PW-Series
Access Modules

(PW5K1R1, PW6K1R2, PW6K1IN, PW6K1OUT)

The PW-Series family of access control modules are controlled by and connected to the intelligent control module, PW6K1IC or PW3K1IC, through a supervised RS485 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 PW5K1R1 provides I/O support for a single card access reader, while the PW6K1R2 supports two card access readers. In the event that communication to the intelligent control module is lost, the readers can be individually configured to allow entrance based on security needs. This customization allows for a door to be configured as locked or unlocked, or accessed only via valid facility code. The PW6K1R2 also has an RS485 serial port to facilitate communications to third party reader and field device controllers.

The PW6K1OUT interfaces with the intelligent control module (PW6K1IC or PW3K1IC) providing up to 16-relay output control —12 relays on the front edge. Relays may be used for elevator control, status annunciation and for general facility control, such as door monitoring.

The PW6K1IN interfaces with the intelligent control module (PW6K1IC or PW3K1IC) providing 16 supervised alarm inputs. 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 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).

KEY FEATURES

- Modular design fits a wide variety of applications
- User programmable relay outputs allow for specific control needs
- User programmable alarm inputs offer flexible system configuration and control
- RS485 communication to all modules
- Dedicated cabinet tamper and power monitor inputs
- Analog to digital converter technology provides digital filtering and input conditioning
- Supports the choice of Normally Open/Normally Closed, supervised, and non-supervised circuits

- Supports a wide range of reader technologies including Wiegand, magnetic stripe, proximity, and keypad
- Up to nine modules, power supply and battery can be accommodated by the PW5K2ENC1, PW5K2ENC2, and PW5K2ENC5 enclosure
- 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
- Any combination of 32 I/O or reader modules may be connected to the PW6K1IC RS485 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)
- Alarm circuit type – Normally Open/Normally Closed, nonsupervised, supervised (with correct EOL)
- UL294 / UL1076 and CUL Listed

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SPECIFICATIONS

PW-Series Single Reader Module (PW5K1R1)

Module Specifications:

- 1 reader port - 5 VDC or 12 VDC at 150 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, 5 A 28 VDC
- 1 general purpose output relay, form-C, 1 A 28 VDC
- To be used only with the PW5K1ENC4 tile-mount enclosure

PW-Series Dual Reader Module (PW6K1R2)

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 available when using PW5K2ENC1 and PW5K2ENC2 enclosures)
- 2 dedicated alarm inputs for tamper detection and power loss
- 2 general purpose output relay, form-C, 5 A 28 VDC
- 4 general purpose output relay, form-C, 2 A 28 VDC (only 2 available when using PW5K2ENC1 and PW5K2ENC2 enclosures)

PW-Series Sixteen Input Module (PW6K1IN)

Module Specifications:

- 2 dedicated alarm inputs for tamper detection and power loss
- 16 general purpose inputs with programmable circuit type
- 2 general purpose, form-C, 2 A 30 VDC relays (only one available when using PW5K2ENC1 and PW5K2ENC2 enclosures)

PW-Series Sixteen Output Module (PW6K1OUT)

Module Specifications:

- 2 dedicated alarm inputs for tamper detection and power loss
- 16 general purpose output relay, form-C, 2 A 28 VDC (only 12 are available when using PW5K2ENC1 and PW5K2ENC2 enclosures)

COMMON SPECIFICATIONS

Enclosure 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)
- PW5K2ENC1: 13.9" H x 17.0" W x 9.0" 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: 14.0" H x 16.0" W x 4.5" D (355.6 mm H x 406.4 mm W x 114.3 mm D)
- PW5K1ENC4: 8.375" H x 7.625" W x 7.625" D (21.275 mm H x 19.4 mm W x 19.4 mm D)

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

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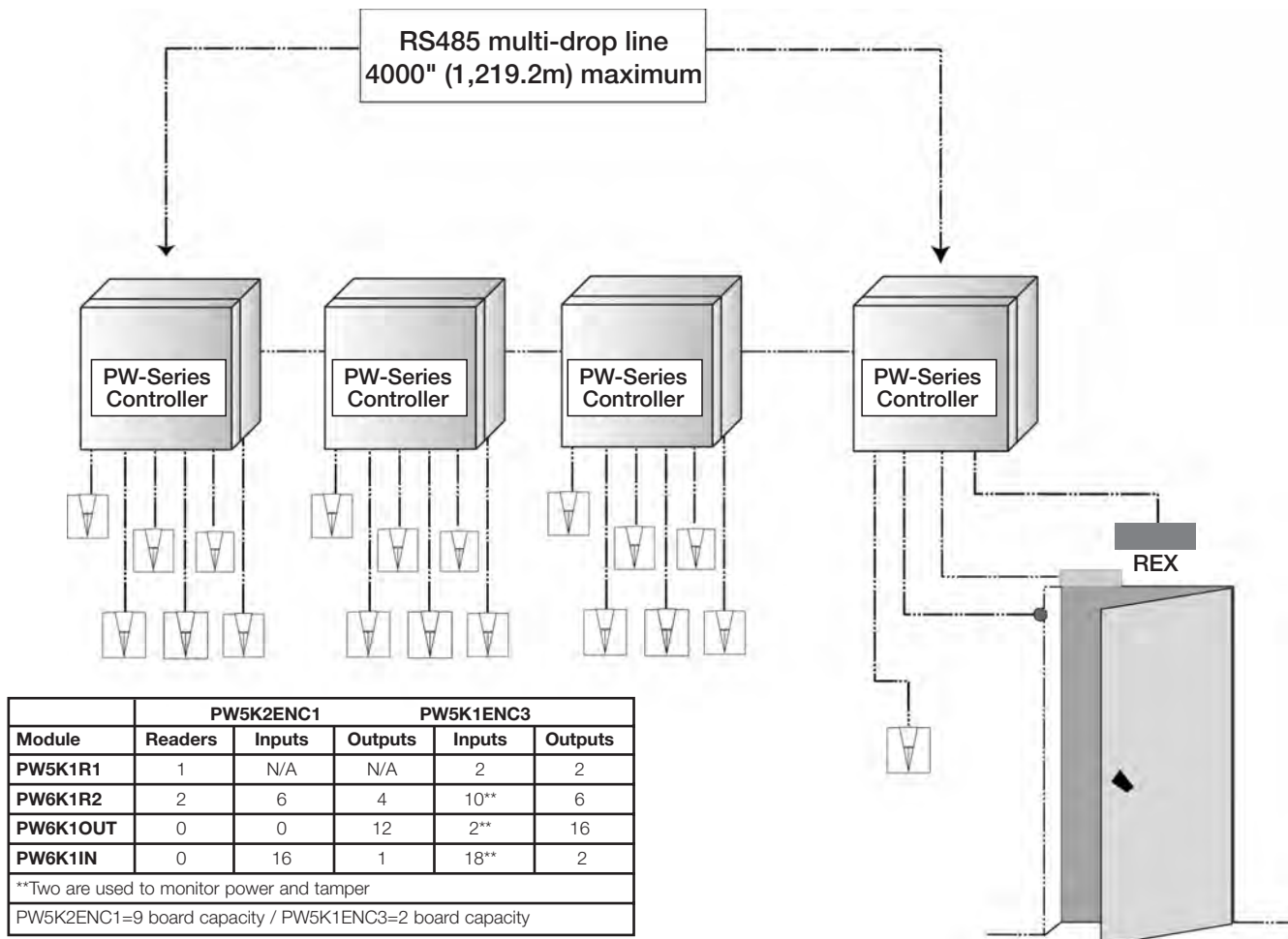- Alarm input - twisted pair, 30 ohms max

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

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 - NO/NC, non-supervised, supervised (w/EOL)

- Flexible mounting options allow for rack or tile mounting

- 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 only, PIN only or card and PIN

- Auto switching power supply allows 110/220 operation with PW6K2E2PS

- 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

PW-SERIES CONFIGURATION

| Module | PW5K2ENC1 | | PW5K1ENC3 | | |
	Readers	Inputs	Outputs	Inputs	Outputs
PW5K1R1	1	N/A	N/A	2	2
PW6K1R2	2	6	4	10**	6
PW6K1OUT	0	0	12	2**	16
PW6K1IN	0	16	1	18**	2
**Two are used to monitor power and tamper					
PW5K2ENC1=9 board capacity / PW5K1ENC3=2 board capacity					

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ORDERING

Order #	Description
PW-3000 and PW-6000 Intelligent Control System	
PW6K1IC	PW-6000 Intelligent Controller – Capacity for 32 I/O or reader boards
PW3K1IC	PW-3000 Intelligent Controller – Capacity for 16 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

For more information: www.honeywellintegrated.com

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