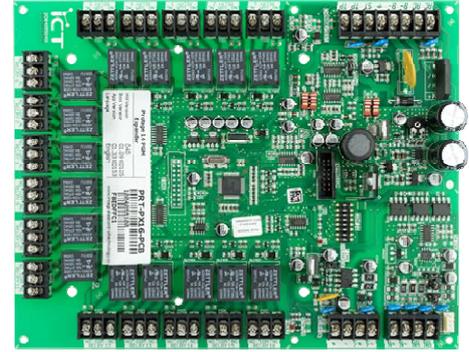


Protege 16 PGM Output Expander

The Protege 16 PGM Output Expander provides the control of 16 high current FORM C relay outputs or 16 elevator floors (connected with the Protege Intelligent 2 Reader Expander) from the Protege system, an advanced technology security product providing seamless and powerful integration of access, security and building automation. The Protege 16 PGM Output Expander provides extensive hardware advancements that allow flexible and structured control of lighting, automation and elevator systems from 1 device.



Feature Highlights

- > 16 FORM C relays capable of switching resistive loads up to 5 Amps
- > Indication to show the relay state for all relays onboard. The display indication is not obscured when attaching the Protege 16 Input Destination Reporting Interface
- > Fire control input automatically disables the relay voltage supply for use in a fail safe mode for elevator fire control. Fire control event is monitored and provides feedback using a fire power disabled event
- > High performance 32 Bit ARM processor
- > Power output indicator shows power is available on the reader voltage outputs on the relay power. Fire control can be overridden by the fire control override jumper

Local Monitored Power Supply

The Protege 16 PGM Output 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 from the Protege 16 PGM Output Expander allows convenient cost effective expansion and added benefit of:

- > 16 multiple function outputs for use in any programmable output entry
- > Ideal for connection in a electrical switch room to control signage, lighting and building automation
- > Outputs can be configured to automatically turn on when powered up, communication failure or to resume previous state
- > Address configuration is achieved using an 8 way DIP switch. Switch 5, 6, 7 and 8 are used for enabling the elevator function when connected to the Protege Intelligent 2 Reader Expander.
- > Connect directly to the slave port of the Protege Intelligent 2 Reader Expander for elevator system control with the added ability to perform destination reporting audits

Elevator Control

The Protege 16 PGM Output Expander when connected with the Protege Intelligent 2 Reader Expander allows the control of 2 independent elevator car floor selection buttons:

- > Utilize button feedback for floor selection monitoring and single badge, single floor control prevents user tailgating with full floor selection audit. *Requires the addition of the Protege 16 Input Destination Reporting Interface.*
- > Deny access to a user based on the status of the area on a specific floor that they are attempting to access (button feedback required).
- > Floor relay can use the Late Open option forcing the floor to remain locked on a schedule until valid access to the floor is granted. *Requires the addition of the Protege 16 Input Destination Reporting Interface.*
- > Interface to the Protege 16 PGM Output Expander using the slave RS-485 communication port for intelligent elevator control (controls 16 floors per Protege 16 PGM Output Expander per elevator car).
- > Optional high level RS-485 communication to elevator control system (requires protocol documentation to be provided).
- > Invert floor control relays for full fail safe operation or for fail secure.
- > Programmable all secure and all access modes providing a simple and effective fault diagnostic solution.

Communication

Full galvanic isolated RS-485 communication interface port allows powerful communication options:

- > Network RS-485 port used for all network communication functions and interconnects to other modules.
- > Connects to the slave port of the Protege Intelligent 2 Reader Expander for operation as an elevator floor controller. Up to 16 Protege 16 PGM Output Expander units can be connected providing 2 elevator cars the ability to control 128 floors each.

Upgradable Firmware

Utilizing the latest flash technology and high performance communication mediums the firmware can be updated using the ICT Loadit utility over the Protege system module network.

Technical Specifications

Operating Voltage	15.5 to 16.5VAC, 50 to 60Hz @ 40VA (max)
Operating Current	119mA (1145mA max all relays activated)
DC Output (Auxiliary)	150mA fused/monitored
Battery Charging	350mA/700mA
Battery Low	11.2VDC Alarm
Battery Restore	12.5VDC
Electronic Disconnection	8.76VDC
Expansion Unit	Daughter board 16 galvanic isolated inputs using the Protege 16 Input Destination Reporting Interface
Inputs (Tamper)	Normally closed
Inputs (Fire Control Isolated)	12 to 24VDC 6.5mA input
Outputs (System Outputs)	Relay FORM C 16 5A (Max) FORM C relay outputs with status indication
Operating Temperature	5° to 55°C (41° to 131°F)
Storage Temperature	-10° to 85°C (14° to 185°F)
Humidity	0% to 85% (non condensing)
Dimensions (H x W x D)	183 x 234 x 35mm (7.20 x 9.21 x 1.37")
Weight	1020g (35.97oz)