

AHEB Series IO Expansion Board

- Scalable
- Supervised Inputs
- 3rd Party Integration
- I/O Relay Available. 2/ 8/ 16/ etc.



Key Features

Cyber Security

AHEB I/O expansion boards can communicate with AHSC1000 or AHDU series controller through OSDP V2.2 over RS-485 and secured with AES128 / TLS 1.2 (with AES256) encryption. Communications between the Armatura One server and web client are protected by HTTPS / TLS1.2 (AES256) or above. Enhanced encryption levels are provided by an additional crypto chip (Certified EAL6+ standard), providing dedicated storage and cryptographic functionality for all Armatura controllers.

Innovative System Management Hierarchy

The AHEB series IO expansion board can be monitored & updated by the AHSC-1000 and AHDU controller series onboard webserver through encrypted RS-485 communication. Supports communication with the Armatura One security system and Cielo365 (coming soon) through the AHSC-1000 and AHDU controller series.

Scalable

Supports up to 384 inputs and 385 outputs under a single AHDU controller and ultimately supports up to 12,801 inputs or outputs under a combination of AHSC-1000 and AHDU series controllers. All communication is secured by AES128 encryption.

Supervised Inputs

The AHEB IO expansion board series is equipped with 4 state supervised inputs, which gradually avoids short circuit attacks. The AHEB expansion board can detect abnormal changes as low as 5% Ohms in the circuits and filter out all possible attacks. Isolated microchips independently manage REX inputs and dedicated fire alarm inputs to ensure these can normally work under extreme situations.

3rd Party Integration

Supports various relay inputs and outputs. Suitable for most kinds of security sensors. Armatura One system provides a RESTful based API for 3rd Party Software Integration.

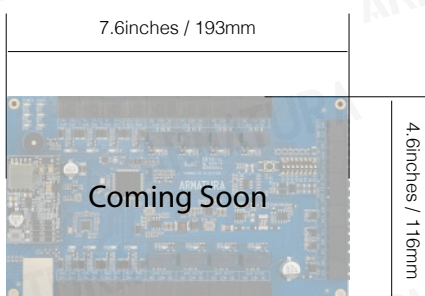
Universal Voltage

Supports 9 to 24Vdc inputs, which makes it the perfect choice for universal deployment, eliminating the need for extra power adaptors.

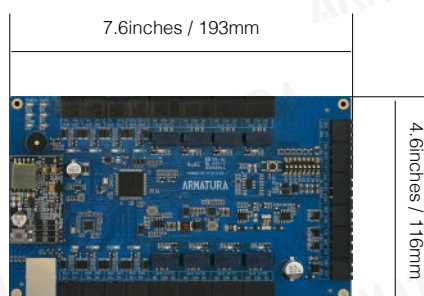
Programmable Input States with Time Zone Management

Supervised and programmable Inputs states (In-Active, Active, Short, Open) and input time can be configured through the Armatura One security platform and Cielo365 (coming soon).

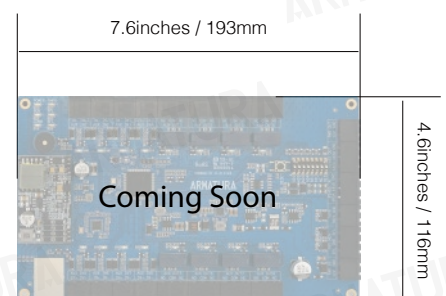
Dimensions of Expansion Board



AHEB-0216



AHEB-0808



AHEB-1602

General Information			
	AHEB-0216 (Coming Soon)	AHEB-0808	AHEB-1602 (Coming Soon)
Primary Power	12 - 24 VDC \pm 20%, 550 mA maximum		
RS-485 Connectivity	Output: RS-485 standard / OSDP V2.2 (Dedicated for AHSC-1000/ AHDU series controller communication) Input: RS-485 Input standard / OSDP V2.2 (Dedicated for AHEB series IO expansion board communication)		
Number of Ports	1*RS-485 2*supervised input (AUX IN) 16*relay output (AUX OUT) 1* power Input (PWR IN) 1*power output (PWR OUT) 1*power detection (AC Fail) 1* backup battery detection (BAT Fail) 1*tamper input (TMPR)	1*RS-485 8*supervised input (AUX IN) 8*relay output (AUX OUT) 1* power Input (PWR IN) 1*power output (PWR OUT) 1*power detection (AC Fail) 1* backup battery detection (BAT Fail) 1*tamper input (TMPR)	1*RS-485 16*supervised input (AUX IN) 2*relay output (AUX OUT) 1* power Input (PWR IN) 1*power output (PWR OUT) 1*power detection (AC Fail) 1* backup battery detection (BAT Fail) 1*tamper input (TMPR)
Inputs	4 state supervision, resistor values (5% tolerance), Normally open contact: use 1.2k, 2.2k, 4.7k or 10k/ Normally closed contact: use 1.2k, 2.2k, 4.7k or 10k		
Outputs	16 relays, 16* Form-C with dry contacts	8 relays, 8* Form-C with dry contacts	2 relays, 2* Form-C with dry contacts

AHSC/ AHDU Interface			
	AHEB-0216	AHEB-0808	AHEB-1602
RS-485 Protocol	12 - 24 VDC \pm 20%, 550 mA maximum		
OSDP Mode	9600-115200 bps, OSDP V2.2, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit. Maximum cable length: 2,000 ft. (609.6m)		
Data Inputs	OSDP supported. Maximum cable length: 500 ft. (152m)		

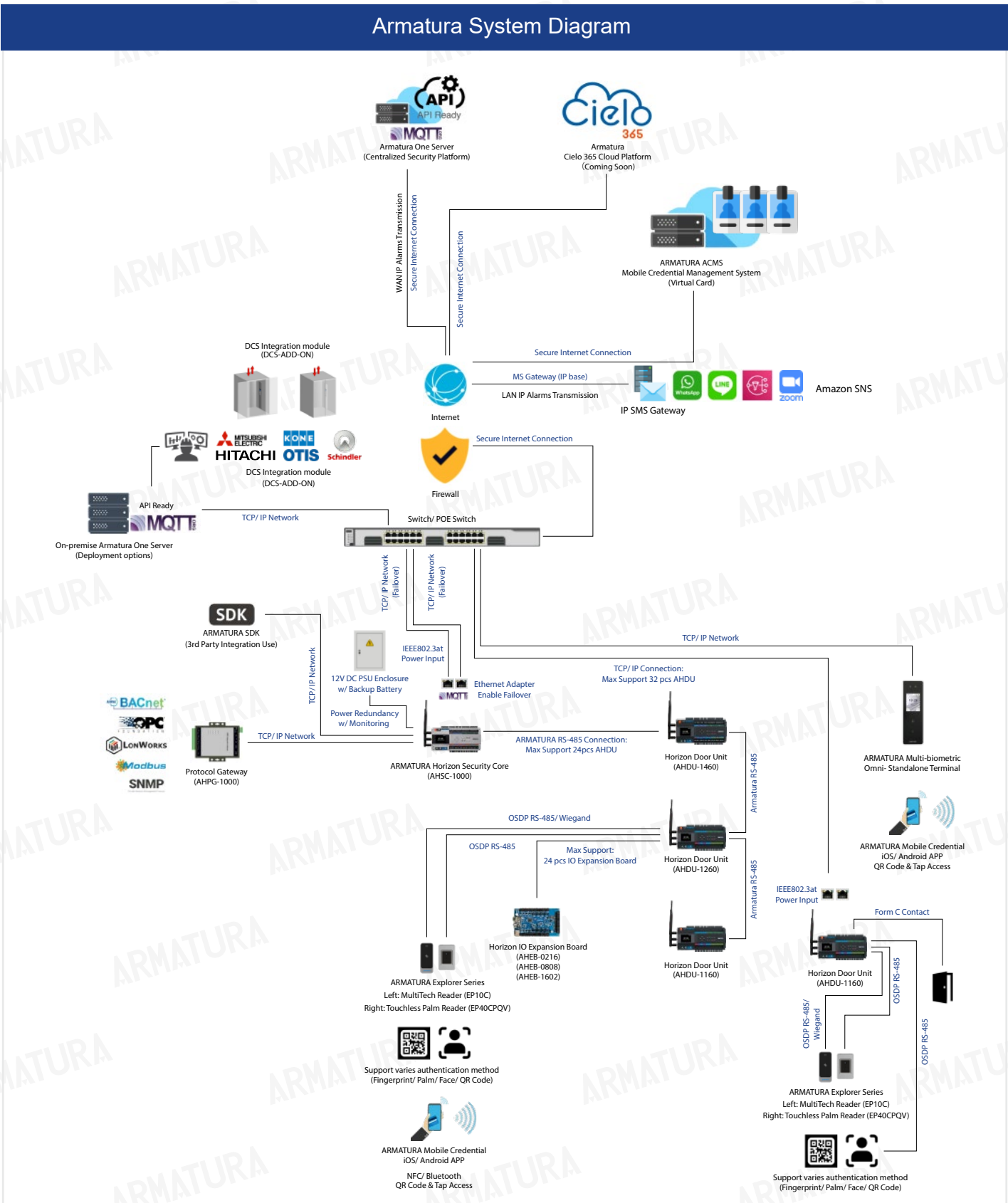
Cable Requirement			
	AHEB-0216	AHEB-0808	AHEB-1602
Power & Relays	12 - 24 VDC \pm 20%, 550 mA maximum		
RS-485 Port	9600-115200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit. One twisted pair with drain wire and shield, 120 ohm resistance, 22-18 AWG, Maximum cable length: 3937ft (1200m)		

Mechanical			
	AHEB-0216	AHEB-0808	AHEB-1602
Dimensions	7.6" W x 4.6" L x 0.7" H (193 x 116 x 17.5mm)		
Weight	5.8oz (165.3g)		
Mounting	Wall Mount		

Environmental			
	AHEB-0216	AHEB-0808	AHEB-1602
Temperature	-22°F ~ 158°F (-30°C~70°C), Operating & Storage		
Humidity	0-95%RHNC		
Certification(s)	CE, FCC, RoHS, UL294		
Security Rating	Data Storage Encrypted with Certified EAL6+ Crypto Chipset		

Software Interface			
	AHEB-0216	AHEB-0808	AHEB-1602
Supported Software	Armatura One Security System, Cielo365 (coming soon)		

Armatura System Diagram



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