

## Explorer Series - EP30CF

### Multi-Tech Fingerprint Reader

- OSDP & RS485 Biometric Reader
- Multi-tech RFID and Mobile credential support
- Advanced Fingerprint Scanning Technology
- Designed For Advanced Security



### OSDP Multi-tech Biometric Reader

The EP30CF reader series stands out as one of the first OSDP multi-tech biometric readers on the market. It fully complies with OSDP version 2.2, utilizing secure channel communication encrypted using AES128 standard. The EP30CF reader supports an advanced fingerprint scanning algorithm and facilitates biometric template transmission over RS485 and OSDP communication protocols. Additionally, it boasts compatibility with over 30 RFID card types, including dual RFID frequencies (125kHz and 13.56MHz), as well as mobile NFC and Bluetooth (Low Energy Credentials).



### Multi-tech & Mobile Credential Ready

The EP30CF offers support for more than 30 different RFID card types, in addition to advanced fingerprint scanning and recognition capabilities. This reader is future-proofed to accommodate Bluetooth and NFC credentials, ensuring the longevity and adaptability of your system.

### Designed for Advanced Security

**Secure Communication:** The EP30CF reader ensures secure communication with the control panel via OSDP (version 2.2) over RS485. It complies with AES-128 standards to protect against interleaving and replay attacks. Additionally, the communication between mobile (NFC (Android OS Only)/ Bluetooth) and the reader complies with AES256 encryption standards for enhanced 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.

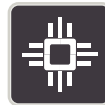
### IP65 Water & Dustproof Protection Level

The Certified IP65 Water and Dustproof rating ensures that the readers are designed to withstand dust, dirt, and sand effectively. They adhere to the IP65 waterproof and dustproof level standards.



### Protection against SPA/DPA/EMA/DEMA Attacks

Engineered to prevent against external malicious attacks. Safeguarding all communications and client data.



### Advanced Fingerprint Scanning Technology

Armatura boasts one of the most advanced fingerprint scanning technologies in the industry. It empowers the system to store millions of fingerprint templates securely. The fingerprint data is irreversible and cannot be reconstructed from fingerprint photos, ensuring maximum protection. Furthermore, built-in anti-spoofing technology prevents the authentication of fake fingerprints or images. To add an extra layer of security, the system utilizes the AES256 encryption standard.



### Enhanced Protection

The Armatura design team is fully committed to ensuring that the Explorer Series exceeds the highest security expectations.

Explorer Series supports 2 mobile identification modes with the Armatura mobile Application "Armatura ID".



#### Card Mode

Present your smartphone to the reader like an access card



#### Remote Mode

Verify on the reader by clicking a button in the Armatura ID app

## Key Features

### Mobile Credential Capability

The Armatura ID mobile app offers a consistent user experience across iOS and Android platforms. Open doors by presenting your smartphone to the reader. Use your phone's Face & TouchID functions for even more secure authentication. It supports both NFC (Android OS Only) and Bluetooth communication methods, extending mobile access functions to almost all smartphone users.

LEGIC

Bluetooth™

NFC

(Android OS Only)



iOS & Android

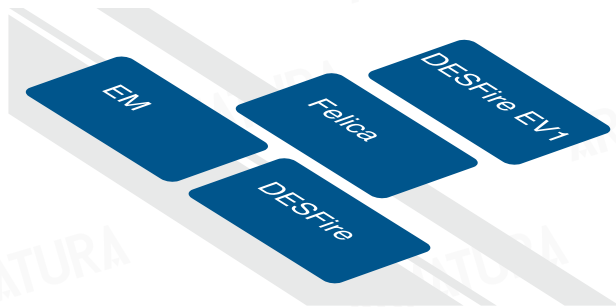
### IP65 Water & Dustproof Protection

Certified IP65 Water & Dustproof rating indicates that the readers are designed to withstand dust, dirt, and sand effectively.



### Multi-Tech Credential Reading Supported

Supports 125 kHz, 13.56 MHz, and 2.4 GHz frequency credentials. Supports 100+ card types, covering most of the common card formats in the market.



### Secure Communication

The Open Supervised Device Protocol (OSDP) facilitates communication between the control panel and the reader, ensuring advanced data protection through certified crypto chips adhering to EAL6+ standards. It supports AES128 end-to-end encryption between the control panel and the reader, ensuring that all communications are securely safeguarded.



## Dimensions



EP30CF (With metal Case)



EP30CF (Without metal Case)



EP30CF (Without metal Case)



EP30CF (With metal Case & Back Case)

## Specification

Internal Number	EP30CF
Operating Frequency / Standards	125 kHz 13.56 MHz 2.4 GHz Bluetooth@5.2
Functions	RFID, Bluetooth, Fingerprint
Communications & Panel Connection	OSDP (v2.2) via RS485
RFID Reading Distance	13.56MHz & 125kHz: Up to 2.3"/60 mm (depending on environment and transponder) Up to 393.7"/ 10m with a Bluetooth Smartphone (configurable distances on each reader)
Data Protection	AES128 (Secured Communication between Reader & Controller) Secure Data Storage in EAL6+ Certified Crypto Chip
Fingerprint Algorithm	AMTFingerprint v10.0
Visual Indicator	RGB LEDs (Configurable By 'Armatura Connect' Mobile APP)
Audio Indicator	Internal buzzer with adjustable intensity (Configurable By 'Armatura Connect' Mobile APP)
Power Requirement / Power Supply	9 VDC to 24 VDC
Operating Temperature	-4°F - 131°F / -20°C to 55°C
Dimensions (L*H*D)	With Metal Case: 2.59" L x 5.28" H x 1.54" D (65.9 x 134.2 x 39.1mm) With Metal Case and Back Case: 2.48 L x 5.18 H x 1.57 D (63 x 131.5 x 40mm) Without Metal Case: 2.57" L x 5.26" H x 1.54" D (65.2 x 133.7 x 39.1mm)
Tamper Switch	Magnetic tamper detection system
Certifications	CE, FCC, UL294(Coming Soon), RoHs3.0, WEEE
Mounting	Back box for flush mount or surface mount on any flat surface mounting
Protection / Resistance	Weather & Dust Proof Protection Rating compliant with IP65

Frequency	Classification	Card Module Abbreviation Compatible Readers	[DF]	[SFMH]	[NO]	[NP]	[NI]	[NPL]	[NIH]	[RNP]	[RNI]	[RNIB]	[RNPB]	
			EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series/ VG10CKQ*	EP10C/ EP20ENC	EP10C/ EP20ENC	EP10C/EP20CQ/ EP20CQ/ 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)		√2)	√4)	√4)	√4)	√4)
		MIFARE DESFire Light		√8)	√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)		√13)	√4)	√4)	√4)	√4)
		MIFARE Plus S, X		√	√	√	√	√		√	√4)	√4)	√4)	√4)
		MIFARE Smart MX		√3)	√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)		√2)	√4)	√4)	√4)	√4)
		NFC (NTAG2xx)	√		√	√	√	√		√				
		SLE44R35		√3)	√3)	√3)	√3)	√3)		√3)				
		SLE66Rxx (my-d move)		√3)	√3)	√3)	√3)	√3)		√3)				
	Topaz				√	√	√		√					
	HID iCLASS SEOS						√20)		√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)				
		CTS				√	√	√		√10)				
		Pico Pass			√1)	√4)	√4)	√4)		√4)				
		SRI4K, SRIX4K			√	√	√	√		√				
	ISO18092/ ECMA-340	SRI512, SRT512				√	√	√		√				
		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)	√10)	√1)
		HID iCLASS SE/ SR/ Elite			√1)	√1)	√1)	√10)		√10)	√1)	√10)	√10)	√1)
		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														

Frequency	Classification	Card Module Abbreviation	[DF]	[SFMH]	[NO]	[NP]	[NI]	[NPL]	[NIH]	[RNP]	[RNI]	[RNIB]	[RNPB]
		Compatible Readers	EP10C/ EP20C/ EP20CK/ EP20CKQ/ EP20CKQ2/ EP20ENC/ EP30 Series	EP10C/ EP20C/ EP20CK/ EP20CKQ/ EP20CKQ2/ EP20ENC/ EP30 Series/ VG10CKQ*	EP10C/ EP20ENC	EP10C/ EP20ENC	EP10C/EP20CQ/ EP20CKQ/ EP20ENC EP30 Series	EP10C	EP10C	OmniAC20/ OmniAC30/ EP20CQ1/ EP20CKQ1/ EP30 Series/ VG10CKQ*	OmniAC20/ OmniAC30/ EP20CQ1/ EP20CKQ1/ 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)	√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)	√9)				
		ICT			√8)	√8)	√8)	√8)	√8)				
		IDTECK			√	√	√	√	√				
		Indala				√	√	√	√				
		ioProx				√	√	√	√				
		ISONAS			√	√	√	√	√				
		Keri			√	√	√	√	√				
		Miro			√	√	√	√	√				
		Nedap			√6)	√6)	√6)	√6)	√6)				
		Nexwatch				√	√	√	√				
		Pyramid			√	√	√	√	√				
	Q5			√	√	√	√	√					
	T5557, T5567, T5577			√	√	√	√	√					
	TITAN (EM4050)			√	√	√	√	√					
	UNIQUE			√	√	√	√	√					
	ZODIAC			√	√	√	√	√					
2.4GHz		BLE										Y*	Y*
	Availability	Globally Available 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	Y	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.

The final interpretation of this data sheet belongs to Armatura LLC.

All information regarding the card formats supported by the RFID card modules are claimed by the provider(s) of the card modules. Armatura LLC accepts no liability.

# ARMATURA

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