

Protégé 4 Channel Analog Input Expander

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The Protégé 4 Channel Analog Input Expander enhances the total integration philosophy of the Protégé System by allowing the connection of any industrial automation sensor using the industry standard 0-20mA, 4-20mA and 0-10V signals.

The Protégé 4 Channel Analog Input Expander is designed to interface with any industrial sensor that supports 0-20mA, 4-20mA and 0-10V signal outputs.

The data from the sensors can then be used for comparison functions, process control calculations, variable display in Protégé System Management Suite and alarm activation.

Precision Analog Circuitry

Utilizing the most advanced hardware technology available and integrated with a 32Bit processor the PRT-ADC4 Analog Expander provides a feature rich solution for industrial control and monitoring applications:

- Automatic scaling provides a full 0-20mA or 4-20mA input range on the current interface.
- 12 Bit Precision analog circuitry interfaces to the real world providing accuracy up to 4096 steps.
- 4 100% independent analog inputs provide excellent noise and interface protection.

Channel Configuration Features

Configuration of the channel allows individual channels to be set up and programmed for specific functions without compromising other channels:

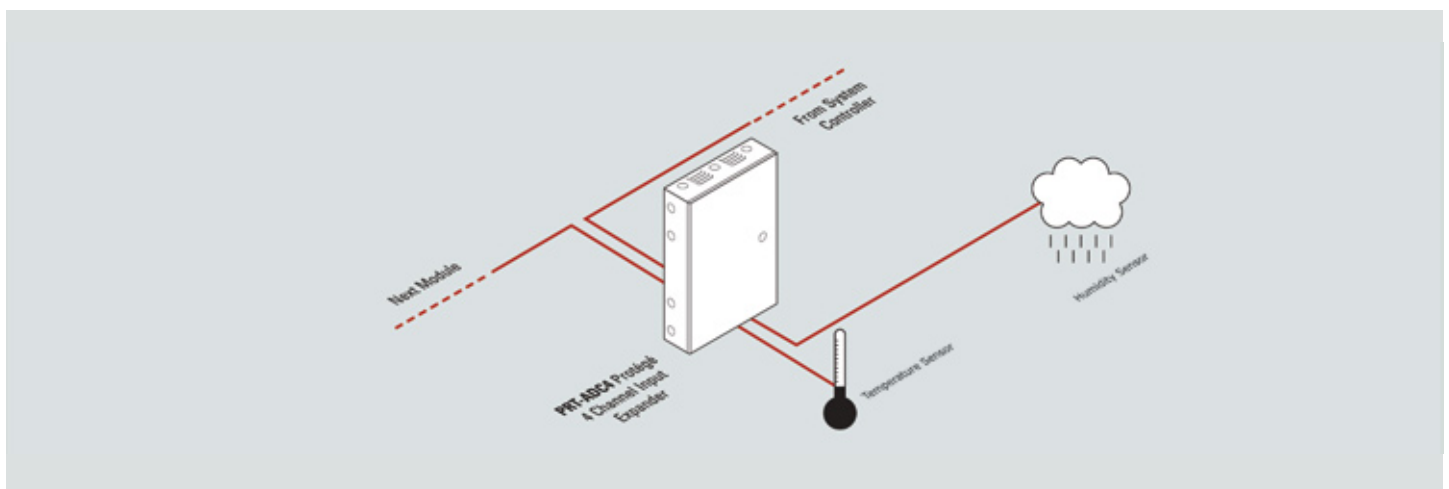
- Each channel features an independent enable.
- Channel can be configured to be 0-20mA or 0-10V independently in software with individual hardware connections to ensure no damage can be done to the inputs.
- Always send and send on change can be configured per channel to ensure data is sent in the most efficient manner without continual traffic.
- Log data can be enabled to allow a log of the information to be saved to a raw event that can be recalled if required.

Connectivity and System Expansion

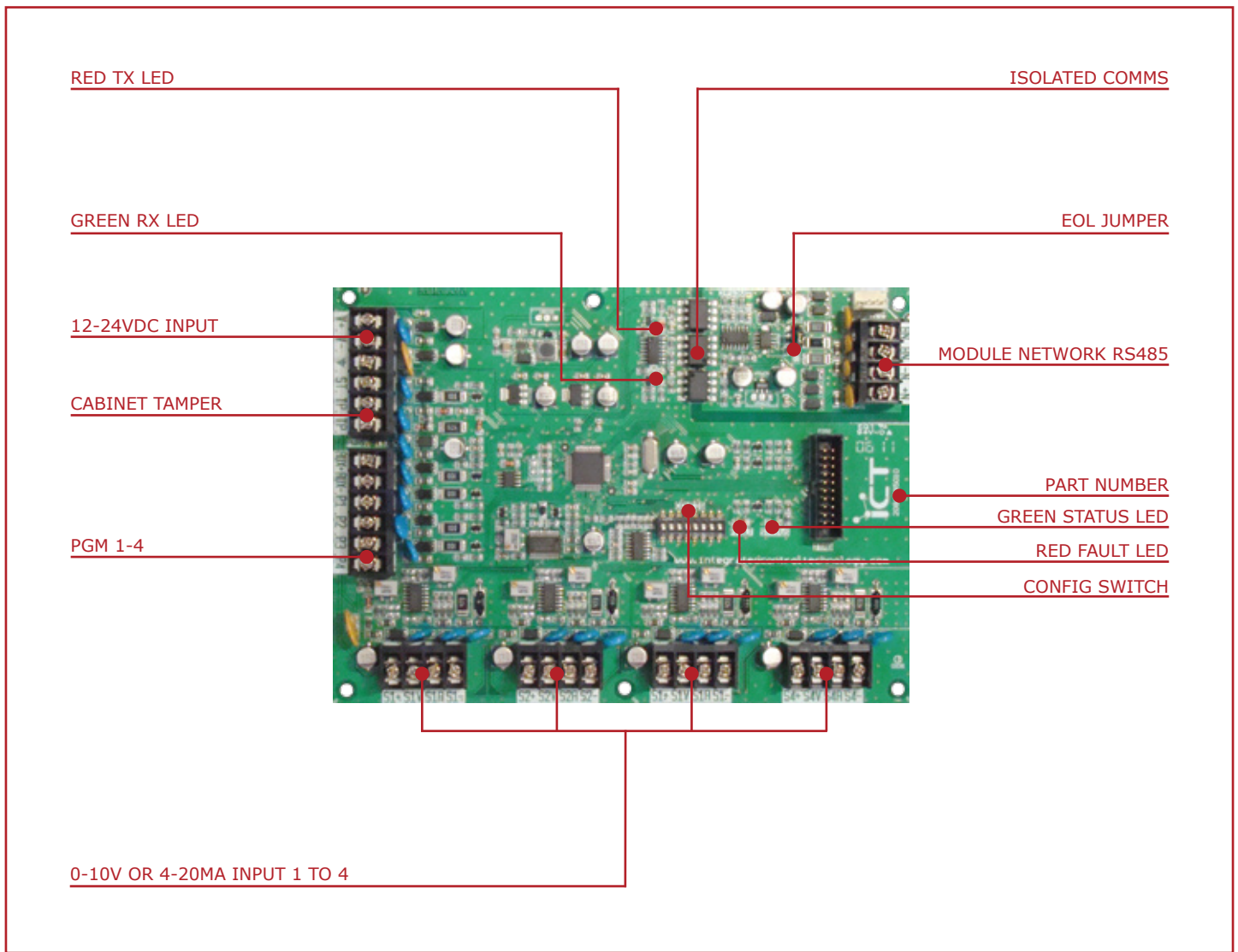
Expanding the Protégé System with 4 Analog Inputs and 4 Low current PGM outputs from the Analog Expander allows convenient cost effective expansion:

- Dedicated enclosure tamper switch.
- 4 Low Current PGM Output for driving any signalling device.
- 4 Analog Inputs (0-20mA, 4-20mA and 0-10V).

Standard Configuration



Protégé 4 Channel Analog Input Expander Diagram



Technical Specifications

Power	Operating Voltage Operating Current	8.5VDC to 25.5VDC 129mA (148mA Max)
Cable Specifications	Protégé RS-485 Encrypted System Network Communication Power Sensor Devices	Beldon Part Code 9842 or Equivalent. CAT5 / 5e (up to a maximum length of 300m). 24Awg Minimum Industrial instrumentation cable that complies with the local installation standards.
Analog Outputs (Channels)	Analog Accuracy	4 Selectable (0-20mA or 0-10V 12 Bit (4096 Steps)
Trouble Zones	Enclosure Tamper	Standard Normally Closed Contact
PGM (Outputs)	System PGMs	4 Open Collector (Negative, 50mA Max) Outputs Programmable for all PGM functions
Temperature	Operating Storage Humidity	5° to 55°C (41° to 131°F) -10° to +85°C (14° to 185°F) 0%-85% (Non Condensing)
Dimensions	Height Width Depth Weight	17mm (0.66") 183mm (7.20") 132mm (5.19") 85gms (2.99oz)

The size of conductor used for the supply of power to the Protégé 4 Channel Analog Output Expander should be adequate in size to prevent voltage drop at the power terminals of no more than 5% of the rated supply voltage.

International Compliance Standards:

The Protégé 4 Channel Analog Input Expander complies with the following international standards.

For an installation of the Protégé 4 Channel Analog Input Expander to comply with any of the standards all installation procedures and programming configuration settings must be made in accordance with the required standard.

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Integrated Control Technology Limited

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