

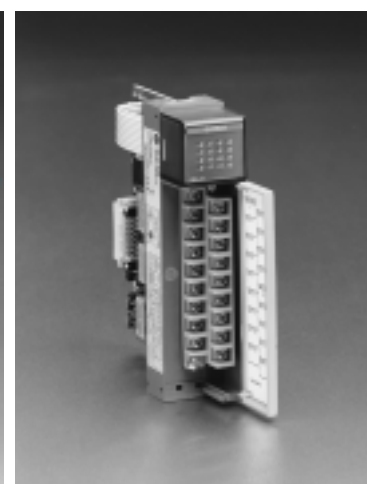
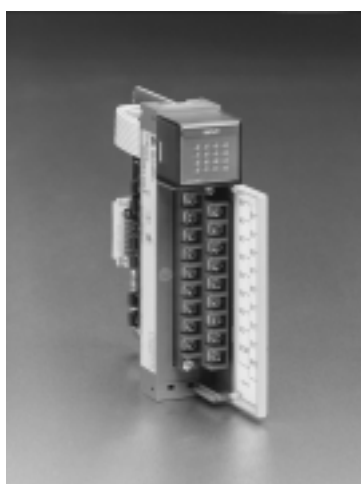


Allen-Bradley

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).

Sinking DC Output Modules (1746-OV8, -OV16, -OV32)

Specification		Catalog Number		
		1746-OV8	1746-OV16 (RTB)	1746-OV32 Series D ⁽¹⁾
Voltage Category		24V dc		
Operating Voltage		10 to 50V dc sink		5 to 50V dc sink
Number of Outputs		8	16	32
Points per Common		8	16	16
Backplane Current Draw	5V dc	0.135A	0.270A	0.190A
	24V dc	0.0A	0.0A	0.0A
Signal Delay (max.) (Resistive Load)		on = 0.1 ms / off = 1.0 ms		
Off-State Leakage ⁽²⁾ (max.)		1 mA		
Load Current (min.)		1 mA		
Continuous Current ⁽³⁾ (max.)	Per Point ⁽⁴⁾	1A at 30°C 0.5A at 60°C	0.5A at 30°C 0.25A at 60°C	0.5A at 30°C 0.25A at 60°C
	Per Module	8A at 30°C 4A at 60°C	8A at 30°C 4A at 60°C	8.0A at 0°C to 60°C 4A at 0 to 60°C per common ⁽⁵⁾ 2A at 0 to 60°C per common pin
On-State Voltage Drop (max.)		1.2V at 1A	1.2V at 0.5A	1.2V at 0.5A
Surge Current Per Point ⁽⁶⁾ (max.)		3A for 10 ms	3A for 10 ms	1A for 10 ms

(1) Series A, B, and C 32-point output modules are fused to protect external wiring, one fuse per common. These fuses are non-replaceable and are rated at 2.5A. Series D modules are not fused and have a higher current rating than Series A, B, and C.

(2) To limit the effects of leakage current, a loading resistor can be connected in parallel with your load. For 24V dc operation use a 5.6k ohm, ½W resistor.

(3) To attain the maximum Continuous Current per common of 4A for an OV32 Series D module, both dc com connections in a wire group must be connected to your DC source.

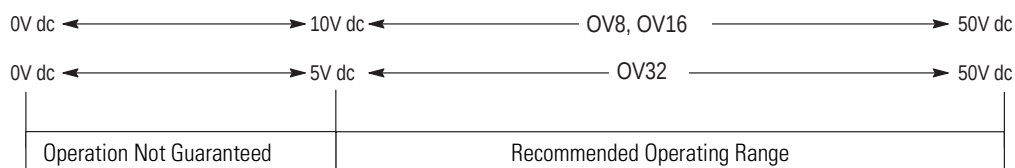
(4) Recommended surge suppression for switching 24V dc inductive loads is a 1N4004 diode that is reverse wired across the load. See page 6 for more information on surge suppression.

(5) To attain the maximum Continuous Current per common rating of 4A for an OV32 Series D module, both V dc connections in a wire group must be connected to your DC source.

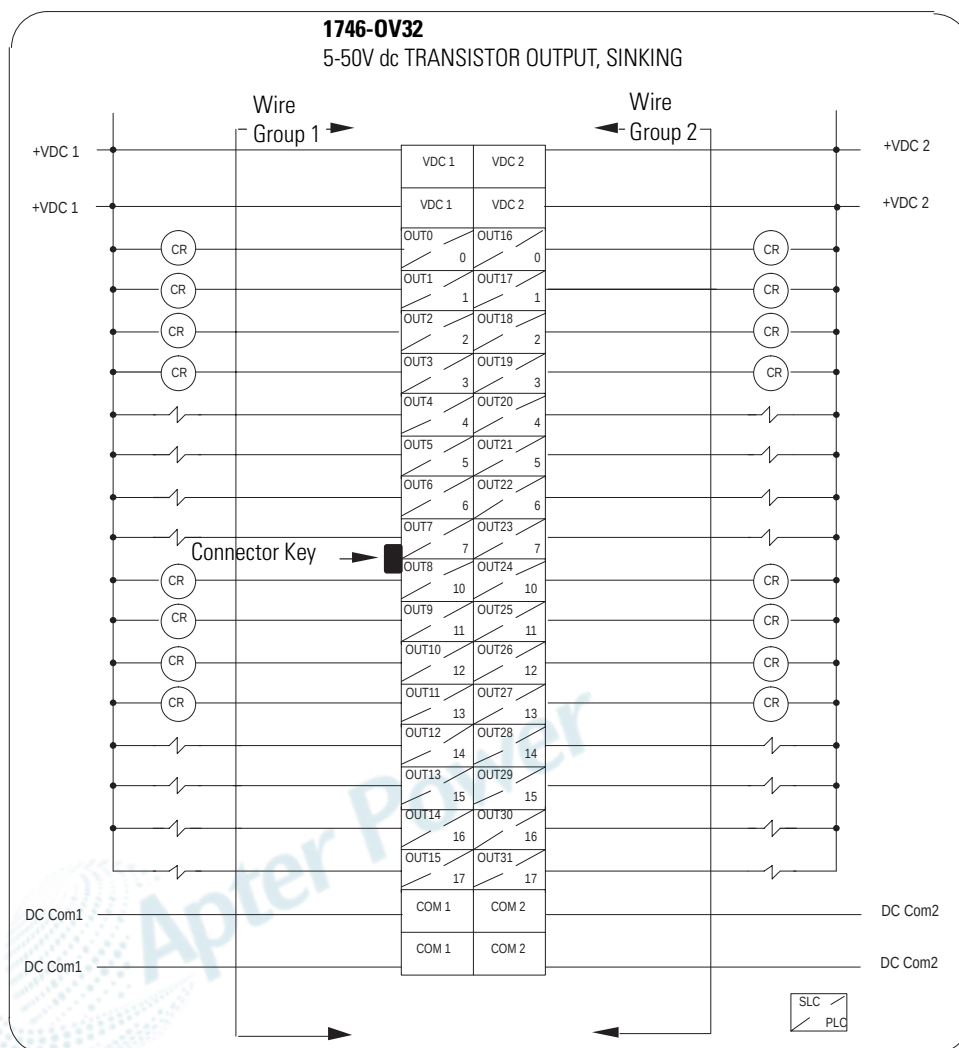
(6) Repeatability is once every 1 second at 30°C. Repeatability is once every 2 seconds at 60°C.

RTB = Removable Terminal Block.

Operating Voltage Range



(Voltage is applied between +VDC and DC common.)



Important: The V dc and dc Com pins on the 1746-OV32 output module are isolated between the two groups and the two V dc and two dc Com pins in each group are connected internally. Both dc com pins on the 1746-OV32 must be connected to the dc power source if current for a common group is expected to exceed 2 Amps. Use a 1492 terminal block to maintain group isolation provided by 32-point I/O modules. Consult 1492 documentation or your Allen-Bradley Sales Office for additional information.

The 1746 32-point modules include a keyed 40-pin female connector and crimp-type pins for connection to I/O wiring. In addition, 1492 prewired cables and interface modules can be used for connecting external I/O. (See pages 7 and 50.)

The maximum user cable length is dependent on how much voltage drop [current x (ohms/ft.) x (feet)] the user's system can tolerate. The user's system should take into account the minimum turn-on voltage required by external loads connected to the 32-point output modules and all of the voltage drops associated with wiring to and from the load, terminal blocks, power sources, and the module itself.