

SLC 500™

1746sc-INI4i/INI4vi

4-Channel Isolated Analog Input Modules



The 1746sc-INI4i and 1746sc-INI4vi Modules provide isolated analog input capability for noisy environments in individual I/O modules. The 1746sc-INI4i and 1746sc-INI4vi modules can replace analog input modules without compromising performance or price.

Reduce System Costs

- Four, isolated, current inputs (INI4i), and four isolated current/voltage inputs (INI4vi).
- Six input ranges.
- Use any combination of input types at one time.
- Accuracy comparable with dedicated analog modules.
- Individually programmable for each channel.
- Easy to configure using ladder register settings or RSLogix programming software.
- Channel-selectable filtering for fastest analog update time and noise rejection.
- On-board ambient temperature compensation to manage fluctuating ambient temperatures in overcrowded cabinets.

1746sc-INI4i/INI4vi Specifications

Input Types	4 V or V/C inputs (differential)	
Input Ranges		
Current	0-20 mA, 4-20 mA	
Voltage	0-5 V, 1-5 V, 0-10 V, ± 10 V	
Resolution	16 bits	
Current	312.8 nA per count	
Voltage	312.8 μ V per count	
Advanced Features	4 selectable filter frequencies, full auto-calibration, on-board error checking	
Update Times (minimum in ms)		
Current (4 channels)	14 ms with 500 Hz filter	
Voltage (4 channels)	18 ms with 500 Hz filter	
Step Response Time (typical)	8 ms with 500 Hz filters 67 ms with 60 Hz filters	
Electrical Isolation	Field wiring to backplane: 125 VAC continuous Channel-to-channel isolation: 125 VAC continuous	
Input Impedance		
Current	<250 ohm	
Voltage (INI4vi only)	>220 kohm	
Input Overcurrent Protection	33 mA continuous; 70 mA (transient)	
Input Overvoltage Protection	50 VDC (continuous, INI4vi only)	
Common Mode Rejection	99 dB at 1 kHz, 25 °C ; 150 dB at 60 Hz	
Normal Mode Rejection	98/98 dB at 50/60 Hz	
Accuracy	25 °C	60 °C
Current	0.10% of full scale	0.25% of full scale
Voltage (INI4vi only)	0.25% of full scale	0.25% of full scale
Backplane Current Required		
INI4i	440mA at 5 V; 0 mA at 24 V (typical)	
INI4vi	550 mA at 5 V; 0 mA at 24 V (typical)	
Environmental Conditions		
Operational Temperature:	0 °C to 60 °C (32 °F to 140 °F)	
Storage Temperature:	-40 °C to 85 °C (-40 °F to 185 °F)	
Relative Humidity	5 to 95% (non-condensing)	
Thermal Dissipation	3.25 Watts, maximum	
Certifications	UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD), CE	
Recommended Cable	Shielded twisted-pair; Belden 8761 or equivalent	