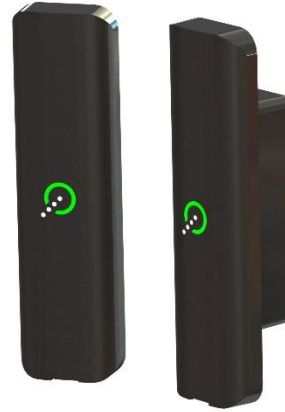


ON-LINE READER WITH SMARTPHONE SUPPORT

Benefits

- Smartphone application opening with Bluetooth or over internet connection
- Creating and sending e-keys through cloud service
- Updating and sharing of access rights through cloud service
- Input for access information and relay output to control the electric locks



Solution for the smart cities of the future

Rollock reader is a pioneer of the next generation smart access solutions, and is creating new kinds of mobile access standards for the industry.

Our philosophy is ease of access; we enable new innovative ways of controlling venues and buildings. With digital reservation systems, the usage of different kind of reserved spaces can be greatly increased and simplified.

Creating new services with access control, such as cleanup, security or food delivery services, opens new business opportunities.

True online reader

Rollock WLAN-reader is a smart NFC reader with Bluetooth and WLAN connectivity combined with Relay outputs, inputs and Mobile application which makes it a perfect reader for all sorts of doors with electrical locks. Smartphone application enables remote control, and thus the reader can be used, for example, as inexpensive door entry system.

Easy upgrade of existing systems

Update your existing locking to an online system and start opening the locks from your smartphone or with your preferred internet browser. Reader includes relay output for opening the electronic lock and input to provide access information from different type of switches.

Keyless and limitless

The access information, such as reader information, users and keys, can all be controlled remotely through the Rollock Access cloud service. Creating, removing, and sending e-keys is straightforward and effortless. A one-time access, temporary or permanent e-key can all be tailored to each separate user and sent directly to their smartphones. The remote opening feature removes the need for a buzzer or a door phone.

Rollock Access or Easy integration to Access systems

Reader can be used with Rollock Access system or can be easily integrated into other access systems, other facility reservation or service management systems with open and documented REST-API interface.

Specifications	
Reader and key	
Number of keys/reader (max)	Max. 2047 stored in the reader, unlimited in cloud
Power supply	24V DC (22,8-28,8V DC)
Max. current	110 mA @ 24V DC
Power consumption	< 3W
Supported locking systems	Relay operated locks
Operations during network problems	Yes, enabled by local access information stored in the reader
Firmware	Can be updated remotely from Rollock server via WLAN
Connectivity – Antennas	
Internal NFC antennas	2 (one on main reader unit and one in external antenna)
Internal Bluetooth antennas	2 (one on main reader unit and one in external antenna)
External WLAN-antenna	2 (1 on each side of the locked object, can be selected by cabling)
NFC	
NFC Frequency	Near field communication (NFC) 13,56 MHz
Supported NFC standards	N-tag, Mifare, Mifare+, DesFire NFC UUID (Universally Unique IDentifier) reading of the TAG supported
Bluetooth	
Bluetooth version	Bluetooth 4.0 low energy (BLE)
WLAN	
Supported WLAN versions	WLAN 802.11 b/g/n 2,4 GHz
Supported WLAN authentication	WPA2-PSK
Internet protocol version	IPv4 (IPv6 not supported)
Communication port in router	8883
Transmit power	17dBm
Security	
Bluetooth	Authentication using per session random data and a shared secret from the eKey hashed with SHA-256. Data encrypted with AES-256 using per session random data and the eKey
Communication to the server	Secure (TLS 1.2) MQTT over TCP between the reader and the cloud with AES-256
Reader status monitoring	
Reader and door status	Reader and door status can be checked from Access Management System or from smartphone application
Input (Door) status	Status of the input of the reader connected to external switches (open/closed)
Output (Reader) status	Status of the relay output of the reader controlling the external lock (open/closed)
Controlling interfaces	
Relay output	30 V, 1A
Opto-coupled input	24V DC, 2 mA

Specifications	
Indicators	
Indicator in Escutcheon	3 colors on both sides of the door
Green (door can be opened)	15 seconds (Solid 10 secs, blinking 5 secs)
Red (door is being locked)	5 secs
White (door is locked and reader is operational)	Solid
Audio	Buzzer
Installation	
Position	Vertical
Mobile phone application	
Android	Android 5.0 API level 21, or later
IOS	IOS 9 or later
Connections	BLE, mobile data
Management interface	
Web UI	HTML 5, Chrome 56 or later, Firefox 51 or later, IE 11
Environment	
Operating environment	-40 °C ... +55 °C, 90% RH
Storage	-40 °C ... +55 °C, 90% RH
Standards	
IEC 60068-2-(1,2,6,27,30,42) IEC 60529	Environmental Testing of Electronic Equipment, Class 3A Ingress Protection, IP52
EN 62599-2 (9.3-4, 10.3-4, 11.3-4, 12.3-4)	Electromagnetic compatibility (EMC) – Immunity of fire and security alarm systems
EN 61000-4-(2,3,4,5,6,8)	Electromagnetic compatibility (EMC) - Immunity
EN 300 328 (4.3.2.9-10 v2.1.1):2016	Radio Equipment Directive (RE D) – Emissions
EN 301 489-(1,3,17 v.2.1.1) EN 55032:2015	Electromagnetic compatibility (EMC RE D) – Immunity, Emissions Conducted emissions
Package	
Content	Main reader unit, antenna unit, installation parts, documentation, activation key, 5 pre-programmed NFC keys
Accessories	Power supply 24 V DC (sold separately)
Warranty	2 years (see warranty document)