

PRO-2200 Series Access Modules

Dimensions:

- Board: 9.0" H x 5.5" W x 1.0" D / 228.6 mm H x 139.7 mm W x 25.4 mm D
- PRO22ENC1: 13.9" H x 17" W x 9" D / 353 mm H x 431.8 mm W x 228.6 mm D
- PRO22ENC2: 13.9" H x 18.9" W x 9" D / 353 mm H x 480.06 mm W x 228.6 mm D
- PRO22ENC3: 14" H x 16" W x 4" D / 355.6 mm H x 406.4 mm W x 102 mm D
- PRO22ENC4: 8.37" H x 7.63" W x 7.63" D / 212.8 mm H x 194 mm W x 194 mm D
- PRO22ENC5: 9.35" H x 16.85" W x 5.6" D / 237.4 mm H x 427.9 mm W x 142.2 mm D

Environment:

- Temperature: 0 to 70° C operational; -55 to 85° C storage
- Humidity: 0 to 95% RHNC

Wire Requirements:

- Power - twisted pair, 18 AWG
- RS-485 - 24 AWG, 4,000 ft. / 1,200 m max, two twisted pairs with shield (120W, 23pF, Belden 9842 or equiv.)

- RS-232 - 24 AWG, 25 ft. / 7.6 m max.
- Alarm input - twisted pair, 30 ohms max.

Enclosures:

- PRO22ENC1 (Wall-mount) Capacity: Nine modules. Power supply and battery not included
- PRO22ENC2 (19" Rack-mount) Capacity: Nine modules. Power supply and battery not included
- PRO22ENC3 (Tile-mount) Capacity: Two modules. Power supply and battery included
- PRO22ENC4 (Tile-mount) Capacity: One module (PRO22R1 only). Power supply and battery included
- PRO22ENC5 (Cage only for custom enclosures) Capacity: Nine modules. Power supply and battery not included

ORDERING INFORMATION

Order #	Description
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PRO-2200 Controllers

PRO22IC	PRO-2200 Intelligent Controller
PRO22R1	PRO-2200 Single Reader Module
PRO22R2	PRO-2200 Dual Reader Module
PRO22OUT	PRO-2200 Sixteen Relay Output Module
PRO22IN	PRO-2200 Sixteen Alarm Input Module
PRO22EN	PRO-2200 Network Interface Module

PRO-Series Enclosures

PRO22ENC1	(Wall-mount) Capacity: Nine modules. Power supply and battery not included
PRO22ENC2	(19" Rack-mount) Capacity: Nine modules. Power supply and battery not included
PRO22ENC3	(Tile-mount) Capacity: Two modules. Power supply and battery included
PRO22ENC4	(Tile-mount) Capacity: One module (PRO22R1 only). Power supply and battery included
PRO22ENC5	(Cage only for custom enclosures) Capacity: Nine modules. Power supply and battery not included

Optional Accessories

PRO22DCC	Daisy Chain cable required for PRO22ENC1, PRO22ENC2 and PRO22ENC5
PRO22E1PS	4-Amp rack-mounted power supply with battery backup required for PRO22ENC1, PRO22ENC2 and PRO22ENC5

Hardwired Kits

PRO22E1IC	Includes: PRO22ENC1, PRO22IC, PRO22E1PS, PRO22BAT1 and PRO22DCC
PRO22E2IC	Includes: PRO22ENC2, PRO22IC, PRO22E1PS, PRO22BAT1 and PRO22DCC

Network Kits

PRO22E1EN	Includes: PRO22ENC1, PRO22IC, PRO22EN, PRO22E1PS, PRO22BAT1 and PRO22DCC
PRO22E2EN	Includes: PRO22ENC2, PRO22IC, PRO22EN, PRO22E1PS, PRO22BAT1 and PRO22DCC

PRO-2200 Series Access Modules



PRO221C, PRO22R1, PRO22R2, PRO22OUT, PRO22IN

The PRO-2200 Series family of access modules are controlled by and connected to the intelligent control module through a supervised RS-485 bus at 38,400 bps. Hardware interface configuration options are stored in the intelligent control module and may be directly controlled via operator intervention, time schedules or event-based procedures.

The access modules have been designed to allow for a modular customizable solution. The PRO22R1 provides I/O support for one card access reader, while the PRO22R2 supports two card access readers. Both interface with the intelligent control module (PRO22IC). In the event that communication to the intelligent control module is lost, the card access readers can be individually configured to allow entrance based on security needs. This customization allows for a door to be configured as locked, unlocked, or access only via valid facility code.

The PRO22OUT interfaces with the intelligent control module (PRO22IC) providing two dedicated power fail and panel tamper when tile mounted. Up to 12 or 16, form C, 12 VDC, 2 amp, relay output controls depending if the board is rack or tile-mounted.

Relays may be used for elevator control, status annunciation and for general facility control, such as door monitoring.

The PRO22IN interfaces with the intelligent control module (PRO22IC) providing 16 supervised alarm inputs and two dedicated power fail and panel tamper when tile mounted. An analog to digital converter samples the input values and the digitized result is filtered and processed. Filter parameters are configurable for each input point, resulting in the ability to specify a custom End-Of-Line (EOL) resistance value, sensitivity range and timing parameter.

The PRO-2200 Series of access modules are designed to accommodate various mounting options. Units can be mounted in a rack configuration (PRO22ENC1, PRO22ENC2 and PRO22ENC5) when space is limited, or in a tile-mount configuration (PRO22ENC3).

- The PRO22ENC1 is a wall-mounted enclosure rack unit
- The PRO22ENC2 is a 19 inch rack-mounted enclosure rack unit
- The PRO22ENC5 is a rack unit which fits within a customers enclosure.

Features

- Modular design fits a wide variety of applications
- Analog to digital converter technology provides digital filtering and input conditioning
- Supports multiple reader and card formats for maximum flexibility and security options
- Up to nine modules, power-supply and battery can be accommodated by the PRO22ENC1, PRO22ENC2 and PRO22ENC5 enclosures
- Supports the choice of normally open, normally closed, supervised, and non-supervised circuits
- Operating modes include locked, unlocked, facility code, card only, card and PIN, card or PIN and PIN only
- User programmable relay outputs allow for specific control needs
- Supports a wide range of reader technologies including Wiegand, Magnetic Stripe, Proximity, and Keypad
- Any combination of 8 I/O or reader modules may be connected to the PRO22IC RS-485 ports
- User programmable alarm inputs offer flexible system configuration and control
- System off-line modes customizable per reader include facility code access, locked (no access), and unlocked (full access)
- Alarm circuit type – normally open, normally closed, non-supervised, supervised (with correct EOL). Meets requirements for UL294 and CUL
- RS-485 communication to all modules
- Any combination of 8 I/O or readers modules may be connected to the PRO22IC RS-485 ports. 4,000 feet / 1,250 meters total bus length per port
- Dedicated cabinet tamper and power monitor inputs

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PRO-2200 Series Access Modules



BENEFITS

- Anti-passback support – free pass and exempt flags, last area accessed, last reader accessed and time/date of last access
- Modular hardware architecture provides flexibility and expansion capabilities
- Large, local controller database allows access control decisions to be made by controller in real time without the need to communicate to the server
- Scalable architecture ensures optimal performance with a seamless upgrade path to accommodate future growth beyond its initial installation
- Four-state alarm input circuits - normally opened, normally closed, non-supervised, supervised (w/EOL)

PRO-2200 Series Single Reader Modules

PRO22R1 - Module Specifications:

- 1 Reader port - 12 VDC at 50 mA, clock / data or data0 / data1
- Keypad multiplexed with card data
- Two-wire or one-wire bi-color LED support
- Buzzer support only with one-wire LED control
- 2 supervised, general purpose alarm inputs with programmable circuit type
- 1 dedicated alarm input for tamper detection
- 1 general purpose output relay, form C, 5A 28 VDC
- 1 general purpose output relay, form C, 1A 28 VDC
- Designed to be tile-mounted using the PRO22ENC4 enclosure

Alarm Input Properties:

- Inputs may be assigned to door related functions or general purpose I/O
- Circuit type – normally open, normally closed, non-supervised, supervised (with standard 1K or custom end-of line resistance 200-10K)
- Line conditioning – programmable sensitivity and hold time

Output Control Properties:

- Outputs may be assigned to door related functions or general purpose I/O
- The 5A relay(s) are rated to handle the inductive loads of door locking devices
- The 1A relay is rated to handle dry circuit logic
- Configurable as standard (energize to activate) or fail-safe (de-energize to activate)
- Pulse control – single pulse (up to 24 hours) or repeating pulse (on/off in 0.1 second increments, up to 255 times)

Communication Features:

- RS-485 port, 4,000 feet / 1,250 meters total bus length
- Standard speed is 38.4 KBps

PRO-2200 Series Dual Reader Module

PRO22R2 - Module Specifications:

- 2 Reader ports - 12 VDC at 50 mA, clock / data or data0 / data1
- Keypad multiplexed with card data
- Two-wire or one-wire bi-color LED support
- Buzzer support only with one-wire LED control
- 8 supervised, general purpose alarm inputs with programmable circuit type (only 6 supervised inputs available when using PRO22ENC1, PRO22ENC2 and PRO22ENC5 enclosures)
- 2 dedicated alarm inputs for tamper detection and power loss
- 2 general purpose output relay, form C, 5A 28 VDC
- 4 general purpose output relay, form C, 2A 28 VDC (only 2 output relays available when using PRO22ENC1, PRO22ENC2 and PRO22ENC5 enclosures)

Alarm Input Properties:

- Inputs may be assigned to door related functions or general purpose I/O
- Circuit type – normally open, normally closed, non-supervised, supervised (with standard 1K or custom end-of-line resistance 200-10K)
- Line conditioning – programmable sensitivity and hold time

Output Control Properties:

- Outputs may be assigned to door related functions or general purpose I/O
- The 5A relay(s) are rated to handle the inductive loads of door locking devices
- The 1A relay are rated to handle dry circuit logic (dual module)
- Configurable as standard (energize to activate) or fail-safe (de-energize to activate)
- Pulse control – single pulse (up to 24 hours) or repeating pulse (on/off in 0.1 second increments, up to 255 times)

Communication Features:

- RS-485 port, 4,000 feet / 1,250 meters total bus length
- Standard speed is 38.4 KBps

PRO-2200 Series Sixteen Relay Output Module

PRO22OUT - Module Specifications:

- 2 dedicated alarm inputs for tamper detection and power loss (tile-mounted only)
- 12 general purpose output relays, form C, 2A 30 VDC (16 are available when using PRO22ENC3 tile-mounted enclosure)

Output Control Properties:

- All 16-relay outputs in the tile-mount configuration (12" rack-mount) are available for general purpose I/O
- The 2A relays are rated to handle dry circuit logic
- Pulse control – single pulse (up to 24 hours) or repeating pulse (on/off in 0.1 second increments, up to 255 times)
- Configurable as standard (energize to activate) or failsafe (de-energize to activate)

Communication Features:

- RS-485 port, 4000 feet / 1,250 meters total bus length
- Standard speed is 38.4 KBps

PRO-Series Sixteen Alarm Input Module

PRO22IN - Module Specifications:

- 2 dedicated alarm inputs for tamper detection and power loss (tile-mounted only).
- 16 general purpose inputs with programmable circuit type
- 2 general purpose, form C, 2A 30 VDC relays (only one available when using PRO22ENC1, PRO22ENC2 and PRO22ENC5)

Alarm Input Properties:

- All 16 inputs may be assigned to door related functions or general purpose I/O
- Circuit type – normally open, normally closed, non-supervised, supervised (with correct EOL)
- Line conditioning – programmable sensitivity and hold time

Output Control Properties:

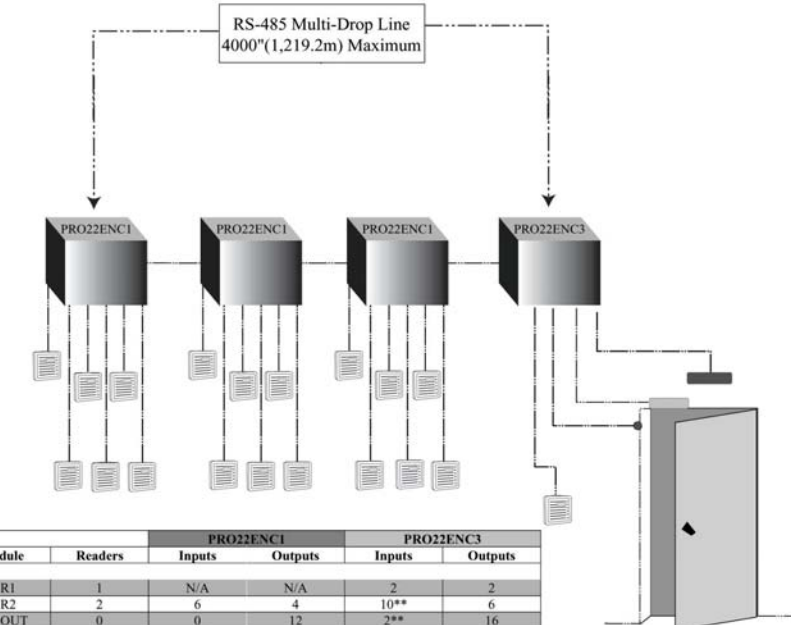
- Both relay outputs are available for general purpose I/O and rated to handle dry circuit logic
- Pulse control – single pulse (up to 24 hours) or repeating pulse (on/off in 0.1 second increments, up to 255 times)

Communication Features:

- RS-485 port, 4000 feet / 1,250 meters total bus length per port
- Standard speed is 38.4 KBps

BENEFITS:

- Rack or tile mounting options available
- Alarm conditioning with programmable sensitivity and hold time
- ADA compliant allowing expanded door times selectable per reader
- Selectable reader states include card and PIN, card or PIN, card only, or PIN only
- Auto switching power supply allows 110 / 220 operation with PROENC1
- System off-line modes customizable per reader include facility code access, locked (no access), and unlocked (full-access)
- Supports multiple reader and card formats for maximum flexibility and security options



PRO-2200 CONFIGURATION