

Omni Series

**All Weather Outdoor
Multi-Tech Smart Reader Controllers**



The Omni standalone reader controller provides an all-in-one solution for door access. It's the ideal solution for installers seeking a single, versatile device that offers expanded capabilities with fewer components.

The Omni controller functions as an intercom, in addition to providing access control and visitor management. It integrates seamlessly with Cielo365, a cloud-based device and user management platform offering a wide range of modules such as visitor management, elevator control, and badging, creating a streamlined user experience. Also compatible with Armatura One.

Both the OmniAC30 and the OmniAC20 (multi-biometric reader controllers) offer versatility, making them among the most rugged and reliable door controllers available. Their combined palm and face authentication, along with the ability to read NFC, Bluetooth, low and high frequency RFID credentials, QR codes, and PINs, empowers users to secure assets and premises with precision, efficiency, and reliability – all from a single device.

Supports mobile credentials in  Apple Wallet  Google Wallet



AMT-OMNIAC20



Slim Design & Mounting Options

The device's slim design with its backplate suits most architectural and interior designs. The OMNIAC20 supports multiple mount types to meet most scenarios worldwide. Mounting accessories for speedgates are also available.



IP66 Water & Dustproof Protection Rating

Certified IP66 water & dustproof rating ensures the readers can withstand dust, dirt, sand, and are resistant to strong winds and rain.



Advanced Security

Secure communication: OSDP (V2.2) over RS485 communication between the device and access control panels. Using AES-128 encryption standards ensures the highest levels of data protection & security.



Supports Multiple Card Types

Supports 125 kHz and 13.56 MHz frequency credentials. Supports various card types including EM, IC Card, HID Prox, HID iCLASS, DESFire and FeliCa.



Multi-Factor Authentication Capability

Offering credential options of palm, face, physical cards and QR codes. IC Card, Desfire, HID Prox, iClass, SEOS, etc.

*Integrate advanced multiple biometric authentication methods such as palm and face.

*QR code scanning for visitors & employees.

*PIN code option.



Video Intercom

The OMNIAC20 & OMNIAC30 support video intercom functions suitable for most scenarios. Two-way audio & one-way video allow you to communicate with visitors.



Installation Made Easy

Slim design & form factor makes this device easy to install. PoE option allows for minimal use of cabling and lowers the cost of installation. The OMNIAC20 & OMNIAC30 are suited for mullion-mount door installations or any flat surface mounting. Mounting accessories for speedgates are also available.



AMT-OMNIAC30



Modern Aesthetic Design

The build of the OMNIAC20 & OMNIAC30 blends a high quality metal enclosure with a tempered glass panel. The elegant design fits perfectly into any usage scenario and its sleek design brings a practical and reliable experience to users.



Industry-Leading Design and User Experience

The OMNIAC20 & OMNIAC30 provides an improved user experience with a 2.4" high resolution touchscreen screen and intuitive UI design. Using our advanced algorithms, users can get the best verification experience. Palm authentication distance range: 7" - 15.7" (18cm - 40cm) Face authentication distance range: 15.7" - 47.2" (40cm - 120cm)



Input Voltage

The device is compatible with 12V input voltage.



Outdoor Rated for Variable Environments

IP66 Weatherproof rating - built to withstand freezing cold winters, heavy rains and dry/hot summers. -20°C to 60°C / -4°F - 140°F operating temperature enables operation even under the most severe weather conditions.



Unrivaled Palm

and Face Authentication Performance

ARMATURA's Multi-Biometric technology combines palm and face authentication with our unique deep learning algorithm to give users an efficient authentication experience.

Industry-leading combination of visible and NIR infrared authentication technology provides exceptional authentication accuracy and the industry's top-notch anti-spoofing protection.



Touchless Solution for New standards of the Post-pandemic World in Security

The OMNIAC20 & OMNIAC30 meets the needs of the contactless world with features like remote user enrollment, palm, mask detection and face authentication for users with or without masks. Our Palm/ Face/ Card/ QR code authentication technology supports contactless authentication.



Better Images, Faster Authentication

This device supports palm/ face tracking, which can more intelligently capture the user's biometrics and avoid the user's biometric from continuing to be compared after verifying. At the same time, the palm/ face AE function enables the device to obtain higher quality images which improves the authentication accuracy.

Dimensions

AMT-OmniAC20



AMT-OmniAC30



General Information

Primary Power	12 VDC (3A min @12V)
POE	Supported on OmniAC30 only
RS485 connection	Port 1: RS485 standard/ OSDP V2.2
CPU	1.2GHZ Quad Core ARM Processor
NPU	2.4TOPS NPU
Memory	8 GB Flash + 1 GB RAM
Camera	Face Automatic Exposure Palm Automatic Exposure Face tracking Palm tracking WDR HDR 50Hz to 60Hz Automatic Adaption Dual Camera CMOS 2MP (Output image 720*1280)
Primary Host Communication	Ethernet: 10/ 100 Mbps, auto MDI/ MDIX Complies with TLS 1.2 for end to end secure communication channel
Ethernet network connection	Port 1:10/ 100 Mbps, auto MDI/ MDIX
Data Protection	Complies with TLS 1.2 for end to end secure communication channel (Secured Communication between Standalone Terminal & Server) AES128 (Secured Communication between the Standalone Terminal & OSDP Readers & Access Control Panels)
Number of Ports	1*TCP/ IP 1*RS-485 Input: 4ch TTL Inputs Output: 1ch TTL Output 2 relays
Inputs	Wiegand in, Button, Sensor in, Aux Input
Outputs	(OmniAC30) 2 relays with dry contacts, Wiegand Output, Lock, Alarm (OmniAC20) 3 relays with dry contacts, Wiegand Output, Lock, Alarm, Bell

Normally Open Contact Rating	5A @30VDC resistive
Normally Closed Contact Rating	5A @30VDC resistive
Tamper Switch	Magnetic tamper detection system
On-Board Monitor	(OmniAC20) Size: 2.4", Resolution: 320*240, Touch Monitor, TFT (OmniAC30) Size: 5", Resolution: 1280*720, Touch Monitor, TFT
Audio Indicator	Internal speaker with adjustable intensity (Configurable on UI)
MIC	Supported
Video Phone	Supported
User Capacity	50,000
RFID Card Capacity	50,000 (1:N) / 50,000 (1:1)
Maximum RFID Card Number Length	Wiegand In & Out (up to 128 bits)
Face Capacity	10,000 (1:N)/ 50,000 (1:1)
Palm Capacity	5,000 (1:N)/ 20,000 (1:1)
RFID Reading Distance	13.56MHz & 125kHz: Up to 1.96"/ 50 mm (depending on environment and transponder)
Face Authentication Distance	Dual Camera Liveness Detection On: 15.7" - 55.1" (40cm - 140cm) Single Camera Liveness Detection On: 15.7" - 78.7" (40cm - 200cm)
Palm Authentication Distance and Angle Tolerance	7" - 15.7" (18cm - 40cm) / Pitch +/-35, Yaw +/- 60, Roll +/-35, Blend +/-30
FaceAuthenticationSpeed	100ms (Field Test Result)
Live Face Detection (Anti-Spoofing)	Support
Recommend Installation Height:	Recommend Installation Height: 55" (140cm) (Using the plate with tilt angle) 59" (150cm) (Plate with horizontal angle)
Palm authentication Speed	140ms (Field Test Result)
Transaction Buffer	Records: 1,000,000
Access group	99
On-Board Access Point Control	1 access point on board
On-Board Reader Support	1(OSDP over RS485) or 1 (Wiegand Input)
Protection / Resistance	Weather & Dust Proof Protection Rating compliant with IP66

RFID / Biometrics Reader Interface

Input Voltage	12 VDC (3A min @12V) (Equal to primary power input)
Maximum Input Current	12 VDC (3A min @12V) (Equal to primary power input)
RS-485 Protocol	OSDP 2.2 Secure Channel, AES-128
OSDP Mode	9600-115200 bps, OSDP V2.2, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit.
Wiegand	Wiegand In & Out (Up to 128 bits)
Data Inputs	TCP/IP, RS485, OSDP and Wiegand standards supported. Maximum RS485/ OSDP cable length: 500ft (152m) Maximum Wiegand cable length: 328ft (100m)

Compatible Credentials

MIFARE Classic EV1
MIFARE DESFire EV1
MIFARE DESFire EV2
HID iCLASS SEOS
HID iCLASS
HID iCLASS SE/ SR/ Elite
EM4100, 4102, 4200
HID DuoProx II (1336)
HID ISO Prox II (1386)
HID Prox
HID Prox II (1326)

Cable Requirement

Power & Relays	One twisted pair, 18 to 16 AWG
Ethernet	CAT-5, minimum 330 ft. (100m) **When using the PoE function on the OmniAC30 model, you must use a Cat6 cable.
RS-485	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 impedance, 22-18 AWG, Maximum cable length: 3937ft (1200m)
Wiegand	20 AWG shielded ,328ft. (100m)

Mechanical	
Dimensions	OmniAC20: 2.3" W x 0.77" D x 7.3" H (58.47 x 19.5x 184.97mm)
Weight	OmniAC20: 0.72lbs (327g) OmniAC30: 1.84lbs (835g)
Mounting	Suited for mullion-mount door installations or any flat surface mounting Supports rots-02 bracket (OmniAC30) Supports mounting plate installation (Single gang/ European/ Asian box)
Housing Material	Aluminium alloy + Tempered glass

Environmental	
Operating & Storage Temperature	-4°F ~ 140°F (-20°C ~ 60°C)
Operating Humidity	10 - 95% RH (Non-condensing)
Certification(s)	CE, FCC, RoHS, IEC EN/BS EN 60839 Grade 4

Software Interface	
TCP/IP Mode	Ethernet: 10 - 100Base-TX
TCP/IP Protocol	VLAN, SSH, HTTP, IPv4, DNS
TCP/IP Encryption	Complied up to TLS1.2 end to end secure communication channel
TCP/IP Communication	Push Protocol over HTTP, HTTPS and BEST Protocol over websocket
Supported Software	Armatura One and Cielo365

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