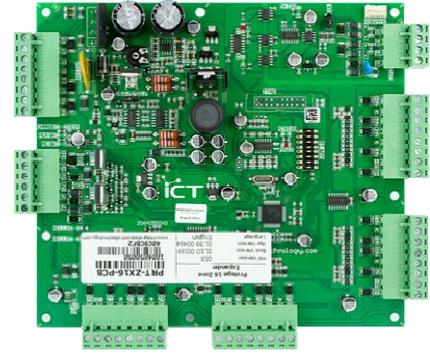


## Protege 16 Zone Input Expander

The Protege 16 Zone Input Expander provides the interface of up to 16 inputs, 2 bell/siren device outputs and 2 programmable outputs to the Protege system, an advanced technology security product providing seamless and powerful integration of access, security and building automation. The Protege 16 Zone Input Expander provides extensive hardware advancements that provide flexible zone programming and configuration.



### Feature Highlights

- > Connect any combination of normally closed or normally open zones, configurable per input
- > Utilizes analog to digital processing with 5 over sampling
- > 4 state input alarm using resistors to provide short, alarm, closed and tamper conditions

### Local Monitored Power Supply

The 16 Zone Input Expander operates from a 16VAC input, utilizing low cost transformers and providing a fully monitored 12VDC power solution using:

- > Deep discharge prevention of the battery with automatic electronic cut-off
- > Manual or processor controlled battery charge selection of 350mA or 700mA
- > Intelligent charging algorithm monitors battery and AC supply allowing optimum performance to be achieved using standard lead acid batteries
- > Monitored signals for battery low/disconnect and AC failure using local trouble inputs

### Connectivity and System Expansion

Expanding the Protege System with local zone (input) and PGM (output) from the Protege Input Expander allows convenient cost effective expansion:

- > 16 inputs can be assigned in to any 4 areas in the system each being processed using different options or features
- > Address configuration is achieved using an 8 way DIP switch

### Communication

Galvanic isolated RS-485 communication interface port used for all network communication functions and interconnection to other modules. 100% isolated to prevent ground loops and cross phase differential.

### 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

Operating Voltage	16 to 16.5VAC secondary (via transformer)
Operating AC Input Current	3.3A @ 16VAC when Total Combined Current = 2.5A 2.2A @ 16.5VAC when Total Combined Current = 1.7A
Operating Current	120mA (Maximum)
Total Combined Current	1.7A (Max) using a 37/40VA transformer 2.5A (Max) using a 60VA or greater transformer Electronically limited at 2.5A
AUX DC Outputs	11.0V-12.3V, 700mA (Typical) Electronic Shutdown at 1.1A
B1/B2 DC Outputs (Continuous)	11.0V-12.3V, 8 Ohm 30W Siren or 1.1A (Maximum)
B1/B2 DC Outputs (Inrush)	1500mA (1.5A)
Battery Charging	350mA/700mA
Battery Low	11.2VDC
Battery Restore	12.5VDC
Electronic Disconnection	9.4VDC
Communication (Serial)	1 Isolated RS-485 Communication Interface Port 12VDC @ 28mA. (Input)
Zone Inputs (System Zones)	16 High Security Monitored Zone Inputs
Trouble Zones	16
Tamper Input	Dedicated Hardware Tamper Input
PGM Outputs	2 50mA (Max) Open Collector Output general functions
Status Output	1 50mA (Max) Open Collector Output
Operating Temperature	0°-50°C (32° - 122°F)
Storage Temperature	-10°- 85°C (14° - 185°F)
Humidity	0%-93% non-condensing, indoor use only (relative humidity)
Dimensions (L x W x H)	183mm X 162mm (7.2" X 6.4")
Weight	233g (8.21oz)

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