Form 450-120920

# **Standard DC Output Modules**

### **Features**

Rugged construction

4000 volts of optical isolation between the field devices and the control logic (transient)



**ODC5 Module** 

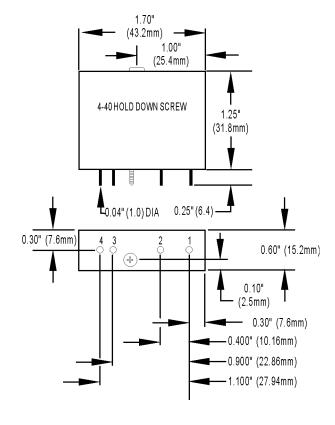
### Description

DC output modules are used for controlling or switching DC loads. Each module provides 4000 volts (transient) 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

### **Dimensions, All Models**



#### **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 (Transient)	4000 volts		
Turn-on Time	100 µs		
Turn-off Time	750 µs		
Output Voltage Drop Maximum Peak	1.6 volts		

### **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

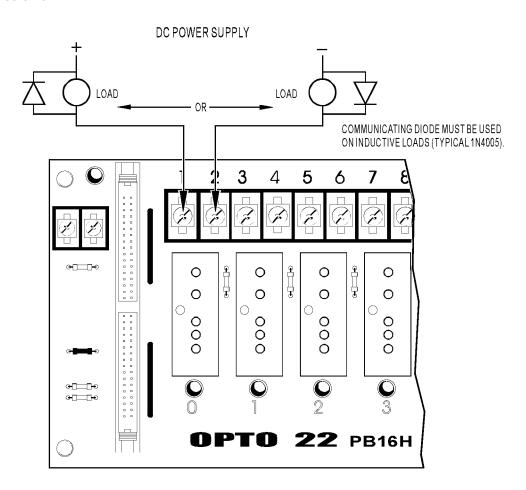
<sup>\*</sup> Not for use with Opto 22 brains.

# PAGE

3

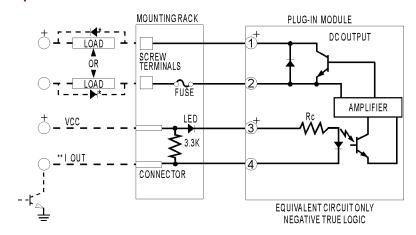
# **Standard DC Output Modules**

### **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 reliable, flexible, easy-touse hardware and software products for industrial automation, energy management, remote monitoring, and data acquisition applications.

### **OptoEMU Energy Management System**

The easy-to-use OptoEMU Sensor monitors electrical energy use in your facility and delivers detailed, real-time data you can see and analyze. The Sensor can monitor energy data from pulsing meters, electrical panels or subpanels, and equipment. View energy data online using a software service or incorporate the data into your control system for complete energy management.

#### **SNAP PAC System**

Designed to simplify the typically complex process of selecting and applying an automation system, the SNAP PAC System consists of four integrated components:

- SNAP PAC controllers
- PAC Project Software Suite
- SNAP PAC brains
- SNAP I/O

#### **SNAP PAC Controllers**

Programmable automation controllers (PACs) are multifunctional, modular controllers based on open standards.

Opto 22 has been manufacturing PACs for over two decades. 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 for 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 easily, without the expense and limitations of proprietary networks and protocols.

#### **PAC Project Software Suite**

Opto 22's PAC Project Software Suite provides full-featured, cost-effective control programming, HMI (human machine interface) development and runtime, OPC server, and database connectivity software for your SNAP PAC System.

Control programming includes both easy-to-learn flowcharts and optional scripting. Commands are in plain English; variables and I/O point names are fully descriptive.

PAC Project Basic offers control and HMI tools and is free for download on our website, www.opto22.com. PAC Project Professional, available for separate purchase, adds OptoOPCServer, OptoDataLink, options for controller redundancy or segmented networking, and support for legacy Opto 22 serial  $mistic^{^{\top}}$  I/O units.

#### **SNAP PAC Brains**

While SNAP PAC controllers provide central control and data distribution, SNAP PAC brains provide distributed intelligence for I/O processing and communications. Brains offer analog, digital, and serial functions, including thermocouple linearization; PID loop control; and optional high-speed digital counting (up to 20 kHz), quadrature counting, TPO, and pulse generation and measurement.

#### **SNAPI/O**

I/O provides the local connection to sensors and equipment. Opto 22 SNAP I/O offers 1 to 32 points of reliable I/O per module, depending on the type of module and your needs. Analog, digital, and serial modules are all mixed on the same mounting rack and controlled by the same processor (SNAP PAC brain or rack-mounted controller).

### 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 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 California-based Product Support Group offers free, comprehensive technical support for Opto 22 products. Our staff of support engineers represents 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.

Additional support is always available on our website: how-to videos, OptoKnowledgeBase, self-training guide, troubleshooting and user's guides, and OptoForums.

In addition, hands-on training is available for free 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 or 951-695-3000, or visit our website at www.opto22.com.

www.opto22.com

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for I/O Controller Interface IC category:

Click to view products by Opto 22 manufacturer:

Other Similar products are found below:

PCI1520IPDV DSL5110 SR1TY EC-GAV SCH5327B-NS SEC1210/PV-URT LPC47M287-NW SEC1210-CN-02 SEC1210I-CN-02 CP2108-B02-GM LPC47M107S-MS LPC47M102S-MS 70M-OAC15A NCT6776D Z85C3010PSG Z84C4310AEG IS31IO7326-QFLS4-EB Z16C3010VEG JHL2210 S LL38 CP2108-B02-GMR MAX5940CESA+ 84115502 SLO24IRA 84145010 20LPCV2415 SM-ODC5MC 84130108 SM-OAC5AR DS2483Q+T PI7C9X2G606PRDNJAEX SEC1210I-CN-02-TR LPC47B277-MS CP2109-A01-GMR MCP2140A-ISS MCP2155-IP MCP2140A-ISO SNAP-AIMA-8 IAC5A IDC5Q Z84C1510AEG SCH5017-NW ODC5 TDA8026ET/C2,518 IAC5 CP2112-F02-GMR CP2109-A01-GM LPC47M192-NW FDC37B787-NS FDC37C669-MS MCP2140-ISO 73S8009CN-32IM/F