SOYAL®

ACCESS CONTROL SYSTEM

RFID solutions
proximity & smart cards
hardware & software OEM/ODM service
http://www.soyal.com/
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V080910

Magnet Series

Specifications						
Standard	AR-0090M(LK40)	AR-0200M(LK110)	AR-0300M(EM150M)	AR-0600M(EM250) AR-0600M-DT	AR-0600M-R(EM250)	AR-1200M(EM500) AR-1200M-DT
Magnet Body (mm)	70Lx35Wx20H	160L x 28W x 17H	166L x 38.5W x 21	251L x 47W x 25H	228Lx38Wx27H	266Lx73.5Wx40H
Strike Plate (mm)	62Lx32Wx9H	130Lx28Wx8H	130Lx32Wx10H	185Lx38Wx12H	185Lx38Wx12H	185Lx61Wx16H
Holding Force	40kg	110kg	150kg	250kg	250kg	500kg
Current Drawn	12VDC-100mA 24VDC-200mA	12VDC-200mA 24VDC-100mA	12VDC-370mA 24VDC-185mA	12VDC-400mA 24VDC-200mA	12VDC-400mA 24VDC-200mA	12VDC-500mA 24VDC-250mA
Standard / Double	AR-0600M-DB(EM250A) AR-0600M-DB-DT			AR-1200M-DB(EM500A) AR-1200M-DB-DT		
Magnet Body (mm)	502Lx47Wx25H			532Lx73.5Wx40H		
Strike Plate (mm)	185Lx38Wx12H (x2)			185Lx61Wx16H (x2)		
Holding Force	250kg			500kg		
Current Drawn	12VDC-400mA 24VDC-200mA			12VDC-500mA 24VDC-250mA		
External	AR-0400WF(GL180)	AR-0400WS(GL180F)		AR-1500WF(GL600)	AR-1500WS(GL600F)	
	Face Mount	Side Mount		Face Mount	Side Mount	
Magnet Body (mm)	164L x35Wx26H			203L x 63W x 42H	225Lx65Wx42H	
Strike Plate (mm)	130Lx32Wx10H			185Lx61Wx16H		
Holding Force	180Kg			600Kg		
Current Drawn	12VDC-370mA 24VDC-185mA			12VDC-500mA 24VDC-250mA		
Door Holder	AR-0180M(LK60)					
Magnet Body (mm)	100Lx38Wx38H			Door Holder AR-0180M(LK60)		
Strike Plate (mm)	75Lx32Wx52H					
Holding Force	80kg					
Current Drawn	12VDC-200mA 24VDC-100mA					
Bracket (For Electric Bolt)	AR-0300MZL	AR-0400MZL	AR-0600MZL	AR-1200MZL	AR-1500MZL-WS	AR-1500MZL-WF
L bracket (mm)	166Lx43Wx33H	164Lx43Wx33H	251Lx51Wx33H	266Lx75Wx48H	225Lx72Wx48H	
Z bracket (mm)	166Lx50Wx43H	164Lx50Wx44H	190Lx50Wx50H	190Lx72Wx72H	190Lx72Wx72H	
U Braket (For glass doors)	AR-0300(0400)M-U			AR-0600M-U		
U Braket Size (mm)	140Lx43Wx28H			190Lx43Wx28H		

Electric Bolt Series

Specifications Item NO.	LK-1201A(Fail-Safe Type)	LK-1201B(with LED)	AR-1203A (With LED)	
Lock Body (mm)	205L x 32W x 43H		200Lx35Wx36.5H	AR-1203A
Strike Plate (mm)	104Lx32Wx35H		102.6Lx25.4Wx12H	
Voltage	12VDC		12VDC±0.15% 24VDC±0.15%	
Current Drawn	Initial900mA Hold380mA	Initial 900mA Hold 320mA	Initial 980mA Hold 240mA / Initial 490mA Hold 120mA	
Bracket	LK-1201A -U (U-Bracketts)	LK-1201A -BR	AR-1203A-U (U-Braccets)	AR-1203A-BR
Lock Body (mm)	210L x 22W x50H / 110L x 22W x50H	210Lx44Wx50H / 110L x 44W x50H	203Lx40Wx2.3H	210Lx44Wx46H

Item NO.	EM-1600-A (for: Auto-Door)	
Lock Body (mm)	203L x 38W x41H	EM-1600-A / EM-1600-A POWER
Voltage	12VDC	
Current Drawn	Initial 650mA Hold 220mA	

Electric Strike Series

Specifications Item NO.	AR-EL-209A	AR-EL-300A	AR-EL-209A	AR-EL-300A
Lock Body (mm)	130L x 24W x32H	160L x 26W x31H		
Voltage	12VDC			
Current Drawn	580mA			

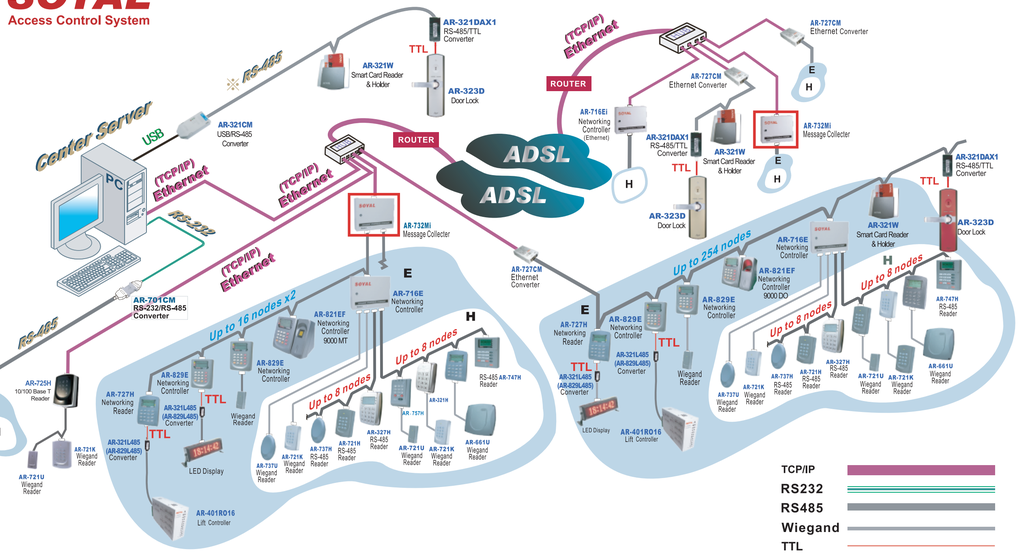
Push Button

Specifications Item NO.	AR-PB-1A(Silver)	AR-PB-1G (Gold)	AR-PB-2A(Silver)	AR-PB-3A(Silver)
Push Button Size (mm)	115Lx42Wx5H	115Lx42Wx5H	115Lx70Wx6H	115Lx70Wx21H

Push Button with LED Ring

Specifications Item NO.	AR-PB-6A	AR-PB-7A	AR-PB-8A	AR-PB-MDL
Push Button Size (mm)	114.3L x 44.5W x 6.5H	114.3L x 69.9W x 6.5H	86L x 86W x 6.5H	38Lx38Wx10H
LED Ring BR : Blue & Red GR : Green & Red WR : White & Red				

SOYAL®
Access Control System



SYSTEM ARCHITECTURE

Multi-Door Networking Controller Panel

AR-716E

- Lockable housing prevents the violence.
- 2 RS-485 serial ports, each port supports 8 readers.
- 2 Wiegand ports for WG readers.
- 4 DI + 4 RO for various applications.
- Changeable interface, RS-485 or Ethernet.
- Extension relay board with 8 DI + 8 RO.
- Built-in power and RS-485 transmission LED indicators.
- Open-all-doors function for emergency purpose.
- Multi-door anti-pass-back function.
- Support time zone, door group and holiday editing.
- Data retained up to 60 days when the power failure.

Specifications

User Capacity		15,000
Event Log		11,000
Voltage		15-24 VDC
Power Consumption		< 2.5W
Communication Interface		Reader Channel : RS-485*2 Host Channel : RS-485 / Ethernet
Baud Rate	RS-485	9600 bps (N, 8, 1)
	Ethernet	10/100 Base T
Operating Temperature		-20° C to +75° C
Digital Input		4+8 (AR-716E-IO)
Relay Output		4+8 (AR-716E-IO)
Max. RS-485 Reader Supported		16
Max. WG Reader Supported		2
Anti-pass Back		Yes
Door Group		255
Time Zone		63
Editing Interface		PC Software
Dimension (mm)		180(L)x231(W)x62(H)
N.W. (g)		1,840 ± 50
Housing Material		Metal
Others		UPS Function (Battery not included)

Options

Extension Relay Board

AR-716E-IO

- Extension Relay Board for AR-716E Networking Controller
- 8 Sets of Exit Button Input with Photo Isolation
- 8 Sets of Door Relays (Form C)
- Door Relay Release Time setting via SOYAL Software

Serial Device Network Module

AR-727I V2

- Built-in Ethernet and TTL serial interface
- TCP/UDP Client / Server , DHCPc , IGMP and ARP supported

Specifications

Converting Interface	10/100 Base T Ethernet – UART (TTL)
Baud Rate	4800-115200 bps
Voltage	5 VDC
Operation Temperature	-20° C to +75° C
Protocol	TCP/UDP Client / Server , DHCPc , IGMP ARP
Dimension (mm)	46(L)x28(W)x15(H)
N.W. (g)	15± 5
AUTO MDI/MDIX	Yes

125kHz / 13.56MHz Reader

Specifications

Item Number	AR-737R/U		AR-721U		AR-721K		AR-661U	
Product Series								
Frequency	125kHz	13.56MHz	125kHz	13.56MHz	125kHz	13.56MHz	125kHz	
Voltage	9-16 VDC	9-24 VDC	9-16 VDC		9-16 VDC		12-18 VDC	
Power Consumption	<1.5W		70 mA		80 mA	<1W	350 mA	
Communication Interface	RS-485 (737R only), TTL Wegand (737U only) and ABA-II		WG 26 / 34, ABA-II, ASYNC		WG 26 / 34, ABA-II, ASYNC		WG 26 / 34, ABA-II, ASYNC	
Baud Rate	9600 bps / 19200 bps(N, 8, 1)		9600 bps (N, 8, 1)		9600 bps (N, 8, 1)		9600 bps (N, 8, 1)	
Operating Temperature	-20°C to +75°C		-20°C to +75°C		-20°C to +75°C		-20°C to +75°C	
Compliance (optional)	—	• ISO14443A • ISO15693 • ISO14443A/B+15693	—	—	—	—	—	—
Reading Range	10-20 cm	3-8 cm	10-18 cm	3-8 cm	10-18 cm	3-8 cm	33-60 cm	
Read / Write	Read Only	Read / Write	—		—		—	
Supported Tags	EM4001 / EM4012	• MIFARE Ultra Light (UL10) • MIFARE Standard (S50) • MIFARE Plus (P60)	—		—		—	
Keypad	No		No		Yes		No	
Indicator	1 bi-color LED and 1 beeper		1 bi-color LED and 1 beeper		1 bi-color LED and 1 beeper		3 LED and 1 beeper	
Waterproof	Yes (Optional)		Yes (Optional)		No		Yes (Optional)	
Color	Gray		Gray / Silver		Gray / Silver		Gray	
Dimension (mm)	113(L)x71(W)x36(H)		81(L)x43(W)x18(H)		111(L)x77(W)x29(H)		228(L)x228(W)x38(H)	
N.W. (g)	80 ± 10		40 ± 5		90 ± 10		1,000 ± 50	
Housing Material	ABS		ABS		ABS		ABS	

Networking Controller • Reader

MIFARE Door Lock/Master card

AR-323D

- Built-in Calendar
- Available for Stand-Alone and Networking System Built-in
- SOR MIFARE Advantages
- Door Alarm Prompt (Unclosed and Forced-Open)
- Capability to Unlock by Mechanical Key

Door Transfer Hinge

AR-321DH4

- 32AWG, 4-pair 12VDC / 320mA,45°x7.5 or 4.5°x4°

Specifications

		US Type	EU Type
Lock Body Type		35mm~45mm	25mm~35mm
Door Thickness		RHR/RHL/LHR (Optional)	RHL(Optional)
Door Hands		3.9kg	3.6kg
Weight		Metal	
Material		-20 / ~ + 50 ℃	
Operating Environment		15% ~ 95%RH	
Operating Humidity		Smart Card, Mechanical Key	
Unlock		MIFARE 13.56MHz (ISO14443A)	
Frequency		0~2cm	
Reading Range		<1.5 sec.	
Respond Time		Yes (+5.3VDC)	
Low Battery Voltage Warning		Capability to connect an external 9VDC power supply	
Low Battery Voltage Solution			
Indicators		One bi-color LED One buzzer Conditions : 1.Green LED + 1 beep : operation ok 2.Green LED + 7 beeps after card presented : inside latch is locked up 3. Red LED + 2 beeps : operation error 4. 5 beeps after card presented : low battery warning	
System		Stand-Along	Networking
Supply Voltage		6VDC (LR6-AAx 4, 2500mAH)	12VDC (Supplied via AR-321DAX1)
Power Consumption		<40uA (Idle state)	<50mA
Lifetime of Battery		Approx. 8 months (6 times operation per day)	-
Accessory		Master Card x 2 Battery LR6-AA x 4	Networking module x 1

Specifications

Door Bell PB AR-PB-321			
Input	V+		12VDC/100mA
	-V-		0V
	Private LED		Low Active / 20mA max.
	Cleanup LED		Low Active / 20mA max.
Output	Bell Relay		Form A Clean Contact 24VDC/2A

Service Panel AR-PB-323			
Input	V+		12VDC
	V-		0V
	Private Button		Internal Piezo Button
	Cleanup Button		Internal Piezo Button
Output	Private	LED Driver	Open Collect 12VDC/50mA max.
		Relay	Form A Clean Contact 24VDC/2A
	Cleanup	LED Driver	Open Collect 12VDC/50mA max.
		Relay	Form A Clean Contact 24VDC/2A

Advantages of SOR

1. Data Protection for Key A/B
2. 6-layer Managing Structures
3. User ID Assignable
4. Expiration Setup
5. Off-line Operation Available
6. Global Access Control
7. Built-in Command within Cards

Smart Card Reader & Holder

- Apply to various automation devices such as air conditioner, TV, door lock and other power supply equipment.
- Allows applying to stored-value system.
- Support both networking and Stand-Alone operation mode.
- Support SOYAL Open System Rules (SOR)

Specifications

		AR-401E	AR-401DI16	AR-401RO16
Frequency		13.56MHz		
User Capacity		1024 / Unlimited (SOR only)		
Voltage		12-24 VDC (12VDC typical)		
Power Consumption		<1W		12W
Communication Interface		RS-485		
Operation Temperature		-20°C to +75°C (0-90% non-condensing)		
Compliance		• ISO14443A • ISO15693 • ISO14443A/B+15693	10/100 Base T	
LED		White LED x2 (Status) Green LED (OK) Red LED (Error)		
I / O		4 DI & 1 Relay Form C 3 Transistor outputs (open collector)	Power, TX/RX,Input: Closed /Open/ Break Network: Link/ACT/Busy	Power, Tx / Rx, Relay On / Off
Color		Silver / White		
Data Capacity		8M Bytes SOR/AM Memory 60 Days Memory Backup	—	—
Remote IO Capacity		512 I/O	—	—
Virtual IO Capacity		512	—	—
Sequential Step		2048	—	—
Real Time Clock		Yes	—	—
Dimension (mm)		97(L)x44(W)x180(H)		
N.W. (g)		600 ± 50		
Housing Material		Metal		

Programmer

The AR-737P is a programmer for MIFARE Smart Card System, designed to improve read / write performance of MIFARE applications. It can be applied in various fields such as access control and stored-value systems.Choosing the AR-737P is believed to create more opportunities for your business.

Specifications

Frequency		13.56MHz
Voltage		5 VDC (USB powered)
Power Consumption		<1.5W
Communication Interface	RS-232	Product P/N: AR-737P/CKN21 AR-737P/CKN22
	USB	Product P/N: AR-737P/KIN21
Baud Rate	RS-232	9600 bps (N, 8, 1)
	USB	USB 2.0
Operating Temperature		-20°C to +75°C (0-90% non-condensing)
Compliance (optional)		• ISO14443A • ISO15693 • ISO14443A/B+15693
Supported Tags		MIFARE 1 (CS50) MIFARE Ultra Light (L10) MIFARE Pro (IC70)
Indicators		1 bi-color LED and 1 beeper
Color		Gray
Dimension (mm)		113(L)x71(W)x36(H)
N.W. (g)		150 ± 10
Housing Material		ABS
Others		SOR Supported

Converter

Serial Device Network Server

AR-727CM

- Built-in RS-232, RS-485 & Ethernet interface (AR-727I module)
- Built-in power and data transmission LED indicator for signal state

Specifications

Converting Interface	10/100 Base T Ethernet , RS-232 , RS-485
Baud Rate	4800 bps-115200 bps
Voltage	9-24 VDC
Power Consumption	<2W
OperatingTemperature	-20°C to +75°C
Protocol	TCP/UDP Client / Server, DHCPc, IGMP, ARP
Dimension (mm)	110(L)x62(W)x24(H)
N.W. (g)	240 ± 10
Housing Material	Metal

Isolated RS-232/RS-485 Converter

AR-701CM

- Automatic data direction control
- RS-232 powered from DTR, RTS (activation needed)
- Up to 32 units in RS-485 multi-door operation
- Built-in power and data transmission LED indicator for signal state

Specifications

Converting Interface	RS-232 ~ RS-485
Voltage	9-16 VDC
Power Consumption	<1.5 W
Operating Temperature	-20°C to +75°C
Effective Range	2M (RS-232) / 300M(RS-485)
Surge Protection	16KV ESD
Optional Isolation	2KV
Dimension (mm)	64(L)x55(W)x16(H)
N.W. (g)	40 ± 5

USB to RS-485 Converter

AR-321CM

Specifications

Item Number	AR-321CM
Converting Interface	USB – RS-485
Voltage	5 VDC
Current	Max. 200mA
Operating Temperature	-20°C to +75°C
Dimension (mm)	79(L)x37(W)x16.4(H)
N.W. (g)	50
Surge Protection	3KV
Electrical Isolation	2500V/1MIN.
Baud Rate	2400~57600

TTL to RS-485 Signal Converter

AR-321L485

Specifications

Converting Interface	TTL – RS-485
Voltage	9-15 VDC
Current	Max. 100mA
Operating Temperature	-20°C to +75°C
Effective Range	300M
Dimension (mm)	52(L)x14(W)x11(H)
N.W. (g)	14

SOR MIFARE • Converter

Programmable Controller

AR-401E	2-Scan Channel Processor Module
AR-401DI16	16-Channel Digital Input Module
AR-401RO16	16-Channel Relay Output Module

Distributed Control I/O Systems

The AR-401E is a programmable controller that provides an optimum solution for access and industrial integrating in centralized and distributed system architectures. The AR-401 offers I/O event control and user friendly programming development tools fulfills PLC requirements in access system.

Specifications

Item Number	AR-401E	AR-401DI16	AR-401RO16
Event Log	10,000		—
Voltage	9-24 VDC		
Power Consumption	<1W		12W
Communication Interface	RS-485 / Ethernet (optional)		
Baud Rate	RS-485	9600 bps / 19200 bps(N, 8, 1)	4800 bps / 9600 bps / 19200 bps(N, 8, 1)
	Ethernet	10/100 Base T	
Compliance	2 RS-485 Scan Channels 1 RS-485 for Host (replaceable to Ethernet Module)	16 N.O. Contact Input Loop Condition Open/Close/Break	16 Form C Relay Output
LED Indicator	Power, Tx / Rx	Power, TX/RX,Input: Closed /Open/ Break Network: Link/ACT/Busy	Power, Tx / Rx, Relay On / Off
Data Capacity	8M Bytes SOR/AM Memory 60 Days Memory Backup	—	—
Remote IO Capacity	512 I/O	—	—
Virtual IO Capacity	512	—	—
Sequential Step	2048	—	—
Real Time Clock	Yes	—	—
Dimension (mm)	97(L)x44(W)x180(H)		
N.W. (g)	600 ± 50		
Housing Material	Metal		

Programmer

The AR-737P is a programmer for MIFARE Smart Card System, designed to improve read / write performance of MIFARE applications. It can be applied in various fields such as access control and stored-value systems.Choosing the AR-737P is believed to create more opportunities for your business.

Specifications

Frequency		13.56MHz
Voltage		5 VDC (USB powered)
Power Consumption		<1.5W
Communication Interface	RS-232	Product P/N: AR-737P/CKN21 AR-737P/CKN22
	USB	Product P/N: AR-737P/KIN21
Baud Rate	RS-232	9600 bps (N, 8, 1)
	USB	USB 2.0
Operating Temperature		-20°C to +75°C (0-90% non-condensing)
Compliance (optional)		• ISO14443A • ISO15693 • ISO14443A/B+15693
Supported Tags		MIFARE 1 (CS50) MIFARE Ultra Light (L10) MIFARE Pro (IC70)
Indicators		1 bi-color LED and 1 beeper
Color		Gray
Dimension (mm)		113(L)x71(W)x36(H)
N.W. (g)		150 ± 10
Housing Material		ABS
Others		SOR Supported

Power Supplier

Specifications

Item Number	Input Voltage	Output Voltage	Dimension (mm)
BP-W12-1000-EO (EO)	100-240 VAC, 50 / 60 Hz, 0.7A	12 VDC, 1000 mA	65(L)x51(W)x66(H)
BP-W12-1000-US2 (US)	100-240 VAC, 50 / 60 Hz, 0.3A	12 VDC, 1000 mA	77(L)x45(W)x26.5(H)
BP-W15-2400 (Optional)	100-240 VAC, 50 / 60 Hz, 0.7A	15 VDC, 2400 mA, 36VA	97(L)x46(W)x34(H)

Proximity Card / Tag

Specifications

			125kHz		13.56MHz	
Card / Key Chain		Standard Card (Thick)	ISO Card (Thin)	Key Chain	MIFARE Card	MIFARE Key Chain
Item No	Read	AR-TAGC1R50	AR-TAGC1R50	AR-TAGK1R20	—	AR-TAGK61R20
	Read Write	AR-TAGC1W50	AR-TAGC1W50	AR-TAGK31W20	AR-TAGK61W20	AR-TAGC3/W50 AR-TAGK33/W20 AR-TAGK63/W20
Dimension (mm)		54(L)x86(Wx1.8(D)	54(L)x86(Wx0.8(D)	37(L)x30(Wx7.5(D)	45(L)x26(Wx2.2(H)	54(L)x86(Wx0.8(D) 39(L)x35(Wx8.5(H) 45(L)x26(Wx5.2(H)
Data Format		EM4001 / 4012 SOYAL Format			MF1	
Frequency		125 kHz			13.56 MHz	
Transponder Type		Passive (non-battery operated)				
Operating Temperature		-30°C to +75°C				

Product Selection and Part Number (How to Order)

AR-TAG X X X X X X

- Model No.
- Frequency
- Read / RW
- Color
- Others

Model	1 C Card 2 Thick 3 ISO 4 Paper 1 Tag 2 12mm 3 16mm 3 20mm 4 25mm 5 30mm 1 K Key Chain 2 Sharp1(small) 2 Sharp3 (Large)
Frequency	1 3.56MHz(MF1)+Stored-Value 5 13.56MHz(4K) 7 14443A/B+15693 2 13.56MHz(Ultra Light) 6 14443A/B 4 13.56MHz(SL1)
Read/RW	1 Read Only W Read + Write
Color	1 Silver 2 Gray 3 Blue 4 Black 5 Ivory 6 OEM

Peripheral • Fingerprint Device • Programmable Controller • Proximity Card / Tag

Fingerprint Device

Specifications

Item Number	AR-821EF (D0/MT)
Product Series	9000 D0 9000 MT
Frequency	125kHz 13.56MHz
User Capacity	10,000
Event Log	11,000
Voltage	9-24 VDC
Power Consumption	<5W
Communication Interface	RS-485 / Ethernet (optional)
Baud Rate	9600 bps (N, 8, 1)
	10/100 Base T
Operating Temperature	-20° C to +75° C
Compliance (optional)	• ISO14443A • ISO15693 • ISO14443A/B + 15693
Door Relay Time	0 , 0.1 - 600 sec.
Alarm Relay Time	0 , 1 - 600 sec.
Aux. WG Port	WG 26/34, ABA-II
Lift Control	32 stops / 5000 users
Door Group	255
Time Zone	63
Editing Interface	Controller / PC Software
Reading Range	8-15 cm 3-8 cm
Color	Gray
Real Time Clock	Yes
Housing Material	ABS
LCD Panel (pixel)	128*64 (4 line messages, 16 characters each line)
Dimension (mm)	132(L)x144(W)x102(H)
N.W. (g)	460 ± 10
Access Mode	Check FP: Fingerprint Only
	No Check FP: Card only / Card + FP / PIN + FP / Card + PIN + FP
Fingerprint Sensor	Optical Sensor (9000 DO) Capacitive Sensor (9000 MT)
Fingerprint Modual's CPU	400 MHz DSP
Error	< 0.1%
Enrollment time	800 msec 500 msec
1:1 Verification time	800 msec 500 msec
1:1000 Identification time	970 msec 650 msec
Image size	384 Bytes
Fingerprint capacity	2250~4500(Deptrnds on enrolled 1 or2 FP per user)
Encryption	256 bit AES (fingerprint data protection)
Size (mm)	63(L) x 43(W) x 10(H)

Relay Output Module

Specifications

Item Number	AR-821RB	AR-829RB
Voltage	12 VDC	
Operating Temperature	-20°C to +60°C	
Current	20 mA	40 mA
Output Contact	1 Form C, 10A at 120VAC, 10A at 24VDC	2 Form C, 3A at 120VAC,2A at 24VDC
Dimension (mm)	20(L)x32(W)x29(H)	55(L)x25(W)x17.4(H)

Networking & Stand-alone Controller / Reader

Specifications

Item Number	AR-321H		AR-721H		AR-725H / AR-725H-M		AR-757H		AR-327H		AR-727H	
Product Series					725H-M							
Frequency	125kHz		125kHz	13.56MHz	125kHz	13.56MHz	125kHz	13.56MHz	125kHz		125kHz	13.56MHz
Voltage	9-16 VDC		9-16 VDC		10-24 VDC		9-16 VDC		10-24 VDC		10-24 VDC	
Power Consumption	<3W		<3W		<3W		<3W		<3W		<3W	
Communication Interface	RS-485		RS-485		RS-485		RS-485		RS-485		RS-485	
Baud Rate	9600 bps (N, 8, 1)		9600 bps (N, 8, 1)		9600 bps (N, 8, 1), 10/100 Base T		9600 bps (N, 8, 1)		9600 bps (N, 8, 1)		9600 bps (N, 8, 1)	
Operating Temperature	-20°C to +75°C		-20°C to +75°C		-20°C to +75°C		-20°C to +75°C		-20°C to +75°C		-20°C to +75°C	
Digital Input	Egress Button / Door Sensor		Egress Button / Door Sensor		2 Egress Button /2 Door Sensor		Egress Button / Door Sensor		Egress Button / Door Sensor / Arming Switch		Egress Button / Door Sensor / Arming Switch	
Compliance (optional)	—		—	• ISO14443A • ISO15693 • ISO14443A/B + 15693	—	• ISO14443A • ISO15693 • ISO14443A/B + 15693	—	• ISO14443A • ISO15693 • ISO14443A/B + 15693	—	• ISO14443A • ISO15693 • ISO14443A/B + 15693	—	• ISO14443A • ISO15693 • ISO14443A/B + 15693	
Relay Output	Door Relay		Door Relay		Door Relay		Door Relay / Alarm Relay		Door Relay / Alarm Relay		Door Relay / Alarm Relay	
Door Relay Time	0 , 0.1-600 sec.		0 , 0.1-600 sec.		0 , 0.1-600 sec.		0 , 0.1-600 sec.		0 , 0.1-600 sec.		0 , 0.1-600 sec.	
Alarm Relay Time	0 , 1 - 600 sec.		0 , 1 - 600 sec.		0 , 1 - 600 sec.		0 , 1 - 600 sec.		0 , 1 - 600 sec.		0 , 1 - 600 sec.	
Tamper Resist. Switch	Limit Switch (Form C)		Limit Switch (Form C)		Limit Switch (Form C)		Limit Switch (Form C)		Limit Switch (Form C)		Limit Switch (Form C)	
User Capacity	M4 /M8	1,024	1,024		1,024		1,024		1,024		1,024	
	M6	65,535	65,535		65,535		65,535		65,535		65,535	
Event Log	M4 /M8	1,200	1,200		1,200		3,000		3,000		1,200	
	M6											
Aux. WG Port	WG 26/34, ABA-II		WG 26/34, ABA-II		WG 26/34, ABA-II		WG 26/34, ABA-II		WG 26/34, ABA-II		WG 26/34, ABA-II	
Anti-pass-back (M4 /M8)	1,024		1,024		1,024		3,000		3,000		1,024	
Lift Control (M4 /M8)	32 stops, 1,024 users		32 stops, 1,024 users		32 stops, 1,024 users		32 stops, 1,024 users		32 stops, 1,024 users		32 stops, 1,024 users	
Presently Reading Range	3-5cm		10-18cm	3-8cm	10-18cm(725H) 7-14cm(725H-M)	3-8cm(725H) 2-5cm(725H-M)	10-18cm	3-8cm	3-5cm		10-18cm	3-8cm
Serial Out	TTL (4800 bps, N, 8, 1) (shared with alarm relay)		TTL (4800 bps, N, 8, 1) (shared with alarm relay)		TTL (4800 bps, N, 8, 1) (shared with alarm relay)		TTL (4800 bps, N, 8, 1) (shared with alarm relay)		TTL (4800 bps, N, 8, 1)		TTL (4800 bps, N, 8, 1)	
Real Time Clock	Yes		Yes		Yes		Yes		Yes		Yes	
LCD Panel (pixel)	—		—		—		—		128*64 (4 line messages, 16 characters each line)		128*64 (4 line messages, 16 characters each line)	
Door Bell Button	No		No		Yes		Yes		No		No	
Transistor Output	Duress/Alarm/Arming LED		Duress/Alarm/Arming LED		Duress/Alarm/Arming LED /2nd Door Open		Duress/Arming LED /Door Bell		Duress/Arming LED /Card Present		Duress/Arming LED /Card Present	
Weatherproof	IP54		—		IP54		IP54		IP54		IP54	
Dimension (mm)	114(L)x78(W)x28(H)		111(L)x77(W)x28(H)		125(L)x89(W)x30(H)		126(L)x91(W)x32(H)		140(L)x92(W)x33(H)		126(L)x91(W)x46(H)	
Indicator	5 bi-color LED and 1 beeper		1 bi-color LED and 1 beeper		1 bi-color LED and 1 beeper		3 LED and 1 beeper		6 bi-color LED and 1 beeper		1 bi-color LED and 1 beeper	
Keypad	Stainless Steel		Rubber		Touch Panel		Rubber		Stainless Steel		Rubber	
Housing Material	Zinc Alloy		ABS		Zinc Alloy + PC RESIN		ABS		Zinc Alloy		ABS	
Color	Chrome		Gray / Silver		Black/Gray/Silver/Blue/Red/ Orange/White/Green/Yellow		Gray / Silver		Chrome		Gray	
N.W. (g)	340± 10		100 ± 10		140 ± 10 (725H-M) 470± 10 (725H)		155 ± 10		430 ± 10		200 ± 10	

Options

Access Mode

- M4 - - - - Card only, Card+9-digit PIN, 9-digit PIN Only (9-digit PIN = 5-digit User Address + 4-digit Individual PIN)
- M6 - - - - Card only, Card+4-digit Public PIN , 4-digit Public PIN Only
- M8 - - - - Card only, Card + 4-digit Individual PIN , 4-digit PIN Individual Only

Specifications

Item Number	AR-829E		AR-725E / AR-725E-M		Item Number	AR-829E		AR-725E / AR-725E-M
Product Series			725E-M		Product Series			AR-725E
Frequency	125kHz	13.56MHz	125kHz	13.56MHz	Proximity Reading Range	8-15 cm	3-8 cm	10-15cm (725E) 5-8cm (725E-M) / 3-8cm (725E-M)
Voltage	9-24 VDC		10-24 VDC					
Power Consumption	<5W		<3W		Serial Out	TTL (4800 bps, N, 8, 1)		RS-485 / TTL (4800 bps, N, 8, 1) (shared with alarm relay)
Communication Interface	RS-485		Ethernet (AUTO MDI/MDIX) / RS-485					
Baud Rate	9600 bps (N, 8, 1)		9600 bps (N, 8, 1), 10/100 Base T		Editing Interface	Controller / PC Software		
Operating Temperature	-20°C to +75°C		-20°C to +75°C		Door Group	255		255
Digital Input	Egress Button / Door Sensor / Arming Switch		2 Egress Button / 2 Door Sensor		Time Zone	63		63
Compliance (optional)	—	—	• ISO14443A • ISO15693 • ISO14443A/B + 15693		Real Time Clock	Yes		Yes
Relay Output	Door Relay Output / Alarm Relay Output		Door Relay		LCD Panel (pixel)	128*64 (4 line messages, 16 characters each line)		—
Door Relay Time	0 , 0.1 - 600 sec.		0 , 0.1 - 600 sec.		Transistor Output	Duress / Arming LED / Card Present		Duress/Alarm/Arming LED/2nd Door Open
Alarm Relay Time	0 , 1 - 600 sec.		0 , 1 - 600 sec.		Weatherproof	No		IP54
Tamper Resist. Switch	Limit Switch (Form C)		Limit Switch (Form C)		Dimension (mm)	128(L)x96(W)x35(H)		125(L)x89(W)x30(H)
User Capacity	15,000		16,000(M4/M8) / 65,535(M6)		Indicator	6 bi-color LED and 1 beeper		1 bi-color LED and 1 beeper
Event Log	5,000		30,000		Keypad	Rubber		Touch Panel
Aux. WG Port	WG 26/34, ABA-II		WG 26/34, ABA-II		Housing Material	ABS		Zinc Alloy + PC RESIN
Anti-pass-back	15,000		16,000		Color	Gray / Silver		Black/Gray/Silver/Blue/Red/ Orange/White/Green/Yellow
Lift Control	64 stops / 15000 users		32 stops, 16,000 users		N.W. (g)	230 ± 10		140 ± 10(725E) / 470± 10(725E-M)
Access mode	Card Only / Card or PIN / Card+PIN		Card Only / Card or PIN / Card+PIN					

Controller+Reader