

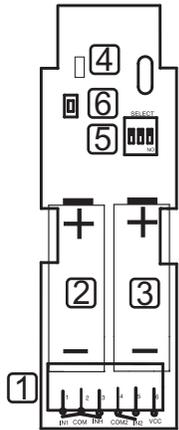


Instruction Manual

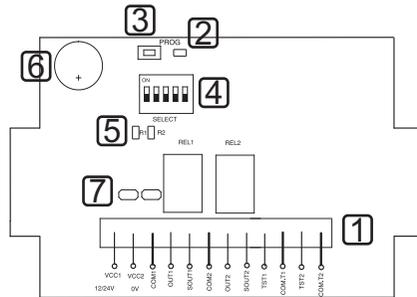
(WIRELESS BAND 2.0)

TRANSMITTER

RECEIVER



- 1- Terminals
- 2- Battery 1
- 3- Battery 2
- 4- Programming LED
- 5- DIP - Switch
- 6- Push button



- 1- Terminals
- 2- Programming LED
- 3- Push button
- 4- DIP - Switch
- 5- Relays LED
- 6- Buzzer
- 7- Resistor output bridge selectors

GENERAL

Radio transmission system for resistive safety edges (8K2), contacts (0 Ohms) and optical safety edges (Low power).

The system consists of a transmitter unit and a receiver unit.

The system is fully compatible with the existing 1 channel wirelessband

Important:

- The system has no fuse protection. It is advisable to include a fuse protection of minimum 100mA and maximum 250mA into the external Power.

START-UP

WirelessBand transmitter and receiver must be mounted on separate surfaces.

- 1.- Insert the enclosed batteries into the transmitter
- 2.- Connect receiver to supply voltage. (Note correct polarity for DC.)
- 3.- Check switch settings (See Table 1)
- 4.- Carry out programming steps.(See Code Memorization Process. Page 2) Transmitter and receiver are now matched to one another.
- 5.- If you are using an optical safety edge turn ON the option selector n°2 (See Table 1) and program the optical option (See below)
- 6.- Install transmitter on gate.
- 7.- Wire safety edge to transmitter (See Table 2).
- 8.- Install receiver at designated location.
- 9.- Wire supply voltage, test input and output to control unit (See Table 2).
- 10.- Switch on the power supply.
- 11.- Carry out test by activating the connected safety edge in different gate positions, particularly the open and closed positions.
- 12.- A minimum distance of 1m must be observed between the transmitter and receiver.

TECHNICAL SPECIFICATIONS

| | |
|-----------------------------------|---|
| Receiver supply voltage | 12/24 AC/DC |
| Transmitter supply voltage | 2x AA lithium battery 3.6V |
| Transmitter inputs | Selectable by dip-switch and prog. 1 Resistive / contact /optical 1 Resistive / contact |
| Transmitter Inhibition input type | Power free contact |
| Receiver memory | 7 transmitters per channel |
| Receiver Output | 2 Relay, micro disconnection 1B 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 (125°C) WRAP (75°C) |
| Pollution degree | 2 |
| Protection class (IEC 60529) | IP67 |
| Frequency Channels | 868.95MHz & 869.85MHz |
| Range | 100m |
| Working temperature | -35°C to +55°C |
| Software | Class A |
| Rated transient over voltage | 330V |
| Transmitter power consumption | Transmitting 17mA / stand by 16uA |
| Machine Security Normative | 954-1 Category 2 |

LOW POWER OPTICAL SAFETY EDGE PROGRAMMING

Before starting the procedure, please read all the steps carefully.

- 1.- Turn ON option selector n°2 (input 2 as resistive/Optical safety edge)
 - 2.- Connect, the Low Power Optical Safety Edge, power supply into Vcc terminal.
 - 3.- Connect the Optical output signal to terminals 4 and 5 (See Table 1)
 - 4.- During the first 10 sec. start up, the programming LED flashes 5 times indicating that Input 2 is configured as a resistive safety edge. If the Programming LED flashes 2 times indicates that Input 2 is configured as optical safety edge. If you dont want to change the configuration, wait until the programming LED makes 1 flash indication the start-up exit.
 - 5.- To configure Input 2 as low power optical safety edge input press the programing button for 1,5s sec, during the first 10 secs before the start-up flash exit. The programming LED flashes 5 time or 2 times depending on the previous configuration and then one LED flash indicates the start-up exit.
 - 5.- To check or change the configuration again, disconnect power suply and follow the steps 4 to 6.
- Now the In2 terminal is configured as a low power optical safety edge.

BATTERY LIFE

Battery life of nearly 10 years at -20°C without optical safety edge, and is increased if the system works at higher temperatures. if you are **using optical safety edge and give a 2 years battery life.** (In order to maintain the battery live is highly recommended to connect the transmitter inhibition input - See INBIBITOR INPUT page 4)



Instruction Manual

(WIRELESS BAND 2.0)

TRANSMITTER OPTION SELECTOR (Table 1)

OPTION 1 - IN 1 SAFETY EDGE TYPE

- ON** Resistive safety edge (8k2)
OFF Contact safety edge (0 Ohms)

OPTION 2 - IN 2 SAFETY EDGE TYPE

- ON** Resistive (8k2) or Optical(Low Power)* safety edge
OFF Contact safety edge (0 Ohms)

OPTION 3 - TRANSMITTER FREQUENCY

- ON** Frequency 869,85 MHz, setting MUST match that of receiver
OFF Frequency 868,95 MHz, setting MUST match that of receiver

* Must be done with the programming button in the start-up (see programming detail for optical safety edges)

RECEIVER OPTION SELECTOR (Table 2)

OPTION 1 - CLASS 2

- ON** Class 2 enabled. Standard setting for safety operation.
OFF Class 2 disabled

OPTION 2 - TRANSMITTER FREQUENCY

- ON** Frequency 869,85 MHz
OFF Frequency 868,95 MHz

OPTION 3 - RECEIVER TEST TYPE

- ON** Normally Open contact
OFF Normally Close contact

OPTION 4 - AUTOMATIC FREQUENCY AGILITY

- ON** Automatic frequency Agility enabled
OFF Automatic frequency Agility disabled

OPTION 5 - RELATED OUTPUTS

- ON** Related
OFF Not related

CLASS 2:

- It is very important that the selected frequency coincides with the transmitter. Otherwise the system will not work.
- With class 2 Disabled the current consumption is less. This is the perfect setting for storing the product (5uA class 2 disabled to 15uA class 2 enabled).
- Every 5 seconds there is a transmission.
- If no signal is received during 15 seconds, receiver relays goes to security estate.
- Receiver test only checks the relay.
- Receiver will not work until all programmed transmitters are identified.

PROGRAMMING PROCESS

CODE MEMORIZATION

1. Press PROG button for 1,5 sec.
- 2.- On hearing the acoustic signal stop pressing as the receiver will be logged into the memorizing code process.
- 3.- Prog. LED will be turned on indicating that you are programming transmitters.
- 4.- From this moment received transmitters will be memorized.
- 5.- In order to memorize push PROG button on the transmitter.
- 6.- The memorization of a code is acknowledge with one acoustic signal.
- 7.- The receiver will exit from memorization code process automatically after 10 seconds from the last transmitter input. This will be indicated with two acoustic signals.

MEMORY RESET

- 1.- Press PROG button for 3,5 seconds.
- 2.- After 1,5 seconds one acoustic signal will be heard indicating that you have entered the code memorization mode, maintain the button pressed.
- 3.- After 3,5 seconds you will hear several acoustic signals for 10 secs.
- 4.- Stop pressing the button.
- 5.- The WirelessBand will have reset all transmitters.
- 6.- The System remains in memorization process, ready to receive new transmitters

MEMORY FULL INDICATOR

In case of full memory you will hear several acoustic signals for 10 seconds upon trying to memorize a new transmitter. The system can store 7 transmitters per channel.

LOW BATTERY INDICATOR

Low battery indication consists on 4 acoustic sounds each time a message is received from a programmed transmitter. Both, warning LED and buzzer are set on simultaneously.

WARNING!!

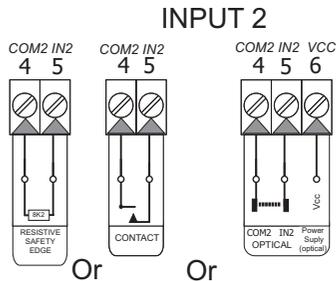
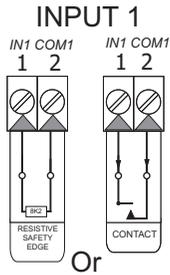
- **Installation, startup, modification and retrofitting of the system may only be carried out by an electrician.**
- **Switch off the operating voltage before working on the system.**
- **The control unit may only be used to protect against dangers at crushing and shearing points on automatic sliding gates (designated Use). Any other use is prohibited.**



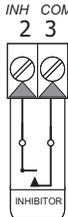
Instruction Manual

(WIRELESS BAND 2.0)

TRANSMITTER CONNECTIONS

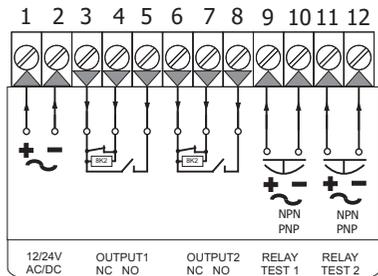


INHIBITOR

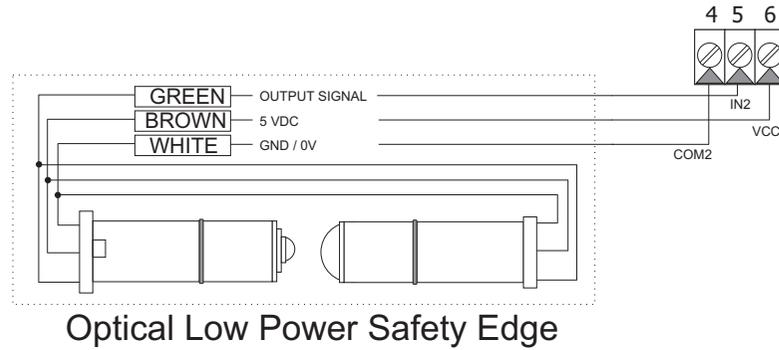


If you are using an optical safety edge it is highly recommended to use the inhibitor. (See page 4)

RECEIVER CONNECTIONS



CONNECTION EXAMPLES (TRANSMITTER)

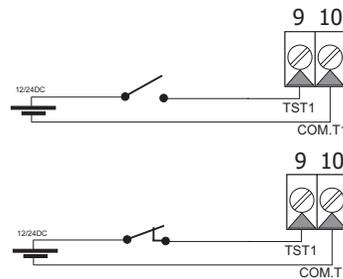


CONFIGURATION

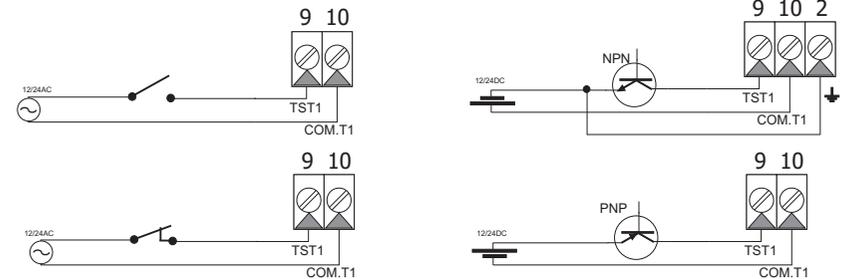
OPTION 2 - ON
START-UP PROGRAMMING (See Page 1
 - Low Power optical safety edge)

CONNECTION EXAMPLES (RECEIVER)

TEST INPUT: CONTACT NO / NC

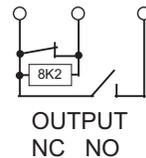


TEST INPUT: NPN /PNP

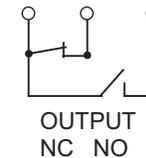


BRIDGE SELECTOR: RESISTIVE 8K2 OUTPUT

- Both relay outputs has the option to enable/disable the resistive 8K2 output and convert it to standard NC output.
- Connect or disconnect the relay bridge selector to enable or disable the resistive 8K2 output.



BRIDGE SELECTOR - Connected



BRIDGE SELECTOR - Disconnected



Instruction Manual

(WIRELESS BAND 2.0)

RELATED OUTPUTS

This option is available to differentiate the state of relays when the 2 inputs are related and the two outputs must be related too.

| OUTPUTS NOT RELATED | | | |
|---------------------|--------|---------|---------|
| INPUT1 | INPUT2 | RELAY 1 | RELAY 2 |
| ON | OFF | ON | OFF |
| OFF | ON | OFF | ON |
| OFF | OFF | OFF | OFF |
| ON | ON | ON | ON |

| OUTPUTS RELATED | | | |
|-----------------|--------|---------|---------|
| INPUT1 | INPUT2 | RELAY 1 | RELAY 2 |
| ON | OFF | ON | OFF |
| OFF | ON | OFF | OFF |
| OFF | OFF | OFF | OFF |
| ON | ON | ON | ON |

AFA (Automatic Frequency Agility)

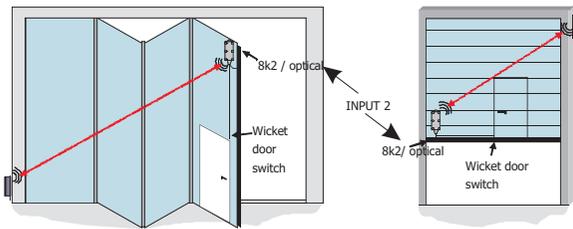
- The automatic Frequency Agility option is to solve spontaneous interference in the communication channel.
- Enabling this option the whole system automatically changes the frequency channel if an interference is detected.
- There are three different channels available.

INHIBITOR INPUT

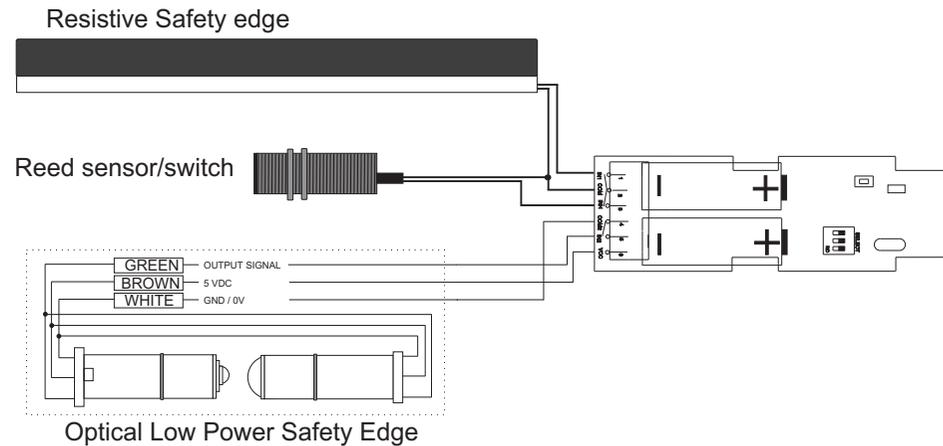
INHIBITOR INPUT is used to inhibit the **INPUT 2** signal and disconnect the power supply of the optical safety edge when is configured. This is useful to save battery life when the door is stopped. Otherwise if optical system is configured and is not inhibited power supply is always ON and battery life is drastically reduced. When Inhibitor is active, input 2 signal is ignored and power supply terminal (Vcc) is turned off. Note that the system do not check if inhibitor signal is correct or wrong, user must check it or install a redundancy system to avoid this type of problems.

This is useful in some applications:

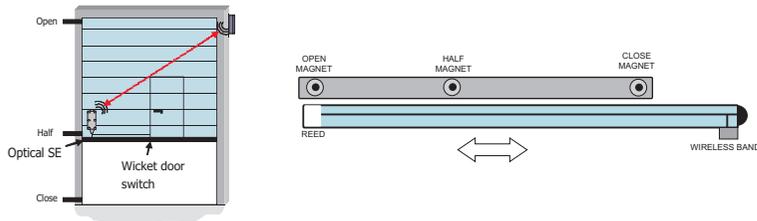
- Where you have 2 sensors in the same door and one of this is for a pedestrian door, could not be never inhibited.



Typical connection:



- In optical safety edges, to disable the power supply (by the inhibitor) to save battery when the door is stopped



- In order to maintain the battery live is highly recommended to connect the transmitter inhibition input. That inhibits the power supply apart from inhibit the signal when the door is not moving.
- If you do not connect the transmitter inhibitor the system will power supply constantly the optical safety edge. This provoke an extra current consumption and could not maintain the battery life.