



# Protege DIN Rail 16 Input Expander

Designed for use with industry standard DIN rail mounting, the Protege DIN Rail 16 Input Expander provides the interface of up to 16 inputs for monitoring and automation in the Protege system.

With 16 inputs that can be used for extended monitoring functionality, the DIN Rail 16 Input Expander provides extensive hardware advancements that allow flexible input programming and configuration.

## Feature Highlights

- > 16 monitored inputs
- > Connect any combination of normally closed or normally open inputs, configurable per input
- > Utilizes analog to digital processing with 5x over sampling
- > Four-state input alarm using resistors to provide short, alarm, closed and tamper conditions
- > High performance 32 Bit processor
- > 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 local inputs and outputs allows convenient, cost-effective expansion with the following additional benefits:

- > 16 inputs can be assigned to any 4 areas in the system each being processed using different options or features
- > Address configuration of the Input Expander is achieved using the address programming feature of the Protege System Controller

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## Power Supply

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

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## Upgradable Firmware

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

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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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## LED Indicators

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

- > Status indicator
- > Fault indicator
- > Power indicator
- > Input indicators

## Technical Specifications

Ordering Information	
PRT-ZX16-DIN	Protege DIN Rail 16 Input Expander
Power Supply	
DC Input Voltage	11-14VDC
DC Output Voltage (DC IN Pass-Through)	10.83-14.0VDC 0.7A (Typical) Electronic Shutdown at 1.1A
Operating Current	80mA (Typical)
Total Combined Current*	3A (Max)
Low Voltage Cutout	8.7VDC
Low Voltage Restore	10.5VDC
Communication	
RS-485	Module Network
Inputs	
Inputs	16 High Security Monitored Inputs (10ms to 1hr Input Speed Programmable)
Trouble Inputs	16
Dimensions	
Dimensions (L x W x H)	156.8 x 90 x 60mm (6.17 x 3.54 x 2.36")
Net Weight	280g (9.9oz)
Gross Weight	350g (12.3oz)
Operating Conditions	
Operating Temperature	UL/ULC 0° to 49°C (32° to 120°F) : EU EN -10° to 55°C (14° to 131°F)
Storage Temperature	-10° to 85° C (14° to 185° F)
Humidity	0%-93% non-condensing, indoor use only (relative humidity)
Mean Time Between Failures (MTBF)	784,316 hours (calculated using RFD 2000 (UTE C 80-810) Standard)

\* The total combined current refers to the current that will be drawn from the external power supply to supply the expander and any devices connected to its outputs. The auxiliary outputs are directly connected via thermal resettable fuses to the N+ N- input terminals, and the maximum current is governed by the trip level of these fuses.

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## Regulatory Notices

### **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.

Security Grade 4, Environmental Class II, EN 50131-1:2006+A2:2017, EN 50131-3:2009, EN 50131-6:2008+A1:2014, EN 50131-10:2014, EN 50136-1:2012, EN 50136-2:2013, EN 60839-11-1:2013, Power frequency magnetic field immunity tests EN 61000-4-8, Readers Environmental Class: IVA, IK07.

### **UL/ULC (Underwriters Laboratories)**

- > UL1610 for Central-Station Burglar-Alarm Units
- > UL294 for Access Control System Units
- > CAN/ULC S304 for Signal Receiving Centre and Premise Burglar Alarm Control Units
- > CAN/ULC S319 for Electronic Access Control Systems
- > CAN/ULC S559 for Fire Signal Receiving Centres and Systems

### **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.

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

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

Designers & manufacturers of integrated electronic access control, security and automation products.  
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