

## 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.

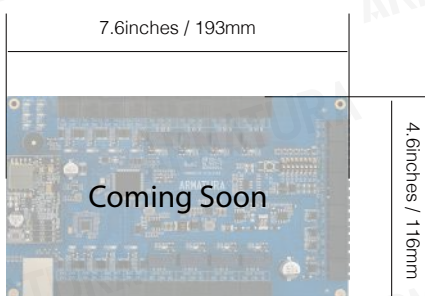
#### Universal Voltage

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).

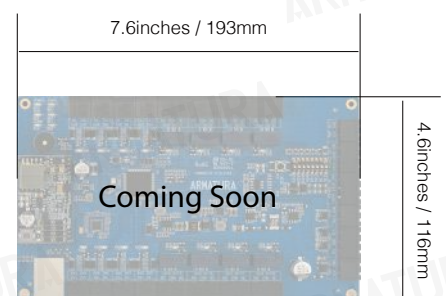
### Dimensions of Expansion Board



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)		

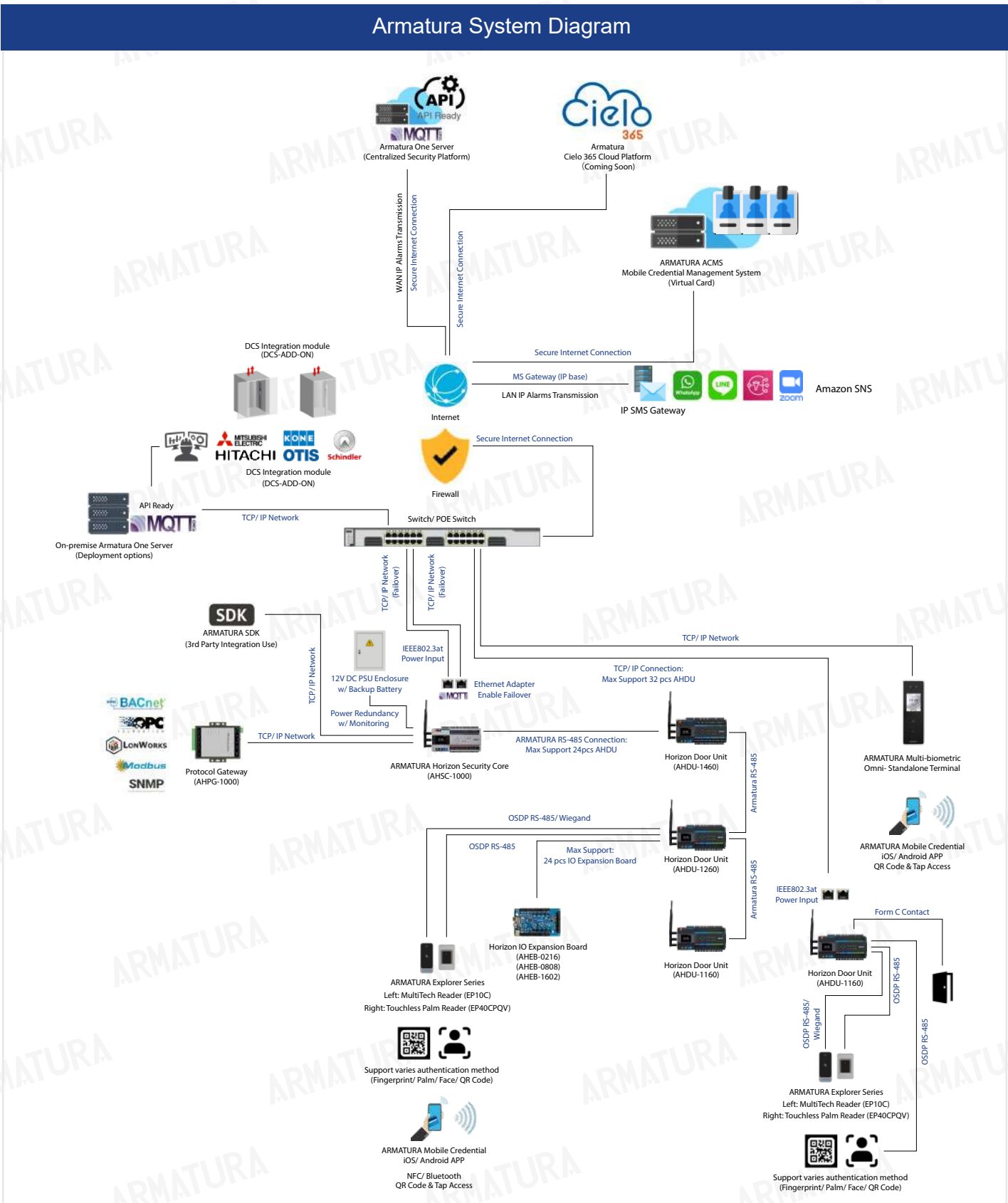
Cable Requirement			
	AHEB-0216	AHEB-0808	AHEB-1602
Power & Relays	12 - 24 VDC $\pm$ 20%, 550 mA maximum		
RS-485 Port	9600-115200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit. One twisted pair with drain wire and shield, 120 ohm resistance, 22-18 AWG, Maximum cable length: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

Madrid: 916 106 678 | Valencia: 960 699 593 | Mallorca: 871 620 033

[www.tecnitrán.es](http://www.tecnitrán.es) | [info@tecnitrán.es](mailto:info@tecnitrán.es)

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