# OPTO N N **Standard AC Output Modules**

# **Standard AC Output Modules**

## **Features**

- Rugged construction
- 4000 volts of optical isolation between the field devices and the control logic (transient)
- Zero voltage turn-on and zero current turn-off



**OAC5** Module

# Description

AC output modules are used for controlling or switching AC loads. Each module providesup to 4000 volts (transient) of optical isolation between the field devices and the control logic.

With the exception of the OAC5A5 module, all AC output modules are equivalent to a single pole, single throw, normally open contact (FORM A, SPST-NO, Make). The OAC5A5 is equivalent to a single pole, single throw, normally closed contact (FORM B, SPST-NC, Break). All AC output modules feature zero voltage turn-on and zero current turn-off.

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

- Relays
- Solenoids
- Motor starters
- Heaters
- Lamps or indicators

#### Part Numbers

Part	Description
OAC5	AC Output 12-140 VAC, 5 VDC Logic
OAC5A	AC Output 24-280 VAC, 5 VDC Logic
OAC5H*	AC Output 24–280 VAC, 5 VDC Logic, higher current rating
OAC5A5	AC Output 24-280 VAC, 5 VDC Logic, NC
OAC15	AC Output 12-140 VAC, 15 VDC Logic
OAC15A	AC Output 24-280 VAC, 15 VDC Logic
OAC24	AC Output 12-140 VAC, 24 VDC Logic
OAC24A	AC Output 24-280 VAC, 24 VDC Logic
OAC24H*	AC Output 24–280 VAC, 24 VDC Logic, higher current rating

\* Not UL approved



DATA SHEET

Opto 22 • 43044 Business Park Drive • Temecula, CA 92590-3614 • www.opto22.com SALES 800-321-6786 • 951-695-3000 • FAX 951-695-3095 • sales@opto22.com • SUPPORT 800-835-6786 • 951-695-3080 • FAX 951-695-3017 • support@opto22.com

© 2006–2012 Opto 22. All rights reserved. Dimensions and specifications are subject to change. Brand or product names used herein are trademarks or registered trademarks of their respective companies or organizations.

# **Specifications**

#### General

One Cycle Surge	80 amps peak					
Peak Repetitive Voltage	500 Volts					
Operating Ambient Temperature	-30 to 70 °C					
Isolation, Input-to-Output (Transient)	4,000 Vrms					
Minimum Load Current	20 milliamps					
Operating Frequency	25–65 Hz					
Turn-on Time	1/2 cycle maximum-zero voltage					
Turn-off Time	1/2 cycle maximum-zero current					
DV/DT - Off-State	200 volts/microseconds					
DV/DT - Commutating	Snubbed for rated 0.5 power factor load					
Output Voltage Drop Maximum Peak	1.6 volts					
Off-State Leakage @ Nominal Voltage - 60 Hz	5 milliamps rms 2.5 milliamps rms for OAC5A OAC15A, and OAC24A @120 VAC					

### **Module Specifications**

	Units	OAC5	OAC5A	OAC5H	OAC5A5 (NC)	OAC15 <sup>3</sup>	OAC15A <sup>3</sup>	OAC24 <sup>3</sup>	OAC24A <sup>3</sup>	OAC24H <sup>3</sup>
Line Voltage - Nominal	VAC	120	240	240	120/240	120	240	120	240	240
Operating Voltage Range	VAC	12–140	24–280	24–280	24–280	12–140	24–280	12–140	24–280	24–280
Current Rating @ 45 °C Ambient @ 70 °C Ambient	amps amps	3 2	3 2	4 2	3 2	3 2	3 2	3 2	3 2	4 2
UL Motor Load Rating	amps	1.5	1.5	*	1.5	1.5	1.5	1.5	1.5	1
Logic Voltage - Nominal	VDC	5	5	5	5	15	15	24	24	24
Logic Voltage Range (Vcc) <sup>2</sup>	VDC	2.5–8	2.5–8	2.5–8	2.5–8	9–16	9–16	18–32	18–32	18–32
Logic Pickup Voltage <sup>1</sup>	VDC	2.5	2.5	2.5	2.5	9	9	18	18	18
Logic Dropout Voltage	VDC	1	1	1	1	1	1	1	1	1
Logic Input Current-@ Normal Logic Voltage (I <sub>out</sub> in schematic dia- gram)	mA	12	12	12	12	15	15	18	18	18
Control Resistance (R <sub>c</sub> in schematic diagram)	Ohms	220	220	220	220	1K	1K	2.2K	2.2K	2.2K

1 Not UL approved

2 Module only

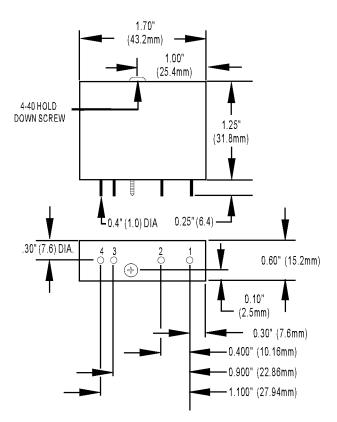
3 Not for use with Opto 22 brains

Opto 22 • 43044 Business Park Drive • Temecula, CA 92590-3614 • www.opto22.com SALES 800-321-6786 • 951-695-3000 • FAX 951-695-3095 • sales@opto22.com • SUPPORT 800-835-6786 • 951-695-3080 • FAX 951-695-3017 • support@opto22.com © 2006–2012 Opto 22. All rights reserved. Dimensions and specifications are subject to change. Brand or product names used herein are trademarks or registered trademarks of their respective companies or organizations.

2

# **Standard AC Output Modules**

## Dimensions



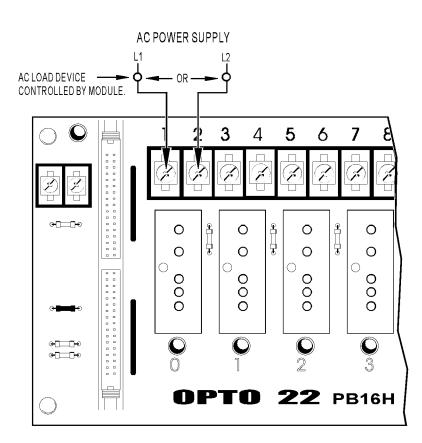
3

Opto 22 • 43044 Business Park Drive • Temecula, CA 92590-3614 • www.opto22.com SALES 800-321-6786 • 951-695-3000 • FAX 951-695-3095 • sales@opto22.com • SUPPORT 800-835-6786 • 951-695-3080 • FAX 951-695-3017 • support@opto22.com © 2006–2012 Opto 22. All rights reserved. Dimensions and specifications are subject to change. Brand or product names used herein are trademarks or registered trademarks of their respective companies or organizations.

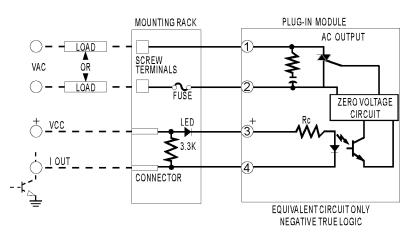
# **Standard AC Output Modules**

## Connections

Standard AC Output Modules **OPTO 22** 



## Schematics



\* SNUBBER circuit must be used on inductive loads.

Opto 22 • 43044 Business Park Drive • Temecula, CA 92590-3614 • www.opto22.com SALES 800-321-6786 • 951-695-3000 • FAX 951-695-3095 • sales@opto22.com • SUPPORT 800-835-6786 • 951-695-3080 • FAX 951-695-3017 • support@opto22.com © 2006–2012 Opto 22. All rights reserved. Dimensions and specifications are subject to change. Brand or product names used herein are trademarks or registered trademarks of their respective companies or organizations.

DATA SHEET Form 449-120920

4

# **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<sup>™</sup> Software Suite
- SNAP PAC brains
- SNAP I/O<sup>™</sup>

#### **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  $mistic^{m}$  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.

#### SNAP I/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

www.opto22.com • Opto 22 • 43044 Business Park Drive • Temecula, CA 92590-3614 • Form 1335-110907 SALES 800-321-6786 • 951-695-3000 • FAX 951-695-3005 • sales@opto22.com • SUPPORT 800-835-6786 • 951-695-3080 • FAX 951-695-3017 • support@opto22.com © 2012 Opto 22. All rights reserved. Dimensions and specifications are subject to change. Brand or product names used herein are trademarks or registered trademarks of their respective companies or organizations.

# **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 IS31107326-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