Quad Pak AC Output Module

Features

- ❯ Contains four single-channel I/O circuits.
- ❯ Each module can be divided into two pairs with each pair sharing a common connection.
- ❯ used for controlling or switching AC loads.
- ❯ Provides up to 4,000 Vrms of optical isolation between field devices and control logic.
- ❯ Features zero voltage turn-on and zero current turn-off
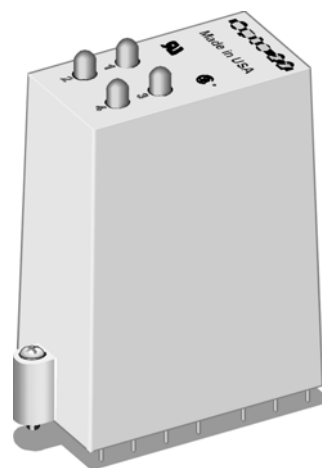

OAC5Q

Description

Quad Pak modules contain the equivalent of four single-channel I/O circuits in a single high-density package. Each Quad Pak module can be divided into two pairs with each pair sharing a common connection.

Quad Pak modules are designed to plug into the Quad Pak high-density I/O mounting racks only and cannot be plugged into single-channel racks. Quad Pak modules are designed to work with a 5 VDC logic voltage only and can be used with Optomux, Pamux, and Mistic protocol brain boards and mounting racks as well as racks using a direct cable connection to a computer.

AC output modules are used for controlling or switching AC loads. Each module provides up to 4,000 Vrms of optical isolation between the field devices and the control logic. The Quad Pak AC output module features zero voltage turn-on and zero current turn-off.

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

- Relays
- Solenoids and Contactors
- Motor Starters
- Heaters
- Lamps or Indicators

Part Numbers

Part	Description
OAC5Q	4-Channel AC Output 12-280 VAC, 5 VDC Logic

OPTO 22

Quad Pak AC Output Module

Specifications
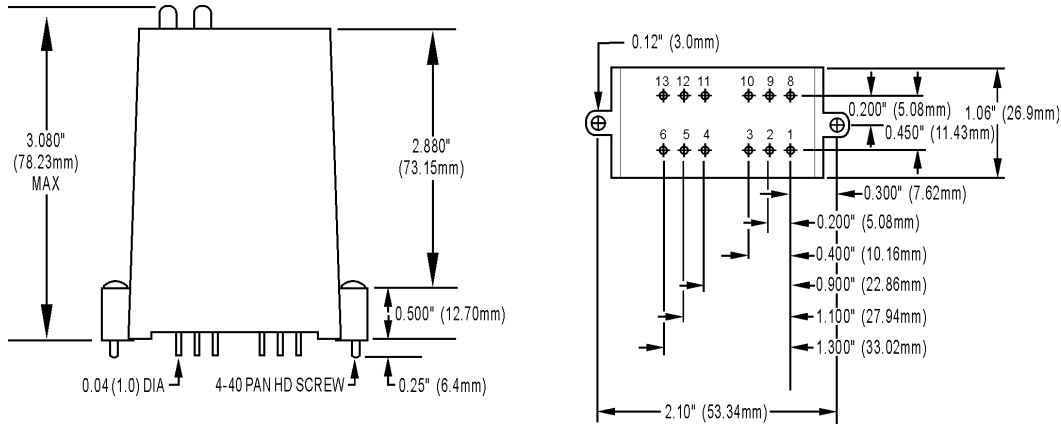
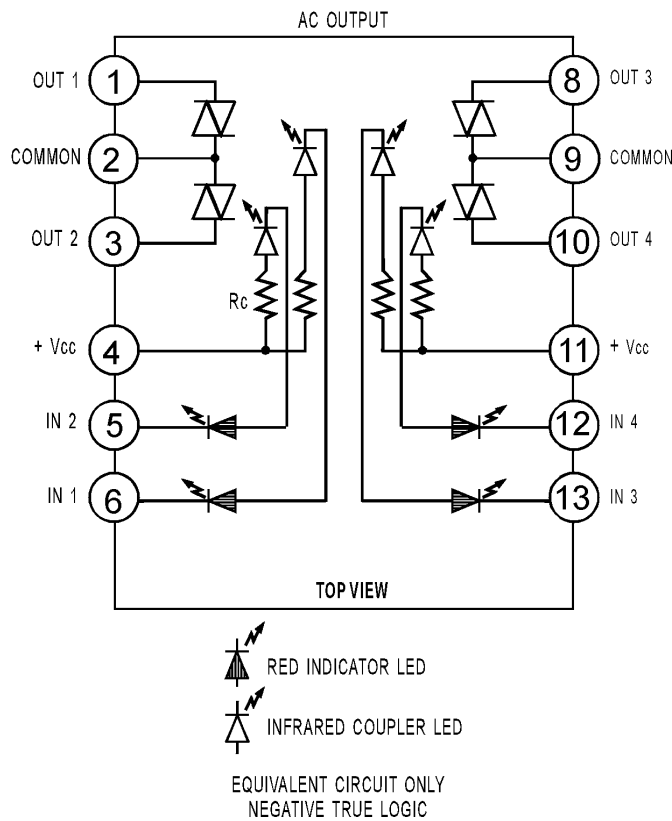|	
Line Voltage–Nominal	120/240 VAC
Operating Voltage Range	12–280 VAC

Current Rating (per channel)
  @ 20° C Ambient
  @ 45° C Ambient
	3 amps 2 amps

One Cycle Surge	80 amps
Logic Voltage–Nominal	5 VDC
Logic Voltage Range (Vcc)	4–8 VDC
Logic Pickup Voltage	4.0 VDC
Logic Dropout Voltage	2.3 VDC

Logic Input Current
  @ Nominal Logic Voltage
  (Iout in Schematic Diagram)
	12 mA

Control Resistance (Rc in Schematic Diagram)	220 ohms

Peak Repetitve Voltage	500 volts
Operating Ambient Temperature	-30 to 70 °C
Isolation Input-to-Output	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	snubbed for rated 0.5 power factor load
Output VOltage Drop Maximum Peak	1.6 volts
Off-state Leakage @ Nominal Voltage-60Hz	5 milliamps, ms

Quad Pak AC Output Module

Dimensions

3.080"
(78.23mm)
MAX

2.880"
(73.15mm)

0.500" (12.70mm)

0.04 (1.0) DIA   4-40 PAN HD SCREW   0.25" (6.4mm)

0.12" (3.0mm)

13 12 11   10 9 8

6 5 4   3 2 1

0.200" (5.08mm)   1.06" (26.9mm)
0.450" (11.43mm)

0.300" (7.62mm)

0.200" (5.08mm)

0.400" (10.16mm)

0.900" (22.86mm)

1.100" (27.94mm)

1.300" (33.02mm)

2.10" (53.34mm)

Schematics

AC OUTPUT

OUT 1 — 1

COMMON — 2

OUT 2 — 3

Rc

+ Vcc — 4

IN 2 — 5

IN 1 — 6

8 — OUT 3

9 — COMMON

10 — OUT 4

11 — + Vcc

12 — IN 4

13 — IN 3

TOP VIEW

RED INDICATOR LED

INFRARED COUPLER LED

EQUIVALENT CIRCUIT ONLY
NEGATIVE TRUE LOGIC

Connections

OPTO 22

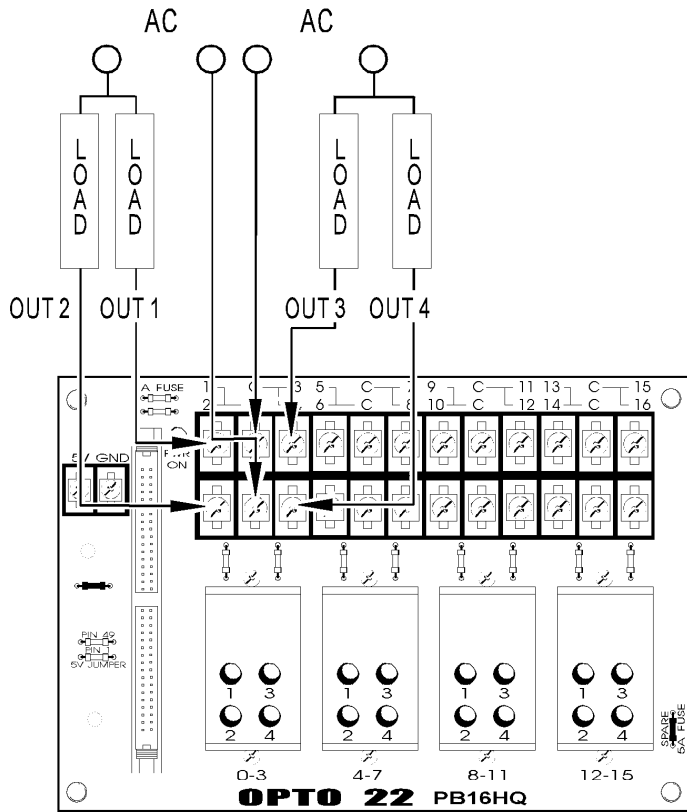**Quad Pak AC Output Module**

More About Opto 22

Products

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

Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, Industrial Internet of Things (IIoT), and information technology applications all rely on Opto 22.

groov

Monitor and control your equipment from anywhere using your smartphone or tablet with groov. Build your own mobile app easily—just drag, drop, and tag. No programming or coding. Visit groov.com for more information and your free trial.

SNAP PAC System

Developer- and IIoT-ready, the SNAP PAC System connects physical assets to databases and applications using open standards. 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

SNAP PAC programmable automation controllers handle a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

For IIoT applications and easier integration with company systems, standalone and rack-mounted SNAP PACs include a built-in HTTP/HTTPS server and **RESTful API** (application program interface). The REST API gives you secure, direct access to I/O and variable data using your choice of programming languages. No middleware, protocol converters, drivers, or gateways needed.

Based on open Ethernet and Internet Protocol (IP) standards, SNAP PACs make it easier to build or extend a system without the expense and limitations of proprietary networks and protocols.

PAC Project Software Suite

Opto 22's PAC Project Software Suite offers full-featured, cost-effective control programming, HMI (human machine interface), OPC server, and database connectivity software.

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 one SoftPAC software-based controller, OptoOPCServer, OptoDataLink, options for controller redundancy or segmented networking, and support for legacy Opto 22 serial *mistic*™ 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, local PID loop control, watchdog, totalizing, and much more.

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. Analog, digital, and serial modules are mixed on one mounting rack and controlled by a SNAP PAC brain or rack-mounted PAC.

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 only 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.

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 (toll-free in the U.S. and Canada) or 951-695-3000, or visit our website at www.opto22.com.