

Protege GX DIN Rail Integrated System Controller

The Protege GX DIN Rail Integrated System Controller is the central processing unit responsible for the control of security, access control and automation in the Protege 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
- > 32 Bit advanced RISC processor with 2Gb total memory
- > Encrypted module network using RS-485 communication
- > Built-in offsite communications dialer (ContactID SIA)
- > 2 reader ports, configurable for either Wiegand or RS-485 reader operation
- > 8 high security monitored inputs
- > 1 high current monitored bell output
- > 2 high current Form C relay outputs
- > Firmware upgradable directly from the software
- > Designed for use with industry standard DIN Rail mounting

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.

Flexible Reader Support

Provides 2 reader ports, each of which can be independently configured for either Wiegand or RS-485 reader operation, allowing the connection of up to 4 readers controlling 2 doors.

Choose RS-485 readers for fast, flexible, secure communication, or Wiegand for compatibility with all standard access control systems. RS-485 readers provide the added benefits of being easier and more cost effective to wire and deploy, and allow for direct integration with Protege systems enabling you to make changes on the fly once readers are installed. RS-485 also allows for longer cable runs and offers a simpler firmware update process.

Integrated Arming/Disarming

Featuring advanced integration of arming and disarming solutions for control of hundreds of alarm areas:

- > Deny access to a user based on the status of the area and allow the user to control the area they are entering, in turn reducing false alarms
- > Implement vault control areas to restrict and manage the time delayed access and unlocking of vault areas in banking facilities without the need for extra hardware control devices

- > Prevent access to a keypad using a card and PIN function or allow card presentation to automatically login the user at the associated keypad
- > Disarm an area associated with an elevator floor on access or prevent the user from gaining access to the floor based on the area status associated with the floor
- > Arm large numbers of areas using area groups

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

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

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.

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:

- > 8 onboard inputs can each be programmed to require EOL (End Of Line), dual EOL, or direct contact
- > Bell/Siren output onboard with fully monitored operation
- > 2 high current Form C relays onboard
- > 2 integrated reader ports, configurable for either Wiegand or RS-485 reader operation
- > System expansion is achieved by connecting additional expander modules

Integration

- > Link the Protege System with intelligent locking solutions through comprehensive world class solution partners Salto, Aperio, and Cencon.
- > High level lift interface for control of modern elevator systems
- > Other third party integrations such as building and lighting control systems

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

Firmware upgradable directly from the Protege GX software.

Technical Specifications

Operating Voltage	11-14V DC
Operating Current	120mA (typical)
DC Output (Auxiliary)	10.45-13.85VDC 0.7A (typical) electronic shutdown at 1.1A
Bell DC Output (Continuous)	10.4-13.4VDC 8 Ohm 30W Siren or 1.1A (Typical) Electronic Shutdown at 1.6A.
Bell DC Output (Inrush)	1500mA
Total Combined Current*	3.4A (max)
Electronic Disconnection	9.0VDC
Communication (Ethernet)	Port 80 TCP/IP HTTP (Controller Web Interface) Fixed Port 9450 TCP/IP & UDP/IP (Controller to Ethernet Module) Configurable Port 9460 UDP/IP (Controller to Touchscreen) Configurable Port 9470 TCP/IP (Controller to Controller Communication) Fixed Port 21000 TCP/IP (Data Download, Server to Controller) Configurable Port 21001 TCP/IP (Manual Control, Server to Controller) Configurable Port 22000 TCP/IP (Event Transmission, Controller to Server) Configurable
Communication (RS-485)	3 RS-485 communication interface ports, 1 for module communication and 2 for reader communication
Communication (Modem)	2400bps modem communication
Readers	2 reader ports** that can be configured for either Wiegand or RS 485 reader operation allowing the connection of up to 4 Wiegand readers or 4 RS-485 capable readers providing entry/exit control for two doors
Inputs (System Inputs)	8 high security monitored inputs
Outputs	4 50mA (max) open collector outputs for reader LED and beeper or general functions
Relay Outputs	2 FORM C relays - 7A 250V max resistive/inductive
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)	156 x 90 x 60mm (6.14 x 3.54 x 2.36")
Weight	330g (11.64oz)

*The Total Combined Current refers to the current that will be drawn from the external power supply to supply the Controller and any devices connected to the Controller's outputs. The Auxiliary outputs and Bell output are directly connected via electronic fuses to the N+ N- input terminals, and the maximum current is governed by the trip level of these fuses.

**Each reader port supports either Wiegand or RS485 operation but not both at the same time. If combining Wiegand and RS-485 technologies, they must be connected on separate ports.

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