

## Protege DIN Rail 4 Channel Analog Input Expander

The Protege DIN Rail 4 Channel Analog Input Expander enhances the total integration philosophy of the Protege System by allowing the connection of any industrial automation sensor using the industry standard 0 to 10V signals, and self-powered 4-20mA current loop sensors. The data from the sensors can then be used for comparison functions, process control calculations, variable display and alarm activation in the Protege system.



### Feature Highlights

- > Automatic scaling provides a full 4 to 20mA input range on the current interface
- > 10 Bit precision analog circuitry interfaces to the real world providing a high level of accuracy
- > 4x 100% independent analog inputs provide excellent noise and interface protection
- > Programmable channel deviation trigger level
- > Individual channel restore options
- > 12VDC Pass-Through and 24VDC Internal Generated supply outputs for sensors
- > Industry standard DIN Rail mounting
- > Online and remote upgradeable firmware
- > Secure encrypted RS-485 module communications

### Power Supply

The Protege DIN Rail 4 Channel Analog Input Expander operates from a 12VDC input. Ultra low current requirements ensuring cost effective power distribution.

### Channel Configuration Features

Configuration of the Protege DIN Rail 4 Channel Analog Input Expander analog input channels allows individual channels to be set up and programmed for specific functions without compromising other channels:

- > Each channel can be independently enabled.
- > Always send and send on change can be configured per channel to ensure data is sent in the most efficient manner without continual traffic.
- > Data can be logged to a file which can be reviewed or exported in CSV format for graphing or input into 3rd party systems.

### Communication

Single RS-485 communication interface port used for all network communication functions and interconnects to other modules.

### Connectivity and System Expansion

Expanding the Protege System with 4 analog inputs from the Protege DIN Rail 4 Channel Analog Input Expander allows convenient cost effective expansion and the added benefit of:

- > Address configuration of the Protege DIN Rail 4 Channel Analog Input Expander interface is achieved using the address programming feature of the Protege System Controller

### Upgradeable Firmware

Utilizing the latest flash technology and high performance communication mediums the firmware of the Protege DIN Rail 4 Channel Analog Input Expander can be updated using the ICT Loadit utility over the Protege system module network.

## Technical Specifications

Power Supply	
DC Input Voltage	12VDC (+/-10%)
DC Output Voltage (DC IN Pass-Through)	12VDC 0.7A (Typical) Electronic Shutdown at 1.1A
DC Output Voltage (Internally Generated)	24VDC Electronic Shutdown at 200mA
Operating Current	80mA (Typical)
Low Voltage Cutout	8.7VDC
Low Voltage Restore	10.5VDC
Communication	
RS-485	Module Network
Inputs	
Analog Inputs	4 (4-20mA and 0-10V Input) 10 Bit Resolution
Trouble Inputs	8
Dimensions	
Dimensions (L x W x H)	156.8 x 90 x 60mm (6.17 x 3.54 x 2.36")
Weight	270g (9.52oz)
Temperature	
Operating Temperature	5° - 55° Celsius (41° - 131° Fahrenheit)
Storage Temperature	-10° - 85° Celsius (14° - 185° Fahrenheit)
Humidity	0% - 85% (Non-Condensing)

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