

# PRO4200E

## Professional Series Access Modules

The PRO4200E professional series family of access control modules is designed for high density installations. Supporting up to 32 readers per enclosure and 64 readers per intelligent controller along with up to 300,000 Card capacity provides a combination of small installation footprint and superior cost per door ratio.

The new PRO42IC Intelligent Controller provides on-board I/O support for 2 Doors when in Native mode. The PRO42R1 provides I/O support for one card access reader, while the PRO42R2 support two card access readers. Both interface with the intelligent control module (PRO42IC). 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 doors configured as secured, locked and unlocked. PRO4200 modules provide latest bi-directional and strong encrypted OSDP communication with the Access Control readers. For legacy and retrofit installations, Wiegand format is still supported.

The PRO42OUT interfaces with the intelligent control module (PRO42IC) providing up to 12 or 16, Form C, 12 VDC, 2A relay output controls depending if the board is rack or tile-mounted and power fail and panel tamper when tile mounted. Relays may be used for elevator control, status annunciation and for general facility control, such as door monitoring.

The PRO42IN interfaces with the intelligent control module (PRO42IC) providing 16 supervised alarm inputs and a 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 PRO4200E Series of access modules are designed to accommodate various mounting options. Units can be mounted in a vertical card rack (rack-mount) 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" rack-mounted enclosure rack unit*

*The PRO22ENC5 is a rack unit which fits inside a customer's enclosure*

## FEATURES AND BENEFITS

Modular design fits a wide variety of applications

Up to 9 modules, power-supply and battery can be accommodated by the PRO22ENC1, PRO22ENC2 and PRO22ENC5 (no battery) enclosures

User programmable relay outputs allow for specific control needs

User programmable alarm inputs offer flexible system configuration and control

RS-485 communication to all modules

Analog to digital converter technology provides digital filtering and input conditioning

Dedicated cabinet tamper and power monitor inputs

Supports the choice of normally open, normally closed, supervised, and non-supervised circuits

Supports a wide range of reader technologies including Wiegand, OSDP, magnetic stripe, proximity, and keypad

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

Operating modes include locked, unlocked, facility code, card only, card and PIN, card or PIN and PIN only

Communication to the host is via either 10/100 Ethernet or RS-232 (both are standard)

Alarm circuit type - normally open, normally closed, non-supervised, supervised (with correct EOL). Meets requirements for UL294 and CUL

Any combination of 32 I/O or readers modules may be connected to the PRO32IC RS-485 ports. 4,000 ft (1,250 m) total bus length per port

Supports over 300,000 cards and 50,000 transactions

PRO4200E and PRO3200E modules are inter-compatible (forward and backward compatible) and can be mix-matched

Supports up to 128 floors of Elevator control per controller

# PRO4200E Technical Specifications

	PRO4200E SERIES SINGLE READER MODULE (PRO42R1)	PRO4200E SERIES DUAL READER MODULE (PRO42R2)
MODULE SPECIFICATIONS		
PORT	1 reader port - 12/24 VDC at 500 mA Clock/Data, Data-1/Data-0, F/2F, Wiegand & OSDP(v2)	2 reader ports - 12 VDC at 300 mA Clock/Data, Data-1/Data-0, F/2F, Wiegand & OSDP(v2)
KEYPAD	Keypad multiplexed with card data	
WIRE SUPPORT	Two-wire or one-wire bi-color LED support	
BUZZER SUPPORT	Buzzer support only with one-wire LED control	
ALARM INPUTS	2 supervised, general purpose alarm inputs with programmable circuit type	8 supervised, general purpose alarm inputs with programmable circuit type (only 6 supervised inputs available when using PRO22ENC1, PRO22ENC2 and PRO22ENC5 enclosures)
ALARM INPUTS	1 dedicated alarm input for tamper detection	2 dedicated alarm inputs for tamper detection and power loss
OUTPUT RELAYS (door strike)	1 general purpose output relay, form C, 5A 40 VDC	2 general purpose output relay, form C, 5A 30 VDC
OUTPUT RELAYS	1 general purpose output relay, form C, 5A 30 VDC	4 general purpose output relay, form C, 2A 30 VDC (only 2 output relays accessible when using vertical card rack-mount PRO22ENC1, PRO22ENC2 and PRO22ENC5 enclosures)
MOUNTING	Designed to be tile-mounted using the PRO22ENC4 enclosure	Supports both tile-mount and rack-mount
ALARM INPUT PROPERTIES		
INPUTS	Inputs may be assigned to door related functions or general purpose I/O	
CIRCUIT TYPE	Circuit type - normally open, normally closed, non-supervised, supervised (with standard 1K or custom end-of-line resistance 200-10K)	
LINE CONDITIONING	Line conditioning - programmable sensitivity and hold time	
OUTPUT CONTROL PROPERTIES		
OUTPUTS	Outputs may be assigned to door related functions or general purpose I/O	
RELAY RATING	The 5 A relay(s) are rated to handle the inductive loads of door locking devices	
CONFIGURABLE	Configurable as standard (energize to activate) or fail-safe (de-energize to activate)	
PULSE TIME	1-42,400 seconds, 1-255 for door relays	
RS485 PORT	RS485 port, 4,000 ft (1,250m) total bus length	
STANDARD SPEED	38.4 Kbps	

	PRO4200E SERIES SIXTEEN RELAY OUTPUT MODULE (PRO42OUT)	PRO4200E SERIES SIXTEEN ALARM INPUT MODULE (PRO42IN)
<b>MODULE SPECIFICATIONS</b>		
ALARM INPUTS (dedicated)	2 dedicated alarm inputs; one for tamper detection and a second one for power loss (tile-mounted only)	
ALARM INPUTS	N/A	16 general purpose inputs with programmable circuit type
OUTPUT RELAYS	16 general purpose output relays, form C, 5A 30 VDC (16 are accessible when using PRO22ENC3 tile-mounted enclosure) 12 accessible using vertical card rack-mount format	2 general purpose, form C, 5A 30 VDC relays (only one accessible when using vertical card rack-mount PRO22ENC1, PRO22ENC2 and PRO22ENC5)
<b>OUTPUT CONTROL PROPERTIES</b>		
OUTPUTS	16 general purpose relay outputs accessible in tile-mount. Only 12 accessible in vertical card rack-mount	2 general purpose relay outputs accessible in tile-mount; only 1 accessible in rack-mount
DRY CIRCUIT LOGIC	The 2 A relays are rated to handle dry circuit logic	Both relay outputs are rated to handle dry circuit logic
PULSE TIME	1-32,400 seconds	
CONFIGURABLE	Configurable as standard (energize to activate) or fail-safe (de-energize to activate)	N/A
<b>ALARM INPUT PROPERTIES</b>		
INPUTS	N/A	All 16 inputs may be assigned to door related functions or general purpose I/O
CIRCUIT TYPE	N/A	Circuit type - normally open, normally closed, non-supervised, supervised (with correct EOL)
LINE CONDITIONING	N/A	Line conditioning - programmable sensitivity and hold time
<b>COMMUNICATIONS FEATURES</b>		
MESUREMENTS	RS485 port, 4,000 ft (1,250m) total bus length per port	
SPEED	38.4 Kbps	

# PRO4200E Technical Specifications

## 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.

ADA compliant allowing expanded door times selectable per reader.

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).

Rack or tile mounting options available.

Alarm conditioning with programmable sensitivity and hold time.

Selectable reader states include card and PIN, card or PIN, card only, or PIN only.

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.

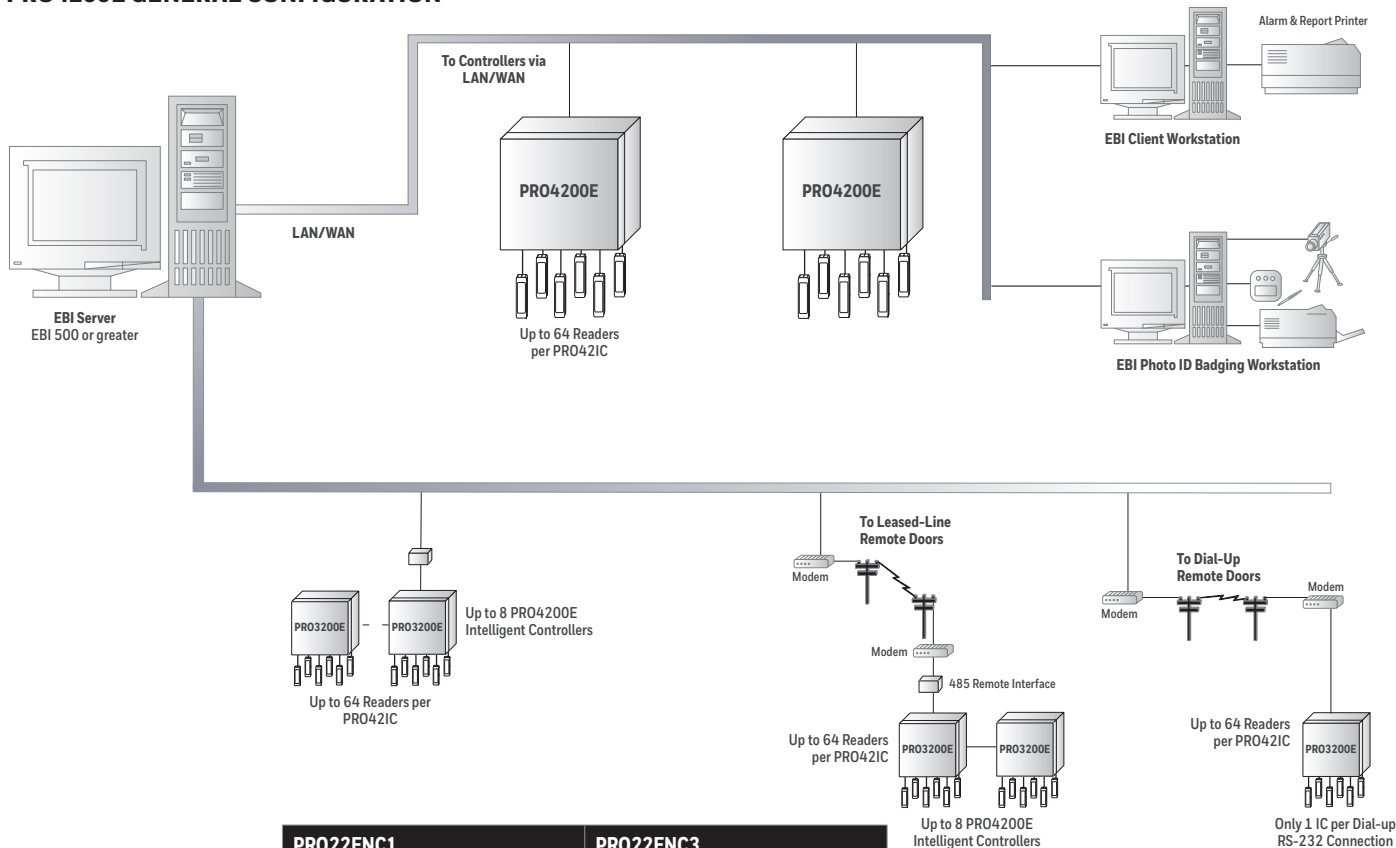
Supports Wiegand and/or OSDP communication.

Enhanced Cyber Security.

Port based network access control using 802.1X.

Host communications protected by TLS 1.2/1.1 or AES-256/128.

## PRO4200E GENERAL CONFIGURATION



MODULE	READERS	PRO22ENC1 (VERTICAL CARD RACK-MOUNT)		PRO22ENC3 (TILE-MOUNT)	
		INPUTS	OUTPUTS	INPUTS	OUTPUTS
PRO42R1	2 OSDP 1 Wiegand	N/A	N/A	2	2
PRO42R2	4 OSDP 2 Wiegand	6	4	10**	6
PRO42OUT	0	0	12	2**	16
PRO42IN	0	16	1	18**	2
PRO22ENC1=9 Board Capacity / PRO22ENC3=2 Board Capacity					
**Two are used to monitor Power and Tamper					

# PRO4200E Technical Specifications

## DIMENSIONS

**Board:** 9.0" H x 5.5" W x 1.0" D

(22.9 cm H x 14 cm W x 2.5 cm D)

**PRO22ENC1:** 13.9" H x 17" W x 9" D

(35.3 cm H x 43.2 cm W x 22.9 cm D)

**PRO22ENC2:** 13.9" H x 18.9" W x 9" D

(35.3 cm H x 48 cm W x 22.9 cm D)

**PRO22ENC3:** 14" H x 16" W x 4" D

(35.6 cm H x 40.6 cm W x 10.2 cm D)

**PRO22ENC4:** 8.37" H x 7.63" W x 7.63 D

(21.28 cm H x 19.4 cm W x 19.4 cm D)

**PRO22ENC5:** 9.35" H x 16.85" W x 5.6" D

(23.7 cm H x 42.8 cm W x 14.2 cm D)

## ENVIRONMENT

**Temperature:** 0°C to 49°C operational;

-55°C to 85°C storage

**Humidity:** 0 to 85% RHNC

## WIRE REQUIREMENTS

**Power:** twisted pair, 18 AWG

**RS485:** 22-24 AWG, 4,000 ft (1,200m)

max, two twisted pairs with shield

(F(S)TP/CAT7)

**RS-232 - 24 AWG:** 25 ft (7.6m) max

Alarm input -twisted pair, 30  $\Omega$  max

**Ethernet:** F(S)TP/CAT7,

300 ft (100m) max

## ENCLOSURES

**PRO22ENC1 (Wall-mount) Capacity:**

9 modules. Power supply and battery not included

**PRO22ENC2 (19" Rack-mount) Capacity:**

9 modules. Power supply and battery not included

**PRO22ENC3 (Tile-mount) Capacity:**

2 modules. Power supply and battery included

**PRO22ENC4 (Tile-mount) Capacity:**

1 module (PRO22R1 only). Power supply and battery included

**PRO22ENC5 (Cage only for custom enclosures)**

Capacity: 9 modules. Power supply and battery not included

PRO4200E CONTROLLERS	
PRO42IC	PRO4200E Intelligent Controller
PRO42R1	PRO4200E Single Reader Module
PRO42R2	PRO4200E Dual Reader Module
PRO42OUT	PRO4200E 16 Relay Output Module
PRO42IN	PRO4200E 16 Alarm Input Module
PRO-SERIES ENCLOSURES	
PRO22ENC1	(Wall-mount) Capacity: 9 modules. Power supply and battery not included
PRO22ENC2	(19" Rack-mount) Capacity: 9 modules. Power supply and battery not included
PRO22ENC3	(Tile-mount) Capacity: 2 modules. Power supply and battery included
PRO22ENC4	(Tile-mount) Capacity: 1 module (PWMR50-S3 only). Power supply and battery included
PRO22ENC5	(Cage only for custom enclosures) Capacity: 9 modules. Power supply and battery not included
OPTIONAL ACCESSORIES	
PRO22DCC	Daisy Chain cable required for PRO22ENC1, PRO22ENC2 and PRO22ENC5
PRO42PSU120	120 VAC input to 12.5 VDC, 4.0 amps output with overload protection, rack-mounted power supply with battery backup required for PRO22ENC1, PRO22ENC2 and PRO22ENC5
PRO42PSU230	230 VAC input to 12.5 VDC, 4.0 amps output with overload protection, rack-mounted power supply for PRO22ENC1, PRO22ENC2 and PRO22ENC5. Requires PRO22BAT1
PRO22MX8	8 Channel RS485 Multiplexer
PRO22BAT1	Battery, 7AH 12V
NETWORK KITS	
PRO42E1EN	Includes: PRO22ENC1, PRO42IC, PRO42PSU120, PRO22BAT1 and PRO22DCC
PRO42E2EN	Includes: PRO22ENC2, PRO42IC, PRO42PSU120, PRO22BAT1 and PRO22DCC

## For more information

For more information please call

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All specifications are subject to change without notice

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