

# 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.

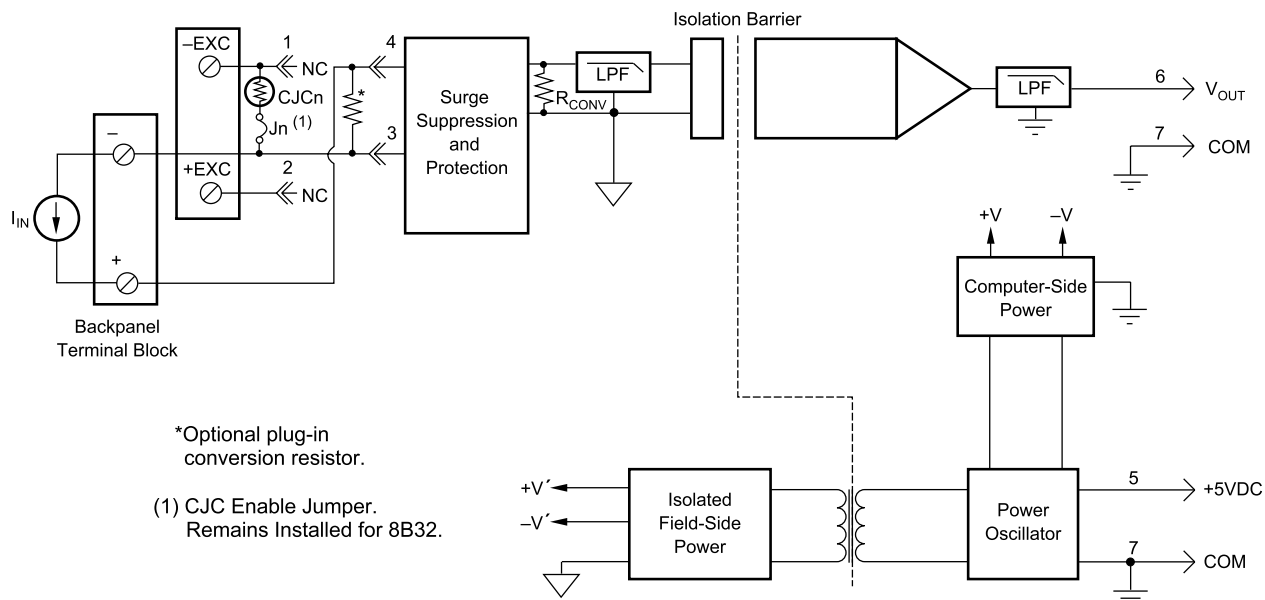
## SPECIFICATIONS

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

		<b>DI-8B32</b>
Input Range		0mA to 20mA or 4mA to 20mA
Input Resistance	Normal	<50 $\Omega$
	Power Off	<50 $\Omega$
Input Protection	Continuous	40VAC
	Transient	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*		$\pm 0.05\%$ span
Nonlinearity		$\pm 0.02\%$ Span
Stability	Output	$\pm 25\text{ppm}/^\circ\text{C}$
	Gain	$\pm 50\text{ppm}/^\circ\text{C}$
Noise	Output, 100kHz	250 $\mu$ Vrms
Bandwidth, -3dB		3Hz
Response Time, 90% Span		150ms
Output Range		0 to +5V
Output Protection	Continuous	Continuous Short to Ground
	Transient	ANSI/IEEE C37.90.1
Power Supply Voltage		+5VDC $\pm 5\%$
Power Supply Current		30mA
Power Supply Sensitivity		$\pm 25\text{ppm}/\%$
Mechanical Dimensions		1.11" $\times$ 1.65" $\times$ 0.40" (28.1mm $\times$ 41.9mm $\times$ 10.2mm)
Environmental	Operating Temperature	-40 $^\circ\text{C}$ to +85 $^\circ\text{C}$
	Storage Temperature	-40 $^\circ\text{C}$ to +85 $^\circ\text{C}$
	Relative Humidity	0 to 95% Noncondensing
*Includes nonlinearity, hysteresis and repeatability.		

# DI-8B32 Analog Current Input Modules

## 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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