

Creating a Vision

for Smart Life

SOYAL[®]
ACCESS & INDUSTRIAL CONTROL



ACCESS & INDUSTRIAL CONTROL





Graphic Display Multi-Function Proximity Controller - AR-837-E / EE



Graphic Display Multi-Function Proximity Controller - AR-837-ER



Graphic Display Proximity / QR Code Controller - AR-837-EL



LCD Card Energy Saver - AR-837-W



RFID LCD Fingerprint Access Controller - AR-837-EF3DO/9DO



Graphic Display Multi-Function Proximity Controller - AR-837-EA/EA-T



Proximity Reader	125kHz : EM
	13.56MHz:Mifare ISO14443A / NFC / DESFire / Felica / ISO15693
	WG 24-34 / WG 24-66 / ABAll / RS485 / RS232 / USB
Controller	125kHz : EM
	13.56MHz:Mifare ISO14443A / NFC / DESFire / Felica / ISO15693
	User Capacity : 1,024 / 3,000 /16,000 /32,000 / 65,000
	DI/DO:Engress/ Door State /Arming input / Arming Output / Alarm Output /Duress Output / Security Output / Door Bell
	RO: Door Relay / Alarm Relay
Push Button	Touchless Infrared / Relay Output(COMN.O./N.C.)
Communication	RS-485 / TCP/IP / UART / POE / QR Code

Scale 1:1.2

Graphic Display Multi-Function Proximity Controller

AR-837-E / AR-837-EE



Web



Youtube(837-E)

Dimension (mm)

837-E:128(H)X94(W)X40/25(D)

837-EE:128(H)X147(W)X40/25(D)

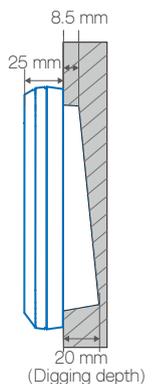
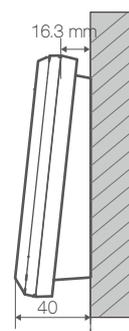
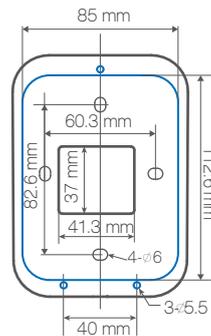
Color

Black

Silver



Installation



- Surface mounting hole
- Surface mounting
- Flush mounting
- Flush mounting hole

※ AR-837-EE Installation Diagram refer to next page.

Scale 1:1

Graphic Display Multi-Function Proximity Controller

AR-837-EA

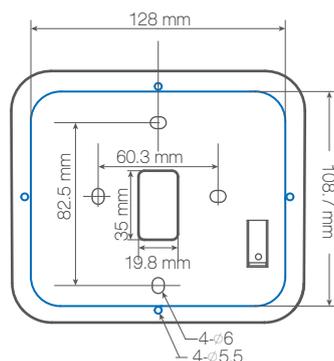


Web

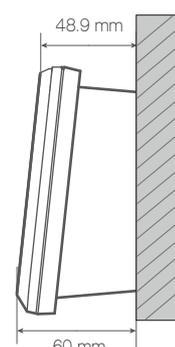
Dimension (mm) 128(H)X147(W)X40/25(D)

Installation

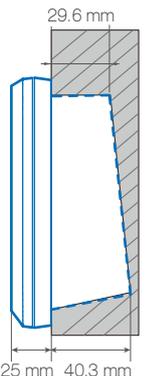
Color



- Surface mounting hole
- Flush mounting hole



- Surface mounting



- Flush mounting

Scale 1:1

Graphic Display Multi-Function Proximity Controller

AR-837-EL



Web



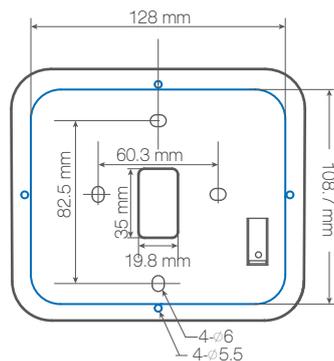
Youtube

Dimension (mm) 128(H)X147(W)X40/25(D)

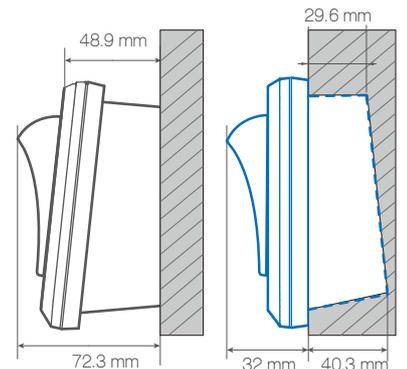
Installation

Color

Black



- Surface mounting hole
- Flush mounting hole



- Surface mounting
- Flush mounting

Scale 1:1

LCD Card Energy Saver

AR-837-W



Web



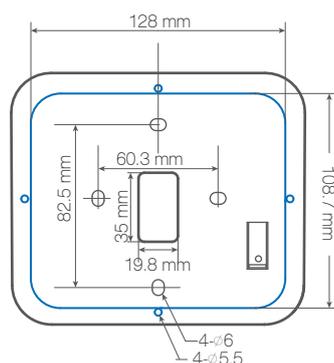
Youtube

Dimension (mm)

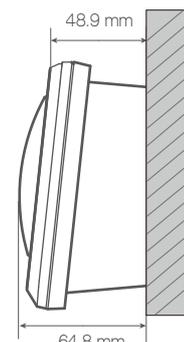
128(H)X147(W)X40/25(D)

Installation

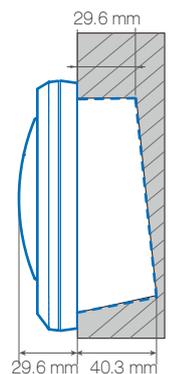
Color



- Surface mounting hole
- Flush mounting hole



- Surface mounting



- Flush mounting

Scale 1:1.2

RFID LCD Fingerprint Access Controller

AR-837-EF9DO



Web



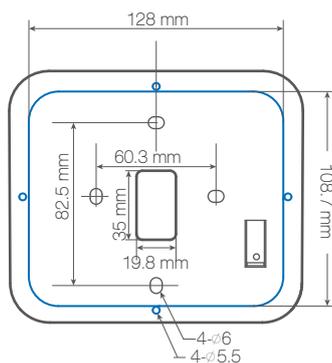
Youtube

Dimension (mm)

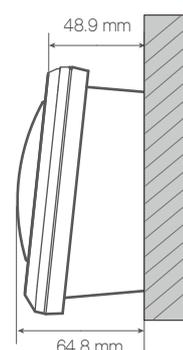
128(H)X147(W)X40/25(D)

Installation

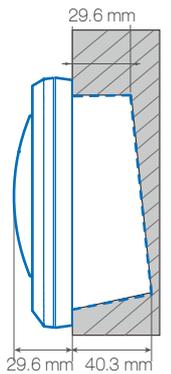
Color



- Surface mounting hole
- Flush mounting hole



- Surface mounting



- Flush mounting

Scale 1:1

Graphic Display Multi-Function Proximity Controller

AR-837-ER



Web



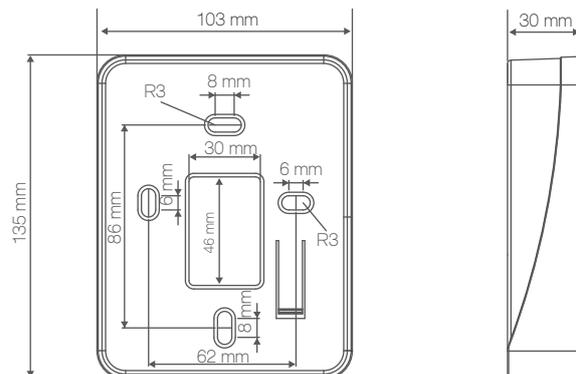
Youtube

Dimension (mm)

137(H)x107(W) x30(D)

Installation

Color



• Surface mounting hole

• Surface mounting hole

SPECIFICATION

● STANDARD ○ OPTIONAL BY ORDER ✕ TWO E External

B: 125Khz / D: 13.56Mhz / S: Dual Band

Model No.			837-E/EE			837-EL			837-W/P			837-EA			837-EF9FO			837-ER				
			B	D	S	B	D	S	B	D	S	B	D	S	B	D	S	B	D	S		
Proximity Reader	Communication Interface	Output Selection	WG 24-34																			
			WG 26-64	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
			RS485	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
			RS232																			
			USB																			
			ABA-II	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	●
Frequency	125kHz	EM	EM	●		●	●		●		●		●	●	●	●		●		●		
			ISO14443		●	●		●	●		●		●	●	●	●		●	●		●	
			*13.56 MHz	Crypto		AES	AES		AES	AES		AES		AES	AES		AES	AES		AES	AES	
			ISO15693		●	●		●	●		●		●	●		●	●		●	●		●
Controller	Communication	Host	RS-485	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●		
			TCP/IP	○	○	○	○	○	○		○		○	○	○	○	○	○	○	○	○	
			POE	○	○	○	○	○	○		○		○	○	○	○	○	○	○	○	○	
		Serial	UART PORT	✕	✕	✕	✕	✕	✕		✕		●	●	●	●	●	●	●	●	●	
			WG Interface	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
	Frequency / UID Bits	125kHz	EM	EM	32		32	32		32		32		32	32		32	32		32		
				ISO14443		64	64		64	64		64		64	64		64	64		64	64	
				*13.56 MHz	Crypto		AES	AES		AES	AES		AES		AES	AES		AES	AES		AES	AES
				ISO15693		64	64		64	64		64		64	64		64	64		64	64	
	DI/DO	DI	Egress	✕	✕	✕	✕	✕	✕		✕		✕	✕	✕	✕	✕	✕	✕	✕	✕	
			Door State	✕	✕	✕	✕	✕	✕		✕		✕	✕	✕	✕	✕	✕	✕	✕	✕	
			Door Bell	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
		RO	Door Lock Relay	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
			Alarm Relay	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
		DO	Door Bell Output	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
			Security Output	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	
Arming Output			●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●		
Duress Output	●	●	●	●	●	●		●		●	●	●	●	●	●	●	●	●	●			
Fingerprint / Face Capacity									300			1500 FP(3DO) 9000 FP (9DO)										
Doors / Floors Number			2/64			2/64			2/64			2/64			2/64							
User Capacity			16000			16000			16000			16000			16000							
Event Log			32000			32000			32000			32000			32000							
RF Reading Range			5-15 cm	2-5 cm	2-15 cm	5-15 cm	2-5 cm	2-15 cm	5-15 cm	2-5 cm	2-15 cm	5-15 cm	2-5 cm	2-15 cm	5-15 cm	2-5 cm	2-15 cm	5-15 cm	2-5 cm	2-15 cm		
QR code Reading Range (Adjust according to QR code size)						5-20 cm																
Others	Tamper Switch		●			●			●			●			●			●				
	Tamper Output		●			●			●			●			●			●				
	WG In Port		●			●			●			●			●			●				
	WG Out Port		●			●			●			●			●			●				
	Buzzer		●			●			●			●			●			●				
	QRCode		●			●			●			●			●			●				
Dimension(mm)			133(H)x94(W) x40(D)/25(D)						128(H)x147(W)x65(D)/30(D)						137(H)x107(W)x30(D)							
Weight(g)			approx. 395			approx. 320			approx. 395			approx. 340			approx. 320			approx. 255				
Power Consumption									<5W													
Power Voltage									9~24VDC													
Ingress Protection			IP65			IP65			IP65			IP65			IP65			IP66				
Environment	Operating Temperature			Storage Temperature			Operating Humidity			Storage Humidity												
	-20 ° C to +60 ° C			-25 ° C to +70 ° C			20% ~ 90%			5% ~ 95%												

* 13.56MHz Support ISO1443 Mifare Ultralight / Classic / Plus / DESFire / - EV1/ EV2
 ISO15693 and Felica (IP-Based Controllers Support)
 CC Certification : 3DES Crypto comply with EAL4+ ; AES Crypto comply with EAL5+

▶ WHAT TO EXPECT



Double Relay

Alarm and Lock relay: checked!
Does not require any additional output relay.



Energy Saver

Insert your card and let it be! It will only consume small amount of energy.



Door Bell

Ding Dong! It is built-in doorbell function.



Quality in Color

You can either select your controller to be all-black or black-silver combination.



Complete Indicator

Built-in total indicator for power, alarm, arming, access granted or denied, and processing indicator.



Suitable for Extended Function

Due to its big size, any external module or function required can be easily installed to the board.

▶ APPLICATION



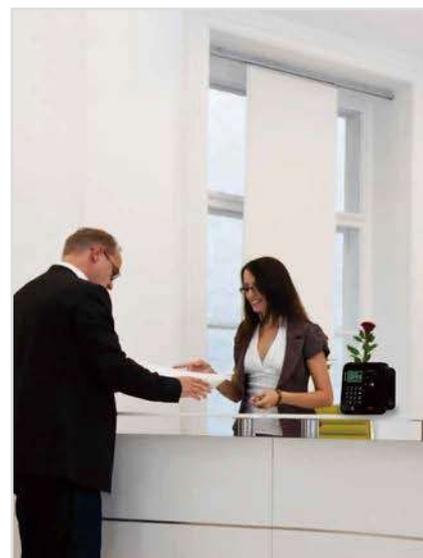
Mailbox Management System

Get notified when mailbox has received mails or package when you swipe card to the mailbox management controller or via graphic control (SCADA) on Soyal software.



Rental Facilities: Shared Public Space

Create your own prepaid card via Enrollment Programmer Series and Software Mifare SOR tools and voila, user can now use the balance stored for any rental facilities.



Visitor Management Center

QRCode controller is the most suitable for visitor management center whose access is temporary and increased confidentiality.

Iron Series

Strong and hard.
Feel safe and sound with Soyal Iron Series wherever you are.



SOYAL[®]

-  Metal Access Controller / Reader - AR-321-H/K/U
-  Vandal Resistant Proximity Controller- AR-363-E
-  Metal LCD Access Controller - AR-327-E
-  Smart Digital Door Lock - AR-323-D



Proximity Reader	125kHz : EM 13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) WG 24-34 / WG 24-64 / ABAll / RS485 / RS232 / USB
Controller	125kHz : EM 13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) User Capacity: 1,024 / 3,000 /16,000 /32,000 / 65,000 DI/DO:Engress/ Door State /Arming input / Arming Output / Alarm Output /Duress Output / Security Output / Door Bell RO: Door Relay / Alarm Relay
Push Button	Touchless Infrared / Relay Output(COMN.O./N.C.)
Communication	RS-485 / TCP/IP / UART / POE / QR Code

Scale 1:1

Metal LCD Access Controller

AR-327-E



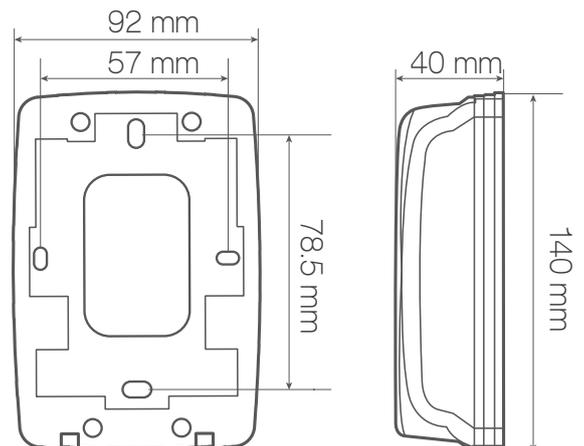
Web



Youtube

Dimension (mm) 140(H)X92(W)X40(D)

Installation



Color



Scale 1:1

Metal Access Controller / Reader

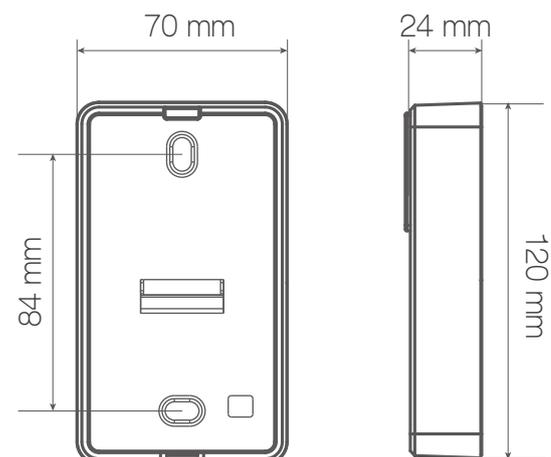
AR-363-E



Web

Dimension (mm) 120(H)X70(W)X25.7(D)

Installation



Color

Champagne Gold



Scale 1:1

Metal Access Controller/Reader

AR-321-H/K/U



Web(321-H)



Web(321-K)



Web(321-U)



Youtube

Dimension (mm) 114(H)X78(W)X33(D)

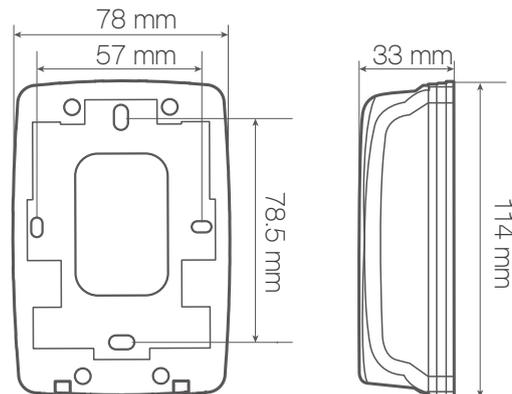
Installation

Color

Silver



Silver



Scale 1:2

Smart Digital Door Lock

AR-323-D



Web

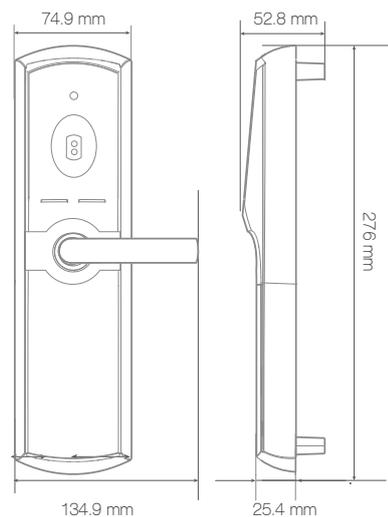
Dimension (mm) 276(H)X75(W)X53(D)

Color

Black



Installation



SPECIFICATION

● STANDARD ○ OPTIONAL BY ORDER ×2 TWO E EXTERNAL

B: 125Khz / D: 13.56Mhz / S: Dual Band

Model No.			321-U		321-K		321-H		363-E			327-E			323-D			
			B	D	B	D	B	D	B	D	S	B	D	S	D			
Proximity Reader	Communication Interface	Output Selection	WG 24-34	●	●	●	●											
			WG 24-66															
			RS485		●		●											
			RS232	○	○	○	○											
			USB															
			ABA-II	●	●	●	●											
Frequency	125kHz	EM	EM	●	●	●	●		●	●	●	●	●	●				
			ISO14443		●		●		●		●	●		●	●			
			*13.56 MHz	Crypto														
			ISO15693								●	●		●	●			
Controller	Communication	Host	RS-485					●	●	●	●	●	●	●	●			
			TCP/IP							○	○	○	○	○	○			
			POE								○	○	○	○	○			
		Serial	UART Port					Output only	Output only	×2	×2	×2	×2	×2	×2	×2		
			WG Module					○	○	○	○	○	○	○	○	○		
	Frequency / UID Bits	125kHz	EM	EM					32		32		32	32		32		
				ISO14443						32		64	64		64	64	32	
				*13.56 MHz	Crypto						32		64	64		64	64	32
				ISO15693									64	64		64	64	
	DI/DO	DI	Egress	Door State					●	●	×2	×2	×2	×2	×2	×2		
				Door Bell					Use #	Use #								
				Door Lock Relay					●	●	●	●	●	●	●	●	●	
		RO	Alarm Relay					●	●	●	●	●	●	●	●	●		
				Common Alarm PIN					E	E								
		DO	Door Bell Output	Security Output				●	●	●	●	●	●	●	●	●		
Arming Output								●	●	●	●	●	●	●	●			
Duress Output								●	●	●	●	●	●	●	●			
Doors / Floors Number								1.5 / 32		2		2						
User Capacity								3000		16000		16000		1024				
Event Log								1500		32000		32000		1100				
RF Reading Range			3-7 cm	1-3 cm	3-7 cm	1-3 cm	3-7 cm	1-3 cm	3-5 cm	24 cm	25 cm	3-7 cm	1-3 cm	1-7 cm	0~2cm			
Extend Port	Tamper Switch		●					●		●		●						
	Tamper Output		●					●		●		●						
	WG In							●		●		●						
	WG Out		●							●		●						
	Buzzer		●					●		●		●						
	QRCode													●				
Dimension(mm)			114(H)X78(W)X33(D)						120(H)X70(W)X25.7(D)			140(H)X 92(W)X40(D)			276(H)X75(W)X53(D)			
Weight(g)			approx.290						approx.300			approx.430			approx.1940			
Power Consumption			<1W		<1W		<3W		<5W			<5W			<150MA			
Power Voltage			9~24VDC															
Battery Life																		
Opening Method															LH/LHR/RH/RHR			
Door Thickness															40mm-80mm options			
Ingress Protection			IP56		IP56		IP56		IP66			IP56						
Enviroment			Operating Temperature			Storage Temperature			Operating Humidity			Storage Humidity						
			-20 °C to +70 °C			-40 °C to +75 °C			0% ~ 90%			0% ~ 95%						

* 13.56MHz Support ISO1443 Mifare Ultralight / Classic / Plus / DESFire / - EV1/ EV2
 ISO15693 and Felica (IP-Based Controllers Support)
 CC Certification : 3DES Crypto comply with EAL4+ ; AES Crypto comply with EAL5+

► WHAT TO EXPECT



Anti-Vandalism

Security increased because of strong and sturdy full metal housing for anti-vandalism.



Waterproof

IP 56 / 66

Solid particle protection: dust protected
Liquid protection: powerful water jets (12.5 mm nozzle)



Illuminated Touch Panel

Built-in illuminated touch panel for more sleek and high quality design.



**Mechanical key override
AR-323-D**

It can be unlocked with a mechanical key for Emergency



Background Light

Made with white background light, enhance the quality and appearance even in darker place.



**Easily card registration
by master card
AR-323-D**

Support registering 100pcs user card by Master card

► APPLICATION



Anti-Vandalism Guard

Anti-Vandalism metal housing design is recommended for Anti-Vandalism environment with higher level security protection such as in safe box.



Access Control & Time Attendance in Harsh place

Strong Zinc Alloy casing with Anti-explosion design is suitable for the harsh place such as in oil company or gas station to manage staffs' access and time attendance.



Smart Access in Apartment

Easy installation and convenient operation for the residents to access by swiping RFID card or pressing private PIN Code in room.

Slim Series

Silver and Slim.

Soyal Slim Series offer you the slimmest yet elegant controller you have ever seen.





Fingerprint Controller - AR-331-EF



Touch Keypad IP Access Controller - AR-331-E



Touch Keypad Access Controller - AR-331-H



Touch Keypad Proximity Reader / Proximity Reader - AR-331-K/U



Proximity Reader	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation)
	WG 24-34 / WG 24-66 / ABAIL / RS485 / RS232 / USB
Controller	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation)
	User Capacity : 1,024 / 3,000 /16,000 /32,000 / 65,000
	DI/DO:Engress/ Door State /Arming input / Arming Output / Alarm Output /Duress Output / Security Output / Door Bell
	RO: Door Relay / Alarm Relay
Push Button	Touchless Infrared / Relay Output(COMN.O./N.C.)
Communication	RS-485 / TCP/IP / UART / POE / QR Code

Scale 1:1

Fingerprint Controller

AR-331-EF3DO



Web



Youtube

Dimension (mm) 158(H)X55(W)X30(D)

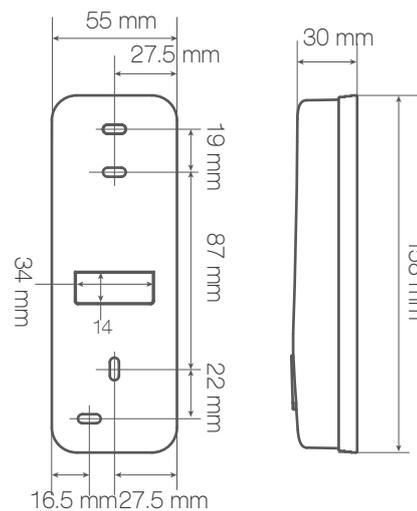
Color

Silver Silver

● ●

Housing Material PC / Zinc Alloy

Installation



Scale 1:1

Touch Keypad IP Access Controller

AR-331-E



Web



Youtube

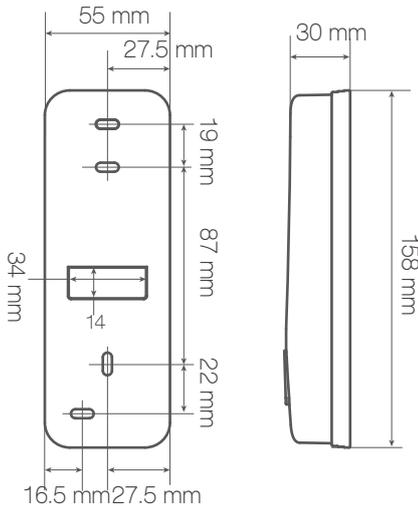
Dimension (mm) 158(H)X55(W)X30(D)

Color



Housing Material PC / Zinc Alloy

Installation



Scale 1:1

Touch Keypad Access Controller

AR-331-H



Web



Youtube

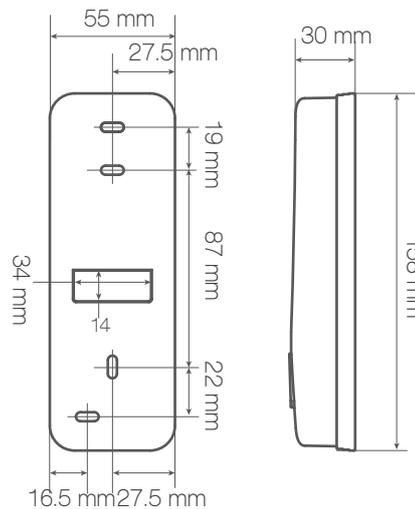
Dimension (mm) 158(H)X55(W)X30(D)

Color



Housing Material PC / Zinc Alloy

Installation



Scale 1:1

Touch Keypad Proximity Reader / Proximity Reader

AR-331-K/U



Web



Youtube

Dimension (mm) 158(H)X55(W)X30(D)

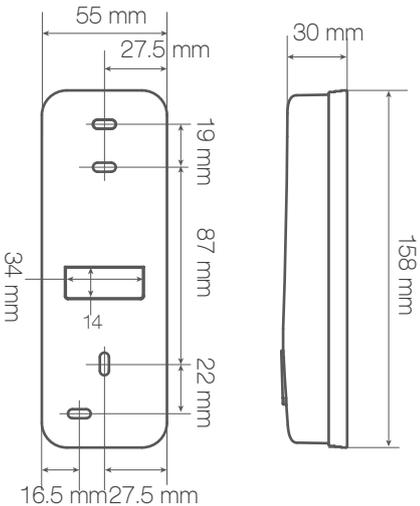
Color

Silver Silver

● ●

Housing Material PC / Zinc Alloy

Installation



SPECIFICATION

● STANDARD ○ OPTIONAL BY ORDER ×2 TWO E External
 B: 125Khz / D: 13.56Mhz / S: Dual Band

Model No.			331-U/K		331-H		331-E			331-EF3DO				
			B	D	B	D	B	D	S	B	D	S		
Proximity Reader	Communication Interface	Output Selection	WG 24-34	●	●									
			WG 24-66					●	●	●	●	●	●	
			RS485		●			●	●	●	●	●	●	
			RS232											
			USB											
			ABA-II	●	●			●	●	●	●	●	●	
Frequency	Frequency	*13.56 MHz	125kHz EM	●				●	●	●	●	●		
			ISO14443		●				●	●		●	●	
			Crypto			3DES			AES	AES		AES	AES	
			ISO15693						●	●		●	●	
Controller	Communication	Host	RS-485			●	●		●	●		●	●	
			TCP/IP					○	○	○	○	○	○	
			POE					○	○	○	○	○	○	
		Serial	UART PORT			Output only	Output only	×2	×2	×2	●	●	●	
			Wiegand Module			○	○	○	○	○	○	○	○	
	Frequency / UID Bits	Frequency / UID Bits	*13.56 MHz	125kHz EM			32		32		32	32		32
				ISO14443				32		64	64		64	64
				Crypto				3DES		AES	AES		AES	AES
				ISO15693						64	64		64	64
	DI/DO	DI	Egress			●	●	×2	×2	×2	×2	×2	×2	
			Door State			●	●	×2	×2	×2	×2	×2	×2	
			Door Bell			Use #	Use #	●	●	●	●	●	●	
			Door Lock Relay			●	●	●	●	●	●	●	●	
		RO	Alarm Relay			E	E	E	E	E	E	E	E	
			DO	Door Bell Output			Common Alarm PIN	Common Alarm PIN	●	●	●	●	●	●
				Security Output			●	●	●	●	●	●	●	●
				Arming Output			●	●	●	●	●	●	●	●
	Duress Output				●	●	●	●	●	●	●	●		
	Fingerprint Capacity										1500FP			
Doors / Floors Number					1.5 / 32		2 / 64			2 / 64				
User Capacity					3000		16000			16000				
Event Log					1500		32000			32000				
RF Reading Range			3-7cm	1-3 cm	3-7cm	1-3 cm	3-7 cm	1-3 cm	1-7 cm	3-7 cm	1-3 cm	1-7 cm		
Others	Tamper Switch		●		●			●			●			
	Tamper Output		●		●			●			●			
	WG In Port				●			●			●			
	WG Out Port		●					●			●			
	Buzzer		●		●			●			●			
Dimension(mm)			158(H)X55(W)X30(D)											
Weight(g)			approx. 245 (Zinc Alloy) approx. 140 (PC)						approx. 245 (Zinc Alloy) approx. 140 (PC)					
Power Consumption			<1W		<3W		<5W			<5W				
Power Voltage			9~24VDC											
Ingress Protection			IP56		IP56		IP65			IP65				
Environment	Operating Temperature		Storage Temperature		Operating Humidity			Storage Humidity						
	-20 ° C to +70 ° C		-40 ° C to +75 ° C		0% ~ 90%			0% ~ 95%						

* 13.56MHz | Support ISO1443 Mifare Ultralight / Classic / Plus / DESFire / - EV1/ EV2
 ISO15693 and Felica (IP-Based Controllers Support)
 CC Certification : 3DES Crypto comply with EAL4+ ; AES Crypto comply with EAL5+

▶ WHAT TO EXPECT



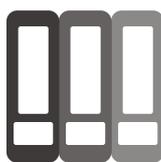
Invisible Keypad

External form's keypad will be invisible for users; only authorized personnel can activate and use keypad function.



Dual Indicator

Built-in one buzzer and two LED indicators for alarming and access granted or access denied.



Uniform Design

Get uniform design for your access controller, fingerprint controller and access reader either with keypad, without keypad, or invisible keypad.



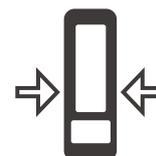
Metal VS ABS

Soyal Slim series offer you two housing material options; metal and ABS to follow your preference



Dust and Waterproof

Built-in IP 56 for AR-331H/K/U series and IP65 for AR-331E/EF series, installation in harsh weather not a problem.



Slim Design

With only 50mm width, it can be installed even in the narrowest place

▶ APPLICATION



Access in harsh weather

Anti-dust and waterproof makes it suited to install outdoor even in harsh weather.



Security Authentication

Swipe card for security authentication before activate. With only 50mm width, it can be installed even in the narrowest place.



Gas station

Anti-explosion design enabling mounted in gas station, staff reads card to activate refuelling function.

Illuminate Series

The more you see it the more you want it.
Soyal Illuminate series offer you the best-selling series ever.





Proximity Reader - AR-725-U



Touch Keypad Access Controller - AR-725-H



Touch Keypad IP Access Controller - AR-725-E



Touch Keypad Proximity Reader - AR-725-K



Proximity Reader	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) WG 24-34 / WG 24-66 / ABAll / RS485 / RS232 / USB
Controller	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) User Capacity: 1,024 / 3,000 /16,000 /32,000 / 65,000
	DI/DO:Engress/ Door State /Arming input / Arming Output / Alarm Output /Duress Output / Security Output / Door Bell
	RO: Door Relay / Alarm Relay
Push Button	Touchless Infrared / Relay Output(COMN.O./N.C.)
Communication	RS-485 / TCP/IP / UART / POE / QR Code

Scale 1:1

Proximity Reader

AR-725-U



Web



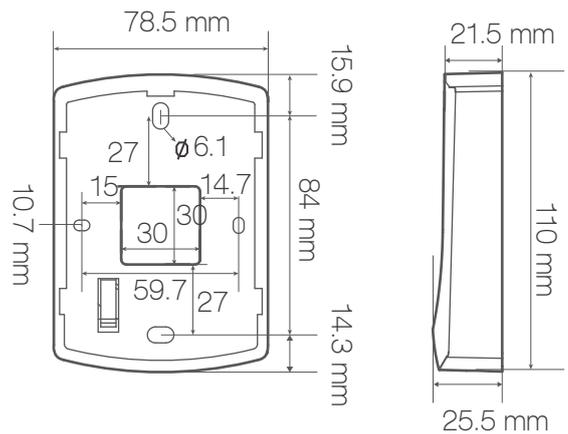
Youtube

Dimension (mm) 114(H)X78(W)X33(D)

Color



Installation



Scale 1:1

Access Controller / Proximity Reader

AR-725-E / H / K



Web(725-E)



Web(725-H)



Web(725-K)



Youtube

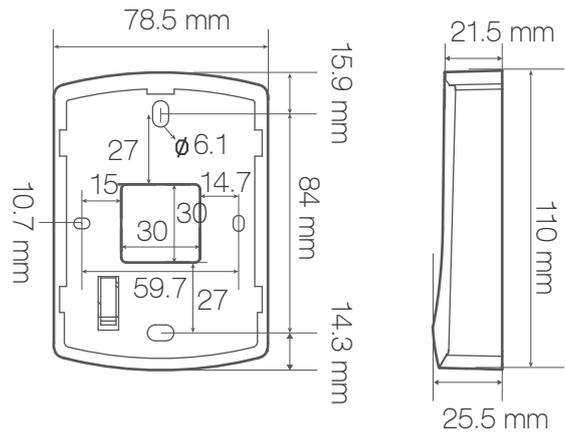
Dimension (mm)

114(H)X78(W)X33(D)

Color



Installation



SPECIFICATION

● STANDARD ○ OPTIONAL BY ORDER ×2 TWO E EXTERNAL

B: 125Khz / D: 13.56Mhz / S: Dual Band

Model No.			725-U		725-K		725-H		725-E				
			B	D	B	D	B	D	B	D	S		
Proximity Reader	Communication Interface	Output Selection	WG 24-34	●	●	●	●			●	●	●	
			WG 24-66							●	●	●	
			RS485		●		●				●	●	●
			RS232		○		●						
			USB										
			ABA-II	●	●	●	●				●	●	●
Frequency	Frequency	UID Bits	125kHz EM	●		●				●		●	
			*13.56 MHz ISO14443		●		●					●	
			Crypto		3DES		3DES				AES	AES	
			ISO15693								●	●	
Controller	Communication	Host	RS-485					●	●	●	●	●	
			TCP/IP							○	○	○	
			POE								○	○	○
		Serial	UART Port					Output Only	Output Only	×2	×2	×2	
			Wiegand Module					○	○	○	○	○	
			125kHz EM					32		32	64	64	
	Frequency / UID Bits	Frequency	UID Bits	*13.56 MHz ISO14443					32	64	64		
				Crypto					3DES	AES	AES		
				ISO15693						64	64		
				DI/DO	DI	Egress				●	●	×2	×2
	Door State						●	●	×2	×2	×2		
	Door Bell							Use #	Use #				
	RO	Door Lock Relay						●	●	●	●		
		Alarm Relay						E	E	E	E		
		DO	Door Bell Output					Common Alarm PIN	Common Alarm PIN				
	DO	Security Output						●	●	●	●		
Arming Output							●	●	●	●			
Duress Output							●	●	●	●			
Doors / Floors Number							1.5 / 32		2 / 64				
User Capacity							3000		16000				
Event Log							1500		32000				
RFID Reading Range : 725 Plastic			10-15 cm	3-8 cm	10-15 cm	3-8 cm	10-15 cm	2-8 cm	5-15 cm	2-5 cm	2-15 cm		
RFID Reading Range: 725-M Metal			5-9 cm	3-5 cm	5-9 cm	3-5 cm	5-9 cm	2-5 cm	2-9 cm	2-4 cm	2-9 cm		
Others	Tamper Switch		●		●		●		●				
	Tamper Output		●		●		●		●				
	WG In						●		●				
	WG Out		●		●				●				
	Buzzer		●		●		●		●				
QRCode													
Dimension(mm)			725:110(H)X79(W)X26(D) / 725-M :125(H)X89(W)X30(D)										
Weight(g)			725:approx. 120 / 725-M :approx. 470										
Power Consumption			<1W		<1W		<3W		<5W				
Power Voltage			9~24VDC										
Ingress Protection			IP55										
Enviroment	Operating Temperature		Storage Temperature		Operating Humidity		Storage Humidity						
	-20 °C to +70 °C		-40 °C to +75 °C		0% ~ 90%		0% ~ 95%						

* 13.56MHz | Support ISO1443 Mifare Ultralight / Classic / Plus / DESFire / - EV1/ EV2
 ISO15693 and Felica (IP-Based Controllers Support)
 CC Certification : 3DES Crypto comply with EAL4+ ; AES Crypto comply with EAL5+

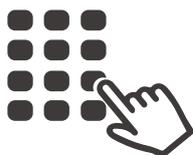
▶ WHAT TO EXPECT



Waterproof

Waterproof(IP55)

Solid particle protection: dust protected
Liquid protection: water jets (6.3 mm nozzle)



Invisible Keypad

External form's keypad will be invisible for user, only authorized personnel can activate and use keypad function.



Illuminated Touch Panel

Built-in illuminated touch panel for more sleek and high quality design.



Perfect Size and Design

Illuminate series not only as big as your palm, but the finishing sleek touch make it a perfect design for access controller



Plastic Metal

Housing Material

It is available with metal and plastic housing.



Dual-Band Frequency

AR-725-E

125kHz or 13.56MHz frequency?
Why not both!

▶ APPLICATION



Lift Control

725 controller connected with SOYAL Lift control panel can manage up to 64 floors in the lift of commercial building or apartments that allow only the employees or residents with valid card or PIN code to access for specified floors.



Access Control

Easy to get access by swiping a card or press PIN code replacing bunches of mechanical keys, the illuminated backlight can be turn on in the dark and the waterproof protection design is suitable for outside installation.



Capsule Hostel

Install 725 series outside of capsule hostel, the guest can open the capsule by pressing one time PIN obtained from the reception desk; then will find a valid card on the bed of capsule for normal access during the stay.

Onyx Series

Black, Bright, and Light
Complete your aesthetic with Soyal Onyx Series.



-  Flush-Mount Touch Keypad Access Controller/ Reader - AR-888-H/K
-  Flush-Mount Touch Keypad Reader - AR-888-U
-  QR Code Proximity Reader - AR-888-UL
-  Infrared Touchless Button - AR-888-PBI
-  Card Energy Saver - AR-888-W
-  Modbus Smart Switch - AR-888-T
-  DND&MUR Switch - AR-888-CPI / AR-888-CPO



Proximity Reader	125kHz : EM 13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) / Felica / ISO15693 WG 24-34 / WG 24-66 / ABAIL / RS485 / RS232 / USB
Controller	125kHz : EM 13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) / Felica / ISO15693 User Capacity : 1,024 / 3,000 /16,000 /32,000 / 65,000 DI/DO:Engress/ Door State /Arming input / Arming Output / Alarm Output /Duress Output / Security Output / Door Bell RO: Door Relay / Alarm Relay
Push Button	Touchless Infrared / Relay Output(COMN.O./N.C.)
Communication	RS-485 / TCP/IP / UART / POE / QR Code

Scale 1:1.2

Flush-Mount Touch Keypad Access Controller / Flush-Mount Touch Keypad Reader

AR-888-H/K



(US)

(EU)



Web(888-H)



Web(888-K)



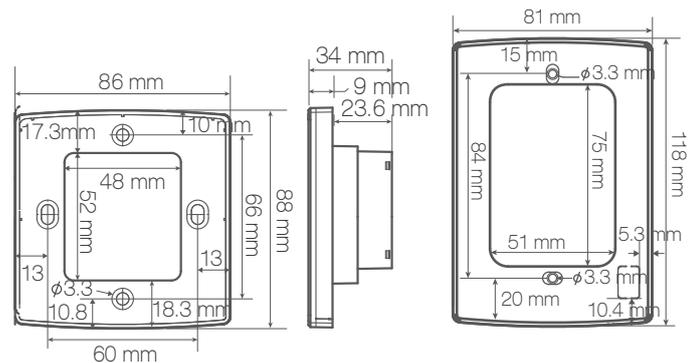
Youtube

Dimension (mm)

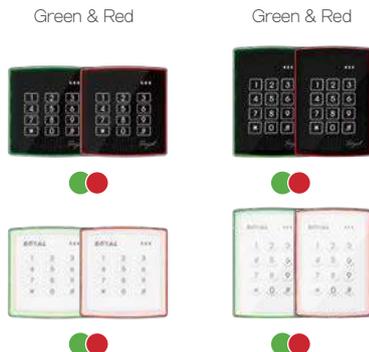
EU :88(H)X86(W)X34(D)

US :110(H)X81(W)X34(D)

Installation



Color (Power ON)



Scale 1:1.2

Flush-Mount Proximity Reader

AR-888-U



(US)

(EU)



Web



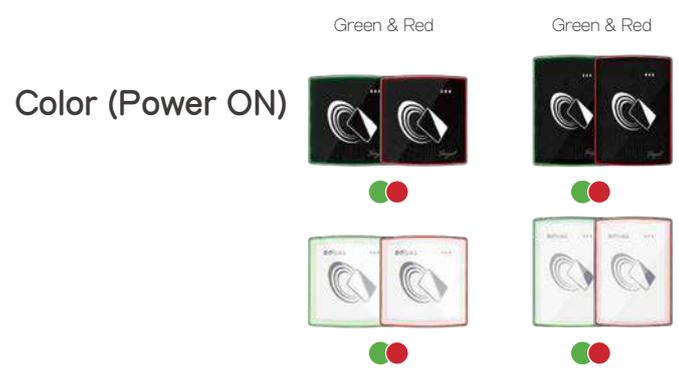
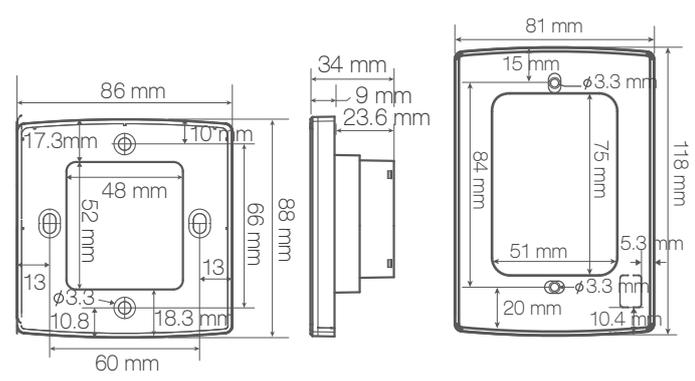
Youtube

Dimension (mm)

EU :88(H)X86(W)X34(D)

US :110(H)X81(W)X34(D)

Installation



Scale 1:1.2

QR Code Proximity Reader

AR-888-UL



(US)

(EU)



Web



Youtube

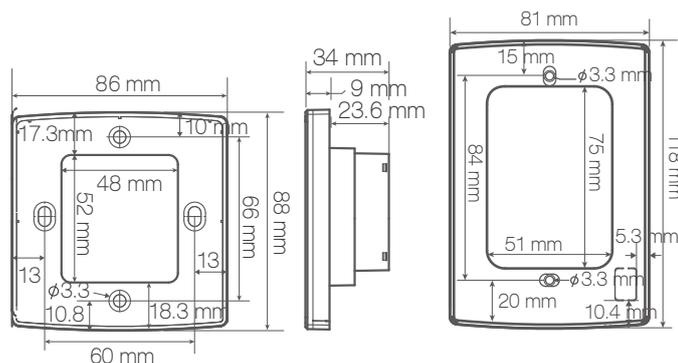
Dimension (mm)

EU :88(H)X86(W)X34(D)

US :110(H)X81(W)X34(D)

Installation

Color (Power ON)



Infrared Touchless Button

AR-888-PBI

Scale 1:1



(US)

(EU)



Web



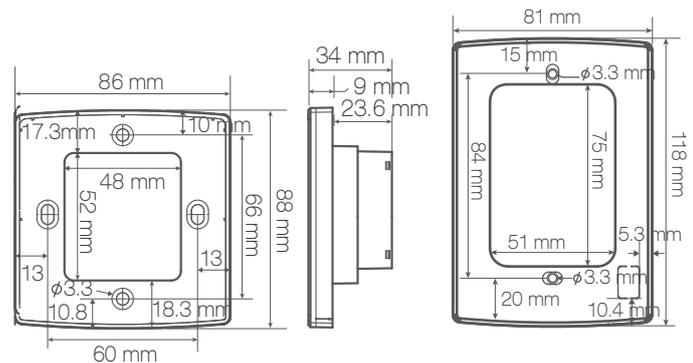
Youtube

Dimension (mm)

EU :88(H)X86(W)X34(D)

US :110(H)X81(W)X34(D)

Installation



Green & Red

Color (Power ON)



Scale 1:1

Card Energy Saver

AR-888-W



(US)



(EU)



Web



Youtube

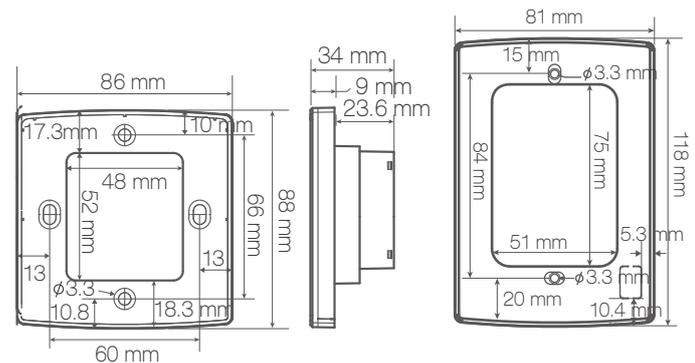
Dimension (mm)

EU :88(H)X86(W)X34(D)

US :110(H)X81(W)X34(D)

Installation

Color (Power ON)



Scale 1:1

DND&MUR Switch

AR-888-CPI / AR-888-CPO



(CPI-Indoor)



(CPO-Outdoor)



Web

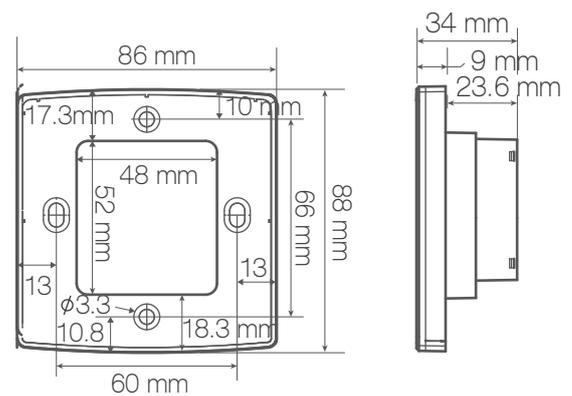


Youtube

Dimension (mm)

EU :88(H)X86(W)X34(D)

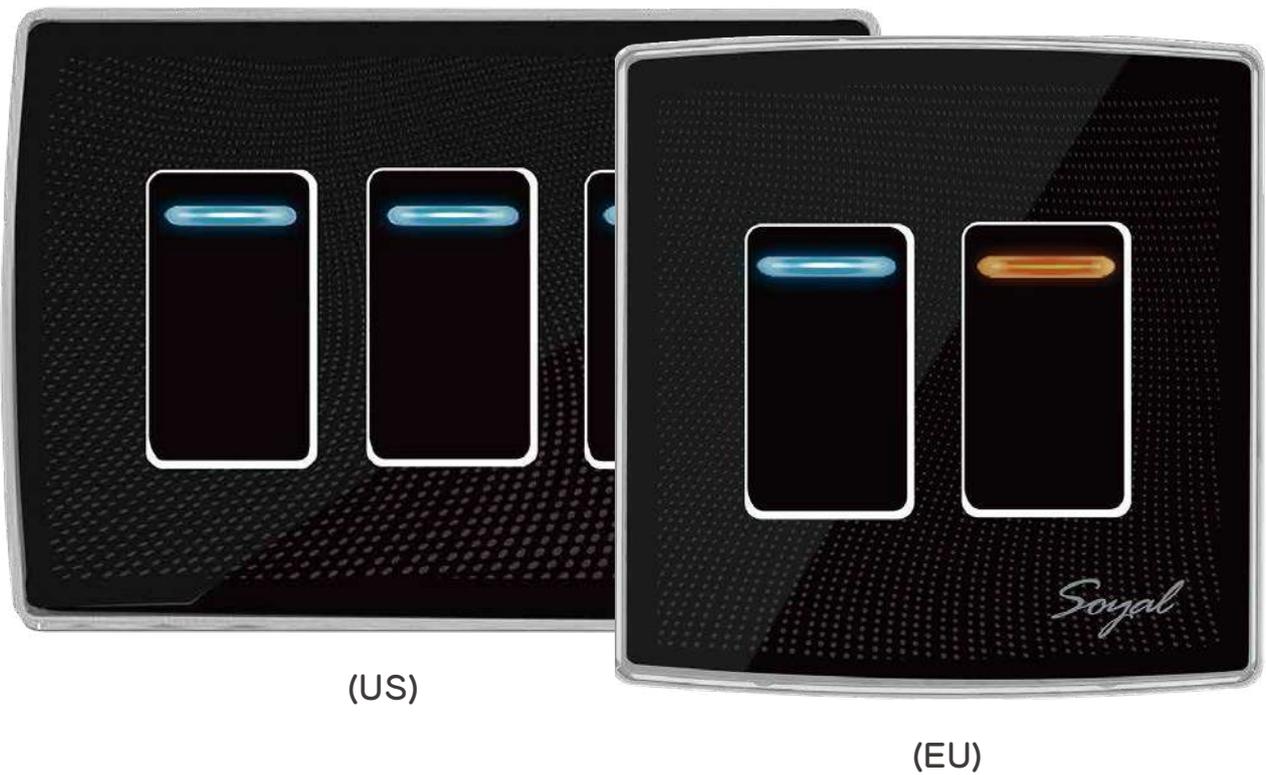
Installation



Scale 1:1

Modbus Smart Switch

AR-888-T



(US)

(EU)



Web



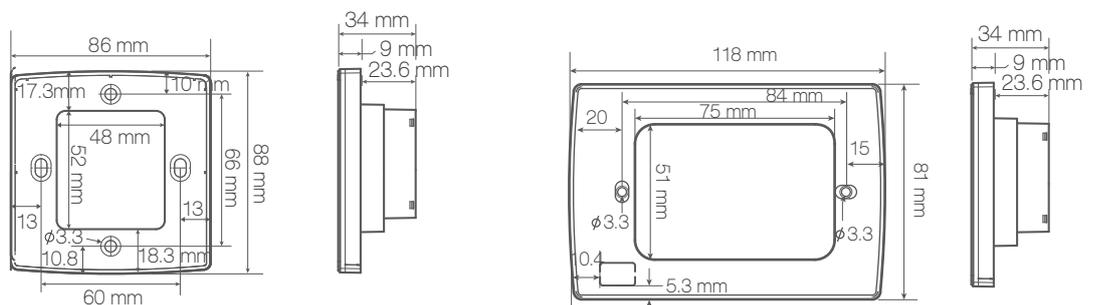
Youtube

Dimension (mm)

EU :88(H)X86(W)X34(D)

US :110(H)X81(W)X34(D)

Installation



SPECIFICATION

● STANDARD ⊖ External ⊕ OPTIONAL BY ORDER X2 TWO X3 Three

B: 125Khz / D: 13.56Mhz / S: Dual Band

Model No.			888-U/K		888-UL			888-H		888-PBI
			B	D	B	D	S	B	D	
Proximity Reader	Communication Interface	Output Selection	WG 24-34	●	●	●	●	●		
			WG 24-66							
			RS485		●		●	●		
			RS232							
			USB							
			ABA-II	●	●	●	●	●		
			QR Code			●	●	●		
	Frequency	*13.56 MHz	125kHz	EM	●		●		●	
			ISO14443		●		●	●		
			Crypto		3DES		3DES	3DES		
ISO15693										
Controller	Communication	Host	RS-485		●		●	●	●	●
			TCP/IP							
			POE							
	Serial	UART Port						Output only	Output only	
		Wiegand Module						⊕	⊕	
	Frequency / UID Bits	*13.56 MHz	125kHz	EM					32	
			ISO14443						3DES	
			Crypto						32	
			ISO15693							
	DI/DO	DI	Egress					●	●	
			Door State					●	●	
			Door Bell					Use #	Use #	
		RO	Door Lock Relay					●	●	
			Alarm Relay					⊖	⊖	
		DO	Door Bell Output					Common Alarm PIN	Common Alarm PIN	
			Security Output					●	●	
			Arming Output					●	●	
	Duress Output					●	●			
Doors / Floors Number							1.5 / 32			
User Capacity							3000			
Event Log							1500			
RF Reading Range			5-15 cm	2-5 cm	5-15 cm	2-5 cm	2-15 cm	5-15 cm	2-5 cm	
QR code Reading Range (Adjust according to QR code size)			5-20 cm							
Others	Tamper Switch		●			●		●		
	Tamper Output		●			●		●		
	WG In Port							●		
	WG Out Port		●			●				
	Buzzer		●			●		●		
	QRCode					●				
Dimension(mm)			EU :88(H)X86(W)X34(D) US :110(H)X81(W)X34(D)							
Weight(g)			EU :approx. 110 / US :approx. 120							
Power Consumption			<1W		<1W		<3W		No	
Power Voltage			9~24VDC							
Ingress Protection			IP65 (Surface)							

* 13.56MHz | Support ISO1443 Mifare Ultralight / Classic / Plus / DESFire / - EV1/ EV2
ISO15693 and Felica (IP-Based Controllers Support)
CC Certification : 3DES Crypto comply with EAL4+ ; AES Crypto comply with EAL5+

SPECIFICATION

● STANDARD Ⓔ External Ⓞ OPTIONAL BY ORDER ×2 TWO ×3 Three

B: 125Khz / D: 13.56Mhz / S: Dual Band

Model No.			888-U/K		888-UL			888-H		888-PBI
			B	D	B	D	S	B	D	
Push Button	Working Mode	Traditional Push								
		Piezo Push								
		Touchless Infrared								●
	DI/DO	RO	COM							●
			N.O.							●
			N.C.							●
	LED Indicator	None								
		BR: Blue/ Red								●
		GR: Green/ Red								●
	Switch Current	None								
50mA								●		
75mA										
100mA										

Model No.				888-W		888-T-EU	888-T-US	
				B	D			
Energy Saver Card Holder & Switch	Communication	Host	RS485	●	●	●	●	
			TCP/IP					
			POE					
	Frequency / UID Bits	125kHz	EM	13.56 MHz	●			
				ISO14443		32		
				Crypto ISO15693		3DES		
				Card Bit	24~32			
	DI/DO	DI	Don't disturb		●			
			Clean Up		●			
			Service		●			
Help				●				
RO		Relay	●	●	×2	×3		
		DO	Service output		●			
	Help output			●				
User Capacity				1024				
Event Log				1200				

Dimension(mm)	EU :88(H)X86(W)X34(D) / US :110(H)X81(W)X34(D)		
Weight(g)	EU :approx. 110 / US :approx. 120		
Power Consumption	<5W	<5W	<5W
Power Voltage	9~24VDC	12VDC	12VDC
Ingress Protection	IP65 (Surface)		

Enviroment	Operating Temperature	Storage Temperature	Operating Humidity	Storage Humidity
	-20 ° C to +70 ° C	-40 ° C to +75 ° C	0% ~ 90%	0% ~ 95%

Model No.	888-CPI	888-CPO
Power Voltage	9-24VDC	9-24VDC
Indicator	2LED	3LED
Relay	24VDC/7A , 240VDC / 7A	24VDC/7A , 240VDC / 7A
Do Not Disturb LED	Low Active / 20mA max	
Make Up Room LED	Low Active / 20mA max.	
Switch button	2 (DND&MUR)	1(Doorbell)

► WHAT TO EXPECT



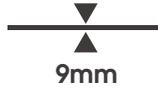
Total Solution with Aesthetic Design

Onyx series comes with all ranges of controller, reader, push button, card holder, and Modbus switch. It is perfect for total solution with aesthetic design.



Illuminated Touch Panel

Built-in illuminated touch panel for sleek and high quality design.



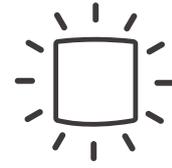
Ultra-Thin

Onyx Series offer seamless look with flush mounted design with only 9mm thickness.



Black or White

Are you black team or white team? Complete your aesthetic color with Onyx Series. All available with both black and white color.



Full Frame LED

It is not only a dot, a line, but it is full frame LED indicator for more quality on its look.



Long Sensing Distance

Onyx push button series provides infrared sensor for receiving sensor in distant, no need direct contact.

► APPLICATION



Visitor Management System

For temporary visitor, access can be via QRCode by setting up date and time limit for access. For office employee, have access with their own employee card.



Smart Modbus Switch

Control lighting, air conditioner, fans, and all digital input installed with only a click. Compatible with Modbus protocol for more customization features.



RFID Power Function

For safety precaution and avoid unintended contact, replace your power switch into AR-888W card holder.

Nation Series

Access controller that sustainable through ages



-  Keypad Access Controller / Keypad Proximity Reader - AR-721-H / K
-  Access Controller / Proximity Reader- AR-723-H / U
-  LCD Access Controller - AR-727-E
-  Keypad Access Controller - AR-757-H



Proximity Reader	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) WG 24-34 / WG 24-66 / ABAIL / RS485 / RS232 / USB
Controller	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) User Capacity: 1,024 / 3,000 /16,000 /32,000 / 65,000
	DI/DO:Engress/ Door State /Arming input / Arming Output / Alarm Output /Duress Output / Security Output / Door Bell RO: Door Relay / Alarm Relay
Push Button	Touchless Infrared / Relay Output(COMN.O./N.C.)
Communication	RS-485 / TCP/IP / UART / POE / QR Code

Scale 1:1

Keypad Access Controller / Keypad Proximity Reader

AR-721-H / K



Web(721-H)



Web(721-K)



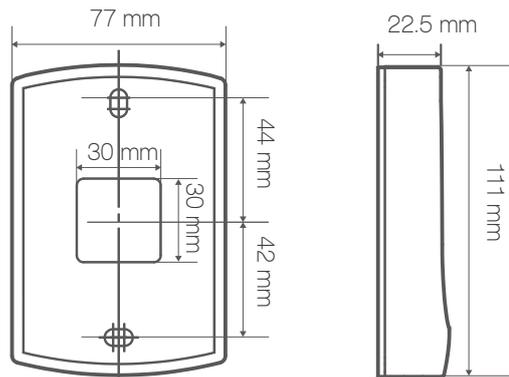
Youtube

Dimension (mm) 111(H)X77(W)X26(D)

Color



Installation



Scale 1:1

Access Controller / Proximity Reader

AR-723-H / U



Web(723-H)



Web(723-U)



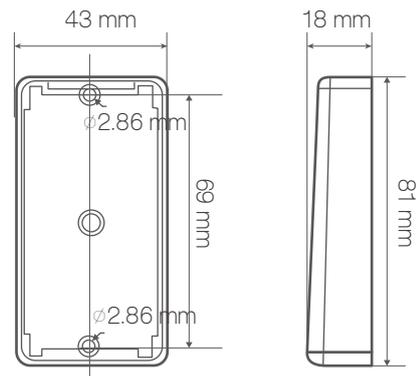
Youtube

Dimension (mm)

81(H)X43(W)X18(D)

Installation

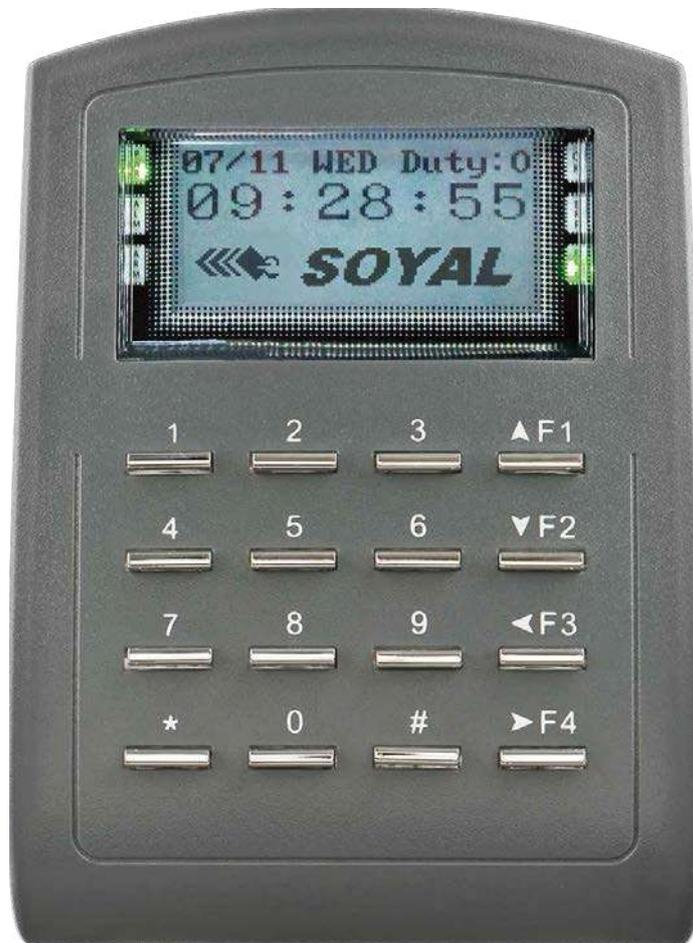
Color



Scale 1:1

LCD Access Controller

AR-727-E



Web



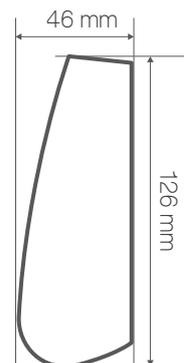
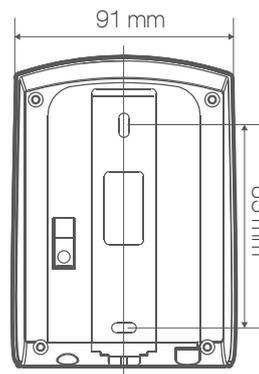
Youtube

Dimension (mm) 126(H)X91(W)X46(D)

Installation

Color

Gray



Scale 1:1

Keypad Access Controller

AR-757-H



Web



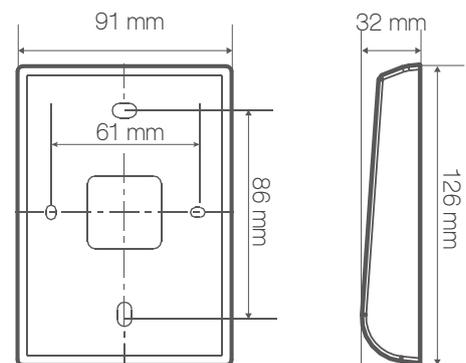
Youtube

Dimension (mm)

126(H)X91(W)X32(D)

Installation

Color



SPECIFICATION

● STANDARD ○ OPTIONAL BY ORDER ◻ EXTERNAL

B: 125KHz / D: 13.56MHz / S: Dual Band

Model No.			723-U		721-K		721-H		723-H		757-H		727-E						
			B	D	B	D	B	D	B	D	B	D	B	D	S				
Proximity Reader	Communication Interface	Output Selection	WG 24-34	●	●	●	●												
			WG 24-66											●	●	●			
			RS485		●		●								●	●	●		
			RS232	○	○	●													
			USB																
Frequency			ABA-II	●	●	●	●							●	●	●			
			125kHz EM	●		●									●		●		
			*13.56 MHz																
			ISO14443		●		●										●	●	
Controller	Communication	Host	RS-485					●	●	●	●	●	●	●	●	●			
			TCP/IP												○	○	○		
			POE													○	○	○	
	Serial	UART Port							Output Only	Output Only	Output Only	Output Only	Output Only	Output Only	○ ^{x2}	○ ^{x2}	○ ^{x2}		
		WG Module							○	○	○	○	○	○	○	○	○		
	Frequency / UID Bits			125kHz EM					32		32			32		32		32	
				*13.56 MHz							32		32			32		64	64
				Crypto							3DES		3DES			3DES		AES	AES
				ISO15693														64	64
	DI/DO	DI	Egress						●	●	●	●	●	●	●	●	●		
Door State								●	●	●	●	●	●	●	●	●			
Door Bell								Use #	Use #			●	●						
RO		Door Lock Relay						●	●	◻	◻	●	●	●	●	●			
		Alarm Relay						◻	◻	◻	◻	●	●	●	●	●			
DO		Door Bell Output						Common Alarm PIN	Common Alarm PIN			●	●						
		Security Output						●	●	●	●	●	●	●	●	●			
		Arming Output						●	●	●	●	●	●	●	●	●			
Duress Output						●	●	●	●	●	●	●	●	●					
Doors / Floors Number							1.5 / 32		1.5 / 32		1.5 / 32		2 / 64						
User Capacity							1024		1024		1024		16000						
Event Log							1200		1200		3000		32000						
RF Reading Range			6-12cm	3-8cm	10-18cm	3-8cm	10-18cm	2-8cm	5-12cm	2-8cm	10-18cm	2-8cm	5-15cm	2-5cm	2-15cm				
Others	Tamper Switch				●		●				●			●					
	Tamper Output				●		●				●			●					
	WG In Port						●		●		●			●					
	WG Out Port		●		●										●				
	Buzzer		●		●		●		●		●			●					
	QRCode														●				
Dimension(mm)			81(H)X43(W)X18(D)		111(H)X77(W)X26(D)		111(H)X77(W)X26(D)		81(H)X43(W)X18(D)		126(H)X91(W)X32(D)		126(H)X91(W)X46(D)						
Weight(g)			approx. 40 (125KHz) approx. 60 (13.56MHz)		approx. 100		approx. 100		approx. 40 (125KHz) approx. 60 (13.56MHz)		approx. 155		approx. 220						
Power Consumption			<1W		<1W		<3W		<3W		<3W		<5W						
Power Voltage			9~24VDC																
Ingress Protection			IP56 / IP66(Epoxy)		NO		NO		IP56 / IP66(Epoxy)		IP54		IP65						
Environment	Operating Temperature		Storage Temperature				Operating Humidity				Storage Humidity								
	-20 °C to +70 °C		-40 °C to +75 °C				0% ~ 90%				0% ~ 95%								

* 13.56MHz | Support ISO1443 Mifare Ultralight / Classic / Plus / DESFire; IP-based controllers support ISO15693 and Felica CC Certification : 3DES Crypto comply with EAL4+ ; AES Crypto comply with EAL5+

► WHAT TO EXPECT



Pure Standalone
AR-721-H

For economical purpose, current AR-721-H (V3 version) is also available with V2 Version (without RTC) and VSL Version (without RTC, RS485, and WG).



High Durability

It can still work fine under extreme circumstances.



Compact
AR-723-H / AR-723-U

Do not have big space, no problem!



Waterproof

Waterproof

Solid particle protection: dust protected
Liquid protection: powerful water jets (12.5 mm nozzle) Liquid protection: splashing of water.



Door Bell
AR-757-H

Ding Dong! It is built-in doorbell function



10 years

Long Life Span

Soyal Nation series has been known to have life span up to 10 years.

► APPLICATION



Keypad Access Control

No need to carry a bunch of keys, a single card or code to have access in the building.



Vending machine

Coins falling and rolling away or shortage? Cashless payment fix your thirsty, read card and select your drink.



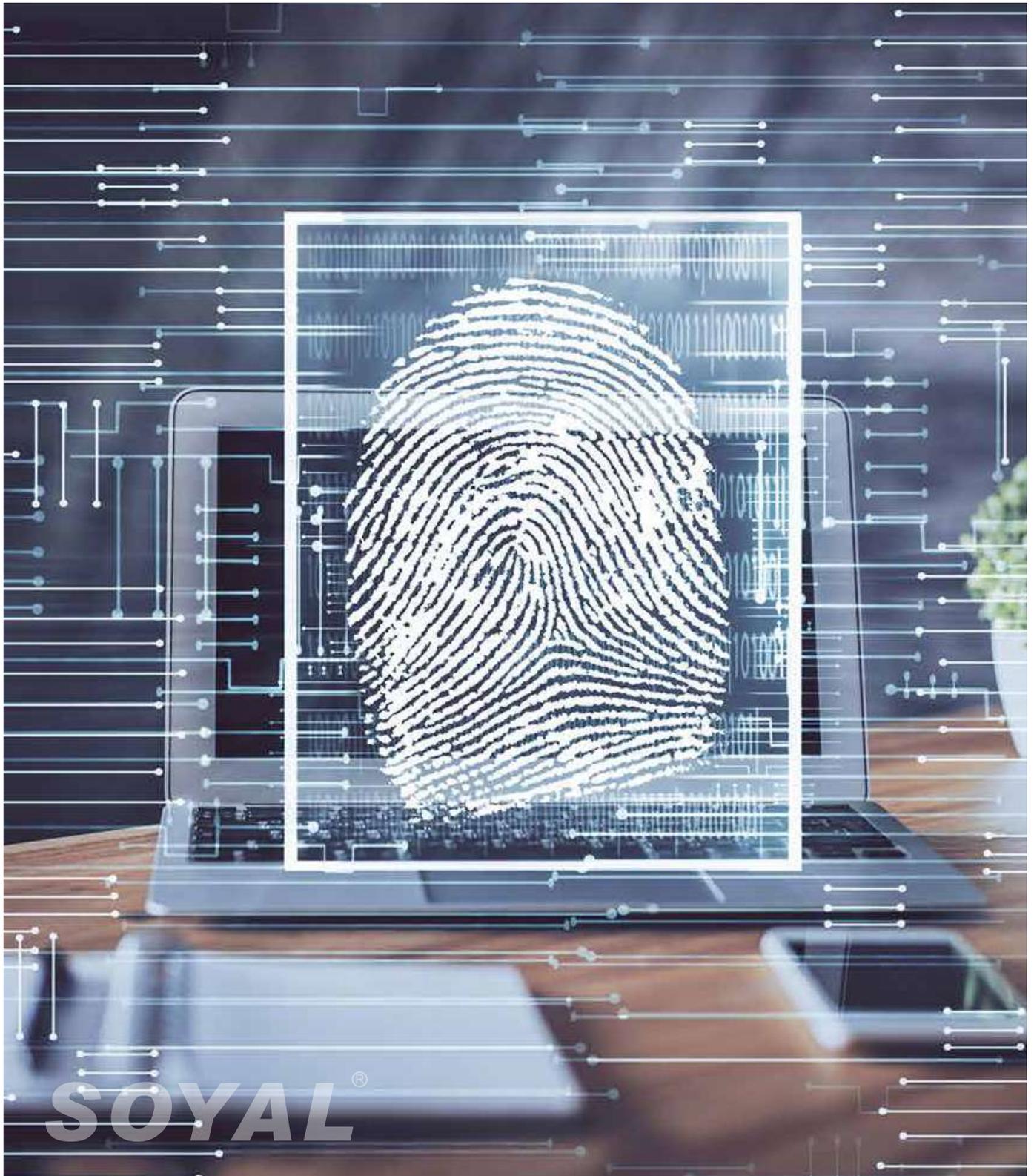
Control panel Authentication

Control panel is essential to be operated by authorized personnel only, presenting an encrypted card now!

Biometric Series

No more fraud or accounts take over.

Get more secure and accurate authentication with Soyal Biometric Series



SOYAL[®]



Fingerprint Controller - AR-331-EF3DO



Fingerprint Controller - AR-837-EF9DO



Graphic Display Multi-Function Proximity Controller - AR-837-EA



Graphic Display Multi-Function Proximity Controller (with Temperature Module) - AR-837-EA-T



Proximity Reader	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) WG 24-34 / WG 24-66 / ABAIL / RS485 / RS232 / USB
Controller	125kHz : EM
	13.56MHz:Mifare ISO 14443 / ISO 7816-4 Mifare Ultralight / Classic / DESFire EV1 / NFC (card simulation) User Capacity : 1,024 / 3,000 /16,000 /32,000 / 65,000
	DI/DO:Engress/ Door State /Arming input / Arming Output / Alarm Output /Duress Output / Security Output / Door Bell
	RO: Door Relay / Alarm Relay
Push Button	Touchless Infrared / Relay Output(COMN.O./N.C.)
Communication	RS-485 / TCP/IP / UART / POE / QR Code

Scale 1:1

Fingerprint Controller

AR-331-EF3DO



Web



Youtube

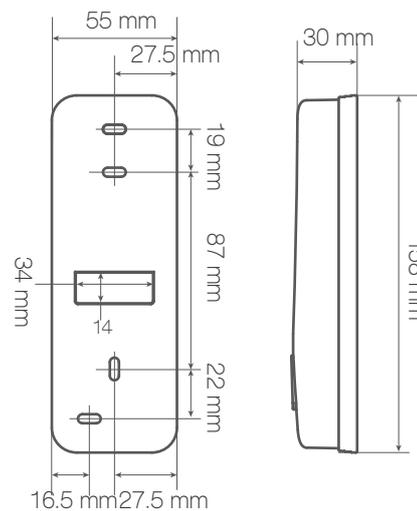
Dimension (mm) 158(H)X55(W)X30(D)

Color

Silver Silver

Housing Material PC / Zinc Alloy

Installation



Scale 1:1

Fingerprint Controller

AR-837-EF9DO



Web



Youtube

Dimension (mm)

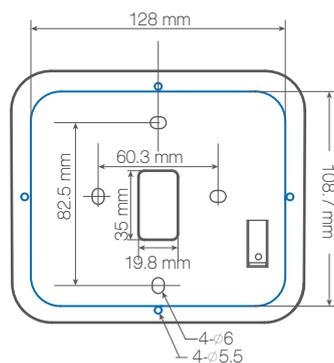
128(H)X147(W)X73(D)

128(H)X147(W)X65(D)

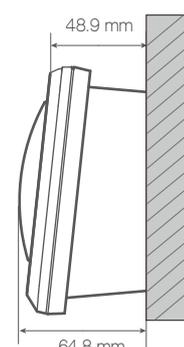
Color



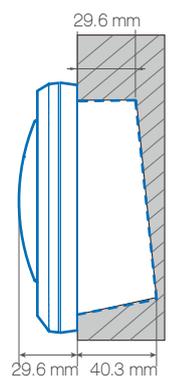
Installation



- Surface mounting hole
- Flush mounting hole



- Surface mounting



- Flush mounting

Scale 1:1

Graphic Display Multi-Function Proximity Controller

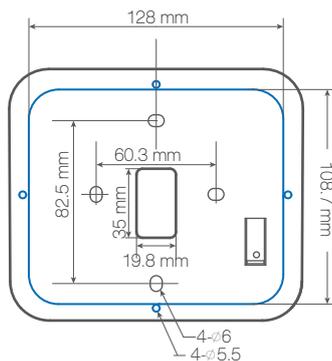
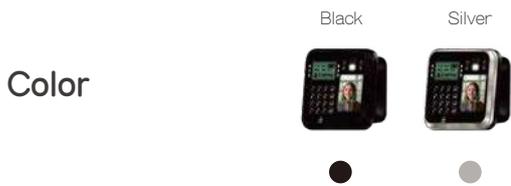
AR-837-EA



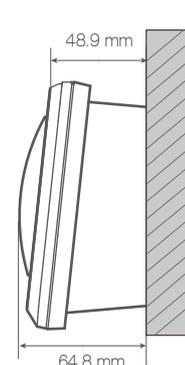
Web

Dimension (mm) 128(H)X147(W)X60(D)

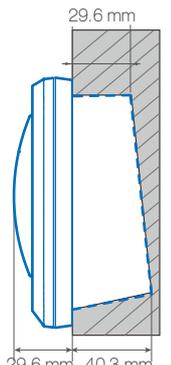
Installation



- Surface mounting hole
- Flush mounting hole



- Surface mounting



- Flush mounting

Scale 1:1

(with Temperature Module) Graphic Display Multi-Function Proximity Controller

AR-837-EA-T

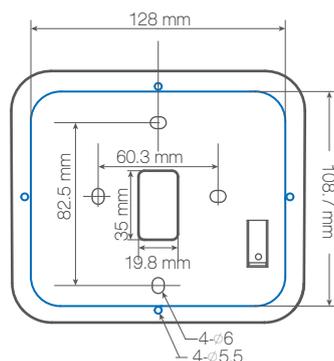


Web

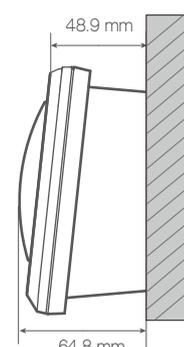
Dimension (mm) 163(H)X147(W)X60(D)

Installation

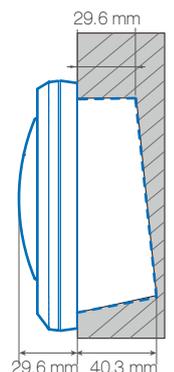
Color



- Surface mounting hole
- Flush mounting hole



- Surface mounting



- Flush mounting

SPECIFICATION

● STANDARD ○ OPTIONAL BY ORDER ×2 TWO E EXTERNAL

B: 125Khz / D: 13.56Mhz / S: Dual Band

Model No.			331-EF3DO			837-EF9DO			837-EA			837-EA-T					
			B	D	S	B	D	S	B	D	S	B	D	S			
Proximity Reader	Communication Interface	Output Selection	WG 24-34														
			WG 24-66	●	●	●	●	●	●	●	●	●	●	●			
			RS485	●	●	●	●	●	●	●	●	●	●	●			
			RS232														
			USB														
			ABA-II	●	●	●	●	●	●	●	●	●	●	●	●		
Frequency	125kHz	EM	ISO14443	●	●	●	●	●	●	●	●	●	●				
			*13.56 MHz	ISO14443		●	●		●	●		●	●				
			Crypto		AES	AES		AES	AES		AES	AES		AES	AES		
			ISO15693		●	●		●	●		●	●		●	●		
Controller	Communication	Host	RS-485	●	●	●	●	●	●	●	●	●	●	●			
			TCP/IP	○	○	○	○	○	○	○	○	○	○	○			
			POE	○	○	○	○	○	○	○	○	○	○	○			
		Serial	UART PORT	●	●	●	●	●	●	●	●	●	●	●			
			Wiegand Module	●	●	●	●	●	●	●	●	●	●	●			
			Frequency / UID Bits	125kHz	EM	32	32	32	32	32	32	32	32	32			
	DI/DO	DI	Egress	×2	×2	×2	×2	×2	×2	×2	×2	×2	×2				
			Door State	×2	×2	×2	×2	×2	×2	×2	×2	×2	×2				
			Door Bell				●	●	●	●	●	●	●	●			
			Door Lock Relay	●	●	●	●	●	●	●	●	●	●	●			
	DO	Alarm Relay	E	E	E	●	●	●	●	●	●	●	●				
		Door Bell Output				●	●	●	●	●	●	●	●				
		Security Output	●	●	●	●	●	●	●	●	●	●	●				
		Arming Output	●	●	●	●	●	●	●	●	●	●	●				
			Duress Output	●	●	●	●	●	●	●	●	●	●				
	Doors / Floors Number			2 / 64			2 / 64			2 / 64			2 / 64				
User Capacity			1500 (500 User with Fingerprint)			9000 (4500 User with Fingerprint)			16000			16000					
Event Log			32000			32000			32000			32000					
Fingerprint	FP Sensor Type		Optical Sensor			Optical Sensor											
	FRR		<0.1%			<1%			≤0.4%			≤0.4%					
	Image Resolution		450dpi			500dpi											
	Fingerprint Capacity		1500FP			9000FP											
	Total Users with FP Capacity		500 User (1-3 fingerprints for each user)			4500 User (1-2 fingerprints for each user)											
	Identification Speed (1:1000)		<1.5sec			<0.7sec			1:3000 < 3.0 Sec			1:3000 < 3.0 Sec					
Sensible Temperature		+38 °C~39 °C			+30 °C~31 °C						+10 ~+35°C (Operating in indoor and windless environment)						
RF Reading Range			3-7 cm	1-3 cm	1-7 cm	3-7 cm	1-3 cm	1-7 cm	5-15 cm	2-5 cm	2-15 cm	5-15 cm	2-5 cm	2-15 cm			
Others	Tamper Switch		●			●			●			●					
	Tamper Output		●			●			●			●					
	WG In Port		●			●			●			●					
	WG Out Port		●			●			●			●					
	Buzzer		●			●			●			●					
	QRCode																
Dimension(mm)			158(L)X55(W)X30(H)			Roof Type :128(H)X147(W)X73(D) Standard Type :128(H)X147(W)X65(D)			128(H)X147(W)X60(D)			163(H)X147(W)X60(D)					
Weight(g)			approx. 245 (Zinc Alloy) approx. 140 (PC)			approx. 320			approx. 340			approx. 340					
Power Consumption			<5W			<5W			<5W			<5W					
Power Voltage			9~24VDC			9~24VDC			9~24VDC			9~24VDC					
Ingress Protection			IP65			IP65			IP65			No					
Environment	Operating Temperature		-20 °C to +70 °C			Storage Temperature			-40 °C to +75 °C			Operating Humidity			0% ~ 90%		
												Storage Humidity			0% ~ 95%		

* 13.56MHz Support ISO1443 Mifare Ultralight / Classic / Plus / DESFire / - EV1/ EV2
ISO15693 and Felica (IP-Based Controllers Support)
CC Certification : 3DES Crypto comply with EAL4+ ; AES Crypto comply with EAL5+

► WHAT TO EXPECT



Time Attendance System

Track and monitor start and stop employees' work time with fingerprint access controller and Soyal software for duty report



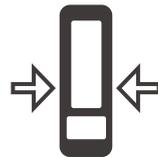
Quick Step Enrollment

To support fingerprint reader, we provide USB enrollment reader for fast fingerprint enrollment to each of installed devices via EnrollTool software.



Anti-Passback with Fingerprint

Convert your access controller with both master and slave reader for anti-passback with fingerprint access.



Large VS Slim

We offer fingerprint controller's option from large size that built-in LCD, RFID, keypad and fingerprint; to slimmer size that only have RFID and fingerprint only.



Multi-Factor Authentication

Card, check. PIN, check. Fingerprint, check. Get more secure with dual-factor authentication from three different access options combined.



High Accuracy

With large sensing area, noise reduction, and error reduction matches user fingerprint vastly and accurately.

► APPLICATION



Fingerprint Identification

All people have unique and different fingerprint. When RFID and PIN is not enough to identify an identity, fingerprint identification is a solution for you.



Multi-Credential Authorization System

Want more secure on fingerprint features for keeping your treasure safe? Denying access with only one valid fingerprint, and authorized access with two valid fingerprints.



Time Attendance

Clock in and clock out when starting duty hours and ending duty hours with fingerprint controller. Count employee duty report and monthly report via Soyal software.



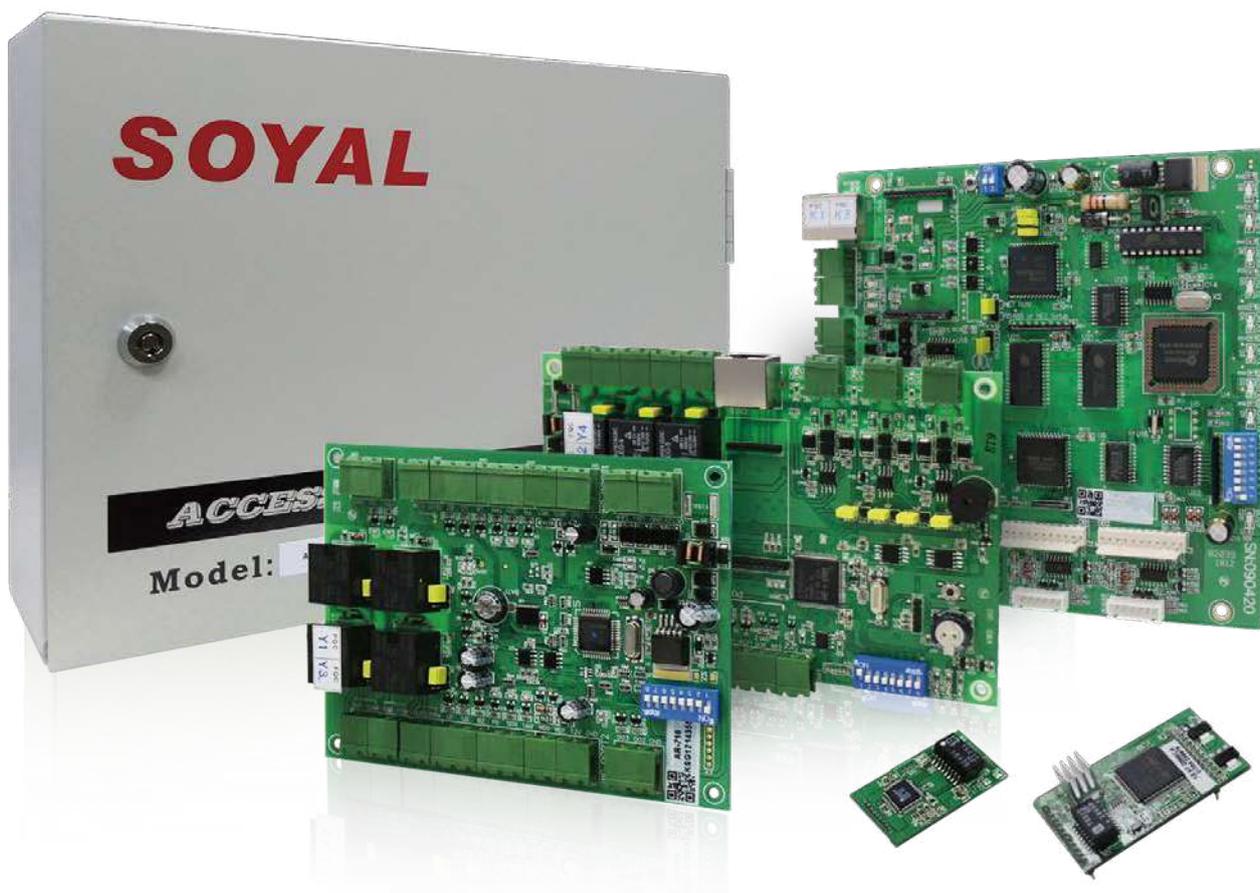
18 Doors Networking Control Panel - AR-716-E18



16 Doors IP Control Panel - AR-716-E16



2 Doors Networking Control Panel - AR-716-E02



SOYAL provides comprehensive product choices for large and scalable multi-door Access.

We provide 2 Doors Networking Control Panel AR-716-E02 that is best choice for dual doors or dual direction of Entry and exit with Anti-pass back access requirement.

The new generation 16 Doors IP Control Panel AR-716-E16 with huge memory storage components and fully new hardware layout make it to be able to meet the requirements of new Echo.

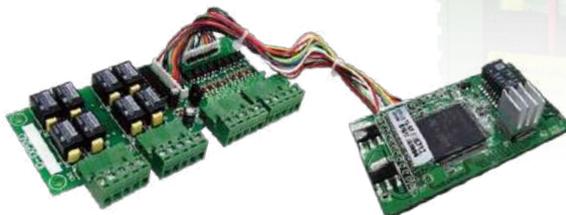
The classic 18 Doors Networking Control Panel AR-716-E18 with its perfect hardware protection design is really stronger, more stable, fair durable after passing through 20 plus years test from plenty of projects all over the world.

They are also open and compatible, easy to develop and integrate based on its open Protocol and SDK by the 3rd Party System..

Scale 1:2

18 Doors Networking Control Panel

AR-716-E18



(AR-716-E-8180)
I/O Extension Board

(AR-727i-V3)
Ethernet Module



Web



Youtube

Dimension (mm)

PCB :
150(L)X163(W)X20(H)

Metal Box :
180(L)X231(W)X62(H)

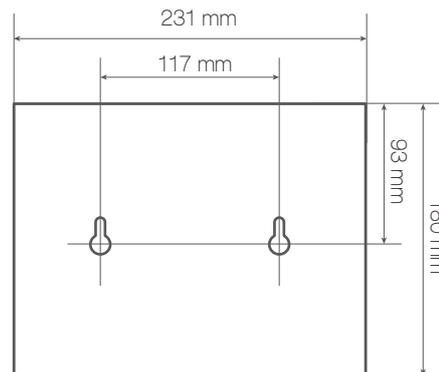
Color



Others

UPS connectable

Installation

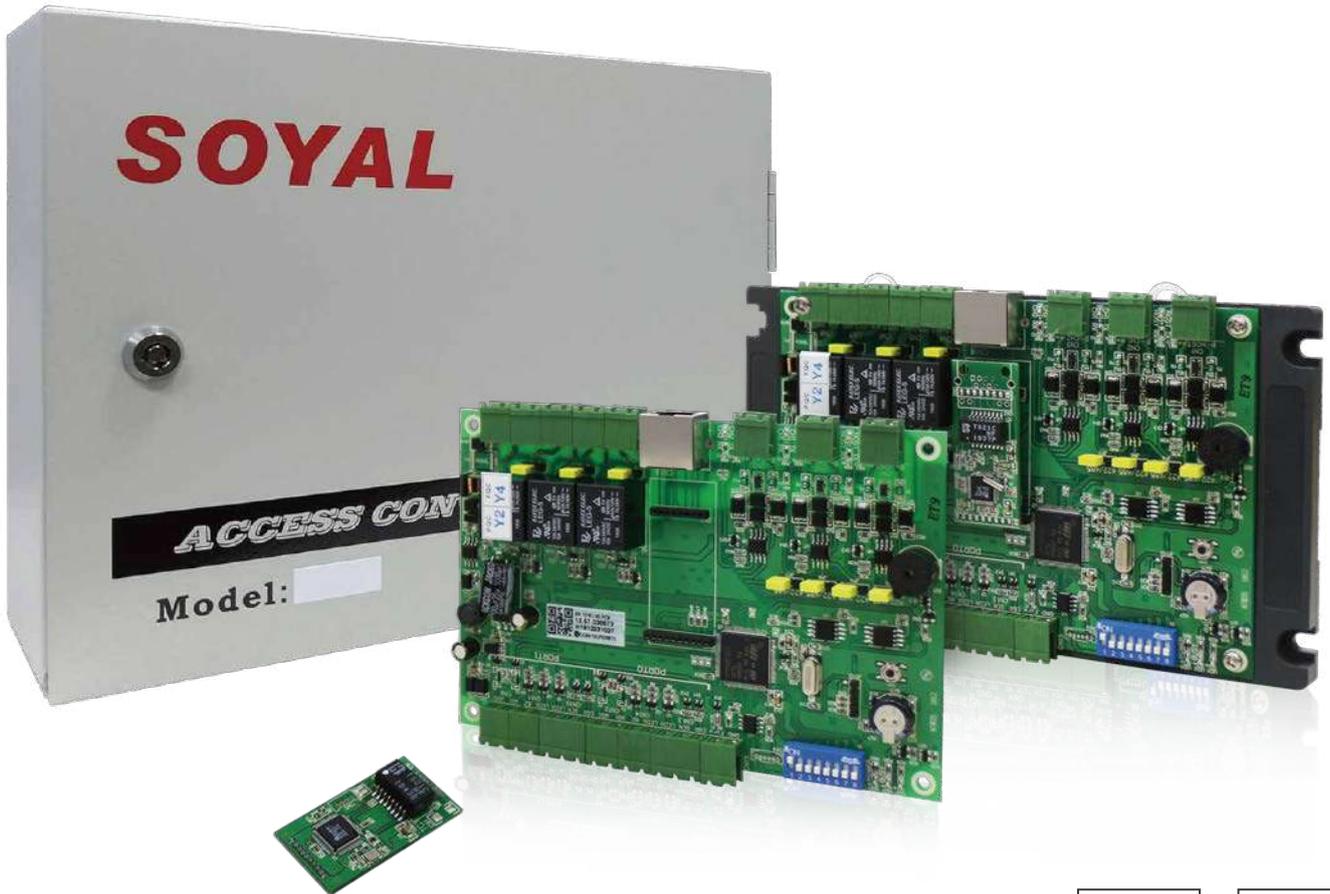


• Metal Box

16 Doors IP Control Panel

AR-716-E16

Scale 1:2



(DMOD-NETMA08/09/10)
Ethernet Module with Surge Protection



Web



Youtube

Dimension (mm)

PCB : 100(L)X147(W)X20(H)

Plastic Mounting Base :
103(L)X175(W)X32(H)

Metal Box :
180(L)X231(W)X62(H)

Color

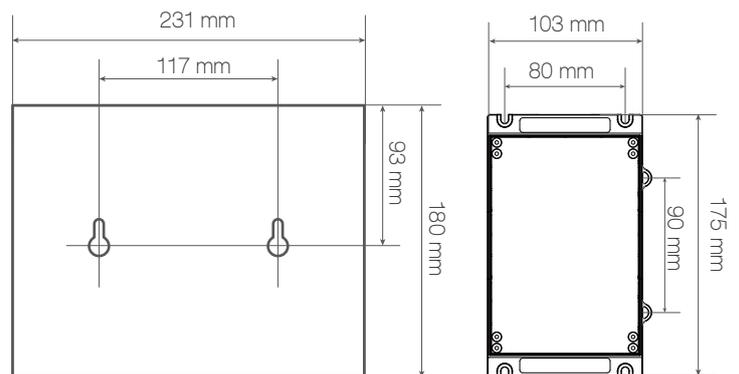
Green



Others

UPS connectable

Installation



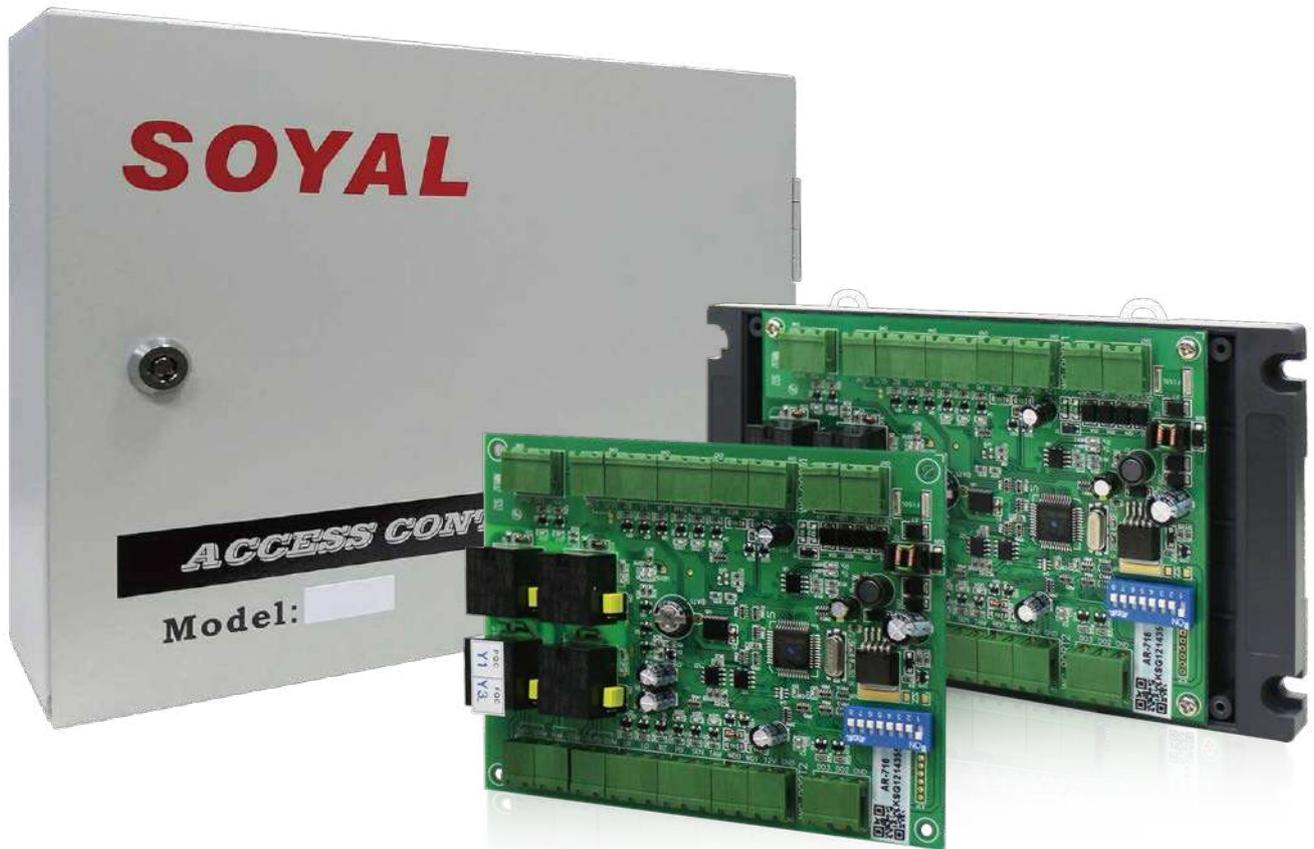
• Metal Box

• Plastic Mounting Base

Scale 1:2

2 Doors Networking Control Panel

AR-716-E02



Web



Youtube

Dimension (mm)

PCB : 100(L)X132(W)X20(H)

Panel Mounting Base :
103(L)X175(W)X32(H)

Metal Box :
180(L)X231(W)X62(H)

Color

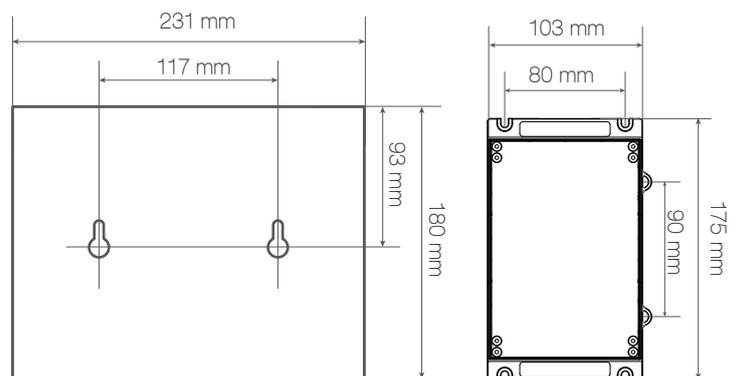
Green



Others

UPS connectable

Installation

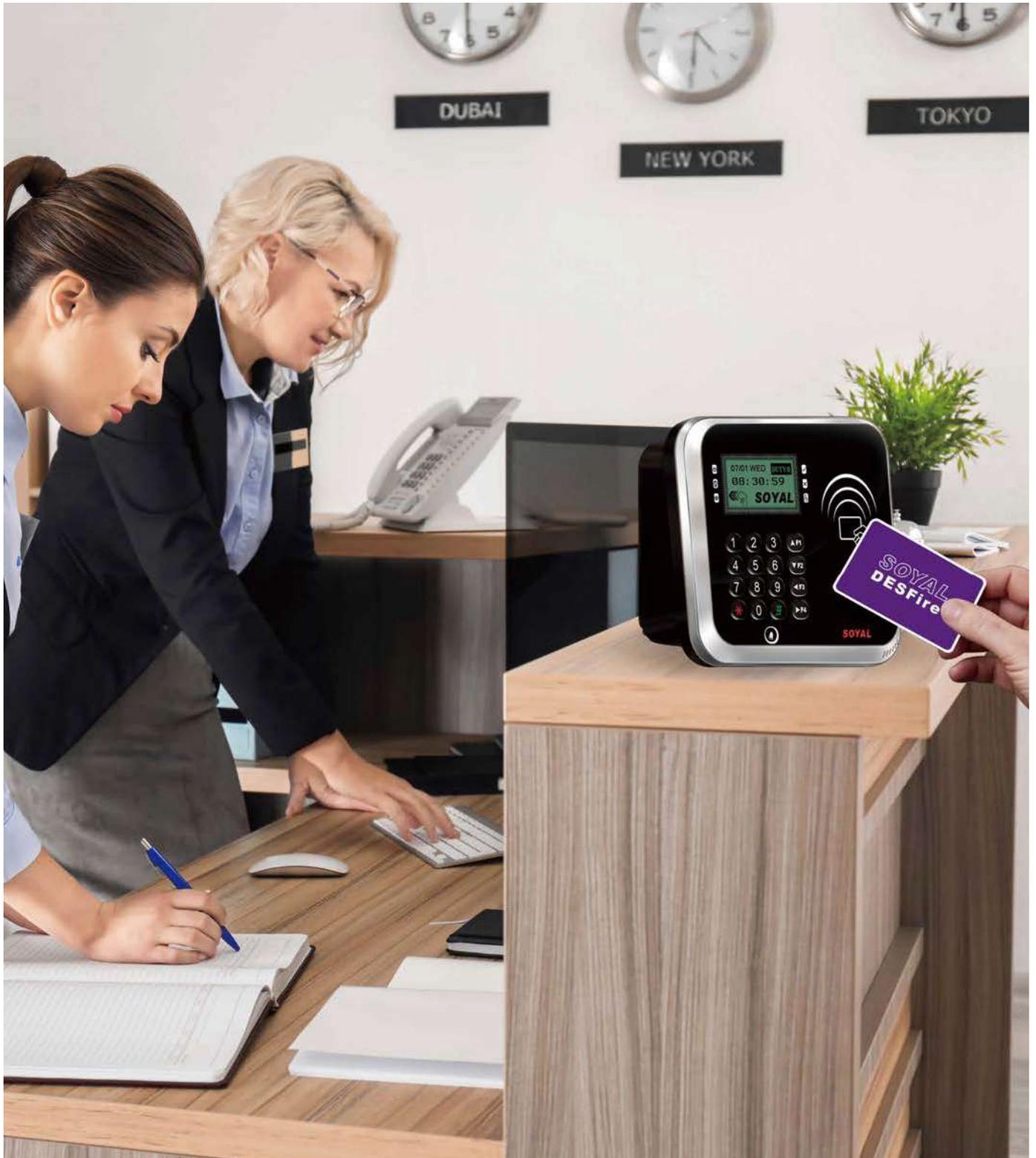


• Metal Box

• Plastic Mounting Base

Enrollment Programmer

SOYAL Encoder save you from repetitive work & risky life





MIFARE Card Programmer - AR-725-P



USB Dual Band Card Register Reader- AR-725-R



DESFire Card Encoder - AR-837-P



RFID Slim Metal & Biometric Access Controller - AR-331-EF3DO

(AR-837-P)

(AR-331-EF3DO)



(AR-725-P)

(AR-725-R)

How SOYAL encoders save your time and reduce your risk?

- AR-725P MIFARE Card Programmer — Besides MIFARE encryption, SOYAL developed a SOR system (SOYAL OPEN SYSTEM RULES), an advanced edition MIFARE, SOR streamlining MAD and get essential part of to help customers effectively understand the MIFARE features and benefits, particularly for standalone system, SOR help you develop own application issuing card offline for access level, floor mapping, amount deduction, expiry setting, etc.
- AR-837P DESFire Card Programmer — SOYAL provide software 323D Master to easily issue own encrypted DESFire card.
- AR-725RS Dual Band Card Encoder — Plug and Play to quick register user card with SOYAL 701Client Software.
- AR-331EF — Enroll your fingerprints in 1 second, Read and GO!

SPECIFICATION

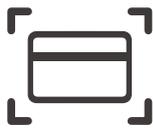
Model No.	725-P	837-P	725-R	331-EF3DO
Product Name	MIFARE Card Programmer	DESFire Card Encoder	USB Dual Band Card Register Reader	Fingerprint Enroller
Frequency	13.56Mhz	13.56Mhz	125Khz & 13.56Mhz	—
Standard	ISO14443A	ISO14443A (3DES)	EM Standard & ISO14443A	—
Supported Tag	MIFARE Tag	DESFire Tag (EV1, EV2)	EM Tag, MIFARE / DESFire Tag	—
Finger Capacity	—	—	—	1500
Communication Interface	USB 2.0 Virtual COM Port/ RS232(By Order)	RS485 (9600, N, 8, 1)	USB-HID (Human Interface Device)	USB 2.0 Virtual COM Port
Reading Range	1-3 cm	1-3 cm	1-3 cm	—
Read/Write	Read/Write	Read/Write	Read only	—
Watchdog function	Yes	Yes	Yes	—
Power Consumption	<0.5W	<5W	<0.5W	<5W
Power Supply	Power supplied via USB 5VDC	9-24VDC	Power supplied via USB 5VDC	5VDC
Indicator	1 Bi-Color LED & 1 Beeper	6 LED & 1 Beeper	1 Bi-Color LED & 1 Beeper	2 Bi-Color LED (Blue/Yellow ; Green/red) & 1 Beeper
Housing Material/Color	ABS	ABS	ABS	ABS
Dimension	110(L)x79(W)x26(H)	128(L)x147(W)x60(H)	110(L)x79(W)x26(H)	158(L)x55(W)x30(H)
Weight (g)	approx. 90	approx. 470	approx. 90	approx. 140
Operating Temperature	-20°C ~ +70°C	-20°C ~ +70°C	-20°C ~ +70°C	-20°C ~ +50°C
Storage Temperature	-25°C to +70°C	-40°C to +75°C	-25°C to +70°C	-40°C to +75°C
Operating Humidity	0%~90% (non-condensing)	0%~90%(non-condensing)	0%~90%(non-condensing)	0%~90%(non-condensing)
Storage Humidity	0%~95% (non-condensing)	0%~95%(non-condensing)	0%~95%(non-condensing)	0%~95%(non-condensing)

▶ WHAT TO EXPECT



Anti-Duplicate

High Security with encryption, Anti-duplicate



High Recognition

High fingerprint recognition, High fingerprint authentication speed 0.8 secs (with 100 persons registered)



Quick Register

User Code Management, Quick Register User Card



Common card format

Output different card format suited to most common controller system, no need to convert by yourself



Expiration setup & 6-layer managing structures

Set up validity in MIFARE card by SOR. With built-in agent codes issuance (up to 6 sub-layers) via SOR programmer.



In-field Firmware upgradable

In-field Firmware is upgradable just by a easy quick on SOYAL Software.

▶ APPLICATION



Online/Offline Consumption Application

Avoiding long queue waiting for the changes, and easy to get transactions data



Membership Management

Issuing encrypted loyal card for anti-cloning and offline valued stored data



High security & Quick Registration

Fingerprint enrollment for multi-factor authentication and multiple users registration in one time

How to Order

▶ H Series Controller

*Type:
TM= Keypad Touch Panel + Metal Housing / **TP**=Keypad Touch Panel+ Plastic Housing
SM=Without Keypad + Metal Housing / **SP**=Without Keypad + Plastic Housing

*Color:
B=Black / **1**=Silver / **2**=Gray **P**=Pearl White/White / **J**=Black/Black / **K**=Red/Black / **L**=Gray/Silver

*Additional Module:
A=TCP/IP Module / **B**= Bluetooth / **P**=POE Features

AR-XXX	-H	X	R	1	1	1	1	XX
Item No.	Housing	Frequency	RTC	Communication	Waterproof	Color	Type	*Type
AR-321 / AR-331 	H=Controller H series	B=125KHz D=13.56MHz	R=Built in RTC	1=RS485	1=Weatherproof	1=Silver	1=Standard	321H: TM 331H: TM/TP/SM/SP
AR-XXX	-H	X	R	X	X	X	X	X
Item No.	Housing	Frequency	RTC	Communication	Waterproof	*Color	Type	Type
AR-101 / AR-721 AR-723 / AR-725 AR-757 / AR-888 	H=Controller H series	B=125KHz D=13.56MHz (AR-101-H available only one frequency D=13.56MHz)	R=Built in RTC (X=None(some of 721-H series available with no-RTC))	1=RS485 101-H: B=WG+RS485	101-H: N=None 723-H/725-H/757-H/888-H: 1=Weatherproof 723-H: 2=Epoxy Waterproof	101-H: B 721-H: 1/2/B 723-H/725-H: 1/2/B/P 757-H: 1/2/J/K/L 888-H: B/P	1=Standard 888-H: 7=Rectangle US Type 8=Square EU Type	725-H: M=Metal Housing

▶ E Series

AR-331	-E	X	R	1	1	1	1	XX	X
Item No.	Housing	Frequency	RTC	Communication	Waterproof	Color	Type	*Type	*Additional Module
AR-331 	E=Controller E Series	B=125KHz D=13.56MHz S=125KHz+13.56MHz	R=Built in RTC	1=RS485	1=Weatherproof	1=Silver	1=Standard	TM/TP/SM/SP	A= TCP/IP Module B= Bluetooth P= POE Features
AR-725	-E	X	R	1	1	X	1	X	-X
Item No.	Housing	Frequency	RTC	Communication	Waterproof	*Color	Type	*Type	*Additional Module
AR-725 	E=Controller E Series	B=125KHz D=13.56MHz S=125KHz+13.56MHz	R=Built in RTC	1=RS485	1=Weatherproof	1/2/3/B/P	1=Standard	M=Metal Housing	A= TCP/IP Module B= Bluetooth P= POE Features
AR-XXX	-E	X	R	1	1	1	1	—	-X
Item No.	Housing	Frequency	RTC	Communication	Waterproof	Color	Language(LCD)	—	*Additional Module
AR-327 / AR-727 	E=Controller E Series	B=125KHz D=13.56MHz S=125KHz+13.56MHz	R=Built in RTC	1=RS485	1=Weatherproof	327: 1=Silver 727: 2=Gray	1=English /Chinese	—	A= TCP/IP Module B= Bluetooth P= POE Features
AR-8XX	-E	X	R	1	X	1	1	—	-X
Item No.	Housing	Frequency	RTC	Communication	Waterproof	Color	Language(LCD)	—	*Additional Module
AR-837 	E/EE/ER= Controller E Series EL=QR Code	B=125KHz D=13.56MHz S=125KHz+13.56MHz	R=Built in RTC	1=RS485	1=Weatherproof	837-E/EE/EL: B=Black Edge 1=Silver Edge	1=English /Chinese	—	A= TCP/IP Module B= Bluetooth P= POE Features

▶ Fingerprint Controller

AR-331	-EF	X	3DO	—	XX	-X	
Item No.	Housing	Frequency	Module	—	*Type	*Additional Module	
AR-331 	EF=Fingerprint Controller	B=125KHz D=13.56MHz S=125KHz+13.56MHz	3DO= White Sensor FP Module	—	TM/TP/SM/SP	A= TCP/IP Module B= Bluetooth P= POE Features	
AR-837	-EF	X	XXX-	X	X	-X	
Item No.	Housing	Frequency	Module	Edge Color	Type	*Additional Module	
AR-837 	EF=Fingerprint Controller	B=125KHz D=13.56MHz S=125KHz+13.56MHz	9DO= Red Sensor FP Module	B=Black Edge 1=Silver Edge	R=Roof Type X=Standard Type	A= TCP/IP Module B= Bluetooth P= POE Features	
AR-837	-EA	X	X	X	X	-X	
Item No.	Housing	Frequency	RTC	Communication	Waterproof	Color	*Additional Module
AR-837 	EA=Face Recognition	B=125KHz D=13.56MHz S=125KHz+13.56MHz	R=Built in RTC	1=RS485	N=None 1=Weatherproof	B=Black Edge 1=Silver Edge	A= TCP/IP Module B= Bluetooth P= POE Features T= Temperature Module
AR-XXX	-UF	—	—	—	—	—	
Item No.	Housing	—	—	—	—	—	
AR-331 / AR-881 	UF=Fingerprint Enroller 331-UF for White Sensor FP 881-UF for Red Sensor FP	—	—	—	—	—	

*EF Series built in communication RS485
 *UF Series built in USB interface

► Proximity Reader

AR- 331	-X	X	X	X	1	1	1	XX
Item No.	Reader Option	Frequency	RTC	Communication	Waterproof	Color	Type	*Type
AR-331 	K =Access Reader w/Keypad U =Access Reader	B =125KHz D =13.56MHz	X =None	3 =WG choosing : D =13.56MHz have WG+RS485	1 =Weatherproof	1 =Sliver	1 =Standard	TM/TP/SM/SP
AR- XXX	-X	X	X	X	X	X	X	X
Item No.	Reader Option	Frequency	RTC	Communication	Waterproof	*Color	Type	Type
AR-101 / AR-723 AR-725 / AR-888 	U =Access Reader UL =QR Code	B =125KHz D =13.56MHz (AR-101-U available only one frequency S =125KHz+13.56MHz)	X =None	3 =WG choosing : D =13.56MHz have WG+RS485	101-U: N =None 723-U/725-U/888-U: 1 =Weatherproof 723-U/725-U: 2 =Epoxy Waterproof	101-U: B 725-U: 1/2/B/P 723-U: 2/B/P 888-U/UL: B/P	1 =Standard 888-U: 7 =Rectangle US Type 8 =Square EU Type	725-U: M =Metal Housing
AR- XXX	-X	X	X	X	X	X	X	X
Item No.	Reader Option	Frequency	RTC	Communication	Waterproof	*Color	Type	Type
AR-721 / AR-725 AR-888 	K =Access Reader w/Keypad	B =125KHz D =13.56MHz	X =None	3 =WG choosing : D =13.56MHz have WG+RS485	721-K: N =None 725-K/888-K: 1 =Weatherproof 725-K: 2 =Epoxy Waterproof	721-K: 1/2/B 725-K: 1/2/B/P 888-K: B/P	1 =Standard 888-U: 7 =Rectangle US Type 8 =Square EU Type	725-K: M =Metal Housing
AR- 661	-U							
Item No.	Reader Option							
AR-661 	U =Access Reader w/Keypad UG =UHF Reader							

► I / O Module

AR- XXX	-IO	-XXXX	X	-XX	-X	-X
Item No.	Controller Option	Input Qty / Output Qty	Output Type	Additional Features	Type	*Additional Module
AR-727CM 	IO =I/O Module Series	08 =8 Input / 04 =4 Output	M =Mosfet	N/A	N/A	N/A
AR-401 	IO =I/O Module Series	00 =N/A / 16 =16 Output 17 =17 Input / 09 =9 Output 08 =8 Input / 08 =8 Output	R =Relay R-U2 = Relay + UART*2 unit	N/A	N/A=PCB M =Metal Case X =Plastic Mounting Base	401-IO-0808R: P =POE Features
AR-403 	IO =I/O Module Series	00 =N/A / 01 =1 Output 02 =2 Input / 02 =2 Output 04 =4 Input / 04 =4 Output	M =Mosfet	403-IO-0202/0001: IR =1 Infrared Output	N/A	N/A

► Multi-Door Control Series

AR- 716	-E	XX	—	—	-X	-X
Item No.	Controller Option	Doors No.	—	—	Type	Additional Module
AR-716 	E =Multi-Door Networking Controller	02 =Dual Doors (WG) 16 =16 Doors (RS485) + 2 WG 18 =18 Doors (RS485) + 2 WG	—	—	N/A=PCB M =Metal Case X =Plastic Mounting Base (AR-716-E18 does not have plastic mounting base option)	716-E16/E18: A =TCP/IP Module

AR-716-E-TC-M = Uninterruptible Power Supply
AR-716-E-8180 = I/O Extension Board

► Proximity Tags

AR-	TAG	XX	1R	XX	—
Item No.	Style	Style	Functions	Type	—
	CT =Thick Card C1 =Thin Card K1 =Round Keychain (Small) K7 =Square Keychain		1R =Read only	Card 50F =Standard 51 =661U Long Range Card Keychain 20F =Standard	—
AR-	TAG	XX	1R	XX	XX
Item No.	Style	Style	Functions	Type	Format
	CT =Thick Card C3 =Thin Card K1 =Round Keychain (Small) K7 =Square Keychain		1W =125K(Read and Write)	Card 50F =Standard Keychain 20F =Standard	X = SOYAL Standard EM = 125K EM
AR-	TAG	XX	1R	XX	XX
Item No.	Style	Style	Functions	Type	Format
	C1 =Thick Card K3 =Round Keychain K7 =Square Keychain		DW =13.56MHz (Desfire) (Read and Write)	Card 50F =Standard Keychain 20F =Standard	Card DF02 = Standard 7B UID X = Standard 7B UID
AR-	TAG	XX	1R	XX	XX
Item No.	Style	Style	Functions	Type	Format
	C1 =Thick Card K3 =Round Keychain K7 =Square Keychain J8 =Epoxy Keyfob F7 =Prime Keyfob		3W = 13.56MHz (Mifare) (Read and Write)	Card 50F =Standard Keychain 20F =Standard Keyfob 30F =Blue R0F =Red	Card MF06 = Mifare Economical Chip 4byte MF07 = Mifare Economy Chip 4byte(Printable) MF08 = Mifare Standard Chip 4byte MF09 = Mifare Standard Chip 4byte(Printable) MF18 = Mifare Standard Chip 7byte Round Keychain MF06 = Mifare Economical Chip 4byte X = Standard MF18 = Mifare Standard Chip 7byte Square Keychain MF06 = Mifare Economical Chip 4byte MF08 = Mifare Standard Chip 4byte MF18 = Mifare Standard Chip 7byte Epoxy Keyfob / Prime Keyfob MF06 = Mifare Economical Chip 4byte MF18 = Mifare Standard Chip 7byte
AR-	TAG	XX	1R	XX	—
Item No.	Style	Style	Functions	Type	—
	T9 =Label Sticker C1 =Thick Card		9W =922-928MHz (EPC UHF for label)Read and Write	Card 50F =Standard Keychain 01F =	—

► Lock Series

AR-	XXXX	-XX	-XX
Item No.		Style	Type
	0090 =90LBS 0180 =180LBS 0200 =200LBS 0300 =300LBS 0600 =600LBS 1200 =1200LBS	M =Electronic Magnetic Lock	0600M: R =Recessed -DB =Double Door -DT =Delay Time -DB =Double Door+Delay Time 1200M: -DB =Double Door -DT =Delay Time
	0400 =400LBS 1500 =1500LBS	WF =Face Mount WS =Side Mount	---

AR-	1207	-X	-XX	-XX
Item No.		Style	Category	Type
		A =Fail-Safe B =Fail-Secure	29 =Distance between Bolt centerpoint and mounting screw hole centerpoint 29mm 36 =Distance between Bolt centerpoint and mounting screw hole centerpoint 36mm	F =with Euro-Profile Cylinder x =without Euro-Profile Cylinder
		A =Fail-Safe	29 =Distance between Bolt centerpoint and mounting screw hole centerpoint 29mm 36 =Distance between Bolt centerpoint and mounting screw hole centerpoint 36mm	5065 =Bracket for Automatic Door 50x65mm 5085 =Bracket for Automatic Door 50x80mm

AR-	YS	-13X	-NO
Item No.		Style	Type
		130 =Reel 131 =Knob	NO =Fail-Safe

AR-	121X	-P	---
Item No.		Style	
	1213 =73Lx67Wx13H(mm) 1211 =54.5Lx41Wx28H(mm)	P =Cabinet Lock(Fail-Safe)	---

AR-	PBX	-X	-XX
Item No.		Style	LED
	PB2 =Full Stainless Steel Push Button PB5 =Stainless Steel Push Button	041108 =Slim US Type 068108 =Rectangle US Type 086086 =Square EU Type	B =Blue GR =Green/Red

AR-	101	PBI	-XX	-X	-XX	-XX
Item No.	Style	LED	Version	Graphic Panel	Stainless Steel Panel	
	PBI =Infrared	GR =Green/Red	N/A = Standard Version (active distance 5-20cm) S = Micro Distance Version (active distance 0.5-15cm)	NN =Palm/Wave NN =Palm+Button / Wave+Button	6M =Slim US Type 7M =Rectangle US Type 8M =Square EU Type	

AR-	888	PBI	-XX	-X	---	---
Item No.	Style	LED	Color			
	PBI =Infrared	GR =Green/Red	N/A =Black P =White			

AR-	725	-X	X	X	X	1	X	1
Item No.	Housing	Frequency	RTC	Communication	Waterproof	Color	Type	
	U =Access Reader P =Prodrammer R =Card Registration (701ClientSQL) N =Keyboard Simulation	D =13.56MHz S =Dual Band (125kHz+13.56MHz)	X =None	8 =USB 1 =RS485 2 =RS232	N =None	L =Black	1 =Standard	