SALTO Systems I GATEWAYx2 for Wireless 2.0

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SALTO Wireless Gatewayx2

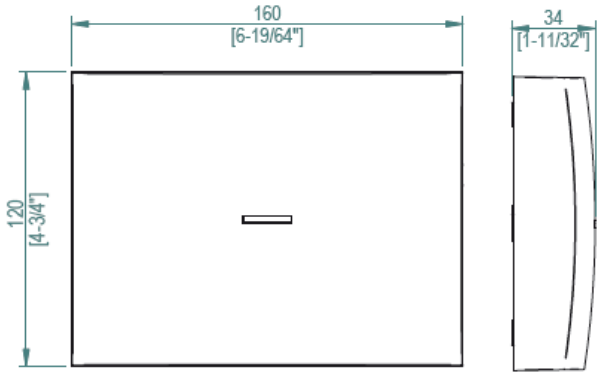
The Gateway is the link between the PC and SALTO's wireless network RF2 (wireless escutcheons). It gives real-time information to the PC.

Gateways are completely managed through the SALTO SW, as it collects all the information sent by the escutcheons and the nodes, that belong to that Gateway. It has been designed with PoE technology, capable of powering the Gateway through Ethernet infrastructure.

About the SALTO Wireless Gatewayx2

Mechanical features

- **Weight:** 195 Gms.
- **Colors available:** Black, White
- **Cover:** Made of ABS V0 plastic.



Electronic features

- **Comunication/Encryption:** Wireless radio frequency based on IEEE 802.15.4 at 2,4Ghz. AES 128 bits encryption.
- **Multi Device:** One gateway can manage up to 7 nodes (1 internal + 6 external nodes).
- **Comunication with the server:** Connection to the LAN Network 10 BASE-T/100 BASE-TX.
- **Power:** PoE supported IEEE802.3af (12V power adapter optional).
- **RF and temperature range:** 10-15 m (30-35 ft) / 0-60ºC (32-140ºF).
- **LED lamps:** Multi colour led to notify the status of the device.
- **Tamper switch:** Built in tamper microswitch to notify if the Gateway has been opened.
- **DHCP by default:** Recommended.
- **Firmware update:** Via software through Ethernet connection.
- **Addressing:** IP Addressing through web explorer (available).

Operation conditions

	Min	Typ	Max	Unit
Temperature	0	25	60	ºC
Humidity	35		85	%

Cable requirements

Ethernet	UTP CAT5e
Node Connection (AB)	Generic twisted pair wire Note1
Node Connection (Vdd)	24 AWG

RF Characteristics (if internal node installed)

Frequency Range	2405-2480 Mhz
RF Standard	IEEE 802.15.4
Indoor Radio Range	10/15m

PoE (IEEE802.3af)

		Unit
Class	2	
Max Power	5	W
Ethernet Standard	10 BASE-T/100 BASE-TX	

Auxiliary Power Supply

	Min	Typ	Max	Unit
Input Voltage Note 2	10	12	15	V
Current consumption	75 Note 3		375 Note 4	mA

Note 1: 1x2x24AWG or UTP CAT5e recommended
Note 2: Use provided AC-DC power supply
Note 3: No external/internal node connected
Note 4: 6 external node connected

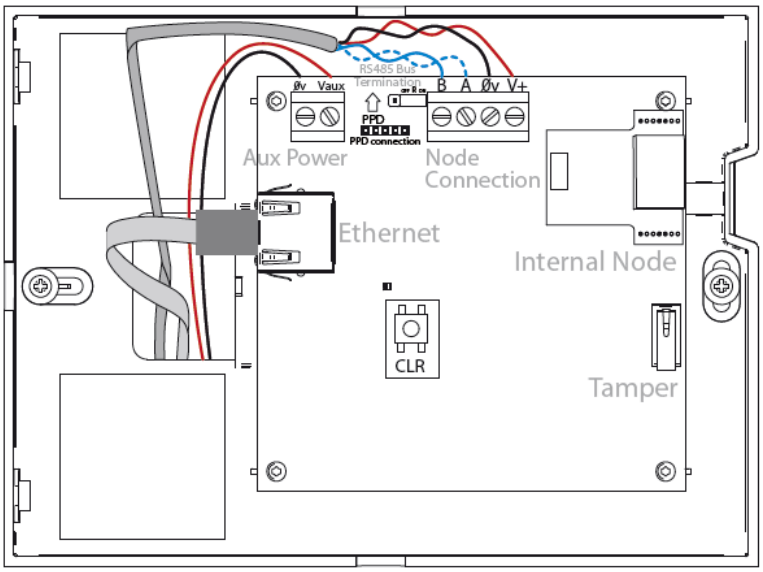
Electrical Installation

(EN) - When PoE and auxiliary power supplies are connected at the same time, PoE is disconnected.
- Pressing CLR button 5 seconds, Gateway enters in addressing mode.

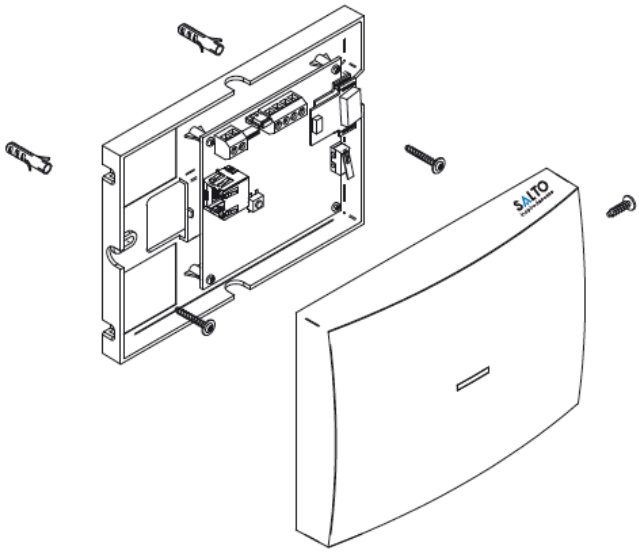
(EN) RS48 5 bus termination resistor is needed (ON position) when the node is located at the end of the bus.

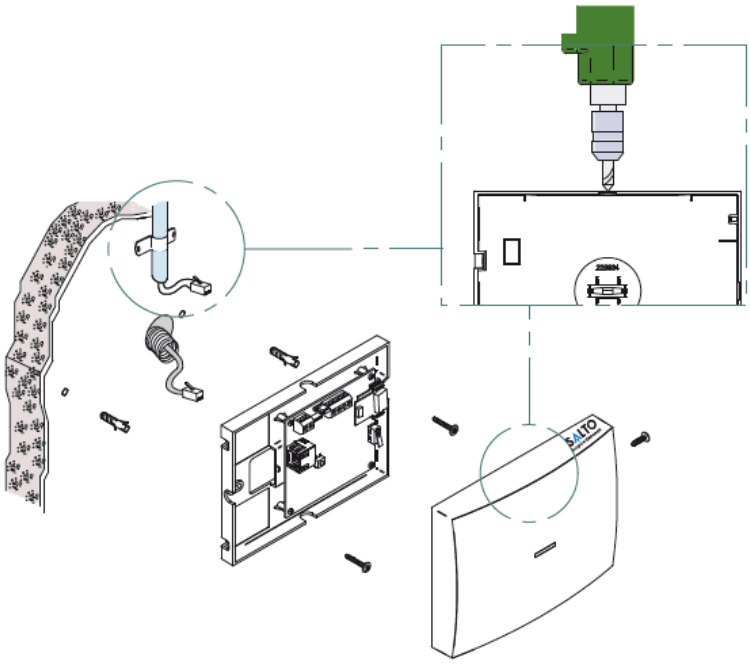
Note on wiring and installation:
Please make sure that cables A and B are twisted.

(EN) Auxiliary power supply needed when Ethernet infrastructure is not PoE (Power over Ethernet)



Mechanical Installation





Configuration

Addressing and configuration

Gatewayx2 is a DHCP ready device. If there is no DHCP server on the local Ethernet network, user can manually configure a fixed IP address changing different parameter using Gatewayx2 Web Server:

1. Pressing CLR button for 5 seconds, Gatewayx2 enters in addressing mode (green LED turns to orange).
2. Access to 192.168.0.234 IP address with a standard browser and configure network parameters as needed.
3. Pressing again CLR button for 5 seconds or confirming the configuration, the device is going to quit the addressing mode.

When addressing process success, configure the RF2 network with SALTO´s software (check the help of the application).

Signalling

The LED in the top layer of the Gateway shows the state of the system:

LED colour	Description
No light	Lack of power supply
Green	Everything is ok
Orange	Gateway in 'Addressing Mode' state
Red	Gateway in 'Bootloader mode' state
Flashing Green	No initialized by SALTO's software

The LEDs on the Ethernet Connector show the state of the Ethernet communication:

LED colour	Description
No light	No Ethernet connection
Green	Ethernet active
Flashing orange	Data transfer taking place through Ethernet.

Operational Test & Maintenance

Once the product is installed, follow these steps to check the correct operation:
- Visually check that the LED is active after power on.
- When nodes and locks are installed, check that the LED is green.
- Check Ethernet connector LED to know communication state.

- This unit should be tested at least once a year as described in "Operational Test"

Declaration of conformity

SALTO Systems S.L (Arkotz Kalea, Pol. Lanbarren, 9) 20180 Oiartzun, Spain declares herewith under its sole responsibility that the product Gatewayx2 complies with ther requirements of the Directive 2004/108/CE and the Directive 2006/96/CE (low voltage). You can find a copy of the original declaration of conformity at the SALTO website: www.saltosystems.com

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SALTO Wireless RFnode

The SALTO RF Node is part of SALTO's RF2 system.

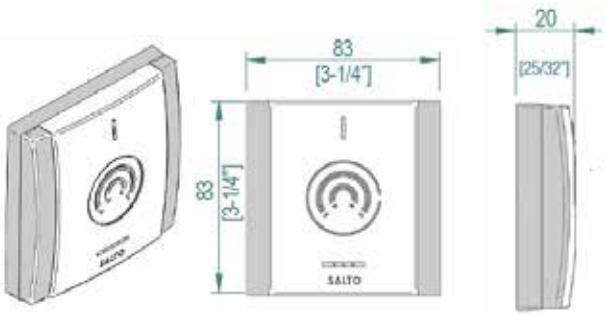
It works as a bridge between:

- The Gatewayx2
- SALTO ProAccess or HAMS for SERVICE access control software
- RF locks

About the SALTO Wireless RFnode

Mechanical features

- **Dimensions (LxWxH):** 3-1/4" x 3-1/4" x 25/32"'
- **Type of connection:** Connected via RS485 to the Gateway



Electronic features

Operation conditions

	Min	Typ	Max	Unit
Temperature	-20	25	70	ºC
Humidity	35		85	%

Cable requirements

RS485 Connection (AB)	Generic twisted pair wire Note 1
Power Connection (Vdd)	24 AWG

RF Characteristics

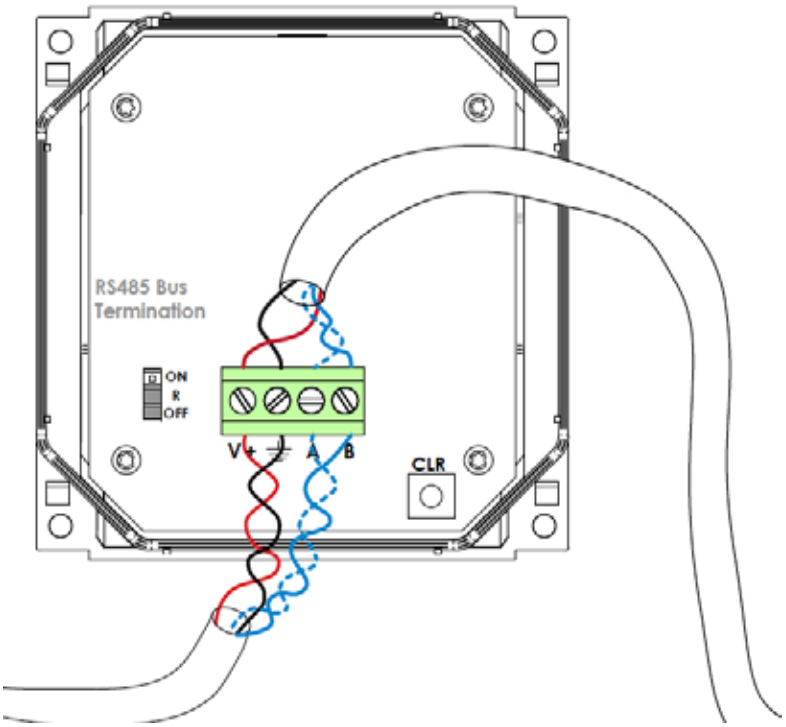
Frequency Range	2405-2480 Mhz
Standard	IEEE 802.15.4
Indoor Radio Range	10/15m

Power Supply

	Min	Typ	Max	Unit
Imput Voltage	7	12	28	V
Current consumption			45 Note 2	mA

Note 1: 1x2x2 4AWG or UTP CAT5e recommended.
Note 2: Power supply must be calculated taking into account Gatewayx2 and Nodes current consumption.

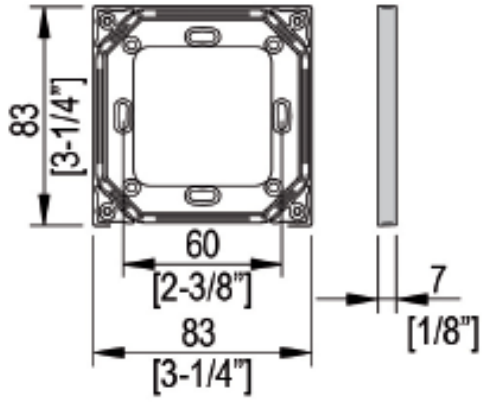
Electrical Installation



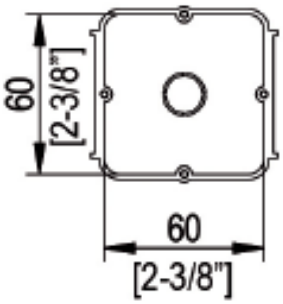
RS485 bus termination resistor is needed (ON position) when the node is located at the end of the bus.

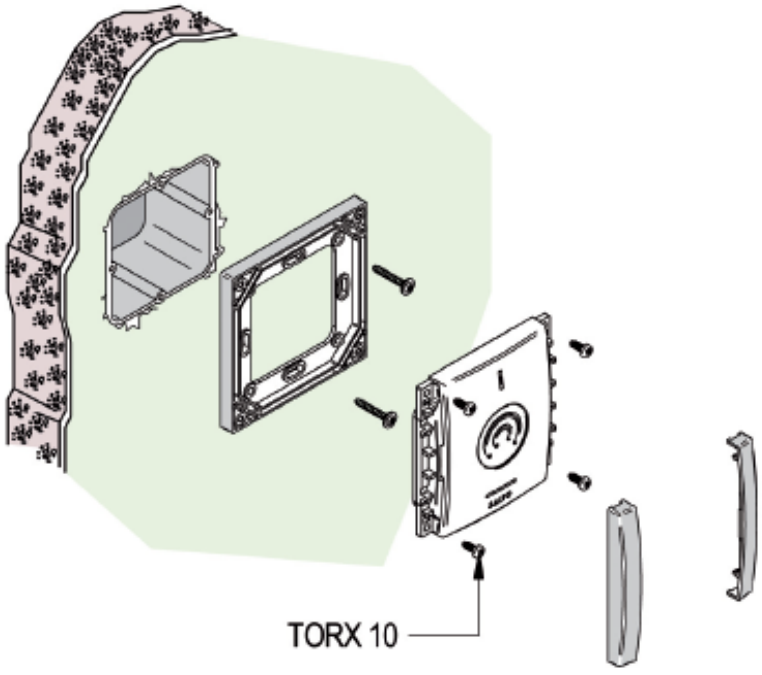
Note on wiring and installation:
Please make sure that cables A and B are twisted.

Mechanical Installation



1 GANG ELECTRICAL STANDARD BOX





Signalling

The Green LED od the Node shows that the Node is correctly powered.

Operational Test & Maintenance

Once the product is installed, follow these steps to check that it is working properly:

- When Gatewayx2 and locks are installed, check that the RF Node is active in SALTO's software

  - This unit should be tested at least once a year as described in "Operational Test"

Declaration of conformity

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SALTO Wireless 2.0 Infrastructure

SALTO Wireless Infrastructure - Questions and Comments

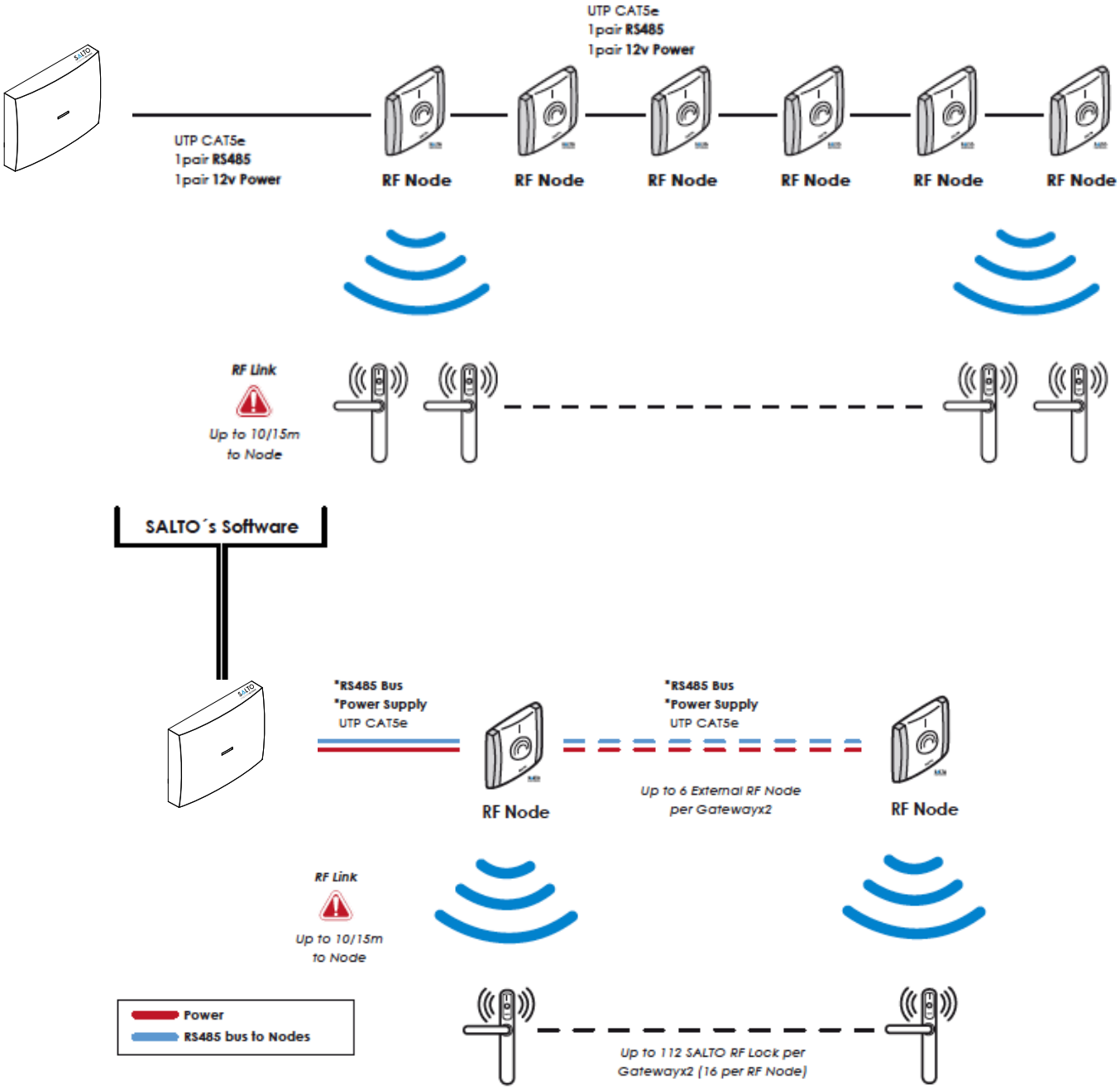
Operating GATEWAY02, RF Nodes and Wireless Locks

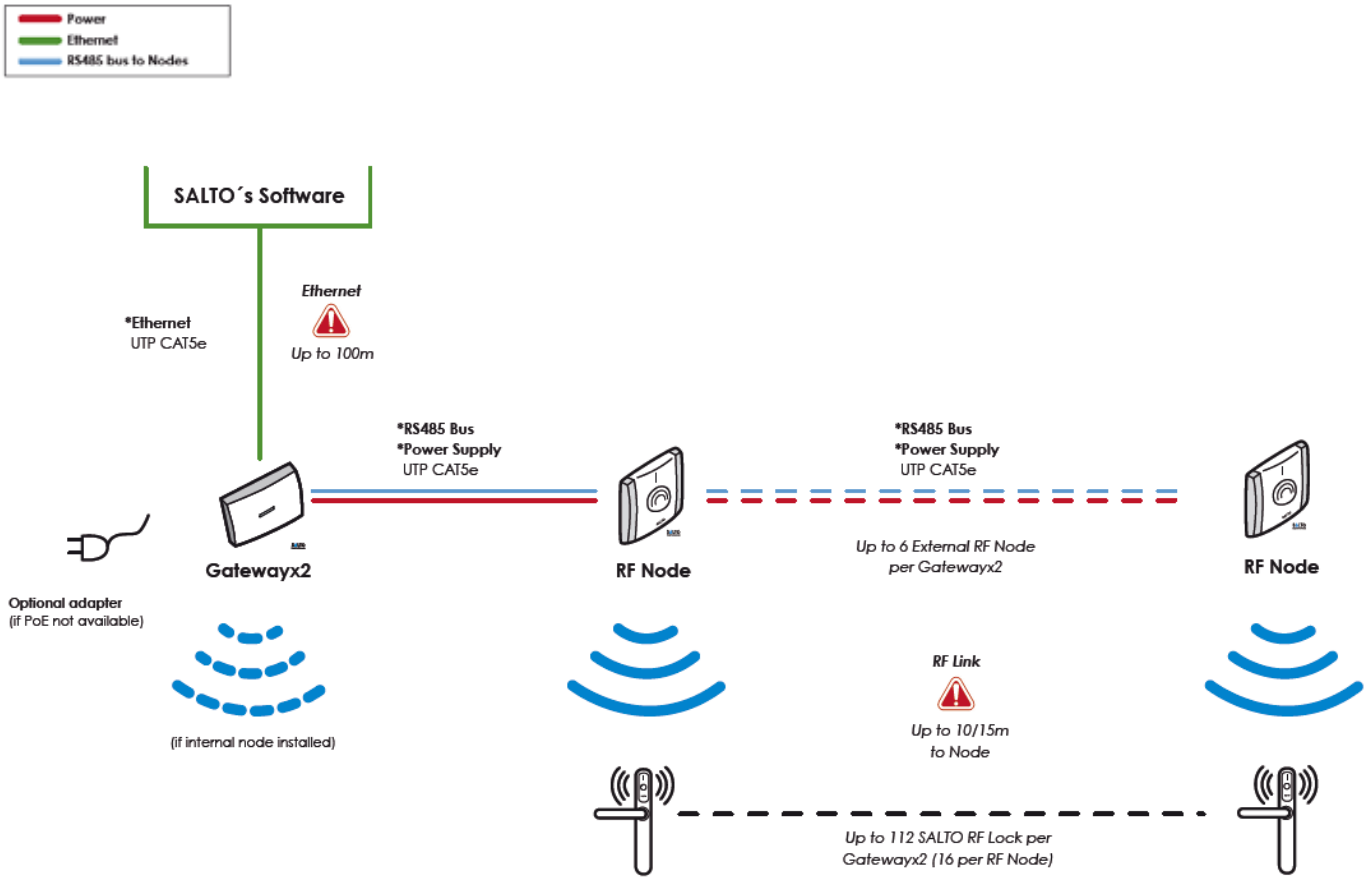
- The Gateway has a built-in node.
- Each Gateway can communicate with 7 nodes (1 internal + 6 external). See diagrams below.
- Each node can control up to 16 RF Locks, which makes up to 112 locks per Gateway
- The Node communicates directly between the Gateway and the Wireless Locks.
- The Wireless Lock is a static element, assigned to a Node though SALTO Software (SALTO Software Service Version Required).
- The maximum recommended distance between the Node and the Door is 15-20 m (45-60 ft.).
- Event streaming information: The SALTO Service generates real-time audit trail information to third party systems

Inst. Structure Example: RF Node

Gateway · Nodes · RF Locks

Basic configuration and structure





About SALTO Systems:

Since its inception in 2001, SALTO Systems has grown to be the market leader in state-of-the-art electronic access control systems.

Recognising the need for a new access control concept, SALTO has developed a wide range of innovative products such as the SALTO Virtual Network and XS4 access control platform, while our electronic escutcheons, wall readers and on-line and off-line control units now control security access for a growing range of end users from Airports to Hospitals, Banks to Government Buildings and Universities to Hotels.

Our brand new HQ and high capacity manufacturing facility is fully equipped with the latest technology for JIT (Just in Time) manufacturing while substantial ongoing investment in a dedicated RD&I team (Research, Development and Innovation) enables us to stay at the cutting edge of modern mechanical, electronic and software design. This, together with ISO 9001:2008 and ISO 14001:2004 certification, ensures rigorous quality management systems are in place to ensure the design, development and manufacturing of our electronic access control products always strive to achieve the highest possible standards of quality as required by you, our customers and for the environement.

Our distribution partner network now covers more than 70 countries to service international growth, and we have branch offices in Spain, UK, USA, Australia, Canada, Denmark, Germany, Holland, Malaysia, Mexico, Portugal, Singapore, Sweden and United Arab Emirates with more planned to open in other countries.

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