



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 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. Communications are encrypted end-to-end (Host to reader), firmware is encrypted, and user certificates are supported.

Notable Features

- ▮ **OPEN HARDWARE PLATFORM**
 - > SDK allows for hardware integration into any cloud or on-site Host software
- ▮ **EMBEDDED LINUX™ OS**
- ▮ **FULLY CONFIGURABLE HARDWARE INTERFACES**
 - > Onboard interfaces support 4 doors using TTL or RS485 (OSDP) readers, or up to 8 doors using OSDP readers with extra licenses
- ▮ **HOST-TO-READER ENCRYPTION**
 - > All serial and network communications can be encrypted
- ▮ **RAPID DOWNLOAD SPEEDS**
 - > Performance of up to 10K cards per second
- ▮ **BIOMETRIC TEMPLATES STORED ONBOARD**

Competitive Edge

- ▮ **NETWORK CLUSTERING**
 - > Controller-to-controller communications for features like shared anti-passback and improved Host connection performance
- ▮ **OEM / 3rd-PARTY DEVELOPED & INSTALLED APPS**
 - > User-developed, user-deployed, and user-maintained applications that run on the controller in safe, containerized environment
- ▮ **ASYNCHRONOUS COMMUNICATIONS**
 - > Events are sent to the host in real time, without polling
- ▮ **SCRIPTING & INTERNAL VARIABLES**
 - > Without modifying firmware, users can create custom logic to meet specific system function requirements
- ▮ **COST-EFFECTIVE EXPANSION**
 - > Connect up to 16 OSDP readers with inexpensive upgradable licenses while reducing hardware costs
- ▮ **INDUSTRIAL OPERATING TEMPERATURE (-40°C to +85°C)**

Security

- ▮ OpenSSL
- ▮ TLSv1.3 with TLS Server/Peer certificate checking
- ▮ AES256-SHA256
- ▮ OSDP Secure Channel
- ▮ FIPS 201-2
- ▮ SSCPv2; Meets ANSSI encryption requirements
- ▮ CAC
- ▮ TWIC
- ▮ Firmware upgrades are signed and encrypted

Access Control

- ▮ 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 with 500mA per port
- ▶ USB 5VDC; 500mA MAX current
- ▶ Onboard power supervision with backup power
 - > Events 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
- ▶ 16 Supervised or 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
- ▶ Configurable 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

- ▶ Onboard web server for board configuration
- ▶ Host-initiated or controller-initiated connections
- ▶ Up to 5 concurrent Host connections with authorized-host list
- ▶ IPv4 / IPv6 (Static or DHCP)
- ▶ SNMP

REGULATORY COMPLIANCE

- ▶ CE Compliant
 - > EN 61000-6
 - > EN 50130-4
- ▶ FCC Part 15 Class A
- ▶ RoHS / Pb (Lead) Free

GENERAL INFORMATION

- ▶ Industrial operation 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: 430600-2
 - 430601-2
 - 430602-2
 - 430603-2

SYSTEM DIAGRAM

