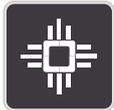# ARMATURA

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** VERIFIED | **NFC** | **IP66** | **IK07** Impact Protection | **SIP** | **Onvif**

MOBILE READY

Modern Aesthetic Design

The build of the FT10CMQ 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 FT10CMQ 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 FT10CMQ 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 and Mobile Credential Types

The FT10CMQ 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 RNLB/RNPB/RNIB RFID modules in conjunction with the Armatura ID mobile app, delivering a seamless and versatile authentication experience.

HD Video&Two-way audio

Integrated with a 2MP camera optimized for low-light environments, the system provides a 145° diagonal field of view, a 118° horizontal field of view, and a 62° vertical field of view. It also supports two-way audio communication.

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 FT10CMQ 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 FT10CMQ 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. FT10CMQ 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 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.

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.

Supports BioCode Function

The FT10CMQ 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)

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Dimensions

2.75"/ 70mm   1.25"/31.8mm

5.7"/ 145 mm

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, 1/2.7",H:118° V:62° D:145° 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 FT10CMQ & Server) (Standalone Mode) AES128 (Secured Communication between the FT10CMQ & OSDP Readers) (Standalone
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 128 bits)
Face Capacity	50,000 (1:N)/ 100,000 (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

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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 128 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	0.991lb（453.59g）
Mounting	Suited for mullion-mount door installations or any flat surface mounting
Housing Material	Aluminum alloy + Tempered glass

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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, ONVIF, RTSP
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)

Frequency	Classification	Card Module Abbreviation / Compatible Readers	[DF] EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP30CF	[MDF] VG10CKQ-A/ VG10CKQ-P/ Griffin20	[SFMH] EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC / EP30CF	[SFM] VG10CKQ/ VG10CKQ-P/ EP20ENC(Coming Soon)	[NO] EP20ENC	[NI] EP20ENC/ EP20CQ/ EP20CKQ/ EP30CF	[RNP] VG10CKQ/ VG10CKQ-P/ EP20CQ/ EP20CKQ/ EP30CF	[RNI] VG10CKQ/ VG10CKQ-P/ EP20CQ/ EP20CKQ/ EP30CF/ Griffin20	[RNPB] OmniAC20/ OmniAC30/ FT10CMQ	[RNIB] OmniAC20/ OmniAC30/ FT10CMQ	[RNOB] OmniAC20/ OmniAC30/ FT10CMQ
13.56MHz	ISO14443A	LEGIC Advant			√22)	√22)	√1)	√1)	√1)	√1)	√1)	√1)	√1)
		MIFARE Classic, Mini S50,S70,S50	√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE Classic EV1	√1)	√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE DESFire Light		√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE DESFire EV1	√1)	√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE DESFire EV2/ EV3	√1)	√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE Plus S, X			√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE Pro X					√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE Smart MX			√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE Ultralight		√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE Ultralight C		√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		MIFARE Ultralight EV1		√1)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)	√4)
		NFC (NTAG2xx)					√1)	√1)	√4)	√4)	√4)	√4)	√4)
		PayPass			√1)	√1)	√4)	√4)					
		SLE44R35			√1)	√1)	√4)	√4)					
		SLE66Rxx (my-d move)			√1)	√1)	√4)	√4)					
		Topaz			√1)	√1)	√4)	√4)					
		HID iCLASS SEOS						√20)		√20)		√20)	
		NFC(HCE Mode,works with Armatura ID)			√	√	√	√	√	√	√	√	√
	ISO14443B	Calypso			√1)	√1)	√4)	√4)					
		Calypso Innovatron protocol			√1)	√1)	√4)	√4)					
		CEPAS		√21)	√21)	√21)	√21)	√21)	√4)	√4)	√4)	√4)	√4)
		HID iCLASS			√1)	√1)	√1)	√20)					
		CTS			√	√	√	√					
		Moneo			√3)	√3)	√3)	√3)					
		Pico Pass			√4)	√4)	√4)	√4)					
		SRI4K, SRIX4K			√	√	√	√					
		SRI512, SRT512			√	√	√	√					
	ISO18092/ ECMA-340	Sony FeliCa	√1)		√5)	√5)	√5)	√5)	√1)	√1)	√1)	√1)	√1)
	ISO15693	EM4x33			√3)	√3)	√3)	√3)					
		EM4x35			√3)	√3)	√3)	√3)					
		HID iCLASS			√1)	√1)	√1)	√10)	√1)	√10)	√1)	√10)	√1)
		HID iCLASS SE/ SR/ Elite			√1)	√1)	√1)	√10)	√1)	√10)	√1)	√10)	√1)
		iCODE SLI			√	√	√	√					
		LEGIC Advant			√22)	√22)	√1)	√1)					
		M24LR16/64					√	√					
		MB89R118/119					√	√					
		SRF55Vxx (my-d vicinity)			√3)	√3)	√3)	√3)					
		Tag-it			√	√	√	√					
		Pico Pass					√4)	√4)					
		LEGIC Prime			√22)	√22)							
		CPU Card											

*To be released

ARMATURA RFID Card Module Supporting List

Frequency	Classification	Card Module Abbreviation	[DF]	[MDF]	[SFMH]	[SFM]	[NO]	[NI]	[RNP]	[RNI]	[RNPB]	[RNIB]	[RNOB]
		Compatible Readers	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP30CF	VG10CKQ-A/ VG10CKQ-P/ Griffin20	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC / EP30CF	VG10CKQ/ VG10CKQ-P/ EP20ENC(Coming Soon)	EP20ENC	EP20ENC/ EP20CQ/ EP20CKQ/ EP30CF	VG10CKQ/ VG10CKQ-P/ EP20CQ/ EP20CKQ/ EP30CF	VG10CKQ/ VG10CKQ-P/ EP20CQ/ EP20CKQ/ EP30CF/ Griffin20	OmniAC20/ OmniAC30/ FT10CMQ	OmniAC20/ OmniAC30/ FT10CMQ	OmniAC20/ OmniAC30/ FT10CMQ
125kHz		AWID					√	√					
		Cardax					√	√					
		CASI-RUSCO					√	√	√	√	√	√	√
		Cotag											
		Deister					√6)	√6)					
		EM4100, 4102, 4200	√1)	√1)		√1)	√7)	√7)	√	√	√	√	√
		EM4050, 4150, 4450, 4550					√	√					
		EM4305					√14)	√14)					
		FDX-B, EM4105					√15)	√15)					
		Ultra Prox					√15)	√15)					
		G-Prox						√6)					
		HID DuoProx II (1336)						√	√	√	√	√	
		HID ISO Prox II (1386)						√	√	√	√	√	
		HID Micro Prox II (1391)						√	√	√	√	√	
		HID Prox III (1346)						√	√	√	√	√	
		HID Prox						√	√	√	√	√	
		HID Prox II (1326)						√	√	√	√	√	
		HITAG 1, 2, S					√9)	√9)					
		ICT					√8)	√8)					
		IDTECK					√	√					
		Indala											
		ioProx											
		ISONAS					√	√					
		Keri					√	√					
		Miro					√	√					
		Nedap					√6)	√6)					
		Nexwatch						√					
		PAC					√8)	√8)					
		Pyramid					√	√					
		Q5					√	√					
		T5557, T5567, T5577					√	√					
		TITAN (EM4050)					√	√					
		UNIQUE					√	√					
		ZODIAC					√	√					
BLE		Apple Wallet & Google Wallet									Y	Y	
	Availability	Globally Available	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Remark

√) 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
21) UID+CAN&CSN
22) UID only, read on request

*To be released

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