

## Explorer Series - EP10C

### All Weather Outdoor Multi-tech Smart Reader

- Advanced Security Architecture
- Supports Over 100 RFID Credential Types

 **Bluetooth™**  **OSDP™**  **NFC**



#### Multi-tech RFID & Mobile Credential

The EP10C reader series is one of the most compact multi-tech RFID readers in the market, which supports over 100 RFID card types and both mobile NFC and Bluetooth (Low Energy) and is suited for mullion-mount door installations or any flat surface mounting. Optional single-gang & Asian / European / Single-gang box spacing are available for all kinds of installation environments.



#### Supports Multi-card Types

Supports over 100 RFID card types in standard package with varies 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 situation.



#### Advanced Secure Communication Design

Secure communication: OSDP (v2.2 Secure channel) over RS-485 communication between EP10C reader and control panel. Complies with AES-128 standards to prevent against interleaving and replay attacks. Complies with AES256 encryption standards between mobile (NFC (Andriod OS Only)/ Bluetooth) and reader communication.

Secured Data Storage: Certified EAL6+ encryption chips to enhance data protection performance to the highest security level.



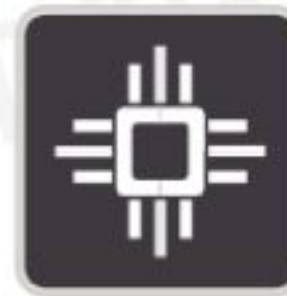
#### IP68 Water & Dustproof Protection Level

Certified IP68 Water & Dustproof levels represent that the readers can withstand dust, dirt, sand, and are resistant to submersion up to a maximum depth of 3.3ft/ 1.5m underwater for up to thirty minutes.



#### IK10 Physical & Environmental Protection

Certified IK10 Vandal-proof rating enables protection from multiple attacks up to 20 joules.



#### Anti-SPA/ DPA/ EMA/ DEMA Attack

Effectively prevents external malicious attacks and protects all communications & data.



#### Safety Standard of UL746C (F1) and Housing Material Meets UL 94V-0 Standard

Ability to work in both indoor & outdoor environments. UL 94V-0 standard ensures burning combustion is not sustained for more than 10 seconds after applying a controlled flame.



#### Advanced Security

The Armatra design team is dedicated to ensuring the Explorer Series reaches the highest security expectations.

Explorer Series readers support 2 mobile identification modes when used with the Armatra ID mobile app.



#### Card Mode

Present your smartphone to the reader like an access card



#### Remote Mode

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

## Key Features

### Mobile Credential Capability

The Armatura ID mobile app offers a consistent user experience across iOS & Android platforms. Opening doors by simply presenting your smartphone to the reader. Supports both NFC (Android OS Only) and Bluetooth communication methods, extending mobile access functions to almost all smartphone users.



### Compact Mullion Mount Design with Optional Gang Box

Mullion mount design suits most architectural and interior designs. Optional gang box covers all installation environments.



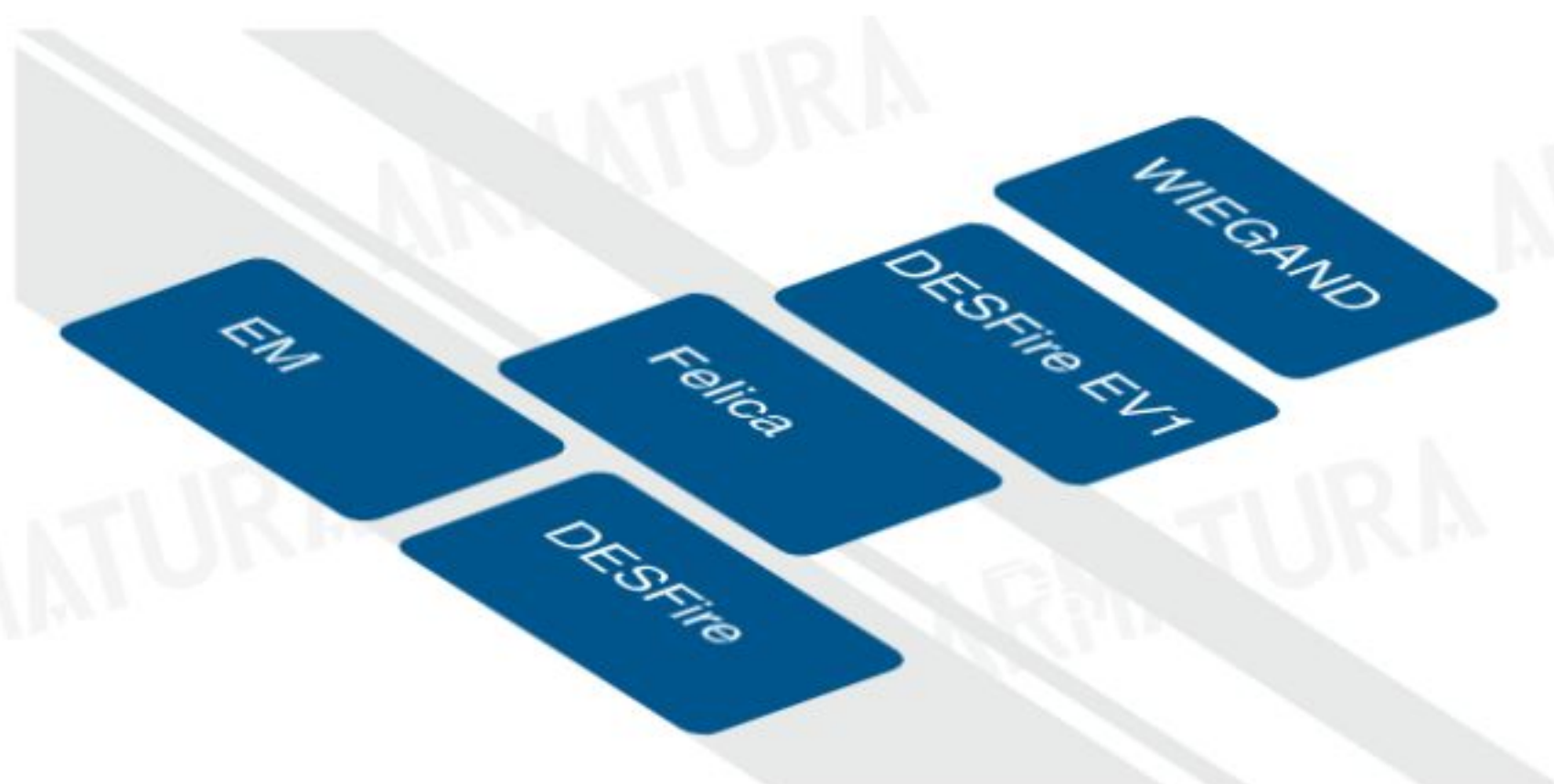
### Enhanced Cybersecurity

Open Supervised Device Protocol (OSDP) supports communication between control panel and reader. Guarantees advanced data protection using certified crypto chips with EAL6+ certified. Supports AES128 end-to-end encryption between control panel and reader, ensuring all communications are under secure.



### Supports Multi-tech Reading

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



### Ultimate Protection (IP68 & IK10 & UL94-V0)

IK10 Vandal-proof and IP68 Water & Dustproof protection levels enable operation under any installation environment. IK10 vandal-proof protection level enhances protection ability against malicious physical attacks. -30°C to 70°C / -22°F - 158°F operating temperature enables operation under extreme weather conditions. UL 94V-0 standards for flammability ensures burning combustion is not sustained for more than 10 seconds after applying a controlled flame.



## Dimensions of Mullion and Single-Gang box cover



## Specifications

Internal Number	EP10C
Operating Frequency / Standards	125 kHz 13.56 MHz: ISO14443 types A & B, ISO15693 2.4 GHz Bluetooth®
Functions	RFID and Bluetooth®
Communications & Panel Connection	Wiegand OSDP (v2.2) via RS-485 (Up to 128bits SCP Secure Communication)
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
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	-22°F - 158°F / -30°C to 70°C
Dimensions	Standard Cover: 1.89" W x 4.52" H x 0.97" D (48 x 114.8 x 24.7mm) Gangbox Cover: 3.00" W x 4.84" H x 0.97" D (76.2 x 123.0 x 24.7 mm)
Tamper Switch	Magnetic tamper detection system
Certifications	CE, FCC, RoHs3.0, WEEE
Mounting	Suited for mullion-mount door installations or any flat surface mounting Optional Asian / European / single-gang-box back-box spacing
Protection / Resistance	Weather & Dust Proof Protection Rating compliant with IP68 Reinforced Vandal-proof Structure IK10 certified
UV Stability	Nil structural degradation for the life of the reader in 3 years
Housing Material	Polycarbonate UL94-V0 & UL746C (F1)

### Remarks

\*\*Standard version provides "Read only" function. Customization is required for "Read & Write" function.

\*This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>)

Frequency	Classification	Card Module Abbreviation	[DF]	[SFMH]	[NO]	[NP]	[NI]	[NPL]	[NIH]	[RNP]	[RNI]	
		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	EP10C	EP10C	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ VG10CKQ*	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ VG10CKQ*	
13.56MHz	ISO14443A	LEGIC Advant		√	√1	√1	√1		√1			
		MIFARE Classic, Mini S50,S70	√4	√	√	√	√		√	√4)	√4)	
		MIFARE Classic EV1	√4	√2	√2	√2	√2	√2		√2	√4)	√4)
		MIFARE DESFire Light		√8	√8	√8	√8	√8		√8	√4)	√4)
		MIFARE DESFire EV1	√4	√	√	√	√	√		√	√4)	√4)
		MIFARE DESFire EV2/ EV3	√4	√13	√13	√13	√13	√13		√13	√4)	√4)
		MIFARE Plus S, X		√	√	√	√	√		√	√4)	√4)
		MIFARE Smart MX		√3	√3	√3	√3	√3		√3	√4)	√4)
		MIFARE Ultralight		√	√	√	√	√		√	√4)	√4)
		MIFARE Ultralight C		√	√	√	√	√		√	√4)	√4)
		MIFARE Ultralight EV1		√2	√2	√2	√2	√2		√2	√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)
	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, SR1X4K			√	√	√	√		√		
	ISO18092/ ECMA-340	SRI512, SRT512			√	√	√	√		√		
		Sony FeliCa			√5	√5	√5	√5		√5	√1	√1
	ISO15693	EM4x33			√3	√3	√3	√3		√3		
		EM4x35			√3	√3	√3	√3		√3		
		HID iCLASS			√1)	√1	√1	√10)		√10	√1	√10
		HID iCLASS SE/ SR/ Elite			√1)	√1	√1	√10)		√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**

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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)
		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			√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			√	√	√	√	√			
	Availability	Globally Available	Y	Y				Y	Y	Y	Y
		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				

√) 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 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.

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