

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

DESCRIPTION

AC output modules are used for controlling or switching AC loads. Each module provides up 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



OAC5 Module

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



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 ³	OAC15A ³	OAC24 ³	OAC24A ³	OAC24H ³
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	amps	3	3	4	3	3	3	3	3	4
@ 70 °C Ambient	amps	2	2	2	2	2	2	2	2	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) ²	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 ¹	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 _{out} in schematic dia- gram)	mA	12	12	12	12	15	15	18	18	18
Control Resistance (R _c in schematic diagram)	Ohms	220	220	220	220	1K	1K	2.2K	2.2K	2.2K

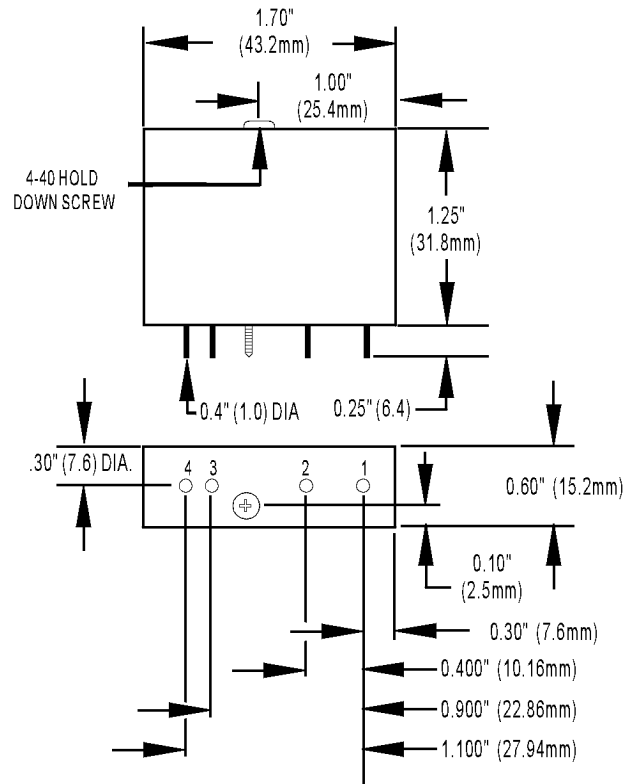
1 Not UL approved

2 Module only

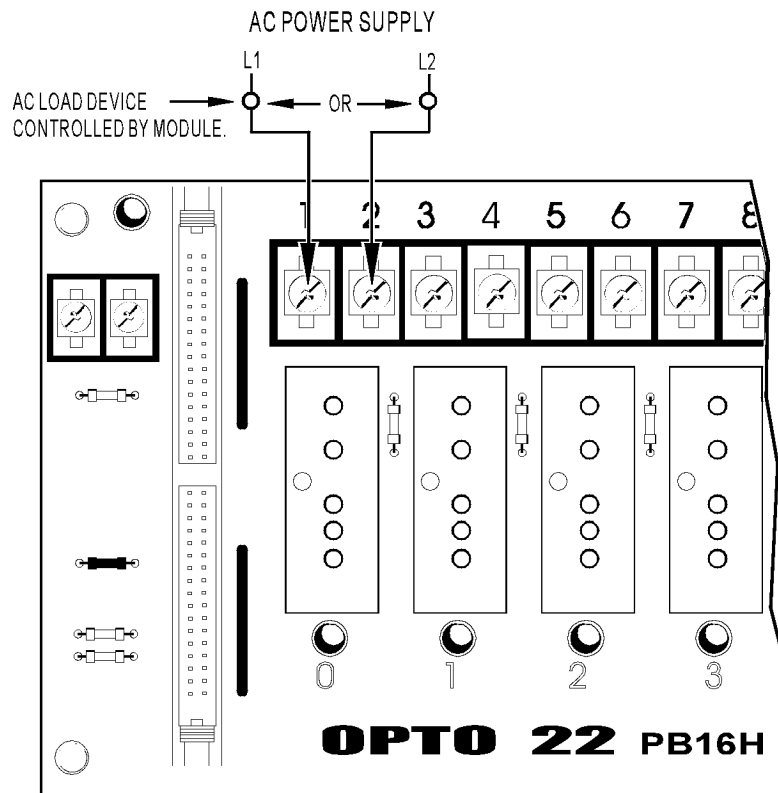
3 Not for use with Opto 22 brains



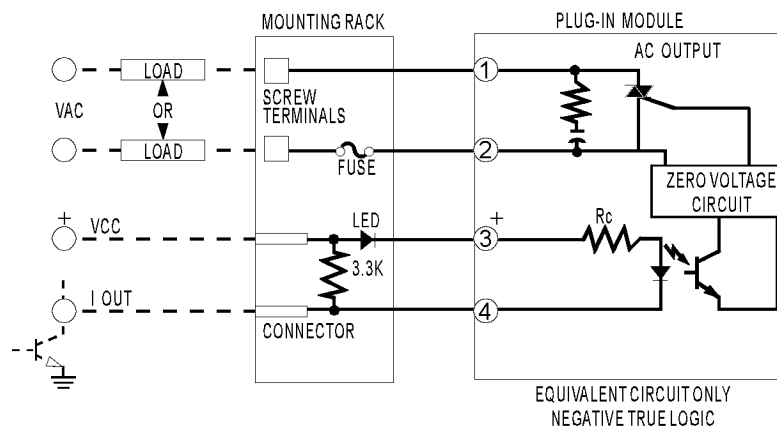
DIMENSIONS



CONNECTIONS



SCHEMATICS



* SNUBBER circuit must be used on inductive loads.