PW-Series Modular Access Control System

Intelligent Controllers

The PW-Series Modular Control System is an advanced access control hardware architecture capable of providing solutions for large enterprise applications. The Intelligent Controller (PW6K1IC or PW6K1ICE) provides power and flexibility with its 32-bit architecture, TCP/IP support, flash memory, large local cardholder database, and large reader and I/O module support.

The Intelligent Controller is designed to operate off-line, making access control decisions independently from a PC or other controlling device. It can also be connected to a host computer for system configuration, alarm monitoring and direct control. Connectivity to the host computer is accomplished via direct serial communication (RS232 or RS485), dial-up modem, or TCP/IP network connection. The PW-6000 has Ethernet directly embedded and will support a second Ethernet connection.

The PW-Series Intelligent Controllers support a combination of I/O and/or reader boards to monitor alarm input points, relay output points and access control reader interfaces. By offering a modular design, the system can be tailored to meet a wide range of applications, while optimizing cost and mounting space.

The PW-6000 will support up to 300,000 cards and 50,000 transactions. The PW-6101 will support up to 240,000 cards and 50,000 transactions.

The PW-Series access modules have been designed to accommodate various mounting options. Units can be wall mounted in a high density configuration (PW5K2ENC1) when space is limited, a 19" rack configuration (PW5K2ENC2), or in a tile mount configuration (PW5K1ENC3). The PW-6000 controller utilizes a built-in Web server to configure the hardware attributes of the controller.

FEATURES

- 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

- Automatic calculation of leap year and Daylight Saving Time

- 19-digit (64-bit) user ID – PW-6000/PW-6101

- Support for FIPS long card numbers

- Activation/deactivation dates by card

- Up to 32 access levels per card or individual time zones per readers

- Up to 8-digit Personal Identification Numbers (PIN) – PW6000/PW-6101

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

- Strike modes include fail-safe and fail-secure

- Up to eight card formats per reader

- Entire card bit-stream reported with invalid facility code or invalid card format

- Anti-passback support – free pass and exempt flags, last area accessed, last reader accessed and time/date of last access

- Configurable as standard, entry delay latching, entry delay non-latching and exit delay

- Configurable as standard (energize to activate) or fail-safe (de-energize to activate)

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SPECIFICATIONS

DATABASE

Cardholders:
  PW-6000: 300,000
  PW-6101: 240,000

Transaction storage:
  PW-6000/PW-6101: 50,000

Firmware: Flash programming for revision updates

Access codes: virtually unlimited

Holidays: virtually unlimited

Time codes: 255

Card reader formats: 8 per reader

Credential facility codes: 8

Elevator support: 128 floors

Dedicated alarms:
  Dedicated tamper alarm
  Dedicated power fail alarm

Real time clock:
  Geographic time zone support
  Daylight Saving Time
  Leap Year support

Database values may exceed current limitations of some security management systems.

COMMUNICATION MODULES

Primary communication support:
  RS232
  RS485
  Dial up modem
  Ethernet (TCP/IP)

Serial communication speed: 38.4 KBps

Redundant communication support, automatic dial back:
  PW6K1IC:
  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

ACCESS MODULES

PW-6000: 2 RS485 ports supporting 32 total devices

PW-6101: POE – Supporting 16 Single Reader Modules via ethernet (PW6K1ICE or PW6K1R1E)

  Access modules available: Single reader module (PW5K1R1), Dual reader module (PW6K1R2), 16 relay output module (PW6K1OUT) (12 from the front edge), 16 alarm input module (PW6K1IN)

  Module connectivity via RS485 protocol : 4000'

OPERATIONAL FUNCTIONALITY

Duress detection

Operational modes:
  Credential only
  PIN only
  Credential or PIN
  Credential and PIN
  Facility code only

Maximum PIN size: 8 digit

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 prioritization: 999 levels

READER SUPPORT

HID
Indala
OmniProx
OmniClass
DigiReaders
Wiegand
Keypads
Ingersoll Rand AD-400 Wireless Lock Sets (PW-6000 panels only)
Salto Sallis Wireless Readers (PW-6000 panels only)
Assa Abloy Wireless Readers (PW-6000 Readers only)

READERS AND CREDENTIALS

Prox:
  OmniProx
  HID Prox
  DigiReaders
  Indala Readers

Smart:
  OmniClass
  iClass
  Mifare
  DESFire

Keypad
Magstripe
Wiegand

ENCLOSURE DIMENSIONS

Board:

PW-6000:
  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)

PW-6101 IC and Reader Module:
  0.96" H x 5.5" W x 2.75" D
  (24mm H x 140mm W x 92mm D)

PW5K2ENC1:
  13.9" H x 17" W x 9" D
  (353.0 mm H x 431.8 mm W x 228.6 mm D)

PW5K2ENC2:
  13.9" H x 18.9" W x 9" D
  (353.0 mm H x 480.0 mm W x 228.6 mm D)
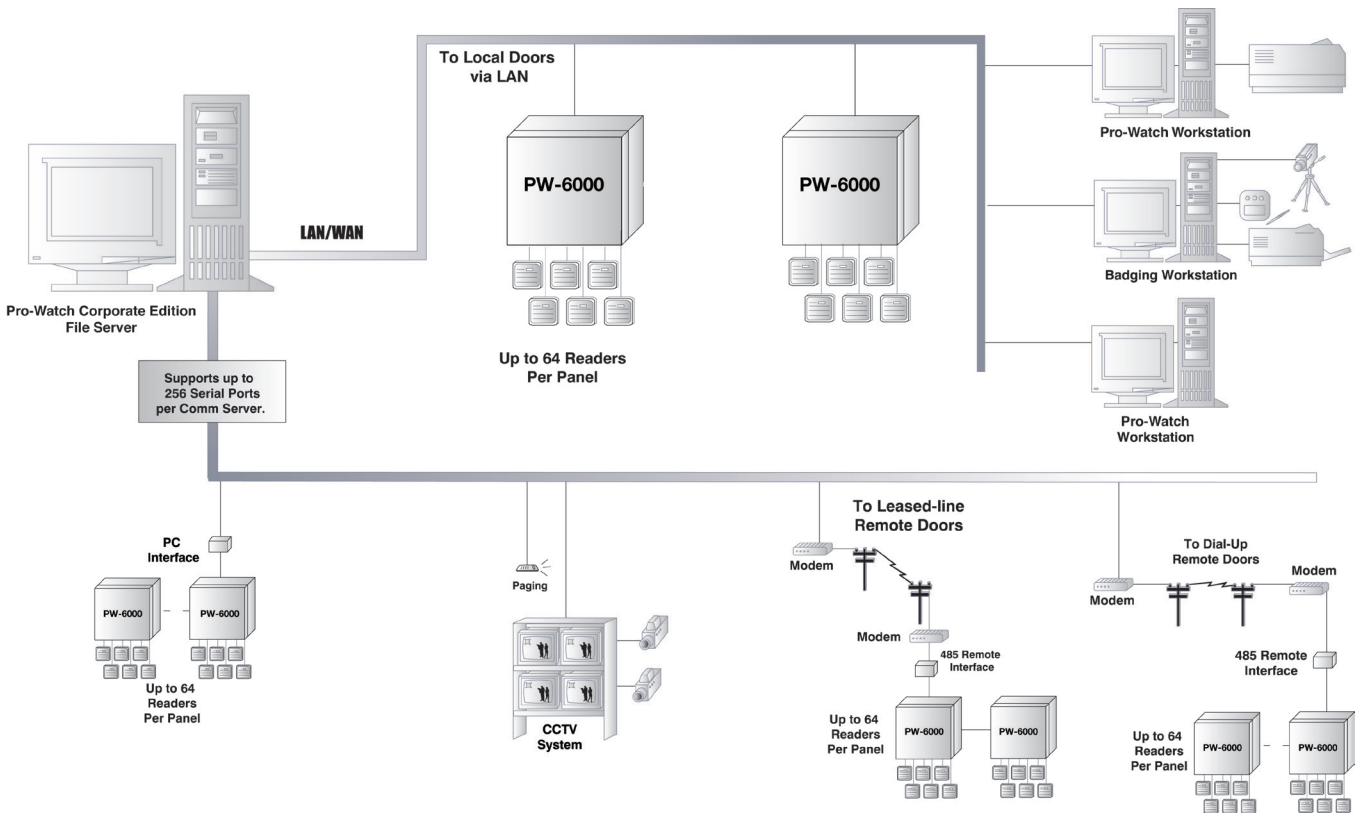
PW5K1ENC3:
  14" H x 16" W x 4.5" D
  (355.6 mm H x 406.4 mm W x 114.3 mm D)

Environment:
  Temperature: 32 to 158° F (0 to 70° C) operational; -67 to 185° F (-55 to 85° C) storage
  Humidity: to 95% RHNC

Wire requirements:
  Power: Twisted pair, 18 AWG
  RS485: 24 AWG, 4,000' (1,200m) max, 2 twisted pairs with shield (120W, 23 pF, Belden 9842 or equiv.)
  RS232: 24 AWG, 25' (7.6m) max
  Alarm input: Twisted pair, 30 ohms max

Communication Features:
  RS485 port: 4000' (1,250m) total bus length
  Standard speed: 38,400 bps

BENEFITS

- True 32-bit microprocessor provides fast transaction processing for the most demanding network applications

- Modular hardware architecture provides flexibility and expansion capabilities

- Flash memory allows new versions of firmware to be downloaded from the host computer to the controller(s) through the central network

- 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

- Seamless support for TCP/IP protocols to allow intelligent controllers to tap into a LAN or WAN connectivity

- Supports multiple reader and card formats for maximum flexibility and security options

- Multiple communication methods provide redundant paths for more robust system connectivity

- Supervised communication and Lithium battery backup ensures system reliability

- System offline modes customizable per reader include facility code access, locked (no access), and unlocked (full access)

- Redundant communication port feature allowing secondary port communication if primary fails

PW-Series Configuration

Pro-Watch Corporate Edition File Server

Supports up to 256 Serial Ports per Comm Server.

LAN/WAN

To Local Doors via LAN

PW-6000

PW-6000

Up to 64 Readers Per Panel

Pro-Watch Workstation

Badging Workstation

Pro-Watch Workstation

PC Interface

PW-6000   PW-6000

Up to 64 Readers Per Panel

Paging

CCTV System

To Leased-line Remote Doors

Modem

Modem

485 Remote Interface

Up to 64 Readers Per Panel

PW-6000   PW-6000

To Dial-Up Remote Doors

Modem

Modem

485 Remote Interface

Up to 64 Readers Per Panel

PW-6000   PW-6000

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ORDERING

PART NUMBER	DESCRIPTION
PW-6000 INTELLIGENT CONTROL SYSTEM	
PW6K1IC	PW-6000 Intelligent Controller – Capacity for 32 I/O or reader boards
PW6K1IN	PW-Series 16 input module
PW6K1OUT	PW-Series 16 relay output module
PW5K1R1	PW-Series single reader module (only for use in PW5K1ENC4)
PW6K1R2	PW-Series dual reader module
PW5K1MX8	8-Port multiplexer
PW-6101 INTELLIGENT CONTROL SYSTEM	
PW6K1ICE	Intelligent Controller
PW6K1R1E	One door reader module
ENCLOSURES AND ACCESSORIES	
PW5K2ENC1	PW-Series high density enclosure (power supply and battery not included)
PW5K2ENC2	PW-Series high density enclosure for 19" rack installations (power supply and battery not included)
PW6K2E2PS	PW-Series 110/220 VAC, 4 amp power supply for PW5K2ENC1 and PW5K2ENC2 enclosures
PW5K1ENC3	PW-Series remote enclosure with plug-in with 110V transformer/power supply
PW5K1ENC4	Single reader enclosure (for use with PW5K1R1)
PW5K1DCC	PW-Series daisy chain cable

Honeywell