

# PW-M Series Modular Access Control System

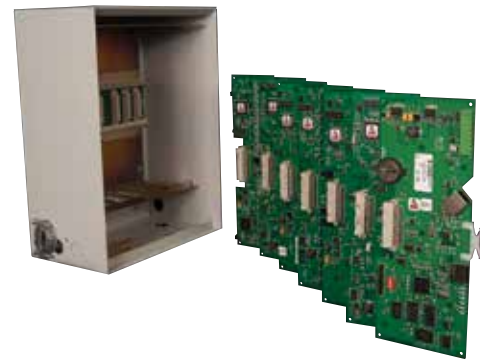
## Intelligent Controllers

The PW-M Series Modular Control System is an advanced access control hardware architecture capable of providing solutions for large enterprise applications. The PWM5 boards feature a plug and play format that makes Casi upgrades a “screwdriverless” change over. This solution combines the flexibility and capabilities of Pro-Watch® with the power of the PWM5IC with its 32-bit architecture, TCP/IP support, flash memory, large local cardholder database, and large reader and I/O module support.

Pro-Watch handles system configuration, alarm/event monitoring and operation of the Intelligent Controller via TCP/IP. In the event of a communication break the Intelligent Controller is fully capable of operating off-line, making access control decisions independently of Pro-Watch. Connectivity to the host computer is accomplished via TCP/IP network connection.

The PWM5IC Intelligent Controller is a direct replacement for the Casi PX, PXN and PXNplus CPU controller.

It supports up to 64 Readers and up to 3 separate additional Micro5 enclosures via RS485 using the PWM5COM board allowing Reader, Output and Input boards to be combined as needed to minimize cost and optimize mounting options.



The PW-M series consist of the following:

<i>PWM5IC</i>	<i>Intelligent Controller</i>
<i>PWM2KIC</i>	<i>M2000 Intelligent Controller</i>
<i>PWM52SRP</i>	<i>2 Reader Board with Supervised Inputs</i>
<i>PWM52RP</i>	<i>2 Reader Board</i>
<i>PWM58RP</i>	<i>8 Reader Board</i>
<i>PWM516DO</i>	<i>16 Digital Output Board</i>
<i>PWM516DOR</i>	<i>16 Output Board with Relays</i>
<i>PWM520IN</i>	<i>20 Input Board</i>
<i>PWM5COM</i>	<i>Communication Board</i>
<i>PWM5MUX8</i>	<i>M5 8-Port Multiplexer</i>

## 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 starting date and duration
- Automatic calculation of leap year and Daylight Saving Time
- 19-digit (64-bit) user ID
- Support for FIPS long card numbers
- Up to eight card formats per reader
- Activation/deactivation dates by card
- Up to 12 access levels per card or individual time zones per readers
- Up to 15-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
- 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, 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)

# PW-M Series Modular Access Control System

## SPECIFICATIONS

### DATABASE

**Cardholders:** 600,000

**Transaction storage:** 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

4 bit parallel accurate to 50 ppm

### COMMUNICATION MODULES

**Communication Ports:**

**Host Port 0:** 10/100-TX Ethernet

**Optional alternative Port:** 10-BaseT/100Base-TX Ethernet port using a Lantronix Micro125 interface daughter board, p/n MO11AA003-01R, or equivalent

**Peripheral interface Port 2:** 2-wire RS-485, asynchronous

**Peripheral interface Port 3:** 2-wire RS-485, asynchronous

**Inputs:** Two dedicated: tamper and power monitor

**Connectivity:**

**Primary Port:** 10/100 Ethernet

**IP Server, IP Client, DHCP Client**

**HTTP, TLS, X.509**

**Download functionality**

**System functional during system download:** Yes

**System functional during credential download:** Yes

### OPERATIONAL FUNCTIONALITY

**Duress detection**

**Operational modes:**

Credential only

PIN only

Credential or PIN

Credential and PIN

Facility code only

**Maximum PIN size:** 15 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

### READERS AND CREDENTIALS

**Prox:**

OmniProx

HID Prox

DigiReaders

Indala Readers

**Smart:**

OmniClass

iClass

Mifare

DESFire

**Keypad**

**Magstripe**

**Wiegand**

**Casi F/2F**

### BOARD DIMENSIONS

**PWM51C:**

10.25" L x 4.56" W x 0.8" H  
(260.4 mm L x 115.8 mm W x 20.3 mm H)

**PWM2K1C:**

11.375" L x 8.375" W x 1.04" H\*  
(289.1mm L x 212.7mm W x 26.5mm H)  
\* without PWM51C

**PWM52SRP:**

10.25" L x 3.5" W x 0.69" H  
(260.35mm L x 88.9mm W x 17.5mm H)

**PWM52RP:**

10.25" L x 3.5" W x 0.69" H  
(260.35mm L x 88.9mm W x 17.5mm H)

**PWM58RP:**

10.25" L x 3.5" W x 0.69" H  
(260.35mm L x 88.9mm W x 17.5mm H)

**PWM516DO:**

10.25" L x 3.5" W x 0.69" H  
(260.35mm L x 88.9mm W x 17.5mm H)

**PWM516DOR:**

10.25" L x 3.5" W x 0.5" H  
(260.35mm L x 88.9mm W x 12.7mm H)

**PWM520IN:**

10.25" L x 3.5" W x 0.69" H  
(260.35mm L x 88.9mm W x 17.5mm H)

**PWM5COM:**

10.25" L x 3.5" W x 0.6" H  
(260.35mm L x 88.9mm W x 15.24mm H)

**PWM5MUX8:**

10.25" L x 3.5" W x 0.69" H  
(260.35mm L x 88.9mm W x 17.5mm H)

### ENVIRONMENT

**Temperature:**

32 to 158° F (0 to 70° C) operational; -67 to 185° F (-55 to 85° C) storage

**Humidity:**

0 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.)

**Alarm input:**

Twisted pair, 30 ohms max

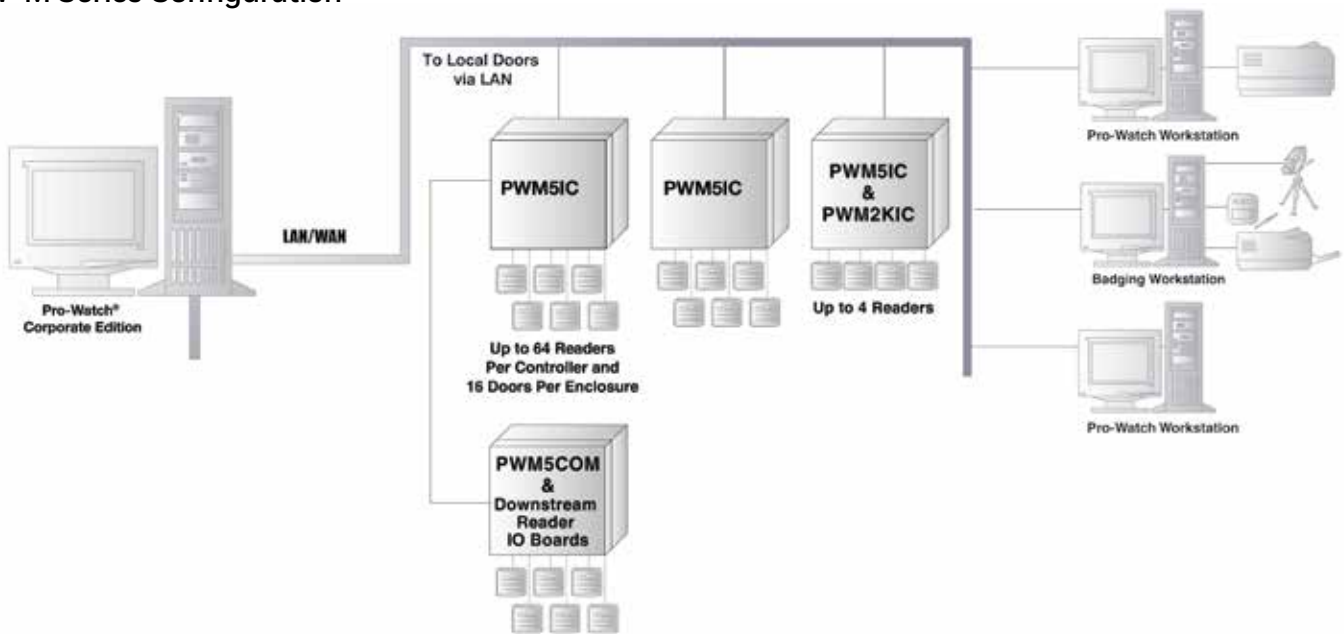
### COMMUNICATIONS - BACK PLANE SUPPLIED

9600, 19200, 38400, or 115200 bps, asynchronous

# 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
- 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)

## PW-M Series Configuration



DESCRIPTION	CASI/GE/UTC	HONEYWELL PART NUMBER
Intelligent Controller	PX, PXN, PXN+	PWM51C
Communication Board	PWR/COM	PWM5COM
2 Reader Board	2RP	PWM52RP
2 Reader Board with Supervised Inputs	2SRP	PWM52SRP
8 Reader Board	8RP	PWM58RP
16 Digital Output Board	16DO	PWM516DO
16 Output Board with Relays	16DOR	PWM516DOR
20 Input Board	20DI	PWM520IN

# PW-M Series Modular Access Control System

## ORDERING

PART NUMBER	DESCRIPTION
<b>PW-M SERIES</b>	
<b>PWM5IC</b>	Intelligent Controller – Capacity for up to 64 Readers
<b>PWM2KIC</b>	M2000 Intelligent Controller*
<b>PWM52SRP</b>	2 Reader Board with Supervised Inputs
<b>PWM52RP</b>	2 Reader Board
<b>PWM58RP</b>	8 Reader Board
<b>PWM516DO</b>	16 Digital Output Board
<b>PWM516DOR</b>	16 Output Board with Relays
<b>PWM520IN</b>	20 Input Board
<b>PWM5COM</b>	Communication Board
<b>PWM5MUX8</b>	8-port Multiplexer

\*PWM5IC needed in conjunction with PWM2KIC sub-panel

### For more information

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