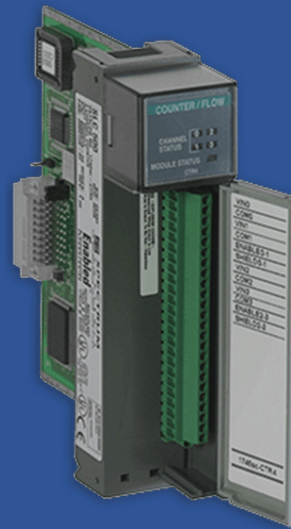


SLC 500™

1746sc-CTR8

16-Point 24 Volt Discrete 8-Channel Counter Input Module



The 1746sc-CTR8 Module provides counter input capability for general purpose counter and turbine flowmeter applications that need a large number of input channels in one I/O module. The 1746sc-CTR8 module can replace counter input modules without compromising performance or price:

- Eight incremental, single-ended counters or up to four pairs for up/down or quadrature counters.
- Configure each input group as 5, 12, or 24 VDC counters, or as turbine flow (variable reluctance coil) AC inputs.
- Includes scaling K factor for turbine flowmeters.
- Can be setup for flowmeter proving requirements.
- For counting applications, can count incremental inputs up to 50 kHz.
- Four external counter enable lines for faster counter control.
- Provides scaling of input counts or input frequency to engineering units.
- Simultaneous frequency/counter display; Up/down flags to alert when a preset limit is reached.
- Over range flag when count or frequency exceeds preset limit.
- Start, stop, reset, and preset control.

1746sc-CTR8

Specifications



Input Types	8 single-ended counter inputs, or 4 quadrature encoding or 4 enable control line inputs
Input Ranges	AC 0-30 VP 5 VDC 12 VDC 24 VDC
VIL	-50 mV 1 V 3 V 5 V
VIH	+50 mV 3.5 V 9 V 13 V
Vmax (CE)	±75 V ±75 V ±75 V ±75 V
Vmax (UL)	±100 V ±100 V ±100 V ±100 V
Counter Speed (AC/DC inputs)	0 Hz to 50 kHz
Input Frequency (AC/DC inputs)	1 Hz to 50 kHz
Minimum Pulse Time	
DC Mode	8 us
External Enable/Disable	Enable and disable setup time is 20 us
Isolation Voltage	1000 VDC field wiring to backplane
Input Impedance	25 Kohms
Counter Voltage Input	Programmable 5 VDC, 12 VDC, 24 VDC, 0-75 VAC
Channel Update	
Time Counter Mode	6 ms per channel
Frequency Mode	6 ms per channel
Count Value Range	
Low Range	±32 K
High Range	±8 M
Accuracy	
Counter Mode	±1 Count
Voltage (INI4vi only)	±1% at 50 kHz; 0.0002% at 1 Hz
Backplane Current Maximum	225 mA
5 V	125 mA
24 V	
Environmental Conditions	
Operational Temperature	0 °C -+ 60 °C (32 °F - +140 °F)
Storage Temperature	-40 °C - +85 °C (-40 °F - +185 °F)
Relative Humidity	5% - 95% (non-condensing)
Power Dissipation	ANSI/ISA 71.04.2013 G3 Environment Standard
Certifications	UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD) CE per 89/336/EEC for EMC, UKCA, FCC, CMIM
Recommended Cable	14 AWG stranded maximum, 3/64 insulation maximum