

Allen-Bradley 1756 Series Service Manual

1756-OW16I

1. Description

Mfr. Part Number:

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Module	Type Digital DC Sourcing Output
Series	ControlLogix
Part	Number/Catalog No. 1756-OW16I
Brand	Allen-Bradley
No.	of outputs Sixteen (16), individually isolated channels
Contact	form Normally Open (N.O.)
Operating	Voltage range 5...125V DC; 10...240V AC
Output	Voltage range 1 A @ 5...30V DC; 0.5 A @ 48V DC; 0.22 A @ 125V DC; 1.5 A @ 120V AC 50/60 Hz; 0.75 A @ 240V AC 50/60 Hz
Current	draw @ 5.1V 150 mA
Total	backplane Power 4.4 W
Backplane	Current, 24VDC 2 mA
Power	Dissipation 4.5 W @ 60 °C (140 °F)
Output	Signal delay, OFF to ON 10 ms, max
Output	Signal delay, ON to OFF 10 ms max
Enclosure	type rating None (open-style)
Removable	Terminal Block 1756-TBCH; 1756-TBS6H
Outputs	16-Point Individually Isolated
Operating	Voltage 10-265 Volts AC, 5-150 Volts DC
Output	Current 2, 0.5, 0.25 Amps
Maximum	Output Delay Time 10 milliseconds
Contact	Output 13 N.O.
Power	Dissipation Max 4.5 Watts at 60 Celsius
Backplane	Current at 5 Volts 150 milliamps
Backplane	Curren

3. Product Information

Mfr. Part Number:

1756-OW16I

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Allen-Bradley 1756-OW16I ControlLogix Isolated Relay Output Module 16-Points

Full Description: Allen-Bradley 1756-OW16I ControlLogix Normally Open Isolated Relay Output Module, 16 Points (36 Pin) The Allen-Bradley 1756-OW16I is a ControlLogix Discrete output module that features Sixteen (16) Normally Open (N.O.), individually isolated contact outputs. Each contact output has a operating voltage range of 5-125VDC and 10-240VAC. It delivers output current ratings of 1 A @ 5-30VDC; 0.5 A @ 48VDC; 0.22 A @ 125VDC; 1.5 A @ 120VAC, 50/60 Hz and 0.75 A @ 240VAC, 50/60 Hz. Technical specifications for 1756-OW16I

Manufacturer Rockwell Automation

Module Type Digital DC Sourcing Output

Series ControlLogix

Part Number/Catalog No. 1756-OW16I

Brand Allen-Bradley

No. of outputs Sixteen (16), individually isolated channels

Contact form Normally Open (N.O.)

Operating Voltage range 5...125V DC; 10...240V AC

Output Voltage range 1 A @ 5...30V DC; 0.5 A @ 48V DC; 0.22 A @ 125V DC; 1.5 A @ 120V AC 50/60 Hz; 0.75 A @ 240V AC 50/60 Hz

Current draw @ 5.1V 150 mA

Total backplane Power 4.4 W

Backplane Current, 24VDC 2 mA

Power Dissipation 4.5 W @ 60 °C (140 °F)

Output Signal delay, OFF to ON 10 ms, max

Output Signal delay, ON to OFF 10 ms max

Enclosure type rating None (open-style)

Removable Terminal Block 1756-TBCH; 1756-TBS6H

Outputs 16-Point Individually Isolated

Operating Voltage 10-265 Volts AC, 5-150 Volts DC

Output Current 2, 0.5, 0.25 Amps

Maximum Output Delay Time 10 milliseconds

Contact Output 13 N.O.

Power Dissipation (Max) 4.5 Watts at 60 Celsius

Backplane Current at 5 Volts 150 milliamps

Backplane Current at 24 Volts 150 milliamps

Removeable Terminal Block(s) 1756-TBCH, 1756-TBS6H

Isolation Voltage 50 Volts Continuous

Enclosure None

UPC 10612598171467 Description

The Allen-Bradley 1756-OW16I is a Sixteen (16) channel discrete output module that is part of the ControlLogix automation platform. This module is a relay output module with contact form of Normally Open (N.O.) with individual isolation. This module may also be termed as a dry contact output module which is compatible to be operated at voltage ranges of 5-125VDC and 10-240VAC.

The 1756-OW16I delivers output current ratings of 1 A @ 5-30V DC; 0.5 A @ 48VDC; 0.22 A @ 125VDC; 1.5 A @ 120VAC, 50/60 Hz and 0.75 A @ 240VAC, 50/60 Hz. This module has a pilot duty rating of C300/R150.

Each output channel has a maximum output delay time of 10 ms for both signal transitions. It draws 150 mA current from the backplane @ 5.1 VDC and 24VDC with total backplane power draw of 4.4 Watts.

The 1756-OW16I has a maximum switching frequency of One (1) operation every Three (3) seconds or (0.3 Hz at rated load) with mean bounce time of 1.2 ms. Each of the output contacts are expected to operate up to 300 kHz when used with resistive loads and 100 kHz when used with inductive loads. Additionally, this module supports scheduled outputs and may be configured to Hold last state, On or Off during when FAULTED with Off as default setting. Similarly, output states may also be held at last state, with OFF as default setting during PROGRAM mode. This module is shipped with a Removable Terminal Block (RTB). Applicable RTB for use with this module are 1756-TBCH and 1756-TBS6H.

The 1756-OW16I's output delay time for both ON to OFF and OFF to ON is 10 milliseconds and it draws a backplane current of 150mA at both 5.1 Volts and 24 Volts DC and it has a total backplane power of 4.4 Watts. It has a thermal dissipation of 15.35 BTU/hour and dissipates 4.5 Watts at 60 degrees Celsius. Each output can accommodate a minimum current load of 10mA and a current leakage of 1.5 mA per point. The 1756-OW16I contact module has an initial contact impedance of 100 Ohms at 6V, 1A and it has a load-dependent switching frequency of 0.3 Hertz. It has a mean bounce time of 1.2 milliseconds with an expected contact life of 300 kHz resistive and of 100 kHz inductive. The 1756-OW16I has a scheduled output with a 16.7 second synchronization time with respect to Coordinated System Time (CST), and it has a circuit isolation voltage of 250 Volts with a basic insulation type tested at 1350 Volts AC for 2 seconds between outputs-to-backplane and output-to-output. The 1756-OW16I has a designated T4 North America temperature code and an open enclosure. Its operational temperature ranges between 0 and 60 degrees Celsius at a humidity of 5 to 95% without condensation.

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