

# Protege SE Integrated System Controller

The Protege SE Integrated System Controller is the central processing unit responsible for the control of security, access control and automation in the Protege integrated system, an advanced technology security product providing seamless and powerful integration of access, security and building automation.



## Feature Highlights

- > Internal industry standard 10/100 Ethernet
- > Communicate with Ethernet modules that are interconnected using a LAN or corporate network
- > In-built offsite dual line communications dialer (ContactID, SIA)
- > 32 Bit advanced RISC processor with 2MB RAM and 4MB flash
- > 16 high security monitored zone inputs
- > 2 high current outputs
- > Firmware upgradable using standard IT technology
- > Enhanced technology power supply with battery charging and monitoring
- > Encrypted module network using RS-485 communication

## Ethernet 10/100 Connection

Onboard Ethernet communication allowing direct connection from a local PC or interconnection to an existing LAN/WAN:

- > Directly connect the Protege system across a LAN or WAN interface for high speed upload and download.
- > IP reporting functionality using ICT's ArmorIP protocol, Contact ID over IP, SIA over IP and full text reporting methods.
- > Full 10/100 compliant network interface allows the connection of the controller to all networks at the maximum capable signaling rate.

## Local Monitored Power Supply

The Controller operates from a 16VAC input, utilizing a low cost transformer 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 zones

## Integrated Access Control

Providing a highly sophisticated access control solution with large user capacity and extensive features:

- > Utilize multiple access levels to manage users over scheduled periods and time zones
- > Assign door groups, menu groups, area groups, floor groups and elevator groups to an access level for flexible user management. Each user can have multiple groups in multiple access levels

- > Maintain and control user's area status throughout the entire system with hard and soft anti-passback configuration options
- > Multiple card presentation options allow the use of access control cards, tags or other credentials to arm and disarm areas associated with doors
- > Count users entering an area and arm the area when the count reaches a terminal number or deny access to users based on a maximum user count

## Automation Functions

Automation points allow for the management of any controllable device such as lighting, air conditioning and signage. Link automation points to programmable functions to provide sophisticated control logic at the selection of an automation point. Define your own text names for automation points such as Office A/C or Outside Lights allowing easy identification of controllable items within the system.

## Programmable Functions

Programmable functions allow for the use of special applications that are configured by the controller for logic, area, door and many other controllable devices:

- > Perform actions when a particular event or operation occurs such as setting the room temperature based on the number of people in an area, adjusting the internal lighting levels based on a sensor reading, or unlocking doors in the event of a fire alarm
- > Process logic functions to allow complex equations to be evaluated using the special internal memory registers and output status
- > Control of doors, areas, elevators and outputs can be easily programmed and managed

## Connectivity and System Expansion

Expansion of the Protege system with onboard local inputs and outputs allows convenient cost effective expansion without the increased cost of modules for simple system functions:

- > 16 onboard zone inputs can each be programmed to require EOL (End Of Line), Dual EOL, or direct contact
- > 2 Bell/Siren outputs with fully monitored operation
- > 2 integrated Wiegand reader ports
- > System expansion is achieved by connecting additional expander modules

## Communication

RS-485 communication interface, onboard 2400bps modem, and a 10/100 Ethernet communications port provides a complete solution for system expansion, offsite monitoring, system communication and integration.

## Multifunction Reporting Services

The controller incorporates a host of communication options.

- > Send IP based reporting protocols using the onboard Ethernet and ICT's ArmorIP protocol.
- > Report alarms using Contact ID, SIA Level 2.
- > Communicate with third party applications using ASCII or HEX directly from the controller.

## Upgradable Firmware

Utilizing the latest flash technology and high performance communication interface the firmware can be updated using industry standard applications.

# 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 (Typical)
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
AUX1/AUX2 DC Outputs	11.0V-12.3V, 1.0A (Typical) Electronic Shutdown at 1.85A
B1/B2 DC Outputs (Continuous)	11.0V-12.3V, 8 Ohm 30W Siren or 1.1A (Maximum)
B1/B2 DC Outputs (Inrush)	1500mA
Battery Charging	350mA/700mA
Battery Low	11.2VDC
Battery Restore	12.5VDC
Electronic Disconnection	9.4VDC
Communication (Ethernet)	1 10/100Mbps Ethernet Communication Link
Communication (Serial)	1 Isolated RS-485 Communication Interface Port 12VDC @ 28mA. (Input)
Communication (Modem)	1 2400bps Modem Communication
Readers (Standard Mode)	2 Wiegand or clock data readers providing one Entry/Exit Door or two Entry/Exit only Doors.
Readers (Multiplex-reader Mode)	4 Wiegand Readers (connected in Multiplex Reader mode) providing any combination of Entry or Exit for two Doors.
Zone Inputs (System Zones)	16 High Security Monitored Zone Inputs
Tamper Input	Dedicated Hardware Tamper Input
PGM Outputs	6 50mA (Max) Open Collector Output for reader LED and beeper or 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)	234 x 183 x 35mm (9.21 x 7.20 x 1.37")
Weight	376g (13.26oz)

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