ARMATURA

Vanguard Series - VG10CKQ

All-Weather Outdoor Multi-Tech Smart Reader

- Designed for Advanced Security
- Supports Over 100 RFID Credential Types
- Touch Keypad / QR Code Scanner

Bluetooth OSDP NFC QR CODE

MOBILE READY

Slim Design & Modern Design

The VG10 reader is a cutting-edge device designed with a slim profile and tailored for mullion mount installation. This sleek design is well-suited for most architectural and narrow doorframes, providing an unobtrusive and seamless integration. The VG10 reader boasts a durable metal enclosure infused with a tempered glass panel, ensuring sturdiness and elegance in one package. Its modern and refined aesthetics allow it to seamlessly blend into any environment, making it the ideal choice for various usage scenarios.

LED Programmability: Unlocking Enhanced Flexibility and Interactive Experiences (Coming Soon)

Experience limitless possibilities with our customizable programmed LED lights, offering an extensive range of colors and display styles for diverse scenarios. Ideal for businesses, these programmable LEDs create an interactive and immersive experience for any occasion. With open, high-level customization options, embark on a journey of unparalleled interactivity, unlocking the full potential of LED lights to elevate your interactive experiences to new heights.

Unrivaled Strength, Durability, and Aesthetics

The VG10 series features a robust stainless steel frame that outperforms aluminum alloy and plastic in strength and durability. Its exceptional corrosion and oxidation resistance make it perfect for challenging environments, including coastal regions, medical facilities, food processing plants, and chemical factories.
Moreover, the stainless steel construction adds a touch of contemporary elegance, elevating the product with a premium aesthetic. Experience the seamless fusion of structural performance and upscale style.

Advanced Security

At Armatura, our dedicated design team ensures the Vanguard Series exceeds the highest security expectations.

Compact RFID Reader with Touch Keypad

The VG10 is a compact and versatile multi-tech RFID solution. With support for 100+ RFID card types, mobile NFC, and Bluetooth (Low Energy), it adapts seamlessly to diverse installation environments. Additionally, its embedded touch keypad offers users the flexibility to opt for password authentication, catering to individual preferences.

Multi-tech Card & Mobile Credentials

Experience unmatched versatility with our VG10. Supporting over 100 RFID card types, including optional modules offering more than 10 secure RFID protocols. With seamless integration of Armatura mobile credentials via Bluetooth, our solution caters to a wide array of user needs, providing high flexibility for multi-card scenarios.

Designed for Advanced Security

The VG10 series reader uses OSDP (v2.2 Secure Channel) over RS-485 communication, offering protection against interleaving and replay attacks through AES-128 encryption. For mobile (NFC (Android OS Only) / Bluetooth) and reader communication, AES256 encryption standards are strictly adhered to, further enhancing the level of data security.

Secured Data Storage: Certified EAL6+ encryption

Advanced encryption elevates data protection to the highest security level.

Protection Against SPA/ DPA/ EMA/ DEMA Attacks

Protects against external malicious attacks and safeguards all communication and client data.

Superior Protection Level: IP66 and IK07

Certified with IP66 Water & 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.

Versatile Mobile Identification with Vanguard Series Readers and Armatura 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 Armatura ID app

QR Code Mode
Present your QR Code and get access

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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 or scanning a QR code. 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.

Compact Design with Touch Keypad & QR Code Scanner Options

Experience seamless compatibility with mullion mount installation, ideal for various architectural settings. Enjoy the flexibility of atouch keypad for password authentication, along with a QR code scanner for recognizing static and dynamic QR codes.

Enhanced Security

Ensure secure communication with the support of OSDP (Open Supervised Device Protocol) between control panels and readers. Advanced data protection is achieved through certified crypto chips with EAL6+ certification. AES128 end-to-end encryption guarantees that all communications between the control panel and reader remain fully secure.

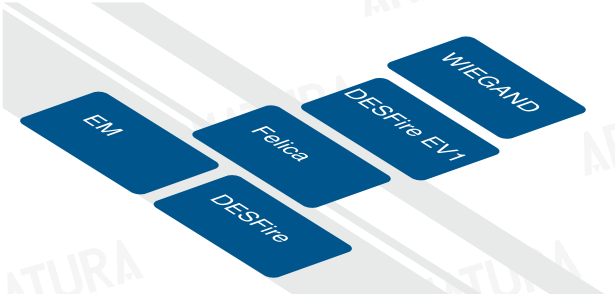
OSDP™

Ultimate Protection (IP66 & IK07)

With IK07 Vandal-proof and IP66 Water & Dustproof protection, the VG10 series is designed to operate efficiently in any installation environment. The IK07 Vandal-proof level enhances its ability to withstand malicious physical attacks, ensuring robust security.

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.



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Key Features

Compact RFID Reader with Touch Keypad

Enhanced flexibility with embedded touch keypad for user authentication.

Unlocking Enhanced Flexibility and Interactive Experiences with LED Programmability* (Coming Soon)

Discover the versatility of our customizable LED lights, offering a wide range of colors and display styles to suit diverse scenarios. With programmable LEDs, you can enjoy an interactive solution, enriched with high-level customization options. Elevate interactive experiences to new heights with our readers and unleash the true potential of LED lights.

Unrivaled Strength, Durability, and Aesthetics

The VG10 series features a robust stainless steel frame that outperforms aluminum alloy and plastic in strength and durability. Its exceptional corrosion and oxidation resistance make it perfect for challenging environments, including coastal regions, medical facilities, food processing plants, and chemical factories.

Moreover, the stainless steel construction adds a touch of contemporary elegance, elevating the product with a premium aesthetic. Experience the seamless fusion of structural performance and upscale style.

Dimensions

Specifications

Internal Number	VG10CKQ	
Operating Frequency / Standards	125 kHz 13.56 MHz: ISO14443 types A & B, ISO15693 2.4 GHz Bluetooth ®	
Functions	RFID, Bluetooth ® and QR code	
Keypad	Touch Keypad	
QR Code Scanner	Supported	
QR Code Scanning Pattern	Area image (640*480 pixel array)	
QR Code Scan Angle	Horizontal: 68°/ Vertical: 51°	
QR Code Capability	One-Dimensional Code: Code 128, Code 39, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, Code 93, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, Plessey, MSI-Plessey Two-Dimensional Code: QR Code, Micro QR	
QR Code Scanning Performance*	Narrow Width	Depth of Field
	9mil (QR)	1.5”-2.5” (40mm-65mm)
	15mil (QR)	0.3”-4.3”(10mm-110mm)
	20mil (QR)	0.5”-4.5”(15mm-115mm)
	6mil (Code128)	1.7”-3.7”(45mm-95mm)
	9mil (Code128)	0.9”-5.1”(25mm-130mm)
	15mil (Code128)	0.9”-6.1”(25mm-155mm)
	20mil (Code128)	1.7”-5.5”(45mm-140mm)

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	-4°F - 122°F /-20°C~50°C
Dimensions	4.78" W x 1.77" H x 0.96" D (121.5 x 45 x 24.5mm)
Tamper Switch	Magnetic tamper detection system
Certifications	CE, FCC, RoHs3.0, WEEE, UL294(Coming Soon)
Mounting	Suited for mullion-mount door installations or any flat surface mounting
Protection / Resistance	Weather & Dust Proof Protection Rating compliant with IP66 Reinforced Vandal-proof Structure IK07 certified

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/)
QR scanning performance was tested in a laboratory environment, and the luminance was recorded as 250 Lux.

ARMATURA RFID Card Module Supporting List

ArmaSec-13112023

		Card Module Abbreviation	[DF]	[SFMH]	[NO]	[NP]	[NI]	[NPL]	[NIH]	[RNP]	[RNI]
Frequency	Classification	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)	√4)	√4)
		MIFARE DESFire Light		√8)	√8)	√8)	√8)		√8)	√4)	√4)
		MIFARE DESFire EV1	√4)	√	√	√	√		√	√4)	√4)
		MIFARE DESFire EV2/ EV3	√4)	√13)	√13)	√13)	√13)		√13)	√4)	√4)
		MIFARE Plus S, X		√	√	√	√		√	√4)	√4)
		MIFARE Smart MX		√3)	√3)	√3)	√3)		√3)	√4)	√4)
		MIFARE Ultralight		√	√	√	√		√	√4)	√4)
		MIFARE Ultralight C		√	√	√	√		√	√4)	√4)
		MIFARE Ultralight EV1		√2)	√2)	√2)	√2)		√2)	√4)	√4)
		NFC (NTAG2xx)	√		√	√	√		√		
		SLE44R35		√3)	√3)	√3)	√3)		√3)		
		SLE66Rxx (my-d move)		√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, SRIX4K		√	√	√	√		√		
		SRI512, SRT512			√	√	√		√		
	ISO18092/ ECMA-340	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)			
		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)			
		ICT			√8)	√8)	√8)	√8)			
		IDTECK			√	√	√	√			
		Indala				√	√	√			
		ioProx				√	√				
		ISONAS			√	√	√	√			
		Keri			√	√	√	√			
		Miro			√	√	√	√			
		Nedap			√6)	√6)	√6)	√6)			
		Nexwatch				√	√	√			
		Pyramid			√	√	√	√			
		Q5			√	√	√	√			
		T5557, T5567, T5577			√	√	√	√			
		TITAN (EM4050)			√	√	√	√			
		UNIQUE			√	√	√	√			
		ZODIAC			√	√	√	√			
		Globally Available		Y				Y	Y	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	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

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