

DI-8B32 Analog Current Input Modules

FEATURES

- Accepts Milliamp Level Signals
- High Level Voltage Outputs
- 1500Vrms Transformer Isolation
- ANSI/IEEE C37.90.1 Transient Protection
- Input Protected to 30VAC Continuous
- 120dB CMR
- 70dB NMR at 60Hz
- $\pm 0.05\%$ Accuracy
- $\pm 0.02\%$ Linearity
- Low Drift with Ambient Temperature
- CSA, FM and CE Certifications Pending
- Mix and Match Module Types

DESCRIPTION

DI-8B modules are an optimal solution for monitoring real-world process signals and providing high level signals to a data acquisition system. Each DI-8B32 module isolates, filters and amplifies a process current input signal and provides an analog voltage output.

Current to voltage conversion is accomplished internal to the module to ensure high accuracy.

Signal filtering is accomplished with a three-pole filter optimized for time and frequency response which provides 70dB of normal-mode-rejection at 60Hz.

One pole of this filter is on the field side of the isolation barrier for anti-aliasing, and the other two are on the system side.

A special input circuit on the 8B32 module provides protection against accidental connection of power-line voltages up to 30VAC.

Isolation is provided by optical coupling to suppress transmission of common mode spikes or surges. The module is powered from +5VDC, $\pm 5\%$.

The modules are designed for installation in Class I, Division 2 hazardous locations and have a high level of immunity to environmental noise.

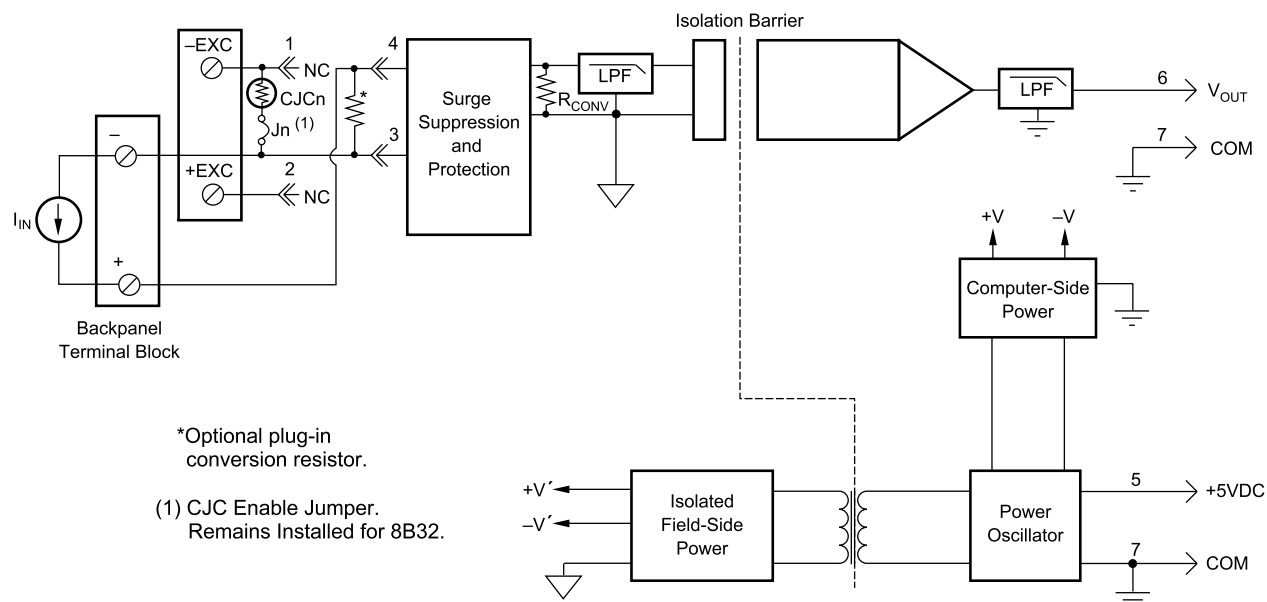
SPECIFICATIONS

Typical at $T_A = +25^\circ\text{C}$ and +5V Power

		DI-8B32
Input Range		0mA to 20mA or 4mA to 20mA
Input Resistance	Normal Power Off	<50Ω <50Ω
Input Protection	Continuous Transient	40VAC ANSI/IEEE C37.90.1
CMV, Input to Output		1500Vrms max
Transient, Input to Output		ANSI/IEEE C37.90.1
CMR (50Hz or 60Hz)		120dB
NMR		70dB at 60Hz
Accuracy*		±0.05% span
Nonlinearity		±0.02% Span
Stability	Output Gain	±25ppm/°C ±50ppm/°C
Noise	Output, 100kHz	250μVrms
Bandwidth, -3dB		3Hz
Response Time, 90% Span		150ms
Output Range		0 to +5V
Output Protection	Transient	Continuous Short to Ground ANSI/IEEE C37.90.1
Power Supply Voltage		+5VDC ±5%
Power Supply Current		30mA
Power Supply Sensitivity		±25ppm/%
Mechanical Dimensions		1.11" × 1.65" × 0.40" (28.1mm × 41.9mm × 10.2mm)
Environmental	Operating Temperature Storage Temperature Relative Humidity	-40°C to +85°C -40°C to +85°C 0 to 95% Noncondensing
*Includes nonlinearity, hysteresis and repeatability.		

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Block Diagram



Ordering Information

Model Number	Input Range	Output Range
DI-8B32-01	4mA to 20mA	0V to +5V
DI-8B32-02	0mA to 20mA	0V to +5V



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