

BioEntry R2

설치 가이드

버전 1.05

한국어

KO 101.00.BER2 V1.05

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안전을 위한 주의사항

사용자의 위험이나 재산상의 손해를 막기 위해 제품을 사용하기 전에 이 설명서를 반드시 읽고 제품을 안전하고 올바르게 사용하세요. 이 설명서에서 말하는 제품이란 본체와 함께 제공되는 모든 구성품을 포함합니다.

기호



경고: 제품을 사용할 때 위반할 경우 심각한 상해나 사망에 이를 수 있는 경고 사항을 표기할 때 사용합니다.



주의: 제품을 사용할 때 위반할 경우 경미한 상해나 제품 손상이 발생할 수 있는 주의 사항을 표기할 때 사용합니다.



알아두기: 제품을 사용할 때 참고 사항이나 추가 정보를 제공할 때 사용합니다.



경고

설치

고용량의 전원 공급 장치 사용 시 오배선에 각별히 주의하세요.

- 오배선 시 심각한 화재, 감전, 제품 손상이 발생할 수 있습니다.

사용자가 임의로 제품을 설치하거나 수리하지 마세요.

- 화재, 감전, 부상의 원인이 됩니다.
- 사용자의 임의 설치나 수리로 인해 제품이 손상된 경우 무상 수리 서비스가 제공되지 않습니다.

제품을 직사광선에 노출된 장소, 습기, 먼지나 그을음이 많은 장소, 가스가 쉐 가능성이 있는 장소에 설치하지 마세요.

- 화재 또는 감전의 원인이 됩니다.

제품을 전열기 등으로 인해 열이 발생하는 장소에 설치하지 마세요.

- 과열로 인한 화재 또는 감전의 원인이 됩니다.

물기가 있는 곳에 설치하지 마세요.

- 습기로 인한 감전 또는 제품 손상의 원인이 됩니다.

전자파 장애가 있는 곳에 설치하지 마세요.

- 감전 또는 제품 손상의 원인이 됩니다.

사용

제품 내부에 물, 음료수, 약품 등의 액체가 들어가지 않도록 주의하세요.

- 화재, 감전, 제품 손상의 원인이 됩니다.

손상된 전원 어댑터나 플러그, 헐거운 콘센트는 사용하지 마세요.

- 접촉이 불안정할 경우 화재 또는 감전의 원인이 됩니다.

전원 코드를無理하게 구부리거나 망가뜨리지 마세요.

- 화재 또는 감전의 원인이 됩니다.



주의

설치

제품을 설치하기 전에 이 설명서를 반드시 읽고 제품을 안전하고 올바르게 설치하세요.

전원 케이블과 케이블을 배선할 때에는 반드시 연결하려는 모든 장치의 전원을 끈 상태에서 배선 및 연결하세요.

- 장치가 오작동할 수 있습니다.

제품에 전원을 연결하기 전에 다시 한번 설명서를 확인하여 배선이 올바르게 되었는지 확인한 후 전원을 연결하세요.

제품을 직사광선이나 자외선에 직접 노출된 장소에 설치하지 마세요.

- 제품 손상, 오작동 및 변색, 변형의 원인이 됩니다.

전원 케이블 등을 통행 장소에 방치하지 마세요.

- 신체 상해 또는 제품 손상의 원인이 됩니다.

자석, TV, (CRT) 모니터, 스피커 등 자성이 강한 물체 주변에 설치하지 마세요.

- 고장의 원인이 됩니다.

여러 대의 장치를 설치할 경우 최소 이격 거리를 확인하세요.

- 다른 장치의 RF 및 BLE 성능에 영향을 주어 장치가 오작동할 수 있습니다.

전원 어댑터는 IEC/EN 62368-1 승인을 받은 제품으로 단말기의 소모 전력 이상의 제품을 사용하세요. 슈프리마에서 판매하는 전원 어댑터를 사용할 것을 권장합니다.

- 적합한 전원을 사용하지 않을 경우 장치가 오작동할 수 있습니다.
- 최대 소모전류 규격은 제품 사양의 전원을 참고하세요.

제품과 Secure I/O 2, 전기정(전기식 잠금 장치)은 반드시 개별 전원을 사용하세요.

- 장치가 오작동할 수 있습니다.



주의

사용

제품을 떨어뜨리거나 충격을 주지 마세요.

- 고장의 원인이 됩니다.

제품의 펌웨어 업그레이드 진행 중 전원 공급이 중단되지 않도록 주의하세요.

- 고장의 원인이 됩니다.

암호를 타인이 알지 못하도록 관리하고, 주기적으로 변경하세요.

- 불법 침입의 원인이 됩니다.

제품의 버튼(터치패드)을 무리하게 누르거나 날카로운 도구를 사용해 누르지 마세요.

- 고장의 원인이 됩니다.

제품을 -20 °C ~ 50 °C 이내에서 사용하고 너무 낮거나 높은 온도에서 보관하지 마세요.

- 고장의 원인이 됩니다.

제품을 청소할 때 주의하세요.

- 제품을 표면을 깨끗한 마른 천으로 부드럽게 닦으세요.
- 제품을 소독해야 할 경우 마른 천에 소독용 알코올을 적당량 묻힌 뒤 제품 표면을 부드럽게 닦으세요. 이소프로필 알코올이 70~75% 함유된 소독용 알코올과 깨끗하고 보풀이 없는 부드러운 천을 사용하세요.
- 소독제를 제품에 직접 분사하지 마세요.

제품을 원래 용도 이외 다른 용도로 사용하지 마세요.

- 고장의 원인이 됩니다.

RTC 배터리

승인되지 않거나 잘못된 종류의 배터리로 교체하면 폭발의 위험이 있습니다. 배터리는 거주 지역 또는 국제 폐기물 규정에 따라 폐기하세요.

시작하기

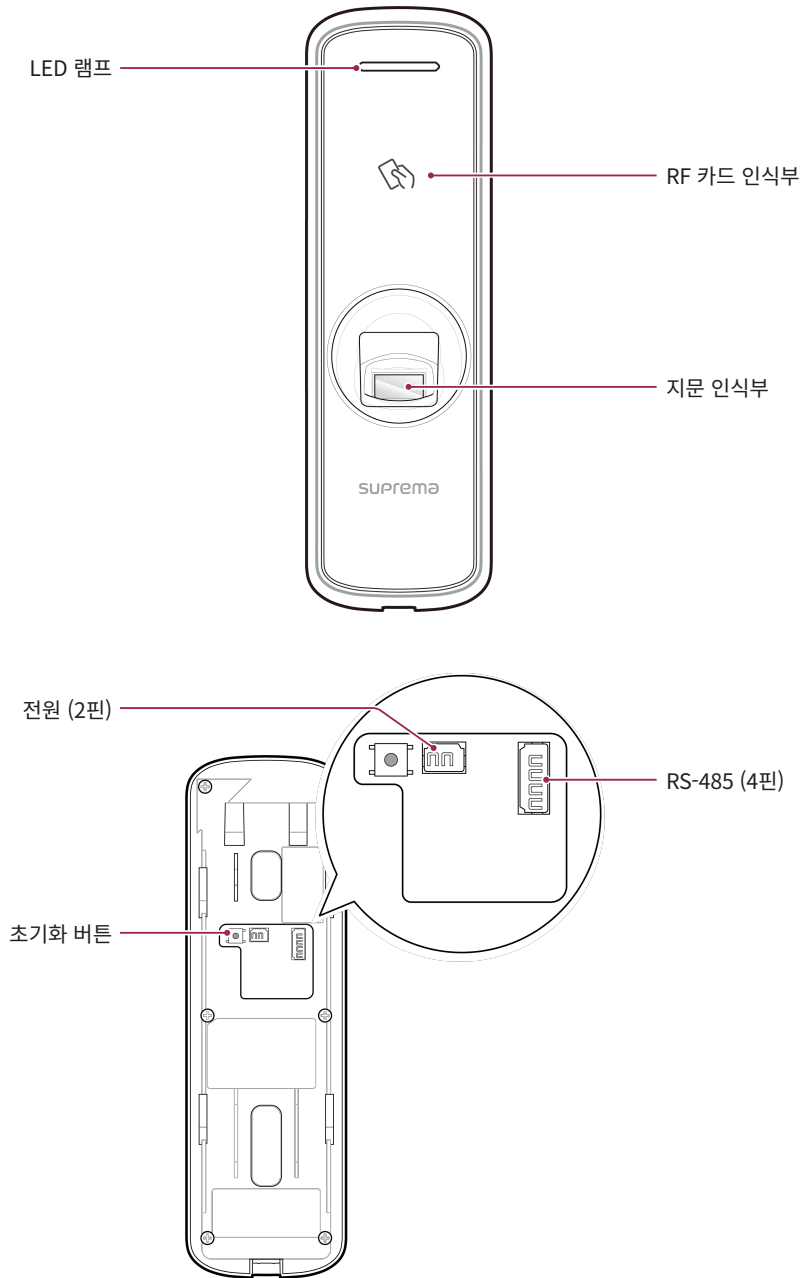
구성품

		
<p>BioEntry R2</p>	<p>벽걸이용 브래킷</p>	<p>드릴링 템플릿</p>
		
<p>연결 케이블</p>	<p>브래킷 고정용 나사 (별 모양)</p>	
		
<p>PVC 앵커 x2</p>	<p>고정용 나사 x2</p>	<p>120 Ω 저항</p>
		
<p>페라이트 코어</p>	<p>퀵 가이드</p>	<p>오픈소스라이선스 가이드</p>



구성품은 설치 환경에 따라 달라질 수 있습니다.

각 부분의 명칭 및 기능



명칭	기능 설명
LED 램프	LED 램프 색상으로 제품 작동 상태가 표시됩니다.
RF 카드 인식부	출입을 위해 RF 카드를 인식시키는 부분입니다.
지문 인식부	출입을 위해 손가락을 올려 지문을 인식시키는 부분입니다.
전원 (2핀)	전원 케이블을 연결합니다.
RS-485 (4핀)	RS-485 케이블을 연결합니다.
초기화 버튼	제품을 초기화할 때 사용합니다.

케이블 및 커넥터

전원



핀	명칭	색상
1	PWR +VDC	빨간색(흰띠)
2	PWR GND	검은색(흰띠)

RS-485



핀	명칭	색상
1	485 TRXP	파란색
2	485 TRXN	노란색
3	485 GND	검은색
4	SH GND	회색

올바른 지문 입력 방법

지문 인식률을 높이기 위해 올바르게 지문을 등록하세요. BioEntry R2는 사용자의 지문 입력 각도 및 위치가 바뀌더라도 지문을 인식할 수 있습니다. 지문을 등록할 때 다음 사항에 유의하여 등록하면 인식률을 높일 수 있습니다.

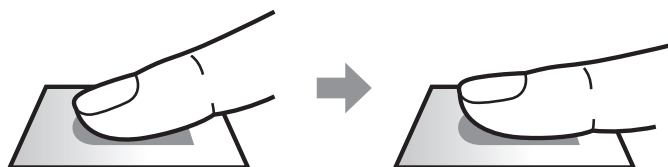
지문 입력을 위한 손가락 선택

- 한 손에 짐을 들거나 손가락에 상처가 나는 경우와 같이 특정 손가락의 지문을 사용하기 어려운 경우를 대비하여, 한 명의 사용자 당 최대 10 개의 지문을 등록할 수 있습니다.
- 지문이 잘 인식되지 않는 사용자의 경우 동일 손가락을 두 번 중복으로 등록하여 인식률을 높일 수 있습니다.
- 손가락에 상처가 있거나 지문이 흐릴 경우 다른 손가락의 지문을 입력하세요.
- 지문 입력 시 검지 또는 중지를 사용할 것을 권장합니다. 다른 손가락은 지문 센서 중앙에 정확히 위치하기 어려워서 인식률이 떨어질 수 있습니다.



지문 등록 방법

- 1 등록할 손가락을 지문 인식부에 올리고, 살며시 눌러 지문이 잘 인식되도록 하세요.



- 2 “뵁” 소리가 난 뒤, 등록된 손가락의 지문을 다시 스캔하세요. (등록할 손가락의 지문은 두 번 입력합니다.)



지문 등록 시 주의사항

지문 인식할 때 처음에 등록된 지문과 비교하기 때문에 지문 등록이 가장 중요합니다. 지문을 등록할 때 다음 사항에 유의하세요.

- 손가락이 센서에 완전히 접촉되도록 깊이 위치시키세요.
- 지문의 중심점 부분이 센서의 중심에 오도록 위치시키세요.
- 손가락에 상처가 있거나 지문이 흐릴 경우 다른 손가락의 지문을 입력하세요.
- 지문 인식 시 화면 안내에 따라 움직이지 말고 정확하게 입력하세요.
- 손가락을 세워 센서와의 접촉 면적이 작아지거나 손가락 각도가 틀어진 경우에는 지문 인식이 되지 않을 수 있습니다.



지문 인식이 잘 되지 않는 경우

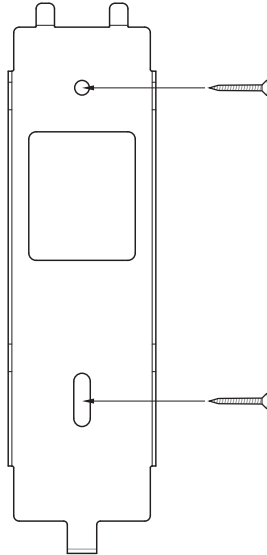
BioEntry R2는 계절의 변화나 손가락의 상태 변화에 관계없이 지문을 인식할 수 있습니다. 하지만, 외부 환경이나 지문 입력 방법에 따라 인식률의 차이가 있을 수 있습니다. 지문이 잘 인식되지 않는 경우 다음의 조치를 취할 것을 권장합니다.

- 손가락에 물이나 땀이 있을 경우 물기를 닦은 뒤 입력하세요.
- 손가락이 너무 건조한 경우 손 끝에 입김을 가볍게 분 뒤 입력하세요.
- 손가락에 상처가 생긴 경우 다른 손가락의 지문을 다시 등록하세요.
- 처음 등록된 지문은 올바르게 입력되지 않은 경우가 많으므로 ‘지문 등록 시 주의사항’에 따라 지문을 다시 등록하세요.

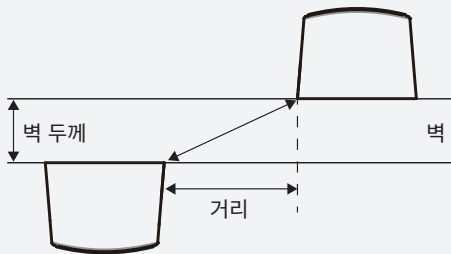
설치

브래킷 및 제품 고정

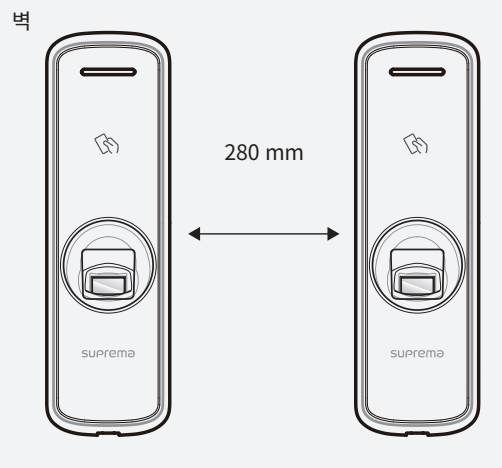
1 제공된 드릴링 템플릿을 이용하여 브래킷을 장착할 위치를 정하세요. BioEntry R2를 장착할 위치에 고정용 나사를 이용하여 브래킷을 단단히 고정하세요.



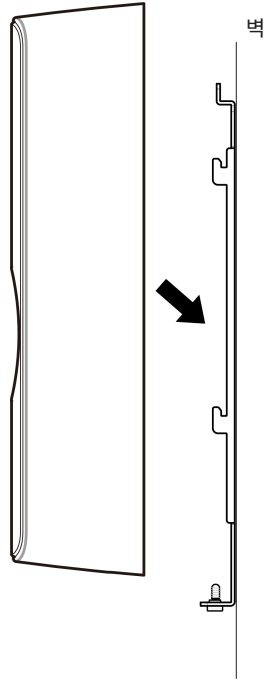
- BioEntry R2를 콘크리트 벽에 설치할 경우 드릴로 구멍을 뚫어 PVC 앵커를 끼운 뒤 고정용 나사로 고정하세요.
- RF 신호 간섭을 피하기 위해 최소 이격 거리를 확인하여 설치하세요.



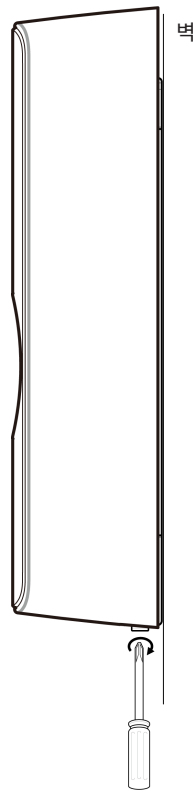
벽 두께	거리
100 mm	250 mm
120 mm	250 mm
150 mm	180 mm



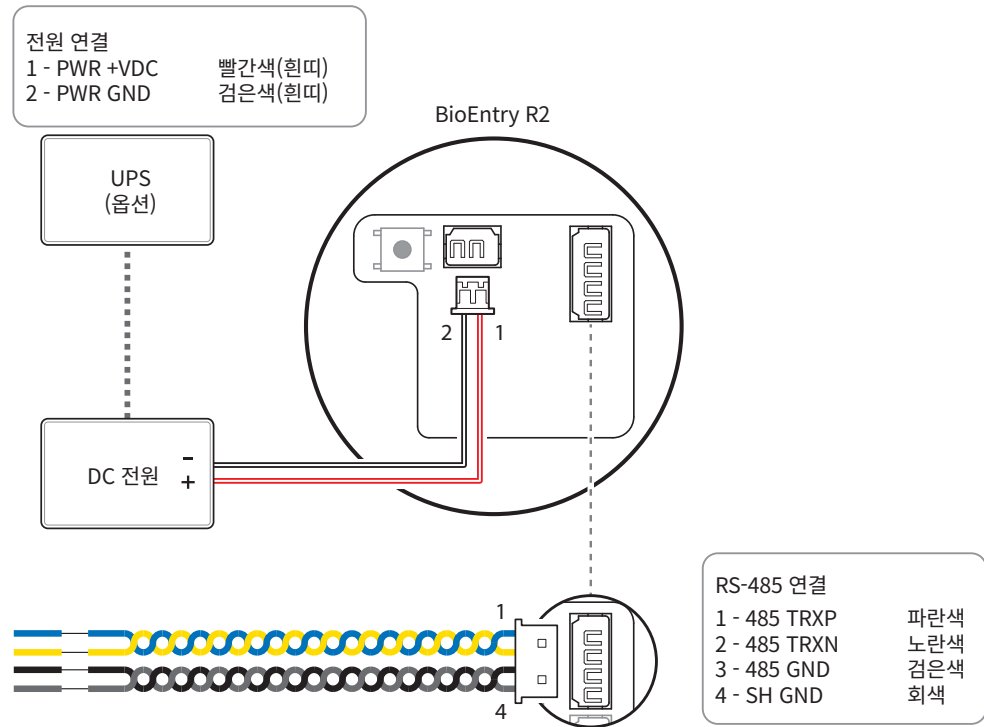
2 고정된 브래킷 위에 BioEntry R2를 장착하세요.



3 제품 고정용 나사를 돌려 BioEntry R2와 브래킷을 조립하세요.



전원 연결



- 전원 어댑터는 IEC/EN 62368-1 승인을 받은 제품으로 단말기의 소모 전력 이상의 제품을 사용하세요. 전원 어댑터에 다른 기기를 연결하여 사용하려면 단말기의 소모 전력과 다른 기기에 필요한 소모 전력을 합한 전류 용량 이상의 어댑터를 사용해야 합니다.
 - 최대 소모전류 규격은 제품 사양의 **전원**을 참고하세요.
- 전원 어댑터를 사용할 경우 전원 케이블의 길이를 임의로 연장하지 마세요.
- Secure I/O 2, 전기정(전기식 잠금장치), BioEntry R2는 반드시 개별 전원을 사용하세요. 전원을 함께 연결하여 사용하면 장치가 오작동할 수 있습니다.
- RS-485 케이블은 AWG24, 꼬임선(Twisted Pair), 최대 길이 1.2 km를 사용하세요.
- RS-485 데이터 체인으로 연결할 경우 종단 저항(120 Ω)을 데이터 체인 연결의 양 끝에 연결하세요. 중간 선로에 연결할 경우 신호 레벨이 작아져 통신 성능이 떨어지므로 반드시 데이터 체인 연결의 양 끝에 연결하세요.
- XPass가 마스터 장치로 연결될 경우 카드 인증만 사용할 수 있습니다.

RS-485 연결 초기화

- 1 전원을 켜세요.
- 2 초기화 버튼을 1초 이상 누르세요. 장치의 LED가 초록색으로 표시됩니다.
- 3 비프음이 들리면 RS-485 연결 초기화가 완료됩니다.



마스터 장치에 연결된 BioEntry R2를 다른 마스터 장치에 다시 연결하려면 RS-485 연결을 초기화해야 합니다.

RS-485 전송 속도 재설정

- 1 전원을 켜세요.
- 2 초기화 버튼을 2초 이상 누르세요. 설정 모드로 변경되면 장치의 LED가 초록색으로 깜빡입니다.
- 3 장치의 LED가 초록색으로 깜박거릴 때 초기화 버튼을 누르는 횟수에 따라 전송 속도가 설정됩니다. LED 색상에 따라 설정된 전송 속도를 확인할 수 있습니다.

횟수	전송 속도	LED 색상
1	9600	하늘색
2	19200	파란색
3	38400	보라색
4	57600	흰색
5	115200	빨간색

- 4 설정한 전송 속도의 색상으로 LED가 5초 동안 깜빡입니다. 비프음이 들리면 전송 속도 설정이 완료됩니다.



설정 모드로 변경된 뒤 초기화 버튼을 누르지 않으면 전송 속도가 115200으로 설정됩니다.

제품 사양

구분	항목	규격
크리덴셜	바이오 인식	지문
	RF 카드	125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3 ¹⁾ , FeliCa
	RF 인식 거리 ²⁾	MIFARE/DESFire: 50 mm, EM/Felica: 30 mm
	모바일	NFC
일반	CPU	1.0 GHz
	메모리	32 MB Flash + 32 MB RAM
	크립토 칩	지원
	LED	다중 색상
	소리	멀티톤 버저
	동작 온도	-20 °C ~ 50 °C
	보관 온도	-40 °C ~ 70 °C
	동작 습도	0 % ~ 80 %, 비응축
	보관 습도	0 % ~ 90 %, 비응축
	치수 (W x H x D)	50.1 x 164 x 38 (mm)
	무게	<ul style="list-style-type: none"> 장치: 158 g 브래킷: 39 g (와셔 및 볼트 포함)
	인증	CE, UKCA, KC, FCC, RoHS, REACH, WEEE
	지문	이미지 크기
이미지 비트 심도		8비트, 256 회색조
해상도		500 dpi
템플릿		SUPREMA / ISO19794-2, ANSI-378
추출		MINEX 인증 및 호환
인터페이스	RS-485	1채널 슬레이브
	RS-485 통신 프로토콜	OSDP V2 호환
	탐퍼	지원
전기 규격	전원	<ul style="list-style-type: none"> 전압: 12 Vdc 전류: 최대 0.2 A

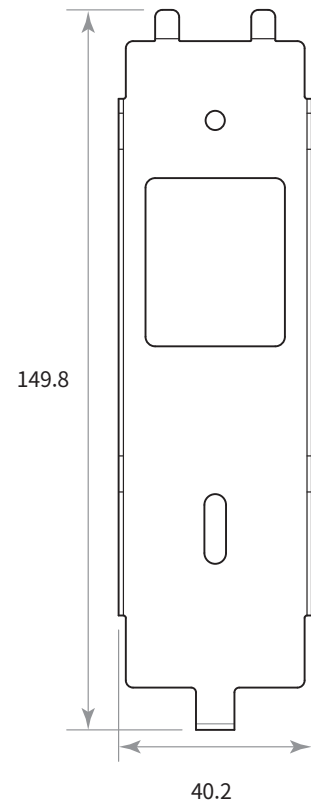
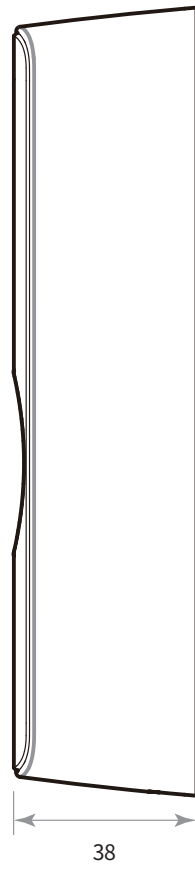
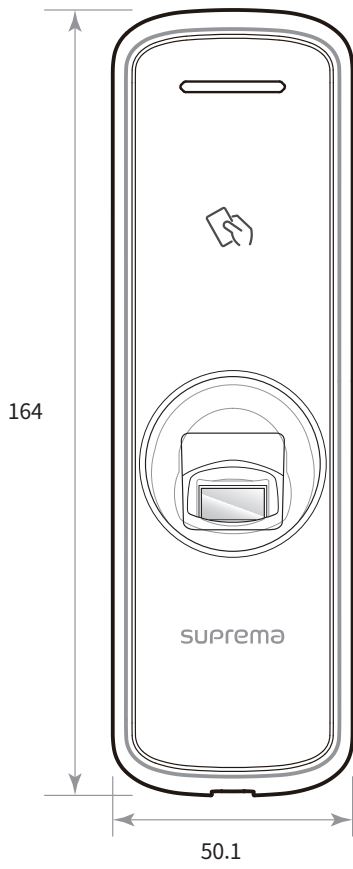
1) DESFire EV2/EV3 카드는 DESFire EV1 카드와 하위 호환되므로, DESFire EV1 카드의 기능을 포함하여 CSN 및 스마트 카드 기능이 지원됩니다.

2) RF 인식 거리는 설치 환경에 따라 다를 수 있습니다.

제품 치수

(단위: mm)

* 치수 공차는 ±0.3 mm입니다.



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- 수신 안테나의 방향을 조정하거나 재설치합니다.
- 장비와 수신기 사이의 간격을 늘립니다.
- 장비를 수신기가 연결된 회로와 다른 회로의 콘센트에 연결합니다.
- 판매업체나 숙련된 라디오/TV 기술자에게 문의합니다.

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Version 3, 29 June 2007

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