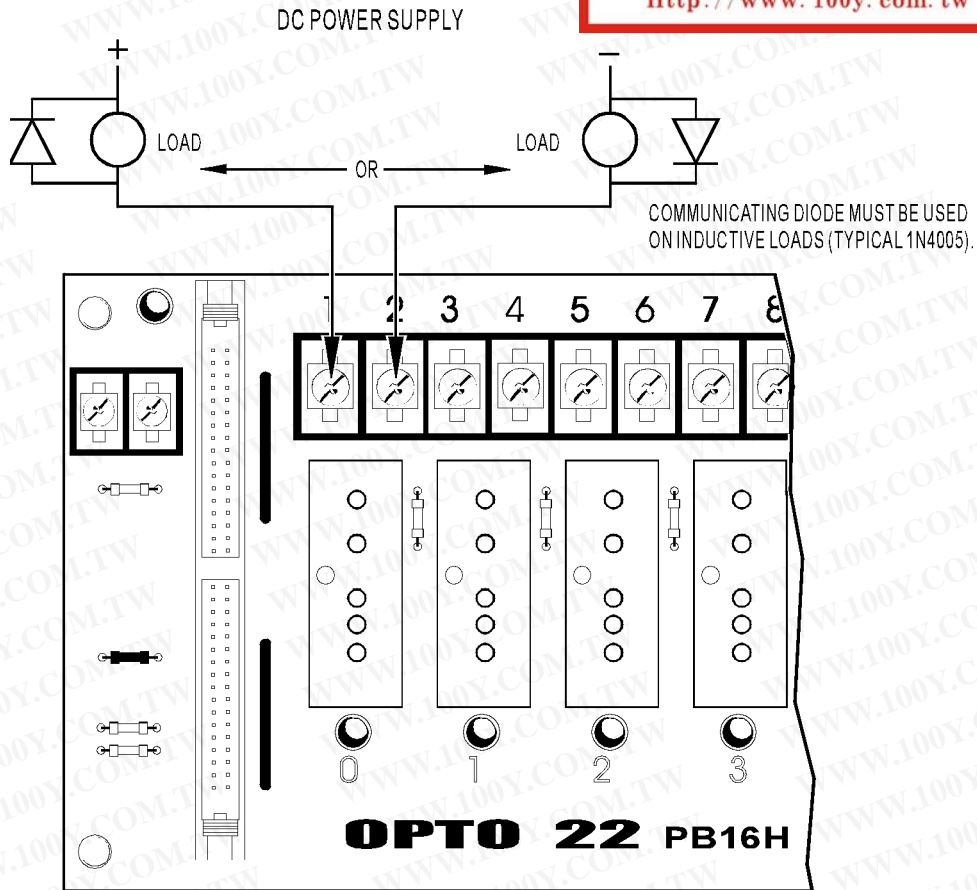
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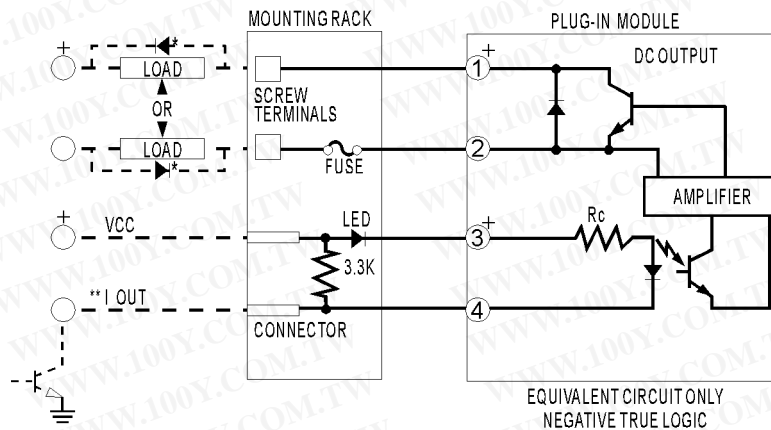
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## Connections



## Schematic

### Equivalent Circuit



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

## More About Opto 22

### Products

Opto 22 develops and manufactures a broad array of reliable, flexible hardware and software products for industrial automation, remote monitoring, data acquisition, and machine-to-machine (M2M) applications.

#### SNAP PACs (Programmable Automation Controllers)

Programmable automation controllers (PACs) are multifunctional, multidomain, modular controllers based on open standards and providing an integrated development environment. Models include the standalone SNAP PAC S-series and the rack-mounted SNAP PAC R-series. Both handle a wide range of digital, analog, and serial functions and are equally suited to data collection, remote monitoring, process control, and discrete and hybrid manufacturing.



SNAP PACs are based on open Ethernet and Internet Protocol (IP) standards, so you can build or extend a system without the expense and limitations of proprietary networks and protocols.

#### ioProject Software Suite

Opto 22's ioProject Software Suite provides full-featured and cost effective control, HMI (human machine interface), and OPC software to power your Opto 22 hardware.

These fully integrated software applications share a single tagname database, so the data points you configure in ioControl™ are immediately available for use in ioDisplay™ and OptoOPCServer™. Commands are in plain English; variables and I/O point names are fully descriptive.



ioProject Basic offers control and HMI tools and is included in your purchase of a SNAP PAC controller. ioProject Professional, available for separate purchase, adds OptoOPCServer, options for Ethernet link redundancy or segmented networking, and support for legacy Opto 22 mistic™ I/O units.

#### SNAP Ethernet I/O

Based on worldwide standards Ethernet and Internet Protocol (IP), SNAP Ethernet I/O systems offer flexibility in their network

connectivity and in the software applications they work with, including:

- Opto 22's own ioProject suite of control, HMI, and OPC software
- Modbus®/TCP software and hardware
- Third-party HMIs and other OPC client software
- Database, email, network management, and other enterprise systems
- Custom applications developed with the free OptoMMP Driver Toolkit

SNAP Ethernet I/O also works with SNAP PACs to build a complete automation system: PACs provide central control and data distribution; SNAP Ethernet I/O provides local connection to sensors and equipment and includes distributed intelligence for local control, counting, latching, thermocouple linearization, PID loop control, and more.

### Quality

Founded in 1974 and with over 85 million devices sold, 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 do no statistical testing, and each part is tested twice before leaving our factory, we can guarantee most solid-state relays and optically isolated I/O modules for life.

### Free Product Support

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

### Free Customer Training

Hands-on training classes for SNAP PACs, ioProject software, and SNAP Ethernet I/O are offered at our headquarters in Temecula, California. Each student has his or her own learning station; classes are limited to nine students. Registration for the free training class is on a first-come, first-served basis. See [training.opto22.com](http://training.opto22.com) for more information.

### 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 or visit the website at [www.opto22.com](http://www.opto22.com).

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