



Apollo Security ASP-4 High-Speed, 4-Reader Network Controller (4 Reader Ports, 16 Supervised Inputs, 8 Outputs)

The high-performance ASP-4 is an open-hardware architecture, clustering network controller that fully supports up to four doors. The ASP-4 is open for integration with access control software solutions via intuitive SDKs across multiple languages. The ASP-4 fully leverages the embedded Linux™ OS to offer groundbreaking features like 3rd party application support. Communication is encrypted end-to-end (from host down to reader), firmware is encrypted, and user certificates are supported.

Notable Features

- ▶ **OPEN HARDWARE PLATFORM**
 - > SDK allows for hardware integration into any host software solution
- ▶ **FULLY CONFIGURABLE HARDWARE INTERFACES**
 - > Onboard interfaces support 4 doors using TTL or RS485 (OSDP) readers, or up to 8 doors using RS485 readers with expanded licenses
- ▶ **HOST-TO-READER ENCRYPTION**
 - > All communications between any two points in the Apollo hardware topology can be encrypted, whether network or serial
- ▶ **RAPID DOWNLOAD SPEEDS**
 - > Performance of up to 10K cards per second
- ▶ **EMBEDDED LINUX™ OS**
- ▶ **BIOMETRIC TEMPLATES STORED ONBOARD**

Competitive Edge

- ▶ **NETWORK CLUSTERING**
 - > Unparalleled system redundancy by clustering up to 32 controllers together
- ▶ **OEM / 3rd-PARTY DEVELOPED & INSTALLED APPS**
 - > Applications can be easily developed & installed without involving the manufacturer to run in an onboard, containerized environment
- ▶ **ASYNCHRONOUS COMMUNICATIONS**
 - > Events are sent to the host in real time, without polling
- ▶ **SCRIPTING**
 - > Without modifying firmware, user-created scripts can be run locally to modify logic, create conditional actions, manage events, and manipulate interfaces
- ▶ **UPGRADABLE**
 - > Connect up to 16 OSDP readers with upgradable licenses
 - > 1GHz CPU module with upgradable memory options
- ▶ **INDUSTRIAL OPERATING TEMPERATURE (-40°C to +85°C)**

Security

- ▶ OpenSSL
- ▶ TLSv1.2 AES256-SHA256 with TLS Server/Peer certificate checking
- ▶ OSDP
- ▶ FIPS 201-2
- ▶ SSCPv2; Meets ANSSI encryption requirements
- ▶ Firmware upgrades are signed and encrypted
- ▶ CAC
- ▶ TWIC

Access Control Features

- ▶ Anti-Passback
- ▶ Threat levels
- ▶ Use Limits
- ▶ N man rule
- ▶ Occupancy Management
- ▶ Visitors and Escorts
- ▶ Elevator Control (Up to 128 floors)
- ▶ Host-Controlled Access Request
- ▶ Duress Code
- ▶ Keypad with flexible pin lengths
- ▶ Supported reader types:
 - > OSDP
 - > Wiegand
 - > Clock & Data
 - > SSCPv2
 - > FIPS 201 PKI-based card and legacy types
 - > Biometric

POWER

- ▶ Input Power (VIN):
 - > 12-28VDC; 500mA MAX current
- ▶ Reader Port output power:
 - > VIN passthrough
- ▶ USB 5VDC; 500mA MAX current
- ▶ Onboard power supervision with backup power
 - > Memory and RTC maintained through power failure

ONBOARD HARDWARE INTERFACES

- ▶ 4 TTL (Wiegand/Clock & Data) Reader Ports
 - > Open-collector Buzzer output
 - > Supports single-wire and two-wire reader LED control
 - > Up to 8 RS485 Readers (OSDP) per serial port
- ▶ 16 Supervised/Unsupervised Inputs
 - > Configurable supervision values (12 pre-defined)
 - > High-speed input scanning with filtering/noise suppression to eliminate false alarms
 - > High-precision analog ICs for stability in noisy environments
- ▶ 8 Form-C Relay Outputs
 - > 2A @ 24VDC MAX rating
- ▶ 1 Unsupervised Cabinet Tamper input
- ▶ 2 Dedicated 10/100 Ethernet Ports
- ▶ 2 Downstream, RS485 Serial Com Ports
 - > Multidrop up to 32 IO and/or Reader Interface panels per port
 - > Up to 8 OSDP readers per port
 - > 9,600 to 115,200 baud
 - > 4-wire interface with 2-wire support
 - > Each port can be configured for a different RS485 protocol
- ▶ USB 2.0

MEMORY CAPACITY

- ▶ Minimum Memory Specs: 512MB Flash & 256MB RAM
- ▶ Up to 250,000 cards
- ▶ Up to 128 readers with standard configuration
- ▶ 100K Event buffer
- ▶ 300 Access Levels per controller
- ▶ 50 Access Levels per cardholder
- ▶ 127 Magnetic stripe card formats
- ▶ 127 Wiegand card formats

NETWORK AND HOST

- ▶ Locally hosted web server for configuration and event reporting
- ▶ Up to 5 concurrent host connections with authorized-host list
- ▶ IPv4 / IPv6
- ▶ SNMP

REGULATORY COMPLIANCE

- ▶ CE Compliant
- ▶ FCC Part 15 Class A
- ▶ RoHS / Pb (Lead) Free

GENERAL INFORMATION

- ▶ INDUSTRIAL operation and storage temperature (-40°C to +85°C)
- ▶ 5% to 95% humidity
- ▶ Dimensions: 8in (203.2mm) x 6in (152.4mm) x 1in (25.4mm)
- ▶ Weight: 0.6 pounds (363 grams)
- ▶ SKU: 430600-430603

SYSTEM DIAGRAM

