OmniAC Series - OmniAC30

All Weather Outdoor Multi-tech Smart Standalone Terminal

- Multi-Biometric technology combining palm and face authentication
- IP66 water & dustproof protection rating
- Supports 125KHz and 13.56 MHz frequency credentials
- Supports multiple mount types (Single gang/ European/ Asian box)

OSDP Bluetooth NFC

Modern Aesthetic Design

The build of the 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.

IP66 Water & Dustproof Protection Rating

Certified IP66 water & dustproof levels represent that the readers can withstand dust, dirt, sand, and are resistant to violent surf impact or strong winds and rain.

Advanced Security

Secure communication: OSDP(V2.0/ 2.2*) over RS-485 communication between the OmniAC30 and access control panels. Using AES-128 encryption standards ensures the highest levels of data protection & security.

Supports Multi-Card and Mobile Credential Types

The OmniAC30 offers support for 125 KHz and 13.56 MHz frequency credentials, with compatibility for various card types including EM, IC Card, HID Prox, HID iCLASS, DESFire, and FeliCa, based on the specific RFID module installed. Furthermore, mobile credentials utilizing Bluetooth Low Energy (BLE) are exclusively supported through the RNIB and RNPB RFID modules in conjunction with the Armatura ID mobile app, delivering a seamless and versatile authentication experience.

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 OmniAC30 supports standard SIP V2.0 protocol, making it suitable for a wide range of visitor scenarios. With two-way audio streaming and advanced echo and noise cancellation, communication with visitors is a breeze. Additionally, the OmniAC30 supports the Armatura ICS mobile app, enabling seamless cloud-based video intercom services for enhanced convenience and accessibility.

Installation Made Easy

Robust design & form factor makes this device easy to install. PoE option allows for minimal use of cabling and lowers the cost of installation. OmniAC30 supports multiple mount types (Single gang/ European/ Asian box) to meet most scenarios worldwide. Mounting accessories for speed gates are also available.

Industry-Leading Design and User Experience

The OmniAC30 provides an improved user experience with a 5“ high resolution touchscreen and intuitive UI design. Using our advanced algorithms, users can get the best authentication experience.
Palm authentication distance: 7" - 15.7" (18cm-40cm)
Face authentication distance: 15.7"- 47.2" (40cm-120cm)

Variable Input Voltage

The device is compatible with 12V - 24V input voltages.

Outdoor Rated for Variable Environments

IP66 Weatherproof rating - built to withstand freezing cold winters, heavy rains and dry/hot summers.
5°F -131°F (-15°C to 55°C) 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 a unique deep-learning algorithm to deliver an efficient and seamless authentication experience. The industry-leading combination of visible and NIR infrared authentication technology ensures exceptional accuracy and robust anti-spoofing protection. Furthermore, the Palm authentication technology complies with the ISO/IEC 19795-2 certification, underscoring its reliability and performance in real-world applications.

Touchless Solution for New standards of the Post-pandemic World

The 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.

Supports BioCode Function

The OmniAC30 supports the BioCode function, a feature available in the Armatura ID mobile app. BioCode converts biometric templates into a QR code, which is securely stored on the user's mobile device only. This approach ensures that no biometric data is stored on other devices, addressing privacy concerns while maintaining a secure and efficient authentication experience.(Required Individual firmware, please contact Armatura Regional Sales)

Tap-To-Wake

The function enables activation of face authentication camera upon detection of face, in case always-on face authentication is not needed, which reduces the heat generated by the always-on face authentication of the camera for better protection and performance of the device.

Dimensions

General Information	
Primary Power	DC 12V@3A-24V@1.5A, Power Max. 10W
PoE	Supported IEEE802.3at compliant, Power Max.12W
Operating Frequency/ Standards	125KHz 13.56MHz: ISO14443 types A&B, JIS X6319, ISO 15693 2.4GHz Bluetooth®
RS-485 connection	RS-485 standard/ OSDP V2.0/ 2.2*
CPU	1.2GHz Quad Core ARM Processor
NPU	2.4 TOPs NPU
Memory	1GB RAM+ 8GB Flash (Standard), 2GB RAM+ 16GB Flash**
Camera	Face Automatic Exposure Palm Automatic Exposure Face Tracking Palm Detection WDR 50Hz/ 60Hz Anti-Flicker Dual Camera Output image 720x1280 pixels
Ethernet Network Connection	Ethernet: 10 Base-T/ 100 Base-TX, 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 4ch TTL Inputs 1ch TTL Output 2 relays
Inputs	Wiegand, Button, Sensor, Aux
Outputs	Wiegand, Lock Relay, Alarm Relay (Relay via dry contacts)

*Subject to firmware version
** Subject to hardware version (For versions released before June 2025, all OmniAC30 devices are equipped with 1 GB RAM and 8 GB Flash.)
***For project use only; it requires additional costs and development time and is not compatible with registered templates from other firmware versions.

Normally Open Contact Rating	5A @30Vdc resistive
Normally Closed Contact Rating	5A @30Vdc resistive
Tamper Switch	Magnetic tamper detection system
Display Screen	Size: 5.0", Resolution: 720*1280, Touch Screen, TFT LCD
Audio Indicator	Internal speaker with adjustable intensity (Configurable on UI)
MIC	Supported
Video Intercom	Support Standard SIP V2.0
User Capacity	100,000
RFID Card Capacity	100,000
Maximum RFID Card Number Length	Wiegand In & Out (up to 128 bits)
Face Capacity	50,000(standard), 100,000(optional) (1:N)***/100,000(1:1)
Palm Capacity	5,000 (1:N)/ 100,000 (1:1)
RFID Reading Distance	13.56MHz & 125KHz: Up to 1.96"/ 50 mm (depending on environment and transponder)
Face Authentication Distance	15.7" - 55.1" (400mm - 1400mm)
Face Authentication Posture Adaptability	Yaw ≤ 30°, Pitch ≤ 30°, Roll ≤30°
Face Authentication Accuracy	True Accept Rate (TAR)=99%, False Accept Rate(FAR)=0.01%
Face Authentication Mode	1:1, 1:N
Face Authentication Speed	< 100ms (Field Test Result)
Face Authentication Liveness Detection	Yes (Infrared-visible light mode, Visible Light Mode)
Face Mask Detection	Yes
Palm Authentication Distance	7” -15.7” (180mm - 400mm)
Palm Authentication Posture Adaptability	Yaw ≤ 45°, Pitch ≤ 30°, Roll ≤ 90°, Bend ≤ 30°
Palm Authentication Accuracy	True Accept Rate(TAR)=98.7%, False Accept Rate(FAR)=0.01%
Palm Authentication Mode	1:1, 1:N
Palm Authentication Speed	< 140ms (Field Test Result)
Palm Authentication Liveness Detection	Yes (Infrared Light Mode)
QR Code Detection	QR Code Scanner: Supported QR Code Scanning Pattern: Area image (720*1280 pixel array) QR Code Scan Angle: Horizontal: 37.9°/ Vertical: 62.9° QR Code Capability: QR Code (Armatura ID); Static QR (customizable) QR Code Scanning Performance*: Armatura ID QR Code：0.5"-2.05" (12.7mm - 52.07mm); BioCode：0.59"-1.26" (15mm - 32mm)
Recommend Installation Height	55" (1400mm) (Using the plate with tilt angle) 59" (1500mm) (Plate with horizontal angle)

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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 RS-485) or 1 (Wiegand Input)
Protection / Resistance	Weather & Dust Proof Protection Rating compliant with IP66

RFID / Biometrics Reader Interface	
Output Voltage	DC 12V@3A-24V@1.5A (Equal to primary power input)
Maximum Output Current	DC 12V@3A-24V@1.5A (Equal to primary power input)
RS-485 Protocol	OSDP V2.0/ 2.2* Secure Channel, AES-128
OSDP Mode	9600-115200 bps, OSDP V2.0/ 2.2*, asynchronous, half-duplex, 1 start bit, 8 data bits, and1 stop bit.
Wiegand	Wiegand In & Out (Up to 128 bits)
Data Inputs	TCP/IP, RS-485, OSDP and Wiegand standards supported. Maximum RS-485/ OSDP cable length: 1970ft (600m) Maximum Wiegand cable length: 164ft (60m)

Cable Requirement	
Power	16AWG or 18AWG (DO NOT extend the length of power cable when using the power adapter)
Relays	Twisted pair, 18 to 16 AWG
Ethernet	CAT-5E, Wire diameter (24AWG), maximum 330 ft. (100m) PoE : CAT-6A, Wire diameter (23AWG), maximum 330 ft. (100m)
RS-485 Reader 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 impedance , 22-18 AWG, Maximum cable length: 1970ft (600m)
Wiegand Port	20 AWG shielded, 164ft (60m)

Mechanical	
Dimensions	3.82" W x 1.112" D x 8.23" H (97 x 28.5 x 209mm)
Weight	1.88lb (852.75g)
Mounting	Supports mounting plate installation (Single gang/ European/ Asian box) Support rots-02、KJZ-03 bracket
Housing Material	Aluminum alloy + Tempered glass

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Environmental	
Operating Temperature	5°F -131°F (-15°C to 55°C)
Storage Temperature	-13°F -149°F (-25°C to 65°C)
Operating Humidity	0 - 90% RH (Non-condensing)
Certification(s)	CE, FCC, RoHS, ISO/IEC 19795-2 (Palm Recognition using the PalmElite SDK.)

Software Interface	
TCP/IP Mode	10 Base-T/ 100 Base-TX, Auto MDI/ MDIX
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	Gladius Protocol over HTTP, HTTPS
Supported Software	Security Platform: Armatura One Mobile Credentials: Armatura ID (Mobile App) (RNIB / RNPB version) Video Intercom: Armatura ICS (Mobile App)

ARMATURA

ARMATURA RFID Card Module Supporting List

ArmaSec-03142025

		Card Module Abbreviation	[DF]	[SFMH]	[NO]	[NP]	[NI]	[NPL]	[NIH]	[RNP]	[RNI]	[RNPB]	[RNIB]
Frequency	Classification	Compatible Readers	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series/ VG10CKQ*	EP10C/ EP20ENC	EP10C/ EP20ENC	EP10C/EP20CQ/ EP20CKQ/ EP20ENC EP30 Series	EP10C	EP10C	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ EP30 Series/ VG10CKQ*	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ EP30 Series/ VG10CKQ*	OmniAC20/ OmniAC30	OmniAC20/ OmniAC30
13.56MHz	ISO14443A	LEGIC Advant		√	√1)	√1)	√1)		√1)				
		MIFARE Classic, Mini S50,S70	√4)	√	√	√	√		√	√4)	√4)	√4)	√4)
		MIFARE Classic EV1	√4)	√2)	√2)	√2)	√2)		√2)	√4)	√4)	√4)	√4)
		MIFARE DESFire Light		√8)	√8)	√8)	√8)		√8)	√4)	√4)	√4)	√4)
		MIFARE DESFire EV1	√4)	√	√	√	√		√	√4)	√4)	√4)	√4)
		MIFARE DESFire EV2/ EV3	√4)	√13)	√13)	√13)	√13)		√13)	√4)	√4)	√4)	√4)
		MIFARE Plus S, X		√	√	√	√		√	√4)	√4)	√4)	√4)
		MIFARE Smart MX		√3)	√3)	√3)	√3)		√3)	√4)	√4)	√4)	√4)
		MIFARE Ultralight		√	√	√	√		√	√4)	√4)	√4)	√4)
		MIFARE Ultralight C		√	√	√	√		√	√4)	√4)	√4)	√4)
		MIFARE Ultralight EV1		√2)	√2)	√2)	√2)		√2)	√4)	√4)	√4)	√4)
		NFC (NTAG2xx)	√		√	√	√		√	√1	√1	√1	√1
		SLE44R35		√3)	√3)	√3)	√3)		√3)				
		SLE66Rxx (my-d move)		√3)	√3)	√3)	√3)		√3)				
		Topaz			√	√	√		√				
		HID iCLASS SEOS					√20)		√20)		√20)		√20)
		NFC(HCE & NTAG2xx)		√	√	√	√		√	√	√	√	√
	ISO14443B	Calypso		√3)	√3)	√3)	√3)		√3)				
		Calypso Innovatron protocol		√3)	√3)	√3)	√3)		√3)				
		CEPAS		√3)	√3)	√3)	√3)		√3)	√3)	√3)	√3)	√3)
		CTS			√	√	√		√10)				
		Pico Pass		√1)	√4)	√4)	√4)		√4)				
		SRI4K, SRIX4K		√	√	√	√		√				
		SRI512, SRT512			√	√	√		√				
	ISO18092/ ECMA-340	Sony FeliCa		√5)	√5)	√5)	√5)		√5)	√1)	√1)	√1)	√1)
	ISO15693	EM4x33		√3)	√3)	√3)	√3)		√3)				
		EM4x35		√3)	√3)	√3)	√3)		√3)				
		HID iCLASS		√1)	√1)	√1)	√10)		√10)	√1)	√10)	√1)	√10)
		HID iCLASS SE/ SR/ Elite		√1)	√1)	√1)	√10)		√10)	√1)	√10)	√1)	√10)
		iCODE SLI		√	√	√	√		√				
		LEGIC Advant		√1)	√1)	√1)	√1)		√1)				
		M24LR16/64		√	√	√	√		√				
		MB89R118/119			√	√	√		√				
		SRF55Vxx (my-d vicinity)		√3)	√3)	√3)	√3)		√3)				
		Tag-it		√	√	√	√		√				
		Pico Pass		√1)	√4)	√4)	√4)		√4)				
		LEGIC Prime		√									
		CPU Card											

To be released

ARMATURA RFID Card Module Supporting List

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		Card Module Abbreviation	[DF]	[SFMH]	[NO]	[NP]	[NI]	[NPL]	[NIH]	[RNP]	[RNI]	[RNPB]	[RNIB]
Frequency	Classification	Compatible Readers	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series/ VG10CKQ*	EP10C/ EP20ENC	EP10C/ EP20ENC	EP10C/EP20CQ/ EP20CKQ/ EP20ENC EP30 Series	EP10C	EP10C	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ EP30 Series/ VG10CKQ*	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ EP30 Series/ VG10CKQ*	OmniAC20/ OmniAC30	OmniAC20/ OmniAC30
125KHz		AWID			√	√	√	√					
		Cardax			√	√	√	√					
		CASI-RUSCO			√6)	√6)	√6)	√6)		√	√	√	√
		Deister			√6)	√6)	√6)	√6)					
		EM4100, 4102, 4200	√		√7)	√7)	√7)	√7)		√	√	√	√
		EM4050, 4150, 4450, 4550			√	√	√	√					
		EM4305			√	√	√	√					
		Ultra Prox			√	√	√	√					
		G-Prox				√6)	√6)	√6)					
		HID DuoProx II (1336)				√	√	√		√1)	√1)	√1)	√1)
		HID ISO Prox II (1386)				√		√		√1)	√1)	√1)	√1)
		HID Micro Prox II (1391)				√	√	√		√1)	√1)	√1)	√1)
		HID Prox III (1346)				√	√	√		√1)	√1)	√1)	√1)
		HID Prox				√	√	√		√1)	√1)	√1)	√1)
		HID Prox II (1326)				√	√	√		√1)	√1)	√1)	√1)
		HITAG 1, 2, S			√9)	√9)	√9)	√9)					
		ICT			√8)	√8)	√8)	√8)					
		IDTECK			√	√	√	√					
		Indala				√	√	√					
		ioProx				√	√						
		ISONAS			√	√	√	√					
		Keri			√	√	√	√					
		Miro			√	√	√	√					
		Nedap			√6)	√6)	√6)	√6)					
		Nexwatch				√	√	√					
		Pyramid			√	√	√	√					
		Q5			√	√	√	√					
		T5557, T5567, T5577			√	√	√	√					
		TITAN (EM4050)			√	√	√	√					
		UNIQUE			√	√	√	√					
		ZODIAC			√	√	√	√					
2.4GHz		BLE										Y*	Y*
		Globally Available		Y				Y	Y	Y	Y		
	Availability	Globally Available (Except for U.S., E.U., Japan, Australia, Canada, U.K., Albania, Iceland, Liechtenstein, Monaco, North Macedonia, Norway, San Marino, Serbia, Switzerland, Turkey, and the United Kingdom)	Y		Y	Y	Y						

√) UID only, customization upon request for reading encryption content
1) UID only
2) Read/ write (customisation) enhanced security features on request
3) Read/ write (customisation) in direct chip command mode
4) UID only, read/ write (customisation) on request
5) UID + read/ write (customisation) public area
6) Hash value only
7) Only emulation of 4100, 4102
8) On request
9) Without encryption
10) UID + PAC (CSN & Facility Code), read/ write(customisation) on request
11) In preparation
13) EV2/ EV3 supported as part of the EV1 downward compatibility
14) From FW V4.05
15) 134.2 kHz only
20) PAC (CSN & Facility Code), read/ write (customisation) on request

*The RNIB/ RNPB version is for devices that don't have built-in Bluetooth support. If the device already has Bluetooth Low Energy (BLE) built-in, then you don't need to use the RNIB/RNPB version.

ARMATURA

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