



Access



Video



Software

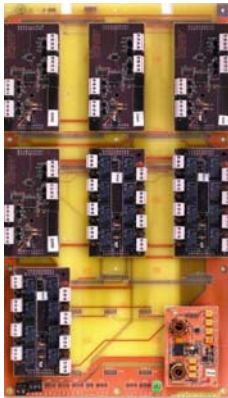


Technology



Sielox Controllers

The Sielox line of controllers includes the AC-1200, AC-900, AC-600 and AC-460/AC-460E



AC-1200

The AC-1200 Controller is a 32-bit design that offers modularity. There are two basic configurations: AC-1200L a 2-8 door controller with up to four optional I/O controllers or a 2 door I/O controller for a combination of readers and I/O support on a single board. The AC-1200S expands the portfolio to include 2 and 4 door controllers in a compact design. The AC-1200 controller can communicate directly to a Pinnacle Hardware Server via Ethernet (LANLink™) or a combination of Ethernet and RS-485.



AC-900

The AC-900 Main Controller manages communication between the command center server and the terminal controllers. It provides all of the intelligence necessary for communications as well as support for the first two readers. An integrated Terminal Controller is on-board, with all of the features and performance of the AC-600 Terminal Controller.



AC-600

The AC-600 Terminal Controller incorporates 16-bit technology with real time operations and has a proven track record in the access control industry for performance, reliability and ease of installation.

Compatible with any Pinnacle system, the AC-600 supervises all access control decisions and alarm detection. Each AC-600 features a standard memory capacity of 4000 cardholders. The system can upgrade the number of cardholders in two increments of either 20,000 or 50,000 users.

AC-460 I/O Expansion Unit

The AC-460 delivers increased input/output capacity for the AC-600 and AC-900 Terminal Controller. A 16-bit I/O board, the AC-460 adds 14 inputs and 14 outputs to the 2 inputs and 2 outputs provided on every Terminal Controller. Input states include active, secure, cut and short. This expansion unit shares the intelligence of the Terminal Controller's memory.

AC-1200 Controller Series

- **Reader Types** – Standard 26 bit Wiegand, Sielox Performa & Mirage, HID Corporate 1000, ANSI Wiegand and FIPs 201
- **2 to 8 Door Controllers** - Add 2 door Terminal Controller (TC) modules to the backplane
- **I/O Expansion Board Option** – Expand with an additional combination of 56 Inputs / 56 Outputs
- **Fully Distributed Design** – Leverage local and independent grant or deny decision-making
- **Communication** – Ethernet 10/100 Base-T or RS-485
- **Auto-Configuration** – Automatically detect and configure individual Terminal Controller modules within the Pinnacle™ software application
- **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-1200S kits

AC-1200L Configurations (Large Backplane)

	Model	Doors	Std I/Os	Exp I/Os
2-Readers	AC-1200-LES*-2	2	4/4	56
4-Readers	AC-1200-LES*-4	4	8/8	112
6-Readers	AC-1200-LES*-6	6	12/12	168
8-Readers	AC-1200-LES*-8	8	16/16	224
2 Readers I/O	AC-1200-LES*-2IO	2	4/4	32
56 I/O Expansion	AC-1200-LESN-NIO	-	-	56

AC-1200S Configurations (Small Backplane)

	Model	Doors	Std I/Os	Exp I/Os
2-Readers	AC-1200-SES*-2	2	4/4	32
4-Readers	AC-1200-SES*-4	4	8/8	0
2-Readers I/O	AC-1200-SES*-2IO	2	4/4	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.

*Add "L" for LANLink™ or "R" for RS-485 comm. modules

AC-1200 Product Specifications

General

Backplane Dimensions

AC-1200L: 14.95" x 8.60" (37.9 cm x 21.8 cm)
AC-1200S: 10.50" x 8.65" (26.7 cm x 21.9 cm)

Power Requirements

11.5VDC min/18VDC max, 5 amps (each backplane)
2.9 amps sustained max without readers¹

Operating Conditions

0° to +50° C; 90% relative humidity, operating (non-condensing)

Battery Backup

Retains RAM memory and real-time clock operation for up to 8 hours

Certifications

FCC part 15
UL 294 – File: ALVY.BP4984

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 TC²
Time Zones: 64 per TC
(2 fixed as "never" and "always")

Expansion Input Module

Provides eight user-defined inputs, supervised or unsupervised

Expansion Output Module

Provides eight user-defined outputs

¹Sustained power consumption breakdown:

Each TC Module = 375mA
12V Power Converter Module = 70mA
5V Power Converter Module = 20mA
RS-485 COM Module = 110mA

²Pinnacle 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.

Devices

Doors

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

Readers

Supports all standard industry formats, including Performa® and Mirage® 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

Ethernet

CAT-5 or CAT-6

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



Sielox Controllers

AC-900, AC 600, AC460/C460E

AC-900 / AC-600 Specifications

Electrical

Voltage

12 Volts DC ($\pm 10\%$); current dissipation 300 mA max plus reader or keypad requirements

Battery Backup

Board-mounted battery retains RAM memory and real-time clock for up to 48 hours

Cable Types

RS-485	22 gauge shielded, dual twisted pair (Belden #8723)
RS-232C	9 conductor, shielded
Readers/Keypads	5 conductor, shielded, 18 gauge
Inputs	22 gauge, twisted pair, shielded

Cable Lengths

RS-485 Comm	4,000-foot maximum
RS-232C**	20-foot maximum
To Readers	500-foot maximum
To Inputs	500-foot maximum
To Outputs	Application dependent

Auxiliary Output Relay Ratings

2A max at 24 VDC or 24 VAC

Door Strike Relay Ratings

2A max at 24 VDC or 24 VAC

Certifications

FCC Part 15
UL 294 – File: ALVY.BP4984

Physical

Printed Circuit Board: 6.0" wide x 12.0" tall

Metal Enclosure*

- 19 1/4" wide x 18 1/4" tall x 4 1/2" deep
- 3/4" Conduit knockouts
- Key-operated lock

*Mounting hardware available for custom enclosures

** AC-900 Only

Environmental

Operating Temp

0° to 50° degrees C

Relative Humidity

90% operating (non-condensing)

Features

Event Buffer (Standard)

Up to 4,000 events

Clock

Real-time clock and calendar

Supervised Inputs*

Two door position inputs
Two requests-to-exit inputs
Two auxiliary inputs
*Line supervision if desired (4-states reported)

Relays

Two door strike SPDT dry contact relays
Two auxiliary SPDT dry contact relays

Cardholders

4,000 standard
20,000 and 50,000 with memory expansion

Readers

Two readers with industry standard interface
Separate or integrated keypads

Doors

Two complete doors or one door with two readers
One supervised position input per door
One supervised request-to-exit input per door
One SPDT strike relay per door

Expansion

AC-460: 14 supervised auxiliary inputs
14 SPDR dry contact relay outputs

AC-460E: 14 supervised auxiliary inputs
30 SPDR dry contact relay outputs

Note: No address assignments required

AC-460/AC-460E Specifications

Electrical

Voltage

12 Volts DC ($\pm 10\%$)

Current Dissipation

AC-460: 200mA min. 550mA max.
AC-460E: 200mA min. 950mA max.

Cable Types

I/O Controller	16-Conductor Ribbon Cable
Inputs	22 gauge, twisted pair, shielded

Cable Lengths

To Input	500-foot maximum
To Outputs	Application dependent

Contact Ratings

.5 amp max at 24 VDC or VAC

Physical

Printed Circuit Board:

6.0" wide x 12.0" tall

Metal Enclosure*

- 19 1/4" wide
- 18 1/4" tall
- 4 1/2" deep
- 3/4" Conduit knockouts
- Key-operated lock

*Mounting hardware available for custom enclosures

Environmental

Operating Temp

0 to 50 degrees C

Relative Humidity

90% operating (non-condensing)

Features

AC-460

Fourteen supervised auxiliary inputs
Fourteen SPDT dry contact relay outputs

AC-460E

Fourteen supervised auxiliary inputs
Thirty SPDT dry contact relay outputs

*line supervision if desired (4-states reported)

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