

# AC-1200 Controller Series

**Ideal for new installations or system upgrades**  
**Unmatched modularity**  
**Distributed architecture with enhanced system features**  
**Easily expands system capability**

**AC-1200  
8-Door Controller**



**AC-1200  
I/O Controller**



*Add up to 4 I/O Controllers  
(one for each TC)*

**AC-1200  
2-Door I/O Controller**



**AC-1208**



## **AC-1200 Controller Series**

The AC-1200 Controller is a 32-bit design offering unmatched modularity. There are two basic configurations: an 8-door controller with up to four optional I/O controllers or a 2-door I/O controller for a mixture of reader and I/O support on a single board. The AC-1208 expands the portfolio to include 2-door and 4-door offerings in a compact design.

### **Features:**

- **2 to 16 Door Controller Units**—Add 2-Door Terminal Controller modules, each with 4 inputs and 4 outputs, as needed on up to 2 backplane assemblies per enclosure
- **I/O Expansion Board Option**—Expand with an additional combination of up to 56 Inputs or 56 Outputs
- **Fully Distributed Design**—Leverage local independent grant or deny decision-making
- **Auto-Configuration**—Automatically detect and configure individual Terminal Controller modules within Pinnacle
- **Programmable Flash ROM**—Upgrade firmware without chip replacement
- **Maintenance Port**—Perform infield diagnostics and updates using the onboard serial port
- **Legacy Upgrade Path**—Convert 8-bit and 16-bit Sielox Controllers with AC-1208 kits

# AC-1200 Controller Series

## Product Specifications

### General

<b>Backplane Dimensions</b>	AC-1200: 14.95" x 8.60" (37.9 cm x 21.8 cm) AC-1208: 10.50" x 8.65" (26.7 cm x 21.9 cm)
<b>Power Requirements</b>	11.5VDC min/18VDC max, 5 amps (each backplane) 2.9 amps sustained max without readers <sup>1</sup>
<b>Operating Conditions</b>	0° to +50° C; 90% relative humidity, operating (non-condensing)
<b>Battery Backup</b>	Retains RAM memory and real-time clock operation for up to 8 hours

### Terminal Controller (TC) Modules

#### 2-Door TC Modules

Supports two doors with four inputs  
and four outputs

#### Capacity

32-bit CPU with storage for 10K buffered  
events; for 26-bit cards, up to 50K cards with  
one access level per cardholder or 25K cards  
with three access levels per cardholder (card  
type and use of PIN dependent)  
Access Levels: 256 per TC<sup>2</sup>  
Time Zones: 64 per TC  
(2 fixed as "never" and "always")

#### Expansion Input Module

Provides eight user-defined inputs

#### Expansion Output Module

Provides eight user-defined outputs

### Devices

#### Doors

Each door includes door strike output,  
door switch input, and request-to-exit input

#### Readers

Supports all standard industry formats, including  
Performa<sup>®</sup> and Mirage<sup>®</sup> proximity and others  
currently supported by Sielox controllers

#### Inputs

User-defined dry contact relays with supervision

#### Outputs

User-defined SPDT dry contact relays, 2A max  
at 24 VDC or 24 VAC

### Cables

#### RS-485

Shielded dual twisted pair, 22 AWG  
(4,000 feet maximum) Belden 8723

#### RS-232C

Shielded nine conductor, 22 AWG  
(20 feet maximum)

#### Readers/Keypads

Shielded five conductor, 18 AWG  
(500 feet maximum) West Penn 3280

#### Inputs

Shielded twisted pair, 22 AWG  
(500 feet maximum) Belden 8761

#### Between Backplanes

Shielded twisted pair, 22 AWG  
(50 feet maximum) Belden 8723

<sup>1</sup> Sustained power consumption breakdown:

Each CPU Module = 325mA  
Each Reader Module = 350mA  
12V Power Converter Module = 70mA  
5V Power Converter Module = 20mA  
RS-485 COM Module = 110mA

<sup>2</sup> Pinnacle further supports (i) access levels sent to each controller in order of priority, on an as-needed basis, per the capacity stated and (ii) server authorized enhanced assists for cardholder access levels of lower priority

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## AC-1200 Backplane Configurations

Base Configurations without I/O Expansion			
	TC Modules	Doors	Inputs / Outputs
<b>2-Reader: AC-1200-RC2</b>	1	2	4 / 4
<b>8-Reader: AC-1200-RC8</b>	4	8	16 / 16
<b>2-Reader I/O Special: AC-1200-RIO</b>	1	2	4 / 4

Total Possible on a Single Backplane					
	TC Modules	I/O Modules	Doors	TC Inputs & Outputs	I/O Expansion Inputs or Outputs
<b>2-Reader: AC-1200-RC2</b>	1	0	2	4 / 4	0
<b>plus 3 x AC-1200-REK</b>	3	0	6	12 / 12	0
<b>= 8-Reader: AC-1200-RC8</b>	4	0	8	16 / 16	0
<b>For above I/O expansion: AC-1200-I07</b>	0	7	0	0	56
<b>2-Reader I/O Special: AC-1200-RIO</b>	1	4	2	4	32

Accessory modules for use with indicated backplane assemblies: 2-door Terminal Controllers (TCs), and Input and Output expansion kits

Additional accessories: Power supply options, power regulators, battery kit, enclosure, and backplane mounting hardware

Up to two backplanes can be added to a single enclosure; multiple backplanes can be mounted in larger NEMA or Hoffman enclosures

## AC-1208 Controller Panels (all include battery kit, power regulator(s), and enclosure)

Configurations without I/O Expansion			
	TC Modules	Doors	Inputs / Outputs
<b>2 Reader: AC-1208-RC2</b>	1	2	4 / 4
<b>4-Reader: AC-1208-RC4</b>	2	4	8 / 8

Configurations with I/O Expansion					
	TC Modules	I/O Modules	Doors	TC Inputs & Outputs	I/O Expansion Inputs or Outputs
<b>2 Reader &amp; I/O Board (I/O Board only for future expansion): AC-1208-RIO</b>	1	0	2	4	0
<b>2-Reader &amp; I/Os: AC-1208-RIC</b>	1	4	2	4	32

Retrofit configurations available for AC-300 legacy replacements

Accessory modules for use with indicated backplane assemblies: 2-door Terminal Controllers (TCs), and Input and Output expansion kits

# Sielox

**Sielox**  
170 E 9th Ave  
Runnemede, NJ 08078

800-424-2126 Toll Free  
856-939-9300 Phone  
856-939-9309 FAX  
www.sielox.com