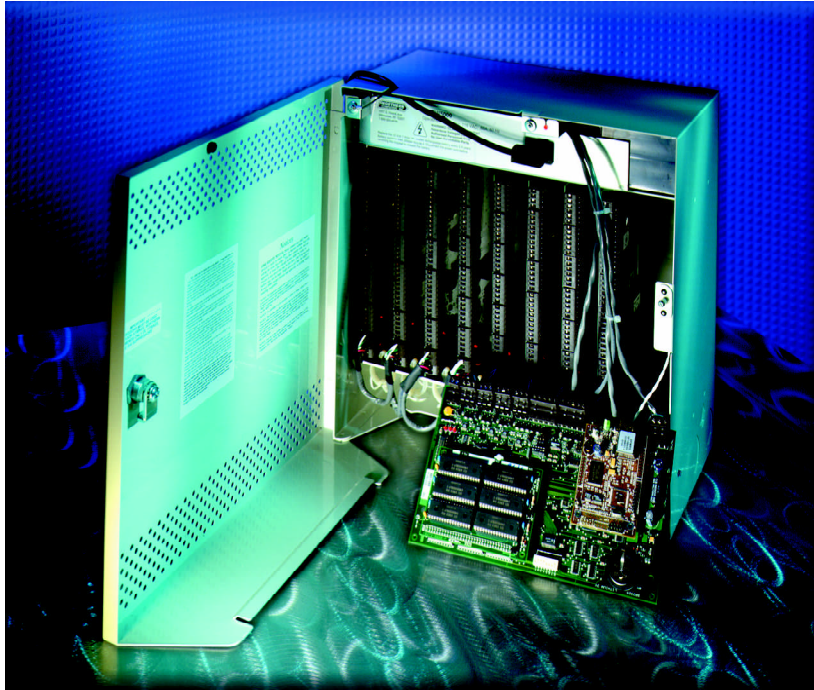


PW-SERIES MODULAR CONTROL SYSTEM (PW5K1IC, PW3K1IC)



The PW-Series Modular Control System is an advanced access control hardware architecture capable of providing solutions for large enterprise applications. The Intelligent Controller (PW5K1IC or PW3K1IC) provides power and flexibility with its 32-bit CPU architecture, optional TCP/IP protocol support, flash memory for firmware, large local card holder database and large number of readers 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 (RS-232 or RS-485), dial-up modem, or TCP/IP network connection.

The PW5K1IC Intelligent Controller supports any combination of up to 32 I/O or reader boards (16 for the PW3K1IC) to monitor alarm input points, relay output points and access control reader interface points. By offering a modular design, the system can be tailored to meet a wide range of applications, while optimizing cost and mounting space.

The standard Intelligent Controller accommodates a card database of 7,800 cards, and a standard transaction buffer of 5,000 transactions. The memory expansion module (PW5K1M4) allows for a card database of 75,000 cards and a transaction buffer capable of storing 35,000 transactions. The memory expansion module (PW5K1M8; only for PW5K1IC) allows for a card database of 157,000 cards and a transaction buffer capable of storing 35,000 transactions.

The PW-Series access modules have been designed to accommodate various mounting options. Units can be mounted in a high density configuration (PW5K2ENC1) when space is limited, a 19" rack configuration (PW5K2ENC2) or in a tile mount configuration (PW5K1ENC3).

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 savings
- 9-digit (32-bit) user ID standard / 15-digit maximum
- Activation and 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)
- 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)
- Pulse control: single pulse (up to 24 hours) or repeating pulses (on/off in 0.1 second increments, up to 255 times)
- Any combination of 32 I/O or reader modules may be connected to the PW5K1IC RS-485 ports. 4,000 feet / 1,250 meters total bus length per port (a max. 16 I/O or reader board may connect to the PW3K1IC)
- UL294, UL1076 and CUL Listed

SPECIFICATIONS

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

Database:†

- Cardholders: 7,800 standard, 157,000 with memory expansion
- Transaction Storage: 5,000 standard, 35,000 with memory expansion
- Flash programming for firmware 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 Tamper Alarm
- Dedicated Power Fail Alarm
- Real Time Clock:
 - Geographic Time Zone Support
 - Daylight Savings Time
 - Leap Year Support
 - 4 Bit Parallel accurate to 50 ppm
- Precision Access Groups/Levels
- Multiple Access Groups/Levels

Communication Modules:

- Primary Communication Support:
 - RS-232
 - RS-485
 - Dial Up Modem
 - Ethernet (TCP/IP)
- Communication Speed: 38.4 KBps
- Redundant Communication Support, Automatic Dial Back: (PW5K11C only)
 - 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

- 32 total devices available per PW5K11C
- 16 total devices available per PW3K11C
- Access modules available:
 - Single Reader Module (PW5K1R1)
 - Dual Reader Module (PW5K1R2)
 - Sixteen Relay Output Module (PW5K1OUT)
 - Sixteen Alarm Input Module (PW5K1IN)
- Module Connectivity via RS-485 protocol (4000 feet)

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

Dimensions:

- Board: 9.0" H x 5.5" W x 1.0" D / 228.6 mm H x 139.7 mm W x 254 mm D
- PW5K Enclosure 1 (PW5K2ENC1): 13.9" H x 17" W x 9" D / 0.353 m H x 0.4318 m W x 0.2286 m D.
- PW5K Enclosure 19" rack (PW5K2ENC2): 13.9" H x 18.9" W x 9" D / 0.353 m H x 0.48006 m W x 0.2286 m D.
- PW5K Enclosure 3 (PW5K1ENC3): 14" H x 16" W x 4.5" D / 355.6 mm H x 406.4 mm W x 114.3 mm D

Enclosures:

- PW5K2ENC1 Capacity: Nine modules for 19" rack-mount, does not include power supply and battery
- PW5K2ENC2 Capacity: Nine Modules, 19" rack-mount, does not include power supply and battery
- PW5K2E2PS Power supply for PW5K2ENC1, PW5K2ENC2, and PW5K2ENC5
- PW5K1ENC3 Capacity: Two modules (tile-mount), power supply and battery
- PW5K2ENC5 Capacity: Nine modules, (rack-mount only), does not include enclosures, power-supply and battery

Environment:

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

Wire requirements:

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

†Database values may exceed current limitations of some Security Management Systems.

Recommended Components

Controllers

- PW-3000 Intelligent Controller (PW3K1IC)
- PW-5000 Intelligent Controller (PW5K1IC)
- PW-5000 Single Reader Module (PW5K1R1)
- PW-5000 Dual Reader Module (PW5K1R2)
- PW-5000 Sixteen Relay Output Module (PW5K1OUT)†
- PW-5000 Sixteen Alarm Input Module (PW5K1IN)

† Only 12 relay outputs are available when using the PW5K2ENC1 and PW5K2ENC2 enclosures

Communication and Memory Accessories

- PW-5000 power/communication daisy chain harness for PW5K2ENC1 (PW5K1DCC)
- RS-232 to RS-485 single port converter (PW5K1CVT1)
- PW-5000 Ethernet Daughter Board for TCP/IP communication (for use with PW5K1IC) (PW5K1EN)
- PW-3000 Ethernet Daughter Board for TCP/IP communication (for use with PW3K1IC) (PW3K1EN)
- Eight Port Multiplexer board (PW5K1MX8)
- PW51KM4/PW51KM8:
 - 3 MB expansion module (total 4 MB) for up to 75,000 cardholders for PW5K1IC and PW3K1IC
 - 7 MB expansion module (total 8 MB; PW5K1IC only) for up to 157,000 cardholders

Readers

Proximity Readers:

HID

- PR-MAX-PRO (24" Reader Range)
- PR-P-PRO (8" Reader Range)
- PR-MINI-PROX (5" Reader Range)

Indala

- FP603 (4" Reader Range)
- FP605 (4" Reader Range)
- FP610 (10" Reader Range)
- FP620 (24" Reader Range)

OmniTek:

- OP10-FWMNEX (2-3" Reader Range)
- OP30-FWMNEX (3.5" Reader Range)

- OP40-FWMNEX (4" Reader Range)
- OP45-FWMNEX (4" Reader Range)
- OP90-FWMNEX (3.5" Reader Range)

NexWatch DigiReaders

- DR4201 (Up to 1.5" Reader Range)
- DR4205 (Up to 4" Reader Range)
- DR4208 (Up to 8" Reader Range)
- DR4220 (Up to 20" Reader Range)

Wiegand:

- CR-1 (Wiegand Swipe Reader)

Keypads:

- KP-11 / KP-13 (5 Wire Wiegand Keypad)

Credentials

Proximity:

HID Proximity Cards:

- PX-4-H (34-Bit)
- PX-26-H (26-Bit)
- PVC-H-4 (34-Bit for Video Badging)
- PVC-H-4-26 (26-Bit for Video Badging)
- PVC-H-5 (34-Bit with Magnetic Stripe for Video Badging)

Indala Proximity Cards:

- PX-121-I (26-Bit)
- PVC-I-6 (26-Bit with Magnetic Stripe for Video Badging)
- PVC-I-7 (26-Bit for Video Badging)

Magnetic Stripe

- NC-2 (32-Bit Standard)
- PVC-M-2 (PVC Card for Video Badging)

Wiegand

- SC-2 (26-Bit with Hot Stamp Number)
- PVC-W-2 (26-Bit with Hot Stamp Number for Video Badging)

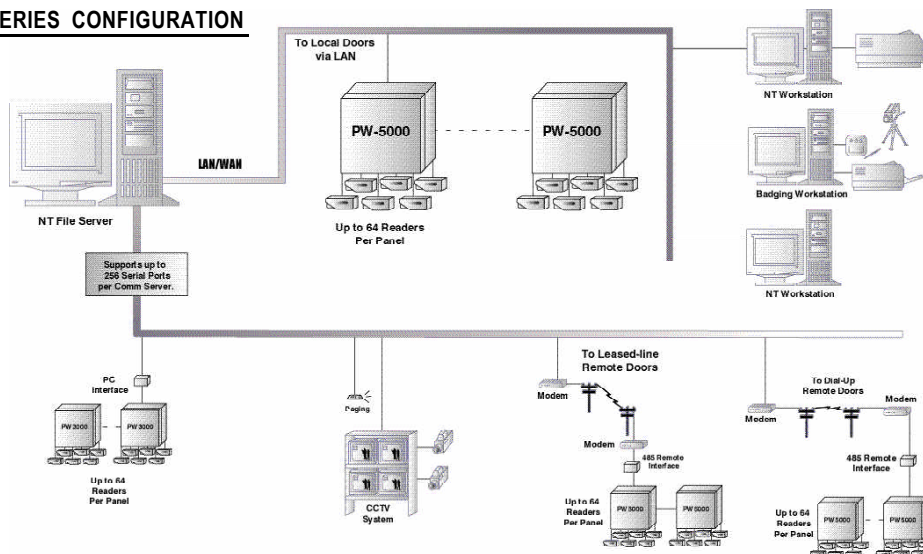
NexWatch Cards

- QuadraKey, NexKey, Keymate, 2Smart™ Key

BENEFITS

- Seamless optional support for TCP/IP protocols to allow intelligent controller(s) to tap into a LAN or WAN connectivity
- Supports multiple reader and card formats for maximum flexibility and security options
- Scalable memory option makes the PW5K1IC very cost effective from small to very large system applications
- 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 Un-Locked (Full Access)
- Redundant Communication port feature allowing secondary port communication if primary fails

PW-SERIES CONFIGURATION



ORDERING INFORMATION

Order #	Description
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PW-Series Controllers

PW3K1IC	PW-3000 Intelligent Controller
PW5K1IC	PW-5000 Intelligent Controller
PW5K1R1	PW-Series Single Reader Module
PW5K1R2	PW-Series Dual Reader Module
PW5K1OUT	PW-Series Sixteen Relay Output Module
PW5K1IN	PW-Series Sixteen Alarm Input Module
PW5K1EN	PW-Series Network Interface Module

Management System

- **Pro-Watch™ Professional Edition**
Designed to operate on Microsoft Windows efficiently without the requirement of a server-based operating system while utilizing an MSDE database
- **Pro-Watch™ Corporate Edition**
Operates in the Microsoft Windows Server environment and uses SQL as the database engine
- **Pro-Watch™ Enterprise Edition**
Designed for enterprise applications to provide independent and autonomous operation on a regional basis

Communications

PW5K1DCC	For new enclosures: PW5K2ENC1 and PW5K2ENC2
PW5K1CVT1	RS-232 to RS-485 single port converter
PW5K1EN	Ethernet Daughter Board for TCP/IP 10Base - T communication (for use with PW5K1IC only)
PW3K1EN	Ethernet Daughter Board for TCP/IP 10Base - T communication (for use with PW3K1IC only)
PW5K1MX8	Eight Port Multiplexer board
PW5K1M4	PW-Series 3 MB expansion module (total 4 MB)
PW5K1M8	PW-Series 7 MB expansion module (total 7MB)

Order #	Description
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PW-Series Enclosures

PW5K2ENC1	Capacity: Nine modules, (wall-mount), does not include power-supply and battery
PW5K2ENC2	Capacity: Nine Modules, 19" rack-mount, does not include power supply and battery
PW5K1ENC3	Capacity: Two modules (tile-mount), includes power supply and battery
PW5K1ENC4	Capacity: Single reader module, does not include power supply and battery
PW5K2ENC5	Capacity: Nine modules, (rack-mount only), does not include enclosure, power-supply and battery
PW5K2E2PS	Power supply for PW5K2ENC1, PW5K2ENC2, PW5K2ENC5

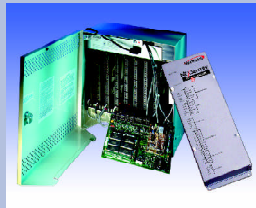
PW-Series Two Reader Kits

PW5KOP30PK	PW-SERIES-2R, 2 S-4 Suppressors, 2 OP30 Readers
PW5KOP40PK	PW-SERIES-2R, 2 S-4 Suppressors, 2 OP40 Readers
92542010000	Pro-Watch Two-Reader Board kit: includes PW-Series-2R, 2 S-4 Suppressors, 2 DR4201 DigiReaders
PW5KMINIPK	PW-SERIES-2R, 2 S-4 Suppressors, 2 MINI-PROX Readers
PW5KTHNPK	PW-SERIES-2R, 2 S-4 Suppressors, 2 PR-THIN Readers
PW5KPROPCK	PW-SERIES-2R, 2 S-4 Suppressors, 2 PR-P-PRO Readers
PW5K603BKPK	PW-SERIES-2R, 2 S-4 Suppressors, 2 FP603BK Readers
PW5K605BKPK	PW-SERIES-2R, 2 S-4 Suppressors, 2 FP605BK Readers

Complete system solutions for access control and security management



Security Management Systems



Access Control Systems



Readers



Credentials

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