FT10CMQ

All Weather Multi-Tech Smart Multimodal Biometric Terminal

- Multimodal biometric technology, touchless palm and face authentication
- IP66 & IK07 Dustproof, waterproof and impact protection rating
- Supports 125 kHz and 13.56 MHz frequency credentials
- Supports reader (Coming soon) and standalone terminal mode
- Supports multiple mount types (Single gang/ European/ Asian box)

Bluetooth OSDP NFC QR CODE

Modern Aesthetic Design

The build of the FT10 blends a high-quality metal enclosure with a tempered glass panel. Frontier design, elegant oval arc profile, leading the new trend of intelligent identification terminal, to bring users a new practical and reliable experience.

Dual Installation Mode

The FT10 terminal offers a dual installation mode. It can function as a standalone terminal, directly communicating with the Armatura One server via TCP/IP. It can also serve as a face-authentication reader (coming soon) when paired with AHSC-1000 and AHDU series controllers via OSDP over RS485 communication.

Superior Protection Level

IP66 and IK07 Certified with IP66 Water and dustproof ratings, our readers are designed to withstand dust, dirt, and rain, ensuring reliable performance in challenging environments. Additionally, with a certified IK07 Vandal-proof rating, they offer enhanced protection against tampering and vandalism.

Advanced Security

Secure communication: OSDP(V2.2) over RS-485 communication between the FT10 and access control panels. Using AES-128 encryption standards ensures the highest levels of data protection & security.
Secured Data Storage: The utilization of Certified EAL6+ encryption chips elevates data protection performance to the highest security level, ensuring top-notch financial-grade security.

Supports Multi-Card Types

Supports 125kHz and 13.56MHz frequency credentials. Supports various card types including EM, MIFARE, DESFire, FeliCa, HID Prox/iCLASS/Seos, etc.

Multi-tech Card & Mobile Credentials

Supports multi-card types in a standard package with various optional RFID modules that cover up to over 10 extra advanced secured RFID protocols, which almost cover most of the end-user requests, enabling high flexibility for multi-card types and mobile credentials situations.

Wide Input Voltage

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

Multi-Factor Authentication Capability

Offering credential options of palm, face, Mobile Credentials, physical cards and QR codes.
*EM, MIFARE, DESFire, FeliCa, HID Prox/iCLASS/Seos, etc.
*Integrate advanced multiple biometric authentication methods such as palm and face code scanning for visitors & employees.
*QR code scanning for visitors & employees.

Video Intercom

The FT10 supports SIP 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

Robust design & form factor makes this device easy to install. PoE option allows for minimal use of cabling and lowers the cost of installation. FT10 supports multiple mount types (Single gang/ European/ Asian box) to meet most scenarios worldwide. Mounting accessories for speed gates are also available.

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.

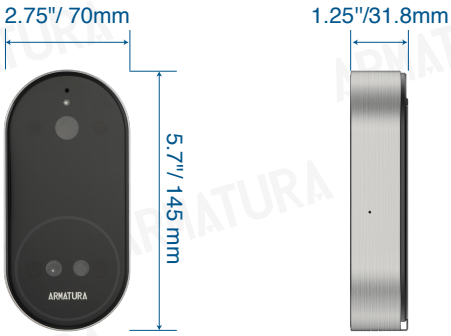
Sleep-and-Wake Mode

In sleep mode, the breath light flashes alternately. In wake mode, the ring light is highlighted white. This setting can reduce the unnecessary heat loss caused by the machine in the case of undetected, better protect the machine and long-term performance.

Better Images, Faster Authentication

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

Dimensions



General Information

Primary Power	DC 12V@3A-24V@1.5A ±10%
Operating Frequency/ Standards:	125KHz; 13.56MHz: ISO14443 types A&B, JIS X6319, ISO15693 2.4GHz Bluetooth
POE	Supported (IEEE 802.3 at compliant)
RS-485 connection	RS-485 standard/ OSDP V2.2
CPU	1.2GHz Quad Core ARM Processor
NPU	2.4 TOPs NPU
Memory	2 GB RAM + 16 GB Flash
Camera	CMOS, 2 MP resolution IR: Global shutter CMOS, 1.3 MP resolution IR-CUT：CMOS, 2 MP resolution Resolution: 720*960 pixels
Ethernet network connection	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 the FT10 & Server) (Standalone Mode) AES128 (Secured Communication between the FT10 & OSDP Readers) (Standalone Mode)
Number of Ports	1*TCP/ IP 1*RS-485 4ch TTL Inputs 1ch TTL Output 1 Mechanical Relays & 2 Photorelay
Inputs	Wiegand, Button, Sensor, Aux
Outputs	Wiegand, Lock Relay, Alarm Relay (Relay via dry contacts), Bell Relay(Relay via dry contacts)
Normally Open Contact Rating	2A @30Vdc resistive
Normally Closed Contact Rating	2A @30Vdc resistive
Tamper Switch	Magnetic tamper detection system

Audio Indicator	Internal speaker with adjustable intensity
MIC	Supported
Video Intercom	Support Standard SIP V2.0
User Capacity	50,000
RFID Card Capacity	50,000
Maximum Wiegand Bits	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 Authentication Distance	Dual Camera Liveness Detection On: 15.7" - 55.1" (400mm - 1400mm) Single Camera Liveness Detection On: 15.7" - 78.7" (400mm - 2000mm)
Face Authentication Posture Adaptability	Yaw ≤ 30°, Pitch ≤ 30°, Roll ≤45°
Face Authentication Accuracy	True Accept Rate (TAR)=99%, False Accept Rate(FAR)=0.01%
Face Authentication Mode	1:1, 1:N
Face Authentication Speed	＜300ms (Field Test Result)
Face Authentication Liveness Detection	Yes (Infrared-visible light mode, Infrared Light Mode)
Face Mask Detection	Yes
Palm Authentication Distance	Liveness Detection On: 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)
Transaction Buffer	Records: 1,000,000
Access group	99
Access Point Control	1 access point on board
Reader Support	1 (OSDP over RS-485) or 1 (Wiegand Input)
Protection / Resistance	Weather & Dust Proof Protection Rating compliant with IP66 Reinforced Vandal-proof Structure IK07 certified

RFID / Biometrics Reader Interface	
Output Voltage	12V-24V (Equal to primary power input)
Maximum Output Current	0.8A
RS-485 Protocol	OSDP V2.2 Secure Channel, AES-128
OSDP Mode	9600-115200 bps, OSDP V2.2, asynchronous, half-duplex, 1 start bit, 8 data bits, and1 stop bit.
Wiegand	Wiegand In & Out (Up to 64 bits)
Data Inputs	TCP/IP, RS-485, OSDP and Wiegand standards supported.

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 resistance, 22-18 AWG, Maximum cable length: 1970 ft. (600m)
Wiegand Port	20 AWG shielded, 164 ft. (60m)

Mechanical	
Dimensions	5.71" × 2.76" × 1.25" (145mm*70mm*31.8mm)
Weight	15.85oz (449.5g)
Mounting	Suited for mullion-mount door installations or any flat surface mounting
Housing Material	Aluminum alloy + Tempered glass

Environmental	
Operating Temperature	-4°F -131°F (-20°C to 55°C)
Storage Temperature	-13°F -140°F (-25°C to 60°C)
Operating Humidity	0 - 90%RH (Non-condensing)
Certification(s)	CE, FCC, RoHS, UL294 (Coming Soon)

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	Push Protocol over HTTP, HTTPS
Supported Software	Armatura One Security System

ARMATURA RFID Card Module Supporting List

ArmaSec-03012023

Frequency	Classification	Card Module Abbreviation	[RNP]	[RNI]
		Compatible Readers	OmniAC20, OmniAC30, FT10, EP20CQ, EP20CKQ, EP30CF	OmniAC20, OmniAC30, FT10, EP20CQ, EP20CKQ, EP30CF
13.56MHz	ISO14443A	LEGIC Advant		
		MIFARE Classic, Mini S50,S70,S50	√4)	√4)
		MIFARE Classic EV1	√4)	√4)
		MIFARE DESFire Light	√4)	√4)
		MIFARE DESFire EV1	√4)	√4)
		MIFARE DESFire EV2	√4)	√4)
		MIFARE Plus S, X	√4)	√4)
		MIFARE Pro X	√4)	√4)
		MIFARE Smart MX	√4)	√4)
		MIFARE Ultralight	√4)	√4)
		MIFARE Ultralight C	√4)	√4)
		MIFARE Ultralight EV1	√4)	√4)
		NFC (NTAG2xx)		
		PayPass		
		SLE44R35		
		SLE66Rxx (my-d move)		
		Topaz		
		HID iCLASS SEOS		√20)
		NFC (HCE Mode, works with Armatura ID)		
	ISO14443B	Calypso		
		Calypso Innovatron protocol		
		CEPAS		
		HID iCLASS		
		CTS		
		Moneo		
		Pico Pass		
		SRI4K, SRIX4K		
		SRI512, SRT512		
	ISO18092/ ECMA-340	Sony FeliCa	√1)	√1)
	ISO15693	EM4x33		
		EM4x35		
		HID iCLASS	√1)	√10)
		HID iCLASS SE/ SR/ Elite	√1)	√10)
		iCODE SLI		
		LEGIC Advant		
		M24LR16/64		
		MB89R118/119		
		SRF55Vxx (my-d vicinity)		
		Tag-it		
		Pico Pass		
		LEGIC Prime		
		CPU Card		

To be released

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125kHz		AWID		
		Cardax		
		CASI-RUSCO	√	√
		Cotag		
		Deister		
		EM4100, 4102, 4200	√	√
		EM4050, 4150, 4450, 4550		
		EM4305		
		FDX-B, EM4105		
		Ultra Prox		
		G-Prox		
		HID DuoProx II (1336)	√1)	√1)
		HID ISO Prox II (1386)	√1)	√1)
		HID Micro Prox II (1391)	√1)	√1)
		HID Prox III (1346)	√1)	√1)
		HID Prox	√1)	√1)
		HID Prox II (1326)	√1)	√1)
		HITAG 1, 2, S		
		ICT		
		IDTECK		
		Indaia		
		ioProx		
		ISONAS		
		Keri		
		Miro		
		Nedap		
		Nexwatch		
		PAC		
		Pyramid		
		Q5		
		T5557, T5567, T5577		
		TITAN (EM4050)		
		UNIQUE		
		ZODIAC		
		Globally Available	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		

1) UID only
2) Read /write enhanced security features on request
3) Read /write in direct chip command mode
4) UID only, read/write on request
5) UID + read /write 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 on request
11) In preparation
13) EV2/EV3 supported as part of the EV1 upward compatibility
14) From FW V4.05
20) PAC (CSN & Facility Code), read /write on request

To be released

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