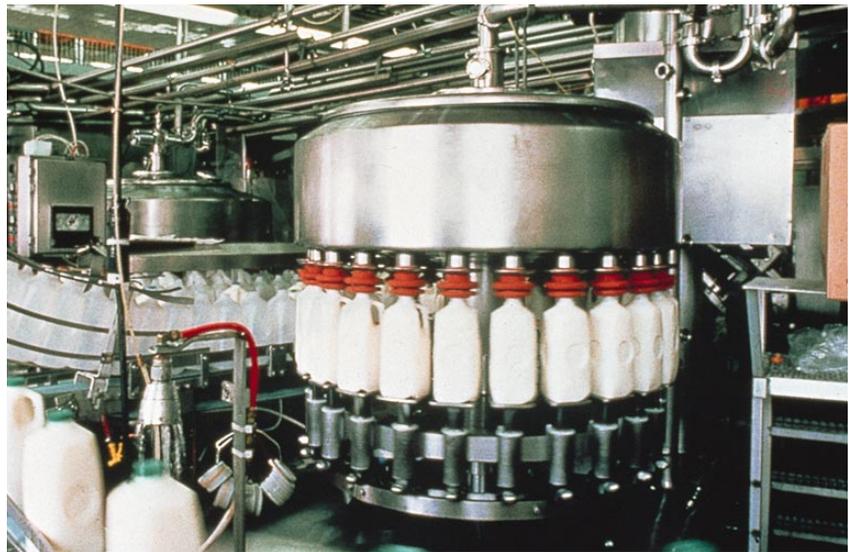




1746 Eight Channel Analog Input Module for Demanding Process Control

Product Profile



Broader Control Capability

Small programmable controllers continue to be placed in process control applications demanding higher densities, faster, more accurate measurement and the flexibility to interface to a variety of temperature, pressure and flow transducers. The 1746-NI8 analog input module broadens the control capabilities of the SLC 500™ to serve these demanding process applications.

High Density

This new eight channel analog module provides more efficient use of rack space and lower cost per point compared to competitive four channel analog modules. A color coded removable terminal block facilitates wiring and module replacement.

Excellent Performance

The module is extremely accurate at $\pm .05\%$ of full scale and offers a no filter option allowing analog data to be updated at a rate of .75 msec per enabled channel. The module provides 14–16 bit resolution and can interface to current or voltage signals from various process sensors.

Diagnostic Feedback

Machine uptime is increased and troubleshooting time reduced with the help of diagnostic status bits for open-circuit and out-of-range detection. Eight channel status indicators and a module status indicator are also provided.

Software Configurable

Each channel can be individually configured with the ladder program and can be reconfigured without interrupting CPU operation. An easy to use bit configuration table allows the user to choose the input range, filtering frequency, data format and status data best suited to the application. On-board scaling is provided, eliminating the need to program this function with complex ladder programming.

1746-NI8 Specifications	
Input Ranges	0–20 mA, 4–20 mA, ± 20 mA, 0–1 mA 0–5V dc, 1–5V dc, 0–10Vdc, ± 10 V dc
Resolution	14–16 bit (range dependent) 10 bit for 0–1 mA range
Accuracy 0–60°C	current input type: $\pm .05\%$ of full scale ¹ voltage input type: $\pm .10\%$ of full scale
Module Update Time	.75 msec per enabled channel
Step Response for .05% accuracy (full scale)	no filter = .75 msec + module update time 75 Hz filter = 18 msec + module update time 50 Hz filter = 24 msec + module update time 20 Hz filter = 60 msec + module update time 10 Hz, 5 Hz, 2 Hz and 1 Hz filters also available
Ch-Ch Isolation	None, see common mode voltage range
Backplane Isolation (between field wiring and backplane)	530V ac for 1 sec 750V dc for 1 sec 50V dc continuous
Common Mode Voltage Range	± 10.5 volts
Available for shipment	Limited: May 1997 Stock: July 1997

¹For all ranges except 0–1 mA, which is $\pm .5\%$.



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