EN

# Instruction Manual

(KIT WIRELESSBAND 2 OSE)

26/11/20

IP55 | 2 yrs Battery | 100m | 2 Ch Output | 7Tx

Safe configuration
Fullfil EN13849-1 Cat 2 PL-C

Non-Safe configuration

## 1. GENERAL

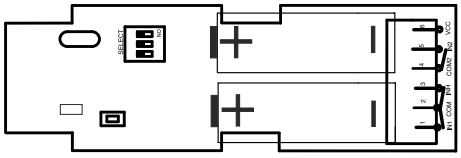
- Two channel wireless system communication for either optical, resistive or mechanical safety edges.

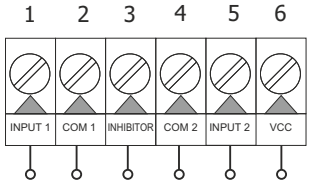
### 1.1 SAFETY INSTRUCTIONS

- Reaction time < 60ms. (according TÜV test report AV86368T **Certificate nº M6A 0908000001 Rev. 01**)
- A Relay test should be done before any operation in order to fulfill EN13849-1-2015 Cat2 PL-C.

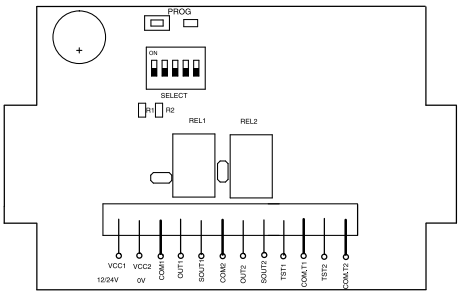
## 2. TRANSMITTER AND RECEIVER TERMINAL CONNECTIONS

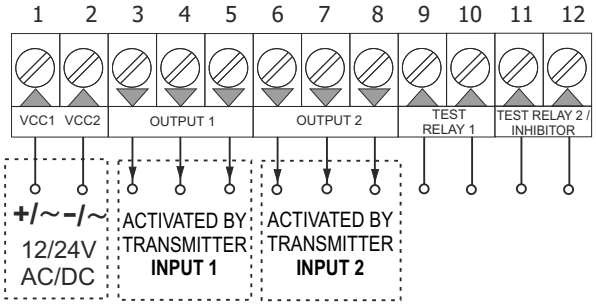
**TRANSMITTER**





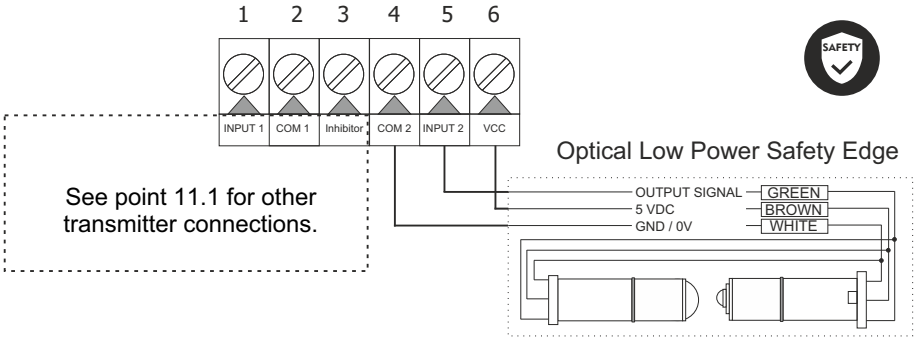

**RECEIVER**




## 3. TRANSMITTER - REGULAR CONFIGURATION FOR OSE

**TRANSMITTER**




**Options configuration for Optical Safety Edge**

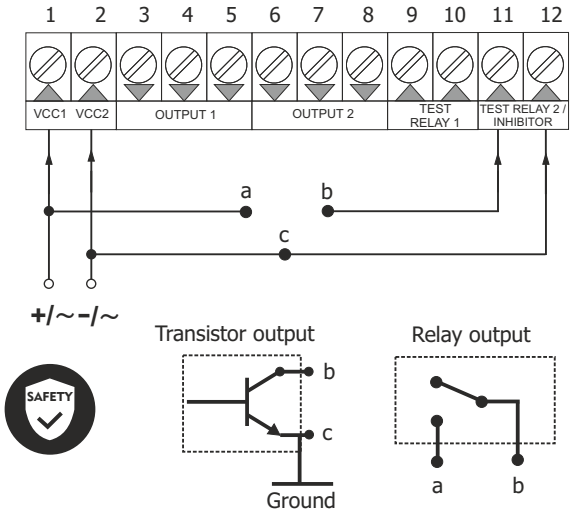
## 4. SLEEPING MODE SETTING UP FOR OPTICAL LOW POWER SAFETY EDGE

Sleeping mode disconnects the Optical Safety Edge (OSE) power supply from transmitter when no signal is received in 11-12 input. When signal is detected, connects the power supply during the door manouvre. There are 2 sleeping mode configurations dependinig on control unit output (Pulse or level signal) and without* sleeping mode.

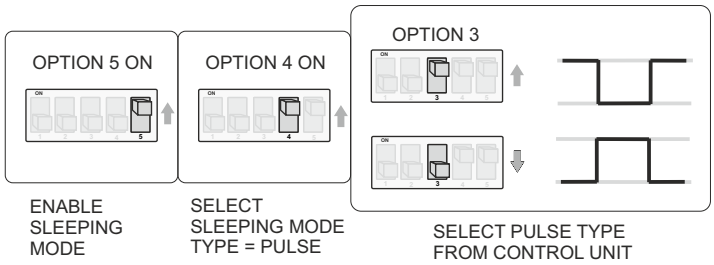
| *Signal type* | **Pulse** | **Level** |
|---|---|---|
| **Receiver** | point 4.1 | point 4.2 |

**WARNING!!**
***Sleeping mode is highly recommended due to optimize energy consumption when using an optical safety edge.**
**If skip sleeping mode, battery life will decrease to 6 months.**
**Desired transmitter and receiver options must be set before code memorisation for proper use.**

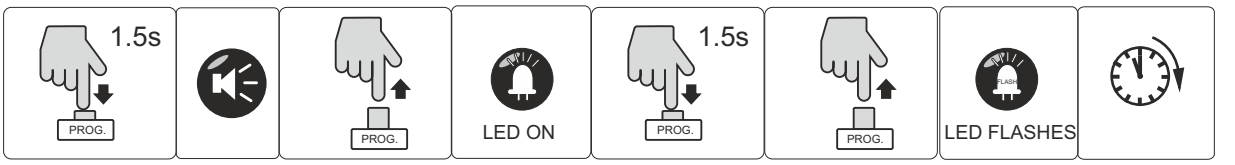
### 4.1 PULSE FROM CONTROL UNIT



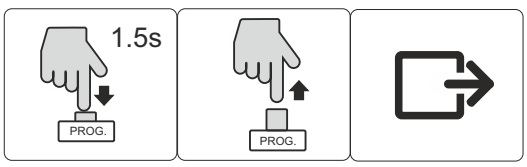

**- Pulse signal before each maneuvres is needed.**
**- For the control unit pulse output, must program the optical safety edge power supply time (equal or more than door manoeuver time)(follow point 4.1.1).**




#### *4.1.1 OSE POWER SUPPLY TIME PROGRAMMING PROCESS (only with OPTION 4 & 5 - ON)*

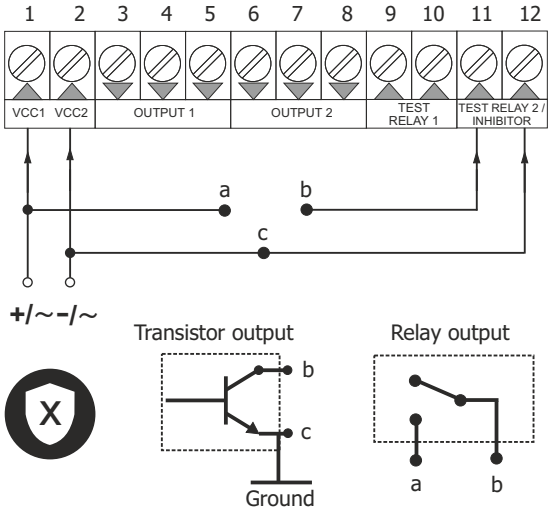



* Record the optical safety edge power supply time. (Equal or more than door operation time).

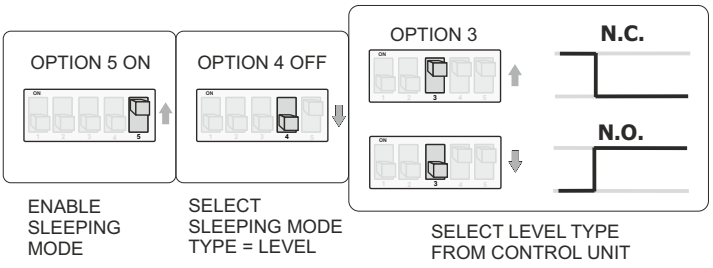



**30" by default**

## 4.2 LEVEL SIGNAL FROM CONTROL UNIT (POSITIONING CONTACT N.O. or N.C.)

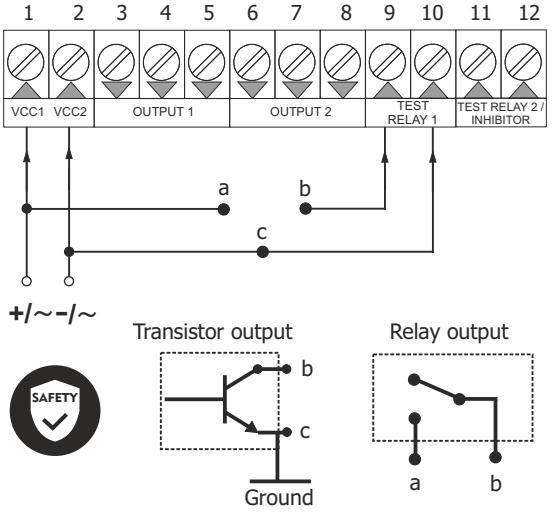



**Before each maneuver there must be a signal that must be active during the manouver to wake up the power supply of the optical safety edge.**

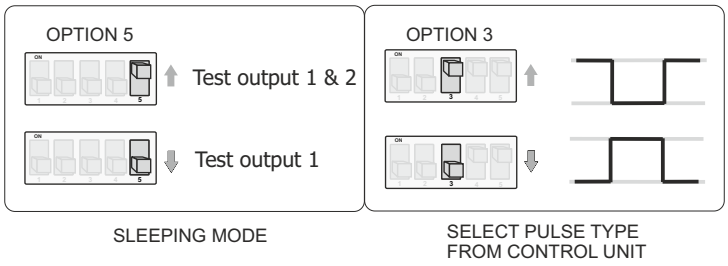



## 5. TEST SETTING UP

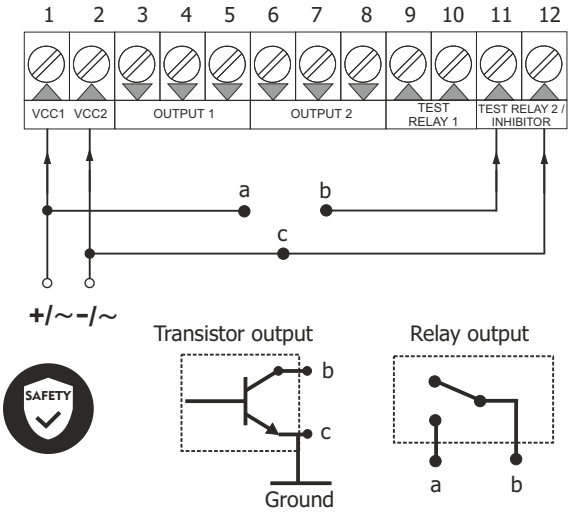
### 5.1 TEST RELAY INPUT 1 CONFIGURATION (9-10)



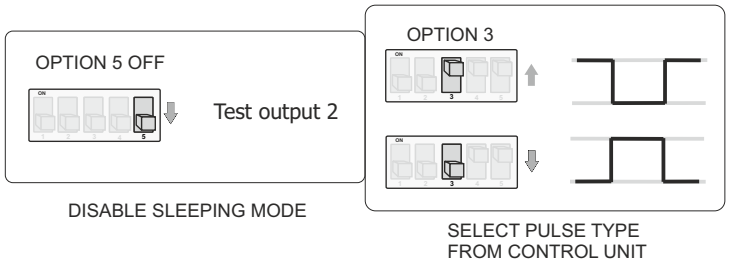

**- Pulse signal before each maneuvres is needed.**



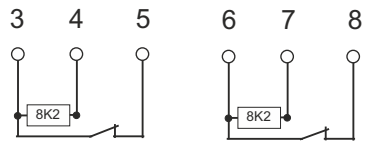
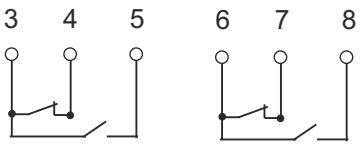
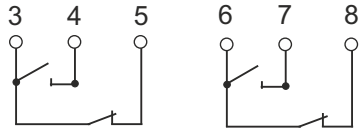
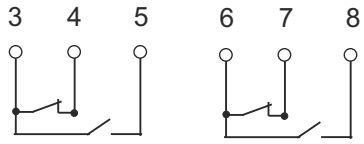

### 5.2 TEST RELAY INPUT 2 CONFIGURATION (11-12)




**- Pulse signal before each maneuvres is needed.**



## 6. RECEIVER OUTPUTS CONNECTIONS

| Normal conditions, safety edge deactivated. | Fail / Sensor active / Sensor not memorized | |
|---|---|---|
|  |  |  **WITH BRIDGE SELECTOR** **Only 3-4 & 6-7 outputs* |
|  |  |  **WITHOUT BRIDGE SELECTOR** |

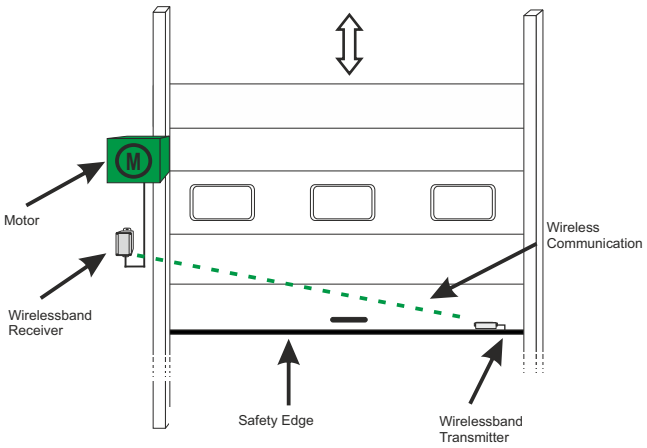
## 7. RECEIVER LED INDICATOR


**LED ON -** Security OK

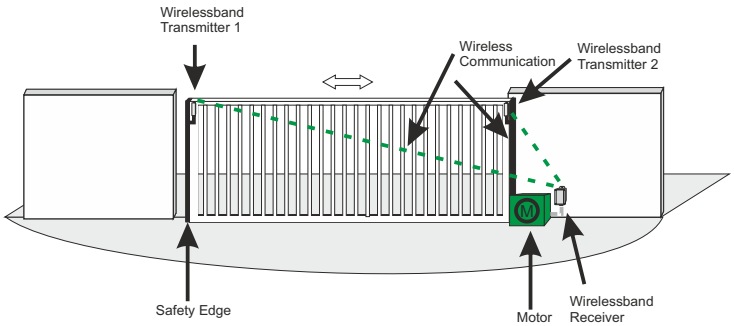
**LED OFF -** Obstacle detected

## 8. MOUNTING

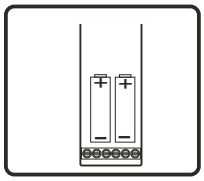
**INDUSTRIAL SECTIONAL DOOR**



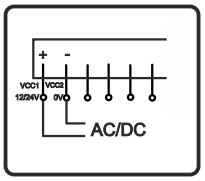

**SLIDING DOOR**



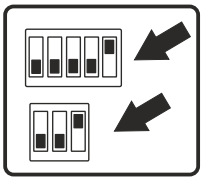
## 9. START-UP



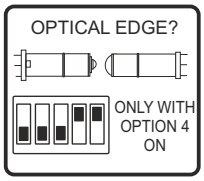
1. INSERT BATTERIES



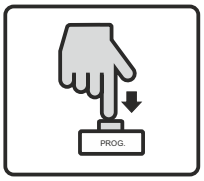

2. CONNECT RECEIVER



3. CHECK SWITCH SETTINGS

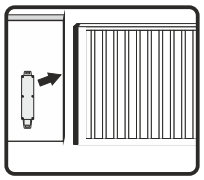



4. SAFETY EDGE TYPE CONFIGURATION (SEE POINT 11.2)

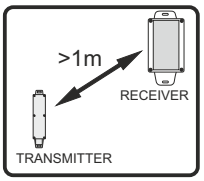



5. CARRY OUT PROGRAMMING PROCESS (SEE POINT 10.)

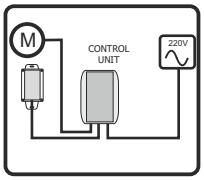
***In kits, transmitter and receiver are already paired.**



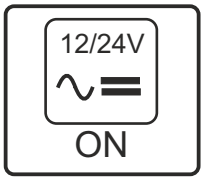
6. INSTALL WIRE TRANSMITTER



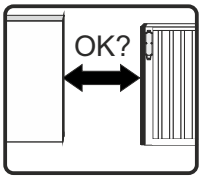

7. MINIMUM DISTANCE 1 m.




8. INSTALL WIRE RECEIVER



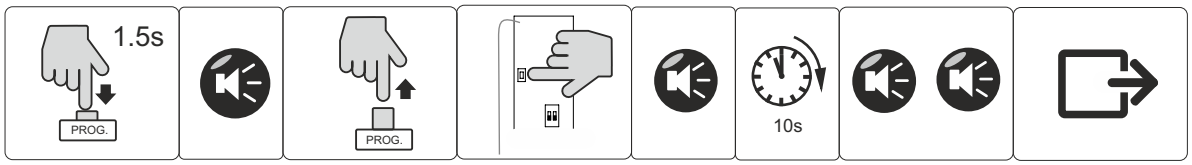

9. TURN ON POWER SUPPLY




10. TEST SAFETY EDGE ON DOOR.

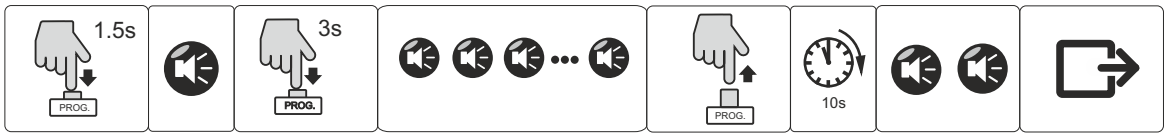
## 10. PROGRAMMING PROCESS

### TRANSMITTER MANUAL PROGRAMMING (up to 7 transmitters per receiver)




PRESS RECEIVER | 1 X BEEP | RELEASE RECEIVER | PRESS TRANSMITTER | 1 X BEEP | WAIT | 2 X BEEPS | SAVE & QUIT

### MEMORY RESET




PRESS RECEIVER | 1 X BEEP | KEEP IT PRESSED | # BEEPS | RELEASE RECEIVER | WAIT | 2 X BEEPS | SAVE & QUIT

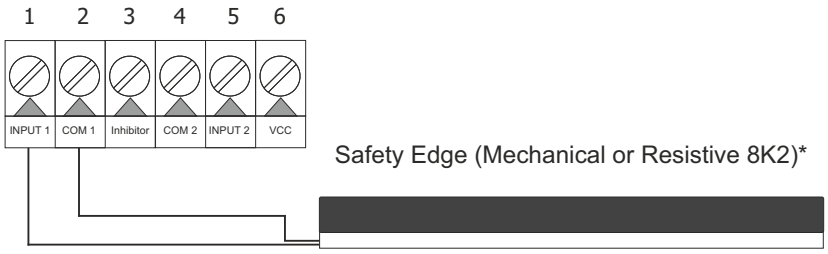
**MEMORY FULL INDICATOR**
Several beeps for 10 seconds when trying to memorize a new transmitter.
The system can store 7 transmitters per channel.

**LOW BATTERY INDICATOR**
4 beeps each time a message is received from a programmed transmitter. Both, warning LED and buzzer are activated simultaneously.

## 11. OTHER CONFIGURATIONS

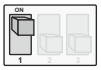
### 11.1 TRANSMITTER

**Input 1 Safety Edge (Mechanical or Resistive 8K2 )**



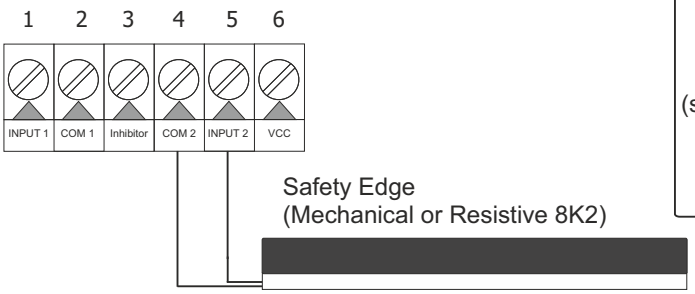

***Choose the Safety Edge type with transmitter option 1**

**Resistive**



**Mechanical**

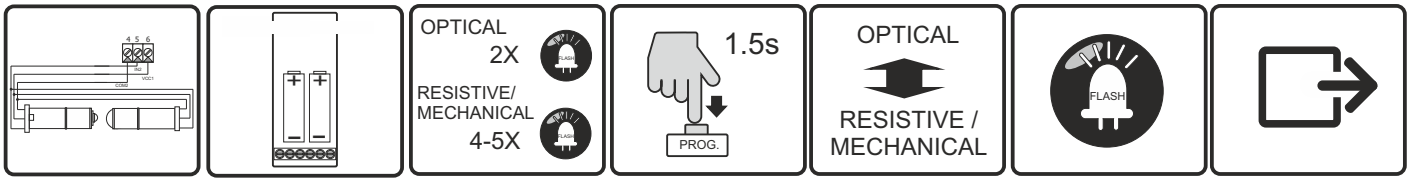
**Input 2 Mechanical or Resistive 8K2 Safety Edge**




**Transmitter and receiver options configuration for Mechanical or Resistive Safety Edge**

(see point 11.2) + **Resistive (ON)** / **Mechanical (OFF)** + **Optical sensor power supply from receiver (ON)** / **Optical sensor power supply from receiver (OFF)**

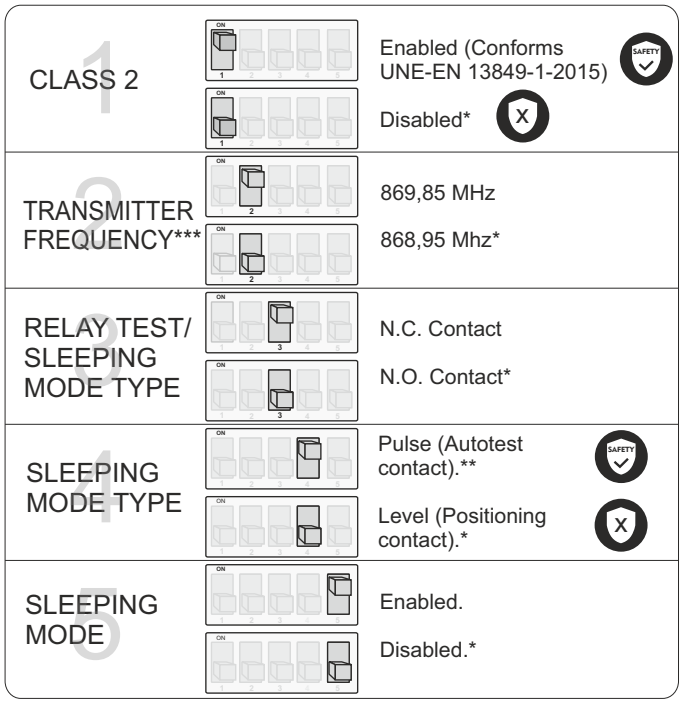
### 11.2 Input 2 LOW POWER OPTICAL SAFETY EDGE or RESISTIVE PROGRAMMING PROCESS




1. CONNECT OPTICAL EDGE TO TRANSMITTER
2. CONNECT BATTERIES
3. STATUS INDICATION
4. PRESS TRANSMITTER PROG. BUTTON FOR CHANGE STATUS
5. STATUS CHANGE
6. LED FLASH
7. SAVE & EXIT

**Default optical configuration.**
**You have 5 seconds after battery connection to make the change of safety edge status.**
**If you want to change again the status, please remove and connect batteries again.**

## 12. RECEIVER OPTION SELECTOR



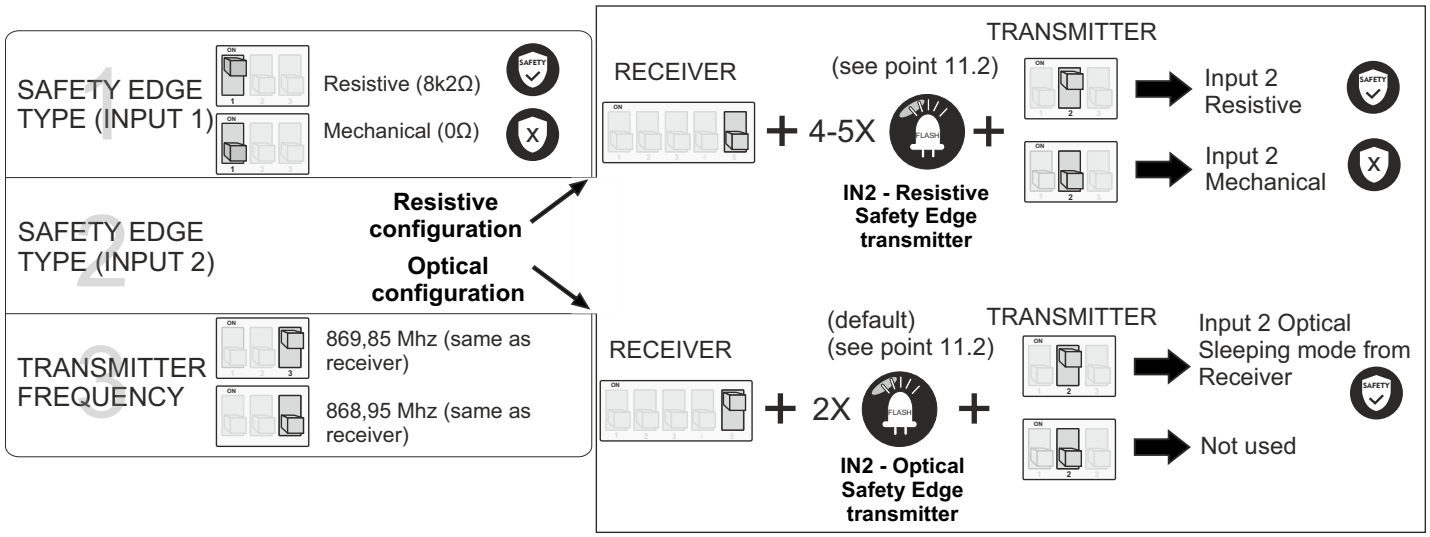

**WARNING:**

*** Default options**

****With Option 4 ON, you must program the Optical Safety Edge power supply time (equal or more than the door operating time), following point 4.1.1.**

*****Receiver and transmitter configuration must be the same.**

## 13. TRANSMITTER OPTIONS SELECTOR



| TECHNICAL SPECIFICATIONS | |
|---|---|
| Receiver supply voltage | 12/24 AC/DC SELV/PELV |
| Transmitter supply voltage | 2x AA lithium battery 3.6V |
| Batteries life | Optical: 2 years (with sleeping mode)<br>Resistive: >8 years |
| Transmitter inputs | Selectable by dip-switch and prog.<br>1 Resistive / contact /optical<br>1 Resistive / contact |
| Transmitter Inhibition input type | Power free contact |
| Receiver memory | 7 transmitters per channel |
| Receiver Output | 2 Relay, micro disconnection 1B<br>or power free contact |
| Receiver test inputs | 2 |
| Type | - 12/24V AC/DC , contact, open collect. |
| Receiver Power consumption | 0.5 W - 12 V / 1,2 W - 24 V |
| Ball pressure test (IEC 695-10-2) | PCB (125ºC) WRAP (75ºC) |
| Pollution degree | 2 |
| Protection class (IEC 60529) | Ip55 |
| Frequency Channels | 868.95MHz & 869.85MHz |
| Range | 100m |
| Working temperature | -20ºC to +55ºC |
| Rated transient over voltage | 330V |
| Transmitter power consumption | Transmitting 17mA / stand by 16uA |
| Maximum screw force | 0,4 Ncm |
| Machine Safety Normative | 13849-1:2015 PL-C Cat. 2, with TEST<br>before every manoeuvre |
| Reaction time | <60 ms |

**CE DECLARATION OF CONFORMITY**
**For more information visit the website www.aerf.eu**

# WARNING!!

**- Installation, start-up, modification and updating of the system may only be carried out by a qualified person.**
**- Switch off the operating voltage before working on the system.**
**- The system doesn't have fuse protection. Is recommended to include exterior protection from 100mA to 250mA.**
**- In case of any hypothetical issue, please do a memory reset (point 10.).**

AERF® developers & manufacturers