SPECTRUM CONTROLS

1771sc High Density Analog 16-Channel Differential or 32-Channel Single ended Input Module

Catalog No. 1771sc-IFE32

Product Profile

- Installs and operates exactly like an Allen-Bradley product
- Features 16 true differential or 32 single-ended analog inputs
- Ideal for demanding analog applications in industrial environments
- Features 500 Vrms channel-to-backplane isolation; 500 Vrms channel-to-chassis ground isolation; 12.5 Vdc channel-to-channel isolation
- Easily configured by ladder register settings
- Provides several digital input noise filters that are selectable on a channel by channel basis to customize your installation for maximum speed with minimum noise

The 1771sc-IFE32 is the first module to provide 32 channels of analog input on a single 1771 I/O module. This module can also be configured for 16 channels of differential analog input.

Simplifies Installation

Since the 1771sc-IFE32 incorporates proprietary Allen-Bradley technology, it operates and performs like an Allen-Bradley product for easy installation. All setup is accommodated through standard I/O registers, no dip switches or on-board jumpers are required to complete this installation process.

Reduces System Costs

With possible update times of as little as 2.1 ms per channel and 16 bit resolution, the 1771sc-IFE32 is an ideal solution for jobs requiring large quantities of analog inputs. The module can be configured to scan only the inputs that are actually connected to a field device, this can help to improve the overall throughput speed since unused channels are not scanned by the CPU.

Advanced Features

- Each input channel is independently configurable for range and filter frequency
- Scaling of input data to user-defined engineering units
- Various data output formats
- All data transferred in a single block transfer read
- On board software selectable auto-calibration and error checking

Spectrum Controls, Inc. • P.O. Box 5533 • Bellevue, Washington 98006 USA • Tel: (425) 746-9481 • Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com • E-mail: spectrum@spectrumcontrols.com

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1771sc-IFE32 Specifications

Inputs per Module	16 differential or 32 single-ended
Module Location	1771 I/O chassis - 1 slot
Input Current Ranges	4 to 20 mA; 0 to 20 mA; -20 mA to +20 mA
Input Voltage Ranges	-10 to +10 Vdc; 0 to 10 Vdc; 0 to 5 Vdc; 1 to 5 Vdc; -5 to +5 Vdc
Resolution (maximum)	16 bits
SLC Communication Formats	16-bit two's complement Scaled engineering units Scaled for PID 32 Individual User-defined proportional counts
Accuracy Voltage Current	 0.03% of full scale @ 25 °C 0.05% of full scale @ 60 °C 0.05% of full scale @ 25 °C 0.10% of full scale @ 60 °C
Opto-Electrical Isolation	12.5 Vdc channel-to-channel 500 Vrms field-wiring-to-backplane
Input Impedance	≤ 250 Ω ±1% for current >10 MegaOhms for voltage
Maximum Input Current	±31mA
Input Overvoltage Protection	±20Vdc Continuous
Common Mode Rejection	90 dB @ 50/60 Hz (frequency dependent)
Backplane Current Required	400 mA @ 5V
Thermal Dissipation	2.0W Max
Update Time (minimum)	2.1 ms per channel with 1667 Hz filtering
Step Response Time (typical)	User Defined by Filter Frequency
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	 0° to 60°C (32° to 140°F) -40° to +85°C (-40° to 185°F) 5 to 95% (non-condensing)
Certifications	UL/CUL (Class I, Div 2, Groups ABCD) and CE
Recommended Cable	Shielded, twisted-pair, Belden 8761

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Corporate Headquarters
Spectrum Controls, Inc.
P.O. Box 5533 • Bellevue, Washington 98006 USA
Tel 425-746-9481 • **Fax** 425-641-9473
E-mail spectrum@spectrumcontrols.com
www.spectrumcontrols.com

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