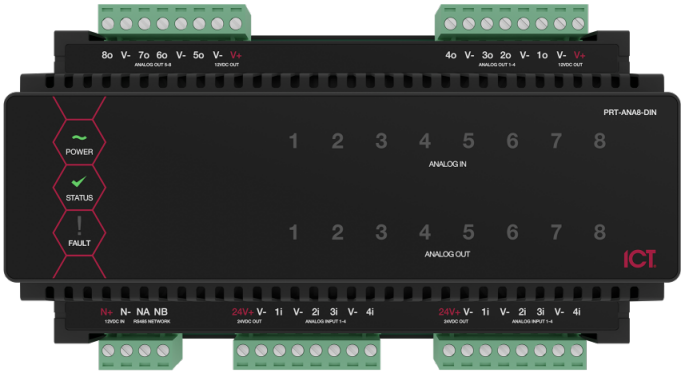
# Protege DIN Rail 4 Channel Analog Input Expander




The Protege DIN Rail 4 Channel Analog Input Expander enhances the total integration capability 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.

With 4 highly configurable industrial sensor analog inputs, the analog input expander allows input data to be used for comparison functions, process control calculations, variable display and alarm activation.

## Feature Highlights

- 4 independent industrial sensor analog input channels
- High resolution 10 bit inputs with 5x oversampling
- Programmable channel deviation trigger level
- Individual channel restore options
- 12VDC pass-through and 24VDC internally generated supply outputs for sensors
- Secure encrypted RS-485 module communications
- Online and remote upgradable firmware
- Designed for use with industry standard DIN rail mounting

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### Connectivity and System Expansion

Expanding the Protege system with 4 industrial sensor analog inputs from the DIN Rail 4 Channel Analog Input Expander allows convenient, cost-effective expansion with the following additional benefits:

- 4 independent analog inputs can be assigned to any 4 areas in the system, each being processed using different options or features
- Address configuration of the analog input expander is achieved using the address programming feature of the Protege system controller

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### LED Indicators

The analog input expander features comprehensive diagnostic indicators that can aid in diagnosing faults and conditions. LED indicators on the analog input expander include:

- Status indicator
- Fault indicator
- Power indicator
- Analog input status indicators

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### Communication

A single RS-485 communication interface port used for all network communication functions and interconnection to other modules.

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### Power Supply

Device power is supplied from a 12VDC input. Ultra low current requirements ensure cost-effective power distribution.

## Upgradable Firmware

Utilizing the latest flash technology and high performance communication mediums, the firmware can be updated via the Protege interface.

## Wall Mountable

The additional wall mounting feature provides absolute convenience and flexibility in module positioning.

## Technical Specifications

| Ordering Information | |
|---|---|
| PRT-ADC4-DIN | Protege DIN Rail 4 Channel Analog Input Expander |
| **Power Supply** | |
| DC Input Voltage | 12VDC (+/-10%) |
| DC Output Voltage<br>(DC IN Pass-Through) | 12VDC 0.7A (Typical) Electronic Shutdown at 1.1A |
| DC Output Voltage<br>(Internally Generated) | 24VDC Electronic Shutdown at 200mA |
| Operating Current | 80mA (Typical) |
| Low Voltage Cutout | 8.7VDC |
| Low Voltage Restore | 10.5VDC |
| **Communication** | |
| Communications | RS-485 Isolated Module Network |
| **Inputs** | |
| Analog Inputs | 4 (4-20mA and 0-10V Input)<br>10 Bit Resolution |
| Trouble Inputs | 8 |
| **Dimensions** | |
| Dimensions (L x W x H) | 156 x 90 x 60mm (6.14 x 3.54 x 2.36") |
| Net Weight | 270g (9.5oz) |
| Gross Weight | 381g (13.4oz) |
| **Operating Conditions** | |
| Operating Temperature | 5˚- 55˚ Celsius (41˚ - 131˚ Fahrenheit) |
| Storage Temperature | -10˚- 85˚ Celsius (14˚ - 185˚ Fahrenheit) |
| Humidity | 0%-85% (Non-Condensing) |
| Mean Time Between Failures (MTBF) | 784,316 hours (calculated using RDF 2000 (UTE C 80-810) Standard) |

## Regulatory Notices

For a full regulatory and approval list please visit the ICT website.

**RCM (Australian Communications and Media Authority (ACMA))**

This equipment carries the RCM label and complies with EMC and radio communications regulations of the Australian Communications and Media Authority (ACMA) governing the Australian and New Zealand (AS/NZS) communities.

**CE – Compliance with European Union (EU)**

Conforms where applicable to European Union (EU) Low Voltage Directive (LVD) 2014/35/EU, Electromagnetic Compatibility (EMC) Directive 2014/30/EU, Radio Equipment Directive (RED)2014/53/EU and RoHS Recast (RoHS2) Directive: 2011/65/EU + Amendment Directive (EU) 2015/863.

This equipment complies with the rules of the Official Journal of the European Union, for governing the Self Declaration of the CE Marking for the European Union as specified in the above directives.

**UK Conformity Assessment (UKCA) Mark**

This equipment carries the UKCA label and complies with all applicable standards.

**Federal Communications Commission (FCC)**

FCC Rules and Regulations CFR 47, Part 15, Class A.

This equipment complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; (2) This device must accept any interference received, including interference that may cause undesired operation.

**Industry Canada**

ICES-003

This is a Class A digital device that meets all requirements of the Canadian Interference-Causing Equipment Regulations.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (A)/NMB-3(A)

Designers & manufacturers of integrated electronic access control, security and automation products.
Designed & manufactured by Integrated Control Technology Ltd.




**www.ict.co**

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