ARMATURA

Omni Series - Omni20

All Weather Outdoor Multi-tech Smart Standalone Terminal

- Multi-Biometric technology combining palm and face recognition
- IP66 water & dustproof protection rating
- Slim design & form factor for a modern aesthetic design
- Supports 125 kHz and 13.56 MHz frequency credentials

OSDP™

Slim Design & Mounting Options
The devices slim design with its backplate suits most architectural and interior designs. The Omni20 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(V2.1.7) over RS485 communication between the Omni20 and access control panels. Using AES-128 encryption standards ensures the highest levels of data protection & security.

Supports Multi-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 recognition methods such as palm and face.
*QR code scanning for visitors & employees.
*PIN code option.

Video Intercom（Coming Soon）
The Omni20 supports video intercom function suitable for most visitor scenarios. Two-way audio streaming with echo and noise cancellation lets you easily 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 Omni20 is suited for mullion-mount door installations or any flat surface mounting. Mounting accessories for speedgates are also available.

Modern Aesthetic Design
The build of the Omni20 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 Omni20 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 recognition distance range: 7" - 15.7" (18cm - 40cm)
Face recognition distance range: 15.7"- 47.2" (40cm - 120cm)

Variable Input Voltage
The device is compatible with 9V-24V input voltages.

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 Recognition Performance
ARMATURA's Multi-Biometric technology combines palm and face recognition with our unique deep learning algorithm to give users an efficient authentication experience.
Industry-leading combination of visible and NIR infrared recognition technology provides exceptional authentication accuracy and the industry's top-notch anti-spoofing protection.

Touchless Solution for New standards of the Post-pandemic World
The Omni20 meets the needs of the contactless world with features like remote user enrollment, palm, mask detection and face recognition for users with or without masks. Our Palm/ Face/ Card/ QR code recognition technology supports contactless authentication.

Better Images, Faster Recognition
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 plam/ face AE function enables the device to obtain higher quality images which improves the recognition accuracy.

Dimensions

2.3"/ 58.47mm

7.3"/ 184.97mm

General Information

Primary Power	12 to 24 VDC (3A min @12V)
RS485 connection	Port 1: RS485 standard / OSDP V2.1.7
CPU	1.2 GHZ Quard Core ARM Processor
NPU	2.4 TOPS 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 720P*960P）
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 Standalone Terminal & OSDP Reader & Access Control Panel)
Number of Ports	1*TCP/IP 1*RS-485 Input: 4ch TTL Inputs Output: 1ch TTL Output 3 relays
Inputs	Wiegand in, Button, Sensor in, Aux Input
Outputs	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	Size: 2.4", Resolution: 320*240, Touch Monitor, TFT
Audio Indicator	Internal speaker with adjustable intensity (Configurable on UI)
MIC	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 64 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 Recognition Distance	Dual Camera Liveness Detection On: 15.7" - 55.1" (40cm - 140cm) Single Camera Liveness Detection On: 15.7" - 78.7" (40cm - 200cm)
Palm Recognition Distance and Angle Tolerance	7" - 15.7" (18cm - 40cm) / Pitch +/- 35, Yaw +/- 60, Roll +/-35, Blend +/-30
Face Recognition Speed	100ms (Field Test Result)
Live Face Detection (Anti-Spoofing)	Supported
Recommend Installation Height:	Recommended Installation Height: 55" (140cm) (Using the plate with tilt angle) 59" (150cm) (Plate with horizontal angle)
Palm Recognition 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

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RFID / Biometrics Reader Interface

Input Voltage	12 to 24 VDC (3A min @12V) (Equal to primary power input)
Maximum Input Current	12 to 24 VDC (3A min @12V) (Equal to primary power input)
RS-485 Protocol	OSDP 2.1.7 Secure Channel, AES-128
OSDP Mode	9600-115200 bps, OSDP V2.1.7, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit.
Wiegand	Wiegand In & Out (Up to 64 bits)
Data Inputs	TCP/IP, RS485, OSDP and Wiegand standards supported. Maximum RS485/ OSDP cable length: 500ft (152m) Maximium Wiegand cable length: 328ft (100m)

Cable Requirement

Power & Relays	One twisted pair, 18 to 16 AWG
Ethernet	CAT-5, minimum 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: 3937ft (1200m)
Wiegand Port	20 AWG shielded ,328ft. (100m)

Mechanical

Dimensions	2.3" W x 0.77" D x 7.3" H (58.47 x 19.5x 184.97mm)
Weight	327g
Mounting	Suited for mullion-mount door installations or any flat surface mounting Supports rots-02 bracket
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, UL (coming soon)

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 websock
Supported Software	Armatura One Security System, Cielo365

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