Honeywell

PRO2200

Professional Modular Access Control Hardware

PRO2200 Access Control Hardware

As a part of the WIN-PAK® software controlled hardware family the PRO2200 professional modular access control hardware is an advanced access control panel capable of providing solutions where installation space is at a premium. The design of the hardware is modular and flexible and can be tailored to meet a wide range of applications, while optimising cost and mounting space.

The PRO2200 system is connected to a host computer with WIN-PAK for system configuration, alarm monitoring and direct control. Using WIN-PAK, at least 255 PRO2200 systems can be connected to create large access control solutions.

Every PRO2200 consists of a main controller, an enclosure, a power supply, reader and I/O modules. A PRO2200 system can be set up as an access control system with up to 16 doors, protected with one reader. If additional inputs and outputs are needed for extra control within the PRO2200 system, the number of controllable doors will be limited to less than 16 doors. The access control limitations depend on the amount of extra controllable inputs and outputs needed within the modular configuration of up to eight I/O or reader boards.

Designed to fit into tight spaces, the PRO2200 with its rack-mount design provides high-density installations for up to 16 doors in a small space. The design makes it ideal for applications where eight or more doors are needed. Metal enclosures for up to two modules are available for remote located controllable doors, connected via a supervised RS485 bus.

PRO2200 Main Controller

The PRO2200 main controller board (PRO22IC) accommodates a card database of 20,000 cards, a transaction buffer of 5,000 transactions and is designed to operate off-line, making access control decisions independently from a PC or other controlling device.

The PRO22IC supports any combination of up to eight I/O or reader boards to monitor alarm input points, relay output points and access control reader interface points. Connectivity to the host computer with WIN-PAK is accomplished via a TCP/IP add-on module, serial (RS232 or RS485) communication or dial-up modem.

PRO2200 Modules

The PRO2200 professional series family of access control modules is connected to an interface with the main controller (PRO22IC) through a supervised RS485 bus. Hardware interface configuration options are stored in the main controller and may be directly controlled via operator intervention, time schedules or event-based procedures. The modules have been designed to allow for a modular customisable solution.

PRO2200 Reader Modules

The PRO22R1 provides I/O support for one card access reader to control one door, while the PRO22R2 supports two card access readers to control two doors. 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 customisation allows for a door to be configured as locked, unlocked or access only via a valid facility code.

PRO2200 I/O Modules

The PRO22OUT module provides 12 Form C, 12 VDC, 2A relay output controls when mounted in a high density rack mount enclosure (PRO22ENC1 and PRO22ENC2). If the board is tile mounted in a PRO22ENC3, four extra Form C, 12 VDC, 2A relay output controls and power fail and panel tamper inputs are provided. Relays may be used for lift control, status annunciation and for general facility control.

The PRO22IN module provides 16 supervised alarm inputs and a dedicated power fail and panel tamper when tile mounted. The inputs can be supervised with end-of-line resistors or non-supervised (digital). Inputs may be used for status and for general facility monitoring, such as door monitoring.

PRO2200 Enclosures

The PRO2200 main controller and modules are designed to accommodate various mounting options. Units can be mounted in a high-density rack configuration (PRO22ENC1 and PRO22ENC2) when space is limited or in a tile-mount configuration (PRO22ENC3) for remotely located doors and I/O. A high-density enclosure can facilitate a power supply, a main controller and up to eight modules.

- PRO22ENC1 is a wall-mounted high-density enclosure
- PRO22ENC2 is a 19" rack-mounted high-density enclosure
- PRO22ENC3 is a wall-mounted remote enclosure for up to two modules or main controllers

PRO2200

Professional Modular Access Control Hardware

SYSTEM FEATURES

- Configurable via WIN-PAK access control software
- At least 225 PRO2200 systems configurable in a WIN-PAK hosted system to meet the needs of large access control and security systems
- Scalable architecture ensures optimal performance with a seamless upgrade path to accommodate future growth beyond its initial installation
- Rack or tile mounting options available
- Supervised communication and lithium battery backup ensures system reliability
- Large, local controller database allows access control decisions to be made by controller in real time without the need to communicate to the server
- Seamless optional support for TCP/IP protocols to allow intelligent controller(s) to tap into a LAN or WAN
- True 32-bit microprocessor provides fast transaction processing for the most demanding network applications
- Any combination of eight I/O or reader modules may be connected to the PRO22IC RS485 ports at 38,400 bps. 1250mtotal bus length per port.
- Accommodates a card database of 20,000 cards, and a transaction buffer of 5,000 transactions
- Option to include or exclude fields during database configuration to maximise memory usage
- Automatic calculation of leap-year and daylight savings

ACCESS CONTROL FEATURES

- Supports a wide range of reader technologies including Wiegand, magnetic stripe, proximity and keypad
- Supports multiple reader and card formats for maximum flexibility and security options
- System off-line modes customisable per reader include facility code access, locked (no access) and unlocked (full access)
- Operating modes include locked, unlocked, facility code, card only, card and PIN, card or PIN and PIN only
- Configurable as fail-secure (energise to activate) or fail-safe (de-energise to activate)
- ADA compliant allowing expanded door times selectable per reader
- Up to eight card formats per reader
- Anti-passback support - free pass and exempt flags, last area accessed, last reader accessed and time /date of last access
- Up to 32 access levels per card or individual time zones per readers
- 9-digit (32-bit) user ID standard / 15-digit maximum
- Personal Identification Number (PIN) with up to eights digits
- Activation and deactivation dates by card
- Up to 12 intervals per time zone where each interval is a start time, stop time and day map. The day map indicates the day of the week or holiday
- 255 possible holidays are defined by a starting date and duration
- Entire card bit-stream reported with invalid facility code or invalid card format

INPUT / OUTPUT CONTROL FEATURES

- User programmable relay outputs allow for specific control needs
- Pulse control: single pulse (up to 24 hours) or repeating pulses (on/off in 0.1 second increments, up to 255 times)
- Configurable as standard, entry delay latching, entry delay non-latching and exit delay
- User programmable alarm inputs offer flexible system configuration and control
- Alarm circuit type - normally open, normally closed, non-supervised, supervised (with correct EOL). Meets requirements for UL294 and CUL

ENCLOSURE FEATURES

- Up to nine modules, power-supply and battery can be accommodated by the PRO22ENC1 and PRO22ENC2 enclosures
- Auto switching power supply allows 110 / 220 operation with PRO32E1PS in PRO22ENC1 and PRO22ENC2
- Up to 2 modules and battery can be accommodated by the PRO22ENC3 enclosure for remote door installation (PSX220 transformer required for mains power)

Honeywell

SYSTEM SPECIFICATIONS

Database:

- Flash programming for firmware revision updates
- Memory for 20,000 cards
- Memory for 5,000 events
- Access codes: Unlimited
- Holidays: Unlimited
- Time codes: 255
- Card reader formats: eight per reader
- Credential facility codes: eight
- Lift support: 128 floors
- Dedicated tamper alarm
- Dedicated power fail alarm
- Real time clock:
  - Geographic time zone support
  - Daylight Saving Time
  - Leap year support
  - 4-bit parallel accurate to 50 ppm
- Precision access groups/levels
- Multiple access groups/levels

Communication Modules:

- Primary communication support:
  - RS232
  - RS485
  - Dial-up modem*
  - Ethernet (TCP/IP)*
- Communication speed: 38.4 Kbps
- Automatic dial back:
  - Dial-back on alarm condition
  - Dial-back on transaction buffer capacity reached
  - Dial-back on primary power loss
- Download functionality:
  - System functional during system download: Yes
  - System functional during credential download: Yes

*Requires additional hardware

Access Modules:

- Eight total devices available per controller
- Access modules available:
  - Single reader module (PRO22R1)
  - Dual reader module (PRO22R2)
  - 16 relay output module (PRO22OUT)
  - 16 alarm input module (PRO22IN)
- Module connectivity via RS485 protocol (1250m)

Access Control Operational Functionality:

- Duress detection
- Operational modes:
  - Card only
  - PIN only
  - Card or PIN
  - Card and PIN
  - Facility code only
- Maximum PIN size: 8 digits
- Door object support
- Threat level support: 100 levels
- Two person access rule
- Offline modes (selectable per reader):
  - Facility code access
  - Locked (no access)
  - Unlocked (free access)
- Anti-Passback support:
  - While preventing access (hard)
  - While allowing access (soft)
- Transaction prioritisation: 99 levels

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. Battery included.
  Recommended Power Supply: PSX220 Transformer 240VAC / 16VAC

Dimensions:

- Board: 22.86 cm H x 13.97 cm W x 2.54 cm D
- PRO22ENC1: 35.3 cm H x 43.18 cm W x 22.86 cm D
- PRO22ENC2: 35.3 cm H x 48 cm W x 22.86 cm D
- PRO22ENC3: 35.56 cm H x 40.64 cm W x 10.2 cm D

Environment (Controllers):

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

Environment (Modules):

- Temperature: 0°C to 49°C operational; -55°C to 85°C storage
- Humidity: 0 to 85% RHNC

Wiring Requirements:

- Power - twisted pair, 18 AWG
- RS485 - 24 AWG, 1,200m max, two twisted pairs with shield (120 W, 23 pF, Belden 9842 or equivalent)
- RS232 - 24AWG, 7.6 m max
- Alarm input - twisted pair, 30 ohms max

PRO2200

Professional Modular Access Control Hardware

MODULE SPECIFICATIONS

Reader Modules		
	PRO2200 Series Single Reader Module (PRO22R1)	**PRO2200 Series Dual Reader Module (PRO22R2)**
Module Specifications		
Port	1 reader port - 12 VDC at 50 mA, clock / data or data0 / data1	2 reader ports - 12 VDC at 50 mA, clock / data or data0 / data1
Keypad	Keypad multiplexed with card data	
Wire Support	Two-wire or one-wire bi-colour LED support	
Buzzer Support	Buzzer support only with one-wire LED control	
Door Alarm Inputs	2 supervised, door status and egress inputs with programmable circuit type	4 supervised, door status and egress inputs and 2 general purpose alarm inputs with programmable circuit type (2 additional supervised inputs available when using PRO22ENC3 enclosure)
Alarm Inputs	1 dedicated alarm input for tamper detection	2 dedicated alarm inputs for tamper detection and power loss
Door Control Relays	1 door control output relay, form C, 5 A 28 VDC	2 general purpose output relays, form C, 5 A 28 VDC
Output Relays	1 general purpose output relay, form C, 1 A 28 VDC	2 general purpose output relays, form C, 2 A 28 VDC (2 additional output relays available when using PRO22ENC3 enclosure)
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 fail-secure (energise to activate) or fail-safe (de-energise to activate)	
Pulse Time	1-32,400 seconds, 1-255 for door relays	
RS485 Port	RS485 port, 1,250m total bus length	
Default Speed	38.4 Kbps	

I/O Modules		
	PRO2200 Series 16 Relay Output Module (PRO22OUT)	**PRO2200 Series 16 Alarm Input Module (PRO22IN)**
Module Specifications		
Alarm Inputs	2 dedicated alarm inputs for tamper detection and power loss (tile-mounted only)	
Alarm Inputs	N/A	16 general purpose inputs with programmable circuit type
Output Relays	12 general purpose output relays, form C, 2 A 30 VDC (four additional are available when using PRO22ENC3 enclosure)	1 general purpose, form C, 2 A 30 VDC relay (one additional is available when using PRO22ENC3 enclosure)
Output Control Properties		
Outputs	All 16 relay outputs (mounted in PRO22ENC3) or 12 relay outputs (in PRO22ENC1 and PRO22ENC2) are available for general purpose I/O	Both relay outputs are available for general purpose I/O
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 fail-secure (energise to activate) or fail-safe (de-energise to activate)	N/A
Alarm Input Properties		
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
Communication Features		
Measurements	RS485 port, 1250m total bus length per port	
Default Speed	38.4 Kbps	

TYPICAL SYSTEM CONFIGURATION

		PRO22ENC1 and PRO22ENC2		PRO22ENC3	
Module	**Reader**	**Inputs**	**Outputs**	**Inputs**	**Outputs**
PRO22R1	1	N/A	N/A	2	2
PRO22R2	2	6	4	10**	6
PRO22OUT	0	0	12	2**	16
PRO22IN	0	16	1	18**	2
**Two are used to monitor Power and Tamper					
PRO22ENC1 and PRO22ENC2=9 Board Capacity / PRO22ENC3=2 Board Capacity					

PRO2200

Professional Modular Access Control Hardware

ORDERING

PRO2200 Controllers

PRO22IC	PRO2200 Intelligent Controller
PRO22R1	PRO2200 Single Reader Module
PRO22R2	PRO2200 Dual Reader Module
PRO22OUT	PRO2200 16* Relay Output Module
PRO22IN	PRO2200 16 Alarm Input Module

Communication Devices

PRO22EN	Ethernet daughter board for TCP/IP communication for PRO22IC
PCI3	RS232 to RS485 single port converter

PRO2200 High Density Enclosures and Accessories

PRO22ENC1	Wall-mount, high-density enclosure for power supply, main controller and up to eight modules. Power supply and battery not included
PRO22ENC2	19" Rack-mount, high-density enclosure for power supply, main controller and up to eight modules. Power supply and battery not included
PRO32E1PS	110V/240VAC - 12VDC /4 A rack-mounted power supply with battery backup
PRO22DCC	PRO2200 power/communication daisy chain harness

PRO2200 Remote Enclosure and Accessories

PRO22ENC3	Wall-mount enclosure with battery for two modules. Power supply not included
PSX220	240VAC / 16VAC transformer

* Only 12 relay outputs are available when using the PRO22ENC1 and PRO22ENC2 enclosures

For additional information,
please visit www.honeywell.com/security/uk

Honeywell Security Group
Aston Fields Road
Whitehouse Industrial Estate
Runcorn
Cheshire
WA7 3DL
Tel: 08448 000 235
www.honeywell.com

HAS-PRO2200-02-UK(0112)DS-E
January 2012