

## Protege DIN Rail 16 Input Opto-Isolated Expander

The Protege DIN Rail 16 Input Opto-Isolated Expander provides the interface of up to 16 opto-isolated inputs to the Protege system, an advanced technology security product providing seamless and powerful integration of access, security and building automation. The Opto-Isolated Expander provides extensive hardware advancements that allow flexible input programming and configuration, and is designed for use with Industry Standard DIN Rail Mounting.



### Feature Highlights

- > 16 opto-isolated inputs with each input completely isolated electrically from the others
- > Connect any combination of normally closed or normally open inputs, configurable per input
- > 4 low current (50mA) outputs for driving any signaling device
- > 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
- > 2 state zone alarm providing alarm and closed conditions
- > Utilizes analog to digital processing with 5x over sampling

### Power Supply

The Protege DIN Rail 16 Input Opto-Isolated Expander operates from a 12VDC input. Ultra low current requirements ensure cost effective power distribution.

### Connectivity and System Expansion

Expanding the Protege System with local inputs and outputs from the Protege DIN Rail 16 Input Opto-Isolated Expander allows convenient cost effective expansion and added benefit of:

- > 16 opto-isolated inputs capable of a large voltage range, ideal for use in elevator control or building automation
- > 4 multi function outputs for use in any programmable entry, ideal for connection in an electrical switch room to control signage, lighting and building automation or system indicators
- > Address configuration is achieved using the address programming feature of the Protege System Controller

### Communication

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

### Upgradable Firmware

Utilizing the latest flash technology and high performance communication mediums, the firmware can be updated using the Loadit utility over the 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            |
| Operating Current                      | 80mA (Typical)  |
| Low Voltage Cutout                     | 8.7VDC  |
| Low Voltage Restore                    | 10.5VDC   |
| Communication                          |   |
| RS-485                                 | Isolated Module Network                                     |
| Inputs                                 |   |
| Operating Voltage                      | 10V to 250V (DC/AC RMS) 35-75Hz                             |
| Input Type                             | 16 Galvanic Isolated (10ms to 1hr Input Speed Programmable) |
| Input Current Draw                     | Current 3mA per input @ 220VDC                              |
| Outputs                                |   |
| Outputs                                | 4 50mA (Max) Open Collector                                 |
| Dimensions                             |   |
| Dimensions (L x W x H)                 | 156.8 x 90 x 60mm (6.17 x 3.54 x 2.36")                     |
| Weight                                 | 289g (10.2oz)   |
| Temperature                            |   |
| Operating                              | 0°-50°C (32° - 122°F)                                       |
| Storage                                | -10° - 85°C (14° - 185°F)                                   |
| Humidity                               | 0%-93% non-condensing, indoor use only (relative humidity)  |

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