

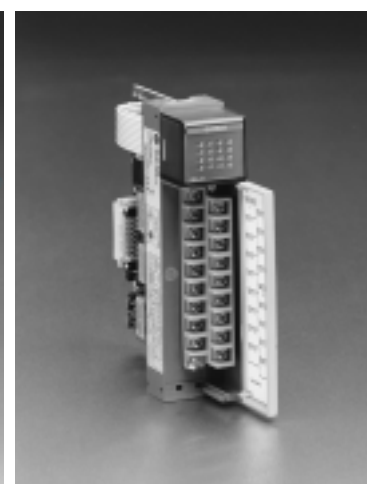
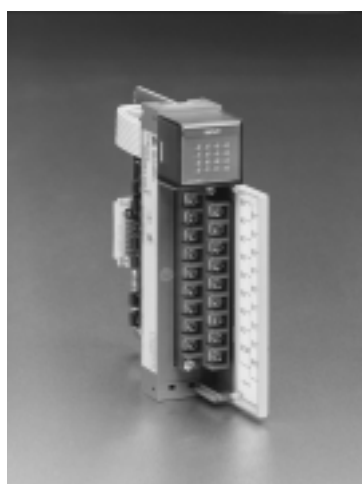


Allen-Bradley

Technical Data

Discrete Input and Output Modules

(Catalog Numbers 1746-IA4, -IA8, -IA16, -IB8, -IB16, -IB32, -IC16, -IG16, -IH16, -IM4, -IM8, -IM16, -IN16, -ITB16, -ITV16, -IV8, -IV16, -IV32, -OA8, -OA16, -OAP12, -OB6EI, -OB8, -OB16, OB16E, -OB32, OB32E, -OBP8, -OBP16, -OG16, -OV8, -OV16, OV32, -OVP16, -OW4, -OW8, -OW16, -OX8, -IO4, -IO8, -IO12, -IO12DC)



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Our wide variety of input, output, and combination modules makes the SLC 500™ family the smart choice for all of your small PLC applications. I/O

modules are available in a wide variety of densities including 4-, 8-, 16-, and 32-point and can interface to AC, DC, and TTL voltage levels. Output modules are available with solid state AC, solid state DC, and relay contact type outputs. For added flexibility, combination modules are also available in 2-input/2-output, 4-input/4-output, and 6-input/6-output versions.

Designed and tested for industrial applications, our modules are of the highest quality. The modules feature input filtering, optical isolation, and built-in surge protection to enhance the reliability of operation in noisy industrial environments.

Class 1, Division 2 certified by UL and CSA. CE compliant. All modules are UL 508 listed and CSA 22.2 142 approved and meet Class 1, Division 2 hazardous location requirements of both Underwriter's Laboratory and the Canadian Standards Association (except for those noted in the module summary on page 2). For use within the European Union or EEA regions, most modules have been tested to meet Council Directive 89/336 Electromagnetic Compatibility (exceptions are listed on page 2).

AC Output Modules (1746-0A8, -0A16, -0AP12)

Specification		Catalog Number		
		1746-0A8 ⁽¹⁾	1746-0A16 ⁽¹⁾ (RTB)	1746-0AP12 ⁽¹⁾⁽²⁾ (RTB)
Voltage Category		120/240V ac		
Operating Voltage		85 to 265V ac at 47 to 63 Hz		
Number of Outputs		8	16	12
Points per Common		4	8	6
Backplane Current Draw	5V dc	0.185A	0.370A	0.370A
	24V dc	0.0A	0.0A	0.0A
Signal Delay (max.)(Resistive Load)		on = 1 ms off = 11 ms		
Off-State Leakage ⁽³⁾ (max.)		2 mA		
Load Current (min.)		10 mA		
Continuous Current (max.)	Per Point ⁽⁴⁾	1.0A at 30°C 0.50A at 60°C	0.50A at 30°C 0.25A at 60°C	2.0A at 30°C 1.25A at 55°C 1.0A at 60°C
	Per Module	8.0A at 30°C 4.0A at 60°C	8.0A at 30°C 4.0A at 60°C	9.0A at 30°C 6.0A at 60°C
On-State Voltage Drop (max.)		1.50V at 1A	1.50V at 0.50A	1.2V at 2.0A
Surge Current per Point ⁽⁵⁾ (max.)		10.0A for 25 ms	10.0A for 25 ms	per point - 17.0A for 25 ms per common - 35.0A for 10 ms

(1) Triac outputs turn on at any point in the ac line cycle and turn off at ac line zero cross.

(2) A fused common and blown fuse LED are provided on this module. (Fuses are designed to protect the module.) For replacement fuse, use catalog number 1746-F9 or SAN-0 HQ 6.3A.

(3) To limit the effects of leakage current through triac outputs, a loading resistor can be connected in parallel with your load. For typical 120V ac applications, use a 15k ohm, 2W resistor. For typical 240V ac applications, use a 15k ohm, 5W resistor.

(4) Recommended surge suppression for triac outputs when switching 120V ac inductive loads is Harris MOV part number V220MA2A. See page 6 for more information on surge suppression.

(5) Repeatability is once every 1 second at 30°C. repeatability is once every 2 seconds at 60°C.

RTB = Removable Terminal Block.

Operating Voltage Range

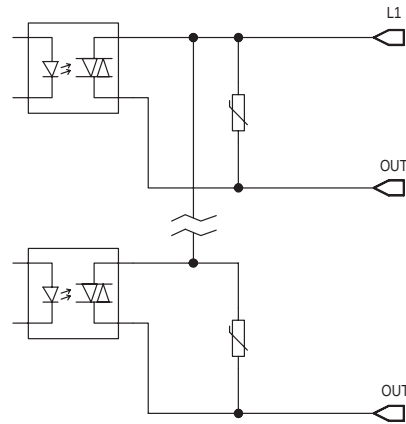
0V ac	85V ac	265V ac
Operation Not Guaranteed		Recommended Operating Range

(Voltage is applied between L1 and L2.)

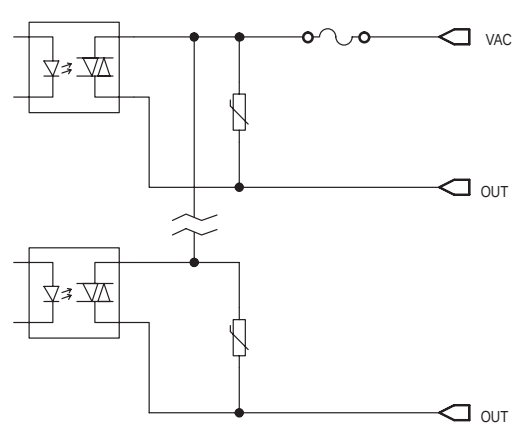
Important: If you measure the voltage at an output terminal that is not connected to a load or is connected to a high-impedance load, you may measure as much as 100V ac even though the output is off.

Circuit Diagrams

1746-0A8, 0A16



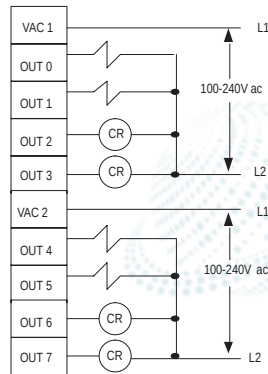
1746-0AP12



Wiring Diagrams

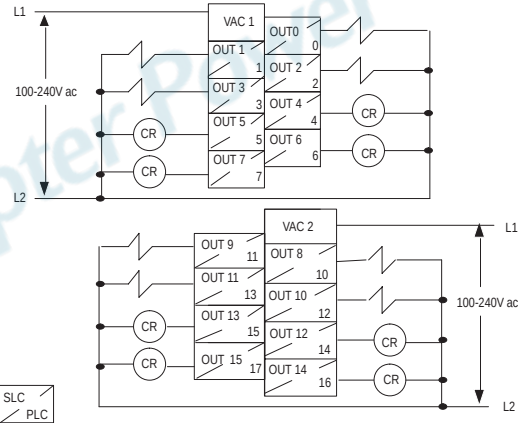
1746-0A8

100-240V ac TRIAC OUTPUT



1746-0A16

100-240V ac TRIAC OUTPUT



1746-0AP12

100-240V ac HIGH CURRENT TRIAC OUTPUT

