

Allen-Bradley 1794-OB16P

The Allen-Bradley 1794-OB16P is a Flex I/O discrete output module. This module has Sixteen (16) Current sourcing outputs, providing 24VDC voltage output. Each channel of this module are electronically protected. Compatible terminal bases for this module are 1794-TB2, 1794-TB3, 1794-TB3S, 1794-TB3K, 1794-TB3SK. Technical specifications for 1794-OB16P

Manufacturer Rockwell Automation

Specifications - 1794-OB16P

- * **Number of Outputs** : 16 (1 group of 16), non-isolated, sourcing.
- * **Module Location** : Cat. No. 1794-TB2, -TB3, or -TB3S Terminal Base Unit.
- * **ON-State Voltage Range** : 10V dc minimum, 24V dc nominal, 31.2V dc maximum.
- * **ON-State Voltage Drop** : 0.5V dc maximum.
- * **ON-State Current** : 1.0mA minimum per channel, 500mA maximum per channel.
- * **OFF-State Voltage** : 31.2V dc maximum.
- * **OFF-State Leakage** : 0.5mA maximum.
- * **Isolation Voltage (min)** : 100% tested at 2121V dc for 1s between user and system; no isolation between individual channels.
- * **Output Signal Delay** :
 - * OFF to ON: 0.5ms maximum.
 - * ON to OFF: 1.0ms maximum.
- * **Flexbus Current (max)** : 60mA.
- * **Power Dissipation** : Maximum 5.0W @ 31.2V.
- * **Thermal Dissipation** : 17.0 BTU/hr @ 31.2V dc.
- * **Indicators** : 16 yellow status indicators (field side indication, logic driven).
- * **Output Current Rating** : 8A (16 outputs @ 0.5A).
- * **Surge Current** : 1.5A for 50ms, repeatable every 2s.
- * **Keyswitch Position** : 2.
- * **Fusing** : Outputs are electronically protected.

General Specifications

- * **External dc Power Supply Voltage** : 24V dc nominal.
- * **Voltage Range** : 10 to 31.2V dc (includes 5% ac ripple).
- * **Supply Current** : 60mA @ 24V dc (25mA to 75mA) (Refer to the Derating Curve below).

You can contact us through the following contact information

www.sparetechplc.com +86 180 3000 5825 sales@sparetechplc.com

- * **Dimensions HxWxD**: 46mm x 94mm x 53mm (1.8in x 3.7in x 2.1in).
- * **Environmental Conditions**:
 - * Operational Temperature: 0 to 55° C (32 to 131° F).
 - * Storage Temperature: -40 to 85° C (-40 to 185° F).
 - * Relative Humidity: 5 to 95% noncondensing.
 - * Shock: Operating at 30g peak acceleration, 11(±1)ms pulse width; Non-operating at 50g peak acceleration, 11(±1)ms pulse width.
 - * Vibration: Tested 5g @ 10-500Hz per IEC 68-2-6.

* **Conductors**:

- * Wire Size: 12 gauge (4mm²) stranded maximum, 3/64 inch (1.2mm) insulation maximum.
- * Category: 2 (Use this conductor category information for planning conductor routing. Refer to publication 1770-4.1, "Industrial Automation Wiring and Grounding Guidelines for Noise Immunity").

* **Agency Certification**: Class I Division 2 certified, Groups A, B, C, D certified, Class I Zone 2 Group IIC certified, along with UL, CSA, and CE marks.

Description

The Allen-Bradley 1794-OB16P is a Flex I/O module that functions as a Discrete output module. This module is used to energize electrical components that operate in 24VDC voltage categories such as indicator light and lamps, solenoid actuated devices, relay coils, and other field instruments.

The 1794-OB16P has Sixteen (16) electronically fused output channels, supporting source wiring configuration. Each channel has a minimum output rating of 1.0 mA and maximum of 500 mA per channel. Each channel is capable of withstanding surge current of 2 A for 50 ms, repeatable for every 2 seconds.

The 1794-OB16P internal circuitry is energized via the Flex I/O bus. It requires a FlexBus current of 60 mA @ 5V DC and with maximum power dissipation of 5.0 W @ 31.2V DC and thermal dissipation of 17.0 BTU/hr @ 31.2V DC. Each channel is equipped with electronic fusing.

This module requires a terminal base for installation. The terminal base provides DIN rail attachment and I/O termination points. Compatible terminal bases are 1794-TB2, 1794-TB3, 1794-TB3S, 1794-TB3K, 1794-TB3SK.

The 1794-OB16P is compatible with Flex I/O communication adapters such as Ethernet, ControlNet, Profibus, Remote I/O communication adapters. It may also be mixed with any type of Flex I/O modules to implement distributed I/O architecture and implement manual and automatic control of machines and processes. It can operate as distributed I/O component of

You can contact us through the following contact information

www.sparetechplc.com +86 180 3000 5825 sales@sparetechplc.com

Logix controllers such as ControlLogix and CompactLogix as well as legacy controllers including PLC5 and SLC500 controllers. The configuration of the 1794-OB16P module depends on the controller used.

The 1794-OB16P is compatible with communication adapters including ControlNet, DeviceNet, PROFIBUS, and EtherNet/IP. The 1794-OB16P module uses screw clamp terminations and it can only be mounted on a DIN rail and only use terminal base units such as 1794-TB3, 1794-TB3K, 1794-TB2, 1794-TBN, 1794-TBNK, 1794-TB3S, and the 1794-TB3SK. It requires an external DC supply voltage range of 10 to 31.2 Volts DC, with the 5% AC ripple and an external DC supply current range of 25 to 75 mA. The module's ON-state output voltage drop is 0.5 Volts DC. The minimum current on-state output is 1 mA per channel and the maximum is 500 mA per channel or 8 Amps per module. This module also has a leakage current of 0.5 mA for off-state output and a maximum output surge current of 1.5 Amps for 50 milliseconds that is repeatable every 2 seconds. This module does not have any isolation between the individual channels. The 1794-OB16P's output delay is 0.5 milliseconds in the OFF to ON state and 1 milliseconds in the ON to OFF state. The maximum power dissipation is 5 W at 31.2 Volts DC, the thermal dissipation is 17 BTU/hour at 31.2 Volts DC, and the maximum Flexbus current is 60 mA. The 1794-OB16P module has an operating temperature of 0 to 55 degrees Celsius and a storage temperature of -40 to 85 degrees Celsius and comes with a non-condensing relative humidity of 5 to 95%. It also has an operating vibration of 30g and a non-operating vibration of 50g. Its vibration is 5 g at 10 to 500 Hertz.

You can contact us through the following contact information

www.sparetechplc.com +86 180 3000 5825 sales@sparetechplc.com