

1746-N08 Analog Output Modules

1746-N08I
1746-N08V

New 8-channel high-performance 16-bit analog output modules provide advanced analog control functions, and offer high channel density for reduced component and installation costs.

Advantages

The 1746-N08I (current output) and 1746-N08V (voltage output) modules each provide eight independently configurable, high performance 16-bit precision output channels. 1746-N08 modules offer new advanced analog control functions, resulting in increased flexibility and dependability for the SLC control system.

Key features of these products include:

- Eight analog current output channels (1746-N08I), or eight analog voltage output channels (1746-N08V).
- High accuracy, 16-bit precision digital-to-analog conversion
- Range independently configurable per channel
- Reduced cost per channel compared to SLC four channel output modules
- Single-slot high density solution saves chassis space, and reduces installation cost
- 1746-N04 compatibility mode allows easy upgrade to existing systems



1746-N08I

1746-N08V

Advantages (Cont.)

- Advanced analog functions for increased flexibility and dependability:
 - User-programmable engineering units
 - Limits
 - Ramping
 - Alarms
 - Safe states in case of fault
 - Extended status information
- These factory calibrated modules do not require any user calibration
- 500Vdc field-wiring-to-backplane isolation
- Provision for use of external 24Vdc user power supply
- Pre-wired terminal block (1492-AIFM8-3) and cable (1492-ACABLEC) available

1746-N08I

Product Selection, Specifications

Specification	1746-NO8I	1746-NO8V
Number of Outputs	8	8
Output Type	Current	Voltage
Output Range	0 to 21.5 mA	±10.25V dc
Output Coding (proportional)	0 to 32,767	-32,768 to +32,767
Output D/A Converter Resolution	16-bit	16-bit
Location of LSB in I/O Image Word	0000 0000 0000 0001 (for 1746-NO4 compatible data format; does not apply to other data formats)	
Non-Linearity	0.06% of full scale	
DAC Conversion Method	R-2R Ladder Network	
Output Step Response Time	1 ms (0 to 95% of full scale)	
Channel Update Time (typical)	Class 1: 5 ms to update all 8 channels	
Load Range	0 to 500 ohm	1K ohm and greater
Load Current	n/a	10 mA (maximum)
Load Reactance	1 µH (maximum)	1 µF (maximum)
Output Impedance	Greater than 1M ohm	Less than 1.0 ohm
Over-Range Capability	7.5% (21.5mA)	2.5% (±10.25V)
Overall Accuracy	0.1% of full scale at 25°C	0.1% of full scale at 25°C
Overall Accuracy Drift	±33 ppm/°C of full scale	±33 ppm/°C of full scale
Backplane Current Consumption	120 mA at 5V dc / 250 mA at 24V dc	120 mA at 5V dc / 160 mA at 24 V dc
Backplane Power Consumption	5.6W	
Thermal Dissipation	6.6W	
Field Wiring to Backplane Isolation	500V dc	
Recommended Cable	Belden 8761 (shielded, twisted-pair) or equivalent	
Operating Temperature	0°C to +60°C (+32°F to +140°F)	
Storage Temperature	-40°C to +85°C (-40°F to +185°F)	
Operating Humidity	5 to 95% non-condensing	
Agency Certification	UL/C-UL: UL Listed Industrial Control Equipment UL Listed Industrial Control Equipment for use in Canada UL Listed Industrial Control Equipment for use in Class I, Division 2 Hazardous Locations Groups A, B, C, D CE marked for all applicable directives C-Tick marked for all applicable acts	

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