

# M-PLUS CONTROL UNIT

## INSTALLATION, USE AND MAINTENANCE INSTRUCTIONS

### CAUTION

Before installing the unit, read the instructions carefully and follow the directions given. Failure to follow the directions given below could cause damage and serious accidents. Keep the instructions even if they are always available on the manufacturer's website.

### SAFETY WARNINGS

- Disconnect the voltage and check the absence of voltage before carrying out installation or maintenance operations.
- Assembly, programming, putting into operation and maintenance of the product must be carried out only by qualified technical personnel able to perform an assessment of the risks deriving from the installation and use of the product and to adopt adequate safety measures.
- Protect the product from rain, humidity and aggressive environmental conditions.
- If more than one control unit is used, to correctly operate the radio receiver we recommend that they be installed at a distance of at least 3 meters from each other.
- Instruct the end user on safe operation and use of the product, in consideration of the risks associated with its use.
- Do not allow children to play with the device and keep them away from the remote controls.

From now on the manufacturer declines all responsibility for damage to persons or things due to improper use of the product, failure to follow the instructions provided, incorrect installation and connection to an electrical system that does not comply with current regulations.

Any changes or additions to the product must be authorized by the manufacturer, under penalty of forfeiture of any form of guarantee and the invalidity of the EC declaration of conformity.

### TABLE OF CONTENTS

1. PRODUCT DESCRIPTION	Page 02
2. GENERAL TECHNICAL CHARACTERISTICS	Page 02
3. ELECTRICAL CONNECTIONS DIAGRAM	Page 02
4. FUNCTIONAL CHARACTERISTICS	Page 03
- STEP-BY-STEP OPERATION	Page 03
- DEAD MAN OPERATION	Page 03
5. <b>PROGRAMMING</b>	<b>Page 04</b>
- STANDARD FEATURES	Page 05
- <b>REMOTE CONTROL</b>	<b>Page 05</b>
- <b>FLASHING OR COURTESY LIGHT</b>	<b>Page 05</b>
- <b>WORK TIME</b>	<b>Page 06</b>
- <b>AUTO LOCK</b>	<b>Page 06</b>
- <b>SCHEDULED MAINTENANCE</b>	<b>Page 06</b>
- ADVANCED FEATURES	Page 07
- <b>SAFETY EDG</b>	<b>Page 07</b>
- <b>DEAD MAN AT OPENING</b>	<b>Page 08</b>
- <b>DEAD MAN AT CLOSURE</b>	<b>Page 08</b>
- <b>PHOTOCELL AT OPENING</b>	<b>Page 08</b>
- <b>ACOUSTIC SIGNAL</b>	<b>Page 09</b>
- <b>UNIQUE FUNCTIONING OF OPEN / CLOSE KEYS</b>	<b>Page 09</b>
6. EMERGENCY FUNCTION	Page 09
7. M-TOUCH PUSHBUTTON PANEL	Page 10
8. KEY-IN REMOTE CONTROL	Page 11
9. STATEMENT OF CONFORMITY	Page 12

## PRODUCT DESCRIPTION

The M-PLUS control unit is a single-phase electronic control unit with a built-in radio receiver designed for the automation of rolling shutters.

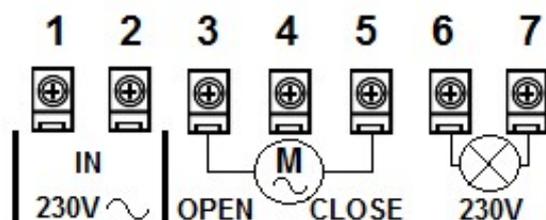
## 2. GENERAL TECHNICAL CHARACTERISTICS

- Power supply: 230 VAC 50-60Hz 4.5W
- Flashing output: 230 VAC 40 W
- Motor output: 230 VAC 1400 W
- Auxiliary Power supply output: 12 VAC 2.8VA
- Button inputs: 12 VDC
- Operating temperature: from -20 to +55° C.
- Radio receiver: 433.92 MHz
- Radio codes that can be Programmed: 75 Open, 75 Close or 75 P/P
- Code combinations: 72 million codes
- Radio codes programming: self-learning
- Sensitivity: greater than -100dbm
- Reception range: standard 50m (10m Dead Man)
- Antenna: incorporated
- Box size: 70x110x35mm
- Box Material: ABS V-0 (IP 54).

## 3. ELECTRICAL CONNECTIONS DIAGRAM

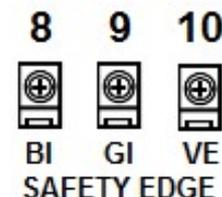
### CON. 1

- 1 – Input **230 Vac LINE** (Phase).
- 2 – Input **230 Vac LINE** (Neutral).
- 3 - Output open **MOTOR** (OPEN)
- 4 - Output common **MOTOR** (M)
- 5 - Output close **MOTOR** (CLOSE)
- 6 - Output 230 **Vac FLASHING LIGHT** (Neutral).
- 7 - Output 230 **Vac FLASHING LIGHT**(Phase).



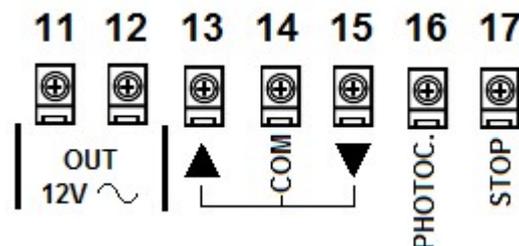
### CON. 2

- 8 - BI (White) **SAFETY EDGE/LIGHT BARRIER** input (SAFETY EDGE)
- 9 - GI (Yellow) **SAFETY EDGE/LIGHT BARRIER** input (SAFETY EDGE)
- 10 - VE (Green) **SAFETY EDGE/LIGHT BARRIER** input (SAFETY EDGE)



### CON. 3

- 11 - Service power output **12 VAC** 2.8VA
- 12 - Service power output **12 VAC** 2.8VA
- 13 - Input **LOW VOLTAGE BUTTON** Opens ↑ (N.O.)
- 14 - Input Common GND **LOW VOLTAGE BUTTON**
- 15 - Input **LOW VOLTAGE BUTTON** Closes ↓ (N.O.)
- 16 - Input **PHOTOCELL** - NC safety device (PHOTOC)
- 17 - Input **LOW VOLTAGE BUTTON (STOP)** (N.O.)



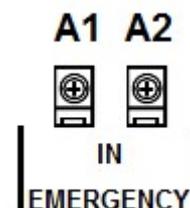
### CON. 4

External **M-TOUCH PUSH-BUTTON PANEL** connection



### CON. 5

- A1 - Input **EMERGENCY** (N.O.)
- A2 - Input **EMERGENCY** (N.O.)

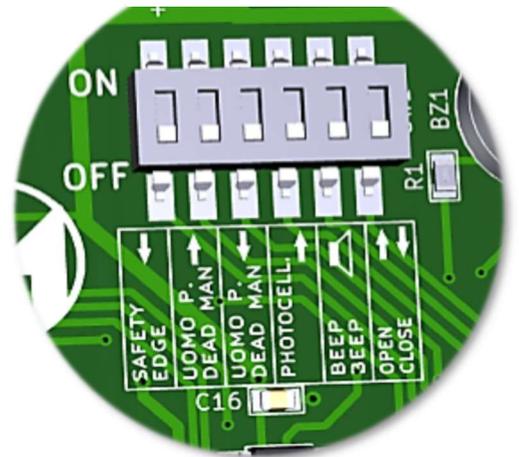
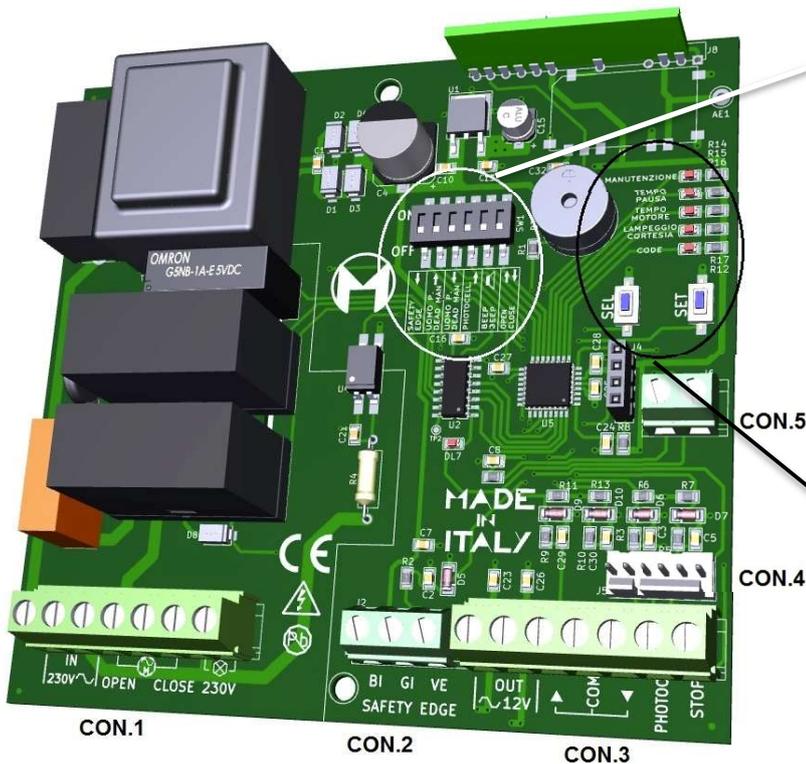


### NOTES:

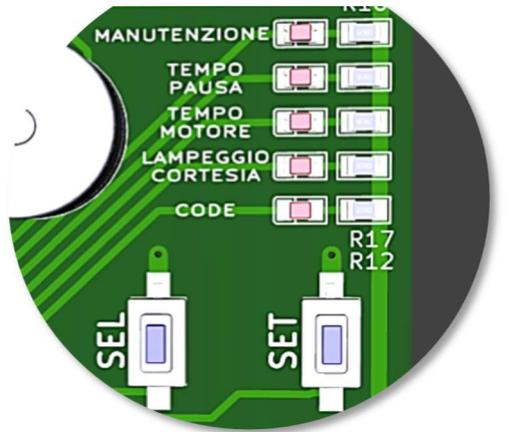
Since the control unit is not equipped with any sectioning device, with reference to the 230VAC power supply, always provide a suitable disconnecting switch in compliance with standard EN 12453.

## ELECTRICAL CONNECTIONS DIAGRAM

## ADVANCED FEATURES



## STANDARD FEATURES



## 4. FUNCTIONAL CHARACTERISTICS

The control unit can function step-by-step or with Dead Man

### STEP-BY-STEP OPERATION

The opening/closing command is given by **a simple impulse**.

**The control unit is set on step-by-step operation** which remains active if the DIP2 and DIP3 switches are set on OFF in the ADVANCED FUNCTIONS.

By programming a remote control as described on page 5 (L1 CODE), or using a low voltage button, the following operation is obtained:

#### - **REMOTE CONTROL with 1 programmed key**

The first impulse commands the opening until the motor time programmed with the MOTOR TIME function described on page 6 (L3 T.MOTOR) expires, or until the limit switch is reached.

The second impulse commands the closure.

If an impulse is sent before the motor time expires or the limit switch is reached, the control unit stops the movement.

A further impulse causes the movement to resume in the opposite direction.

#### - **REMOTE CONTROL with 2 programmed keys**

Each key is associated with a direction of the motor (OPEN or CLOSE).

When first pressed the motor starts to operate in the direction associated with the key pressed, until the programmed motor time expires or when the limit switch is reached.

If the same key is pressed again before the motor time expires or the limit switch is reached nothing happens.

If the key opposite to that previously pressed is pressed before the end of the programmed motor time or having reached the limit switch, the motor stops.

If pressed again this will cause the movement to resume in the direction that corresponds to the key

pressed.

**- LOW VOLTAGE BUTTON Opens Closes or Opens Stops Closes**

The low voltage button must be connected to inputs 13 (Opens), 14 (Common) and 15 (Closes).

An **OPEN CLOSE button** can be used, which functions like the two programmed keys of the remote control, or it is possible to use an **OPEN STOP CLOSE button** by turning the DIP6 in the ADVANCED FUNCTIONS to ON (6 OPEN CLOSE↑↓: UNIQUE KEY FUNCTIONS on page 9).

In this case, the movement can only be stopped using the STOP button.

The control unit is designed to incorporate the M-TOUCH push-button panel with Open Stop Close operation.

**- AUTOMATIC CLOSURE:**

With the control unit it is possible to the start the automatic closure without sending additional commands.

Only by maintaining the **step-by-step operation** is it possible to program automatic closure with the PAUSE TIME function described on page 6 (L4 T. PAUSE).

**DEAD MAN OPERATION**

The opening/closing command is given by **keeping the button pressed** and not by a simple impulse.

It is activated under ADVANCED FUNCTIONS by moving the DIP2 switch (DEAD MAN IN OPENING) and/or the DIP3 switch (MAN IN CLOSING) to ON as described on page 8.

**5. PROGRAMMING**

**STANDARD FUNCTIONS**

Using the **SEL and SET keys** on the control unit it is possible to:

- **store remote controls**
- **select flashing light or fixed courtesy light**
- **define the engine working time**
- **activate automatic close**
- **activate the maintenance reporting function**

**SEL KEY**

Allows the selection of the function to be programmed.

**Press and hold the SEL key for 1sec.**

**Then press the SEL key several times to select the desired function (L1, L2, L3, L4, L5) whose LED starts flashing.**

The selection remains active for 10 seconds, after which the control unit returns to the initial state.

The flashing LED indicates the function that can be programmed using the **SET** key.

During programming, the control unit does not respond to commands from the remote control or from the keypad.

**SET KEY**

Allows the function chosen with the **SEL** key to be activated and programmed.



FUNCTION	LED	ON	OFF
REMOTE CONTROL	L1 CODE	Remote codes entered	No remote codes
LIGHT	L2 FLASHING/COURTESY	Fixed courtesy light	Flashing lights
WORK TIME	L3 T. MOTOR	Programmed time	Infinite time
AUTOMATIC CLOSURE	L4 T. PAUSE	Automatic closure	No Automatic Closure
MAINTENANCE	L5 MAINTENANCE	Maintenance on	No Maintenance

## **L1 CODE: REMOTE CONTROL PROGRAMMING**

Up to 75 remote controls, with different fixed or rolling code, can be memorized.

### **Programming a 2-button remote control**

**Press the SEL key and hold for 1sec**, then with the SEL key select the LED **L1 CODE** which starts to flash slowly.

**On the remote control press the first key** to be Programmed as an opening key, an acoustic signal indicates that it has been Programmed and the L1 CODE starts flashing quickly.

**Press the second key** to be Programmed as a closing key, an acoustic signal indicates that the second key has been saved. The LED **L1 CODE remains steadily lit** indicating that a remote control code has been Programmed in memory. At this point it is possible to program another remote control by exiting and re-entering with the SEL key on the LED L1 which starts flashing again.

### **Programming a 1-button remote control**

The procedure is the same as for the 2-button remote control but the same key is pressed twice, combining it with the opening and closing function.

### **Rolling Code Function**

The rolling code function **can only be combined with KEY-IN rolling code remote controls**.

If the first Programmed remote control is a KEY-IN model, the control unit can only be combined with this remote control model.

If the first Programmed remote control is not a KEY-IN model, the control unit can be combined with any type of remote control, both with and without rolling code, but will only function with a fixed code.

### **Wireless Programming**

A remote control can be Programmed without interacting directly with the control unit.

Press a coded key of any remote control previously Programmed to start the movement of the shutter.

**Press the same key, or the opposite key (if two keys have been Programmed), for 10 sec**. At the end of the 10 sec the control unit stops the movement and emits an acoustic signal indicating the start of the programming phase. At this point press the key or keys of the remote control you wish to memorize following the same procedure indicated above.

### **Cancellation of remote control codes**

To cancel all the Programmed remote controls, move to the LED **L1 CODE** and while the LED is flashing **press the SET key for 10 seconds**. If there is a prolonged acoustic signal and the **L1 CODE** LED turns off this indicates that the memory is cleared.

### **Notes:**

Up to a total of **75 remote controls** can be Programmed. In the event that all the remote controls have been memorized, repeating the programming operation the control unit emits 10 acoustic signals signaling that further Programming is not possible.

**We recommend the use of original KEY-IN remote controls.**

## **L2 L.FLASHING/COURTESY: FLASHING LIGHT OR FIXED COURTESY LIGHT**

A lightbulb of max. 40W can be connected to the 230VAC inputs of the CON.1 terminal block in positions 6 (Neutral) and 7 (Phase).

The control unit is set on the flashing light function. To enable the fixed courtesy light, press **the SEL button twice** to move to the **L2 L.FLASHING / COURTESY** LED which will start to flash.

While the LED is flashing, **press the SET key** until LED L2 remains steadily lit accompanied by an acoustic signal indicating the switch to the Courtesy Light function.

Repeat the operation if you want to restore the previous configuration. In this case, LED L2 turns off, indicating that the flashing function is enabled.

**Flashing Light Function:** this function is activated whenever automation is in motion, for the duration of the motor time. If a Pause Time is Programmed, the flashing light will be active also during the Pause.

**Fixed Courtesy light function:** this function is activated for 3 minutes, each time an opening command is given.

### **L3 T.MOTOR: PROGRAMMING MOTOR WORKING TIME**

**The control unit is set with a motor working time of 30 sec.**

If a different time is required (**max. 4 min**), proceed with programming (**with the shutter closed**) by pressing the **SEL key 3 times** to move to the **L3 T.MOTOR** LED which will start to flash.

While the LED is flashing, **keep the SET key pressed** to start the shutter opening movement.

When the desired point is reached, **release the SET key**. LED L3 remains steadily lit, accompanied by an acoustic signal indicating the operation was successful.

**It is advisable to memorize a longer time than a few seconds after the shutter has reached the limit switch.**

If an infinite motor working time is desired, disable the function by positioning the SEL key on the L3 LED and pressing the SET key for less than 1 second while the LED flashes. The LED will turn off indicating that no work time is present (the motor always remains powered).

### **L4 T.PAUSE: PROGRAMMING PAUSE TIME FOR AUTOMATIC CLOSING**

The control unit allows the shutter closure to be automatically activated by programming the pause time (**max. 4 min**) between the moment the opening terminates and when the automatic closing begins. To enable automatic closing, press **the SEL key 4 times** to move to the LED **L4 T. PAUSE** which starts to flash.

While the LED is flashing **keep the SET key pressed**, after one second an acoustic signal indicates the start of the time counting. When the desired time is reached, **release the SET key**. The LED L4 remains steadily lit accompanied by an acoustic signal indicating that the operation was successful.

If you wish to disable the automatic closing, move to the flashing LED L4 and, while the LED is flashing, press the SET key for less than 1 second. The LED L4 turns off indicating that the function is not active and the shutter must be closed with a command.

#### **Notes:**

**If the automatic closure is activated, it is highly recommended that the safety devices be used (PHOTOCELL and SAFETY EDG).**

When the programmed pause time expires, automatic closing starts **only if the photocell is free**. In the presence of an obstacle, the control unit holds the pause until the photocell is free.

When the photocell is free, after 5 seconds the closing begins.

During the pause time it is possible to **cancel the start of the automatic closing by pressing the opening button (either from the remote control or from the push-button panel) or, if present, the stop button (from the push-button panel).**

To restart closing, press the close button.

**If the DEAD MAN function is activated (DIP2 and/or DIP3 ON) in the ADVANCED FUNCTIONS, the automatic closing is automatically deactivated.**

### **L5 MAINTENANCE: MAINTENANCE PROGRAMMING**

With the control unit it is possible to set the number of shutter cycles (1 cycle = opening + closing) which, once exceeded, **signals the user to proceed with maintenance.**

The signal is emitted through a **flashing red LED** on the M-TOUCH push-button panel together with an **acoustic signal (5 beeps)** which are activated each time the shutter finishes the opening phase.

To set the number of maintenance cycles, **press the SEL key 5 times** and move to the **L5 MAINTENANCE** LED which starts to flash.

While the LED is flashing, **press the SET key** to set the desired number of cycles.

**Each time the SET key is pressed, accompanied by an acoustic signal, this corresponds to 500 cycles** (for example: by pressing the SET key 5 times 2500 cycles are set).

Once the desired number of cycles has been reached, to confirm that the data has been saved, wait **10 seconds after the last time the SET key is pressed: the control unit emits a sequence of beeps.**

Each beep indicates 500 programmed cycles.

It is possible at any time to reprogram the MAINTENANCE cycles simply by returning with the SEL key to the LED L5, which starts flashing again, and repeat the programming by pressing the key the number of times that correspond to the number of cycles desired. The new configuration replaces the previous one and the cycle count starts again from zero.

If, on the other hand, you wish to disable the function, go to LED L5 and press the SET key for **3 seconds**. The LED L5 turns off indicating that the function is not active.

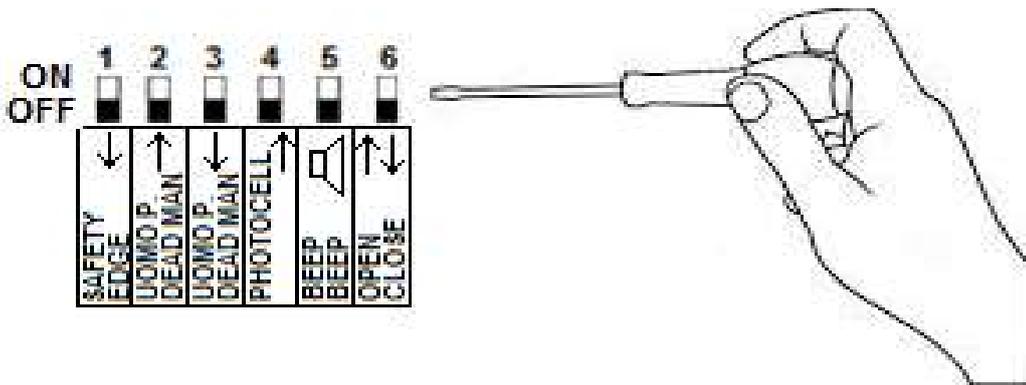
## INDICATIONS FOR LED PUSHBUTTON PANEL:

LED PUSHBUTTON PANEL	Flashing	Perform Maintenance
ACOUSTIC SIGNAL	5 beeps	Perform Maintenance
LED PUSHBUTTON PANEL	Steadily lit	Broken balancing spring

### RESET OF ALL FUNCTIONS:

To restore the initial factory configuration, press the **SEL** and **SET** keys **simultaneously for 10 sec.** All the LEDs light up simultaneously and an acoustic signal is emitted (long beep). The LEDs turn off and all the settings are canceled, including the memorized codes but excluding the L3 T.MOTOR LED which remains lit as per initial configuration.

## 6. ADVANCED FUNCTIONS



The following functions are all set in **disabled** mode with the dip switches in **OFF** position.

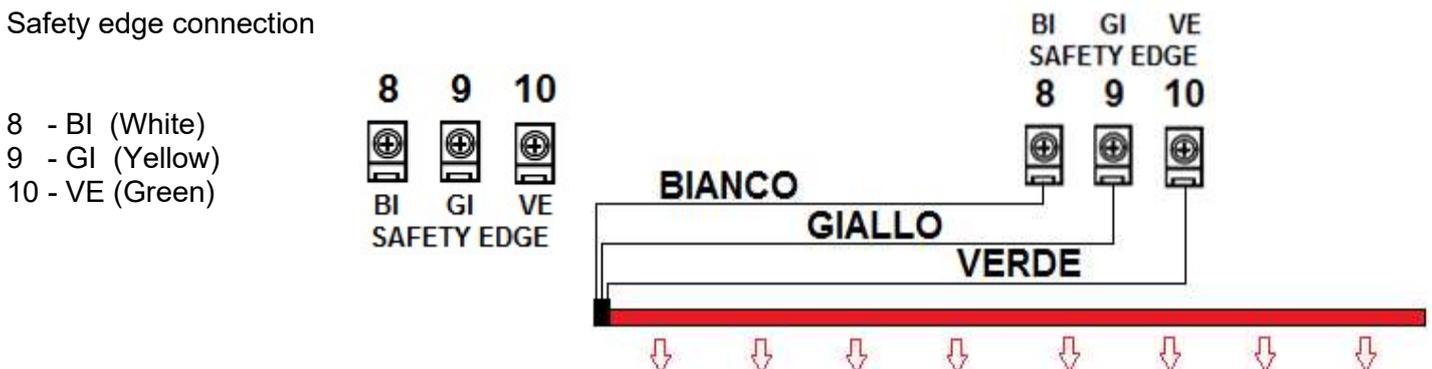
DIP SWITCH	FUNCTION	ON	OFF
1 SAFETY EDGE ↓	Safety edge / Light barrier in Closure	DIP 1 ON	DIP 1 OFF
2 DEAD MAN ↑	Dead man at Opening	DIP 2 ON	DIP 2 OFF
3 DEAD MAN ↓	Dead man at Closure	DIP 3 ON	DIP 3 OFF
4 PHOTOCCELL. ↑	Photocell at Opening	DIP 4 ON	DIP 4 OFF
5 BEEP BEEP	Acoustic signal	DIP 5 ON	DIP 5 OFF
6 OPEN CLOSE ↑↓	OPEN (Open ↑) CLOSE (Close ↓)	DIP 6 ON	DIP 6 OFF

### 1 SAFETY EDGE ↓: SAFETY EDGE / LIGHT BARRIER in CLOSURE

The control unit allows the supply and connection of a safety edge or a light barrier model WITT LIGI07. The **safety edge**, mounted on the lower edge of the shutter and connected to the control unit with the CON.2 inputs, is activated by setting the **Dip1 to ON**.

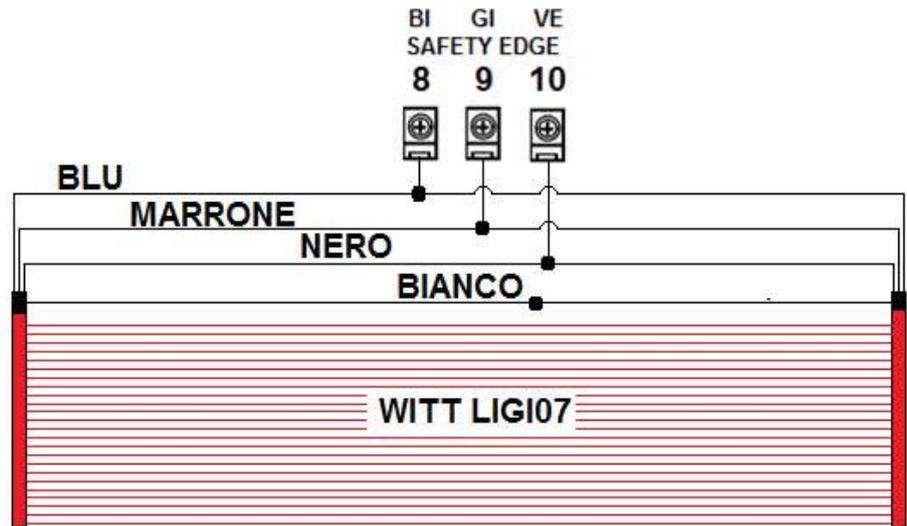
The **light barrier**, mounted on the sides of the shutter and connected to the control unit with the CON.2 inputs, is activated by setting the **Dip1 to ON**.

Safety edge connection



## Safety edge connection

- 8 - BI (BLU - BLUE)
- 9 - GI (MARRONE-BROWN)
- 10 - VE (NERO-BLACK)  
(BIANCO-WHITE)



The safety edge (TOUCH) and the light barrier (NO TOUCH) intervene in closing when they encounter an obstacle: the control unit reverses the movement of the shutter by starting to open it. If the dead man on opening (Dip2 is ON) described on page 8 is active, the control unit does not reverse but stops moving.

## **2 DEAD MAN ↑: DEAD MAN AT OPENING**

Positioning the **Dip2 to ON**, the opening command is given by keeping the key of the remote control or of the low voltage push-button panel pressed for the entire duration of the movement.

If a safety edge (DIP1 is ON) or photocell is activated at closure and/or at opening (DIP4 is ON), in the presence of an obstacle in closing the control unit does not reverse but stops the movement of the shutter.

## **3 DEAD MAN ↓: DEAD MAN AT CLOSURE:**

Positioning the **Dip3 to ON** the closing command is given by keeping the key of the remote control or of the low voltage push-button panel pressed for the entire duration of the movement.

**WARNING: if the DEAD MAN function is activated (DIP2 and/or DIP3 is ON), the automatic closing is automatically deactivated**

## **4 PHOTOCELL ↑: PHOTOCELL AT OPENING**

The control unit allows the supply and connection of one or two fixed photocells (connected in series), mounted on the sides of the shutter and connected to the control unit with inputs **14 - 16 in CON.3**

**The photocell always intervenes in closing:** when it encounters an obstacle, the control unit reverses the movement of the shutter (or stops it if Dip2 is ON) until the opening cycle is completed.

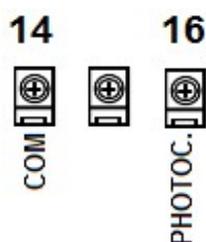
**The photocell also intervenes in opening if Dip4 is ON:** when it encounters an obstacle, the control unit:

- **in the opening phase** it stops the movement of the shutter.
- **in the closing phase**, it reverses movement for 5 seconds; if within 5 seconds the obstacles are removed from the photocell, the movement continues, otherwise it stops. If Dip2 is ON (dead man in opening), the control unit stops the movement.

### Notes:

**In the presence of grille shutters it is recommended to activate the photocell during opening.**

Photocell Connection (16 PHOTOC)



Note: if not used, this input (14-16) must be bridged

## ACTIVATION OF SAFETY DEVICES ACCORDING TO THE FUNCTION SET

<b>PHOTOCELL and SAFETY EDGE</b>	PHASE MOVEMENT	<b>STEP BY STEP</b> (basic setting) DIP2 OFF - DIP3 OFF	<b>DEAD MAN ON OPENING - UP↑</b> DIP2 ON - DIP3 OFF	<b>DEAD MAN ON CLOSING - DOWN↓</b> DIP2 OFF - DIP3 ON	<b>DEAD MAN UP↑-DOWN↓</b> DIP2 ON - DIP3 ON
<b>ACTIVE PHOTOCELL ON CLOSING</b> (DIP4 OFF)	UP ↑	DOES NOT INTERVENE	DOES NOT INTERVENE	DOES NOT INTERVENE	DOES NOT INTERVENE
	DOWN↓	REVERSES MOVEMENT	STOPS MOVEMENT	REVERSES MOVEMENT	STOPS MOVEMENT
<b>ACTIVE PHOTOCELL OPENING-CLOSING</b> (DIP4 ON)	UP ↑	STOPS MOVEMENT	STOPS MOVEMENT	STOPS MOVEMENT	STOPS MOVEMENT
	DOWN↓	REVERSES MOVEMENT FOR 5 SECONDS (*)	STOPS MOVEMENT	REVERSES MOVEMENT FOR 5 SECONDS (*)	STOPS MOVEMENT
<b>ACTIVE SAFETY EDGE / LIGHT BARRIER</b> (DIP1 =ON)	UP ↑	DOES NOT INTERVENE	DOES NOT INTERVENE	DOES NOT INTERVENE	DOES NOT INTERVENE
	DOWN↓	REVERSES MOVEMENT	STOPS MOVEMENT	REVERSES MOVEMENT	STOPS MOVEMENT

(\*) if obstacles are removed and the photocell is freed within 5 seconds the motion continues, otherwise it stops

### **5 BEEP BEEP: ACOUSTIC SIGNAL**

#### **Acoustic safety signal (2 beeps)**

Activated with **Dip5 ON**: before starting the opening or closing operation, the control unit emits **2 acoustic signals (beeps)** to indicate that the motor is about to start.

If a flashing light is connected, the control unit also emits two flashes.

#### **Acoustic warning signal (1 beep)**

This function is always active.

In the CLOSED (or OPEN) SHUTTER condition, if the close (or open) key is pressed, the control unit emits an acoustic signal to warn that the shutter cannot start because already completely closed (or open).

If the PHOTOCELL is engaged in closing (or in opening with photocell active in opening, DIP4 is ON), when the closing (opening) button is pressed, the control unit emits an acoustic signal to warn that the shutter cannot start due to an obstacle.

### **6 OPEN CLOSE ↑↓: UNIQUE FUNCTION OF OPEN (Open) and CLOSE (Close) KEYS**

By positioning the **Dip6** on **ON** the control unit assigns the unique function of the **Open, Stop, Close keys**

- of the **low voltage push-button panel** connectable to inputs 13-14-15, or
- of the **M-TOUCH push-button panel** which is connected to the CON.4 and mounted in the center of the control unit cover (as indicated on page 10).

Pressing the Open or Close key starts the motor running in the direction that corresponds to the button pressed until the motor time expires or the limit switch is reached.

If the same key pressed previously is pressed again before the motor time expires or the limit switch is reached, nothing happens.

If the key opposite to that previously pressed is pressed a second time, before the end of the motor time or reaching the limit switch, the motor immediately reverses the direction.

The stop button causes the movement to stop, whatever the maneuver that is in progress.

## **6. EMERGENCY FUNCTION**

The entrance to CON.5 (A1 and A2) is reserved for signaling the **breaking of the compensation spring for the DANTE140 and GALILEO motors**.

When the spring breaks the input signal changes from N.O. to N.C. and the control unit activates the DEAD MAN operation (both during opening and closing).

Furthermore, every time an impulse is sent with the remote control or the button, the control unit emits a continuous sound of 5 sec and simultaneously activates the lamp in fixed light mode and no longer intermittently. Also the red LED positioned on the control unit cover near the M-TOUCH pushbutton panel lights up with a steady light.

## 7. M-TOUCH PUSHBUTTON PANEL

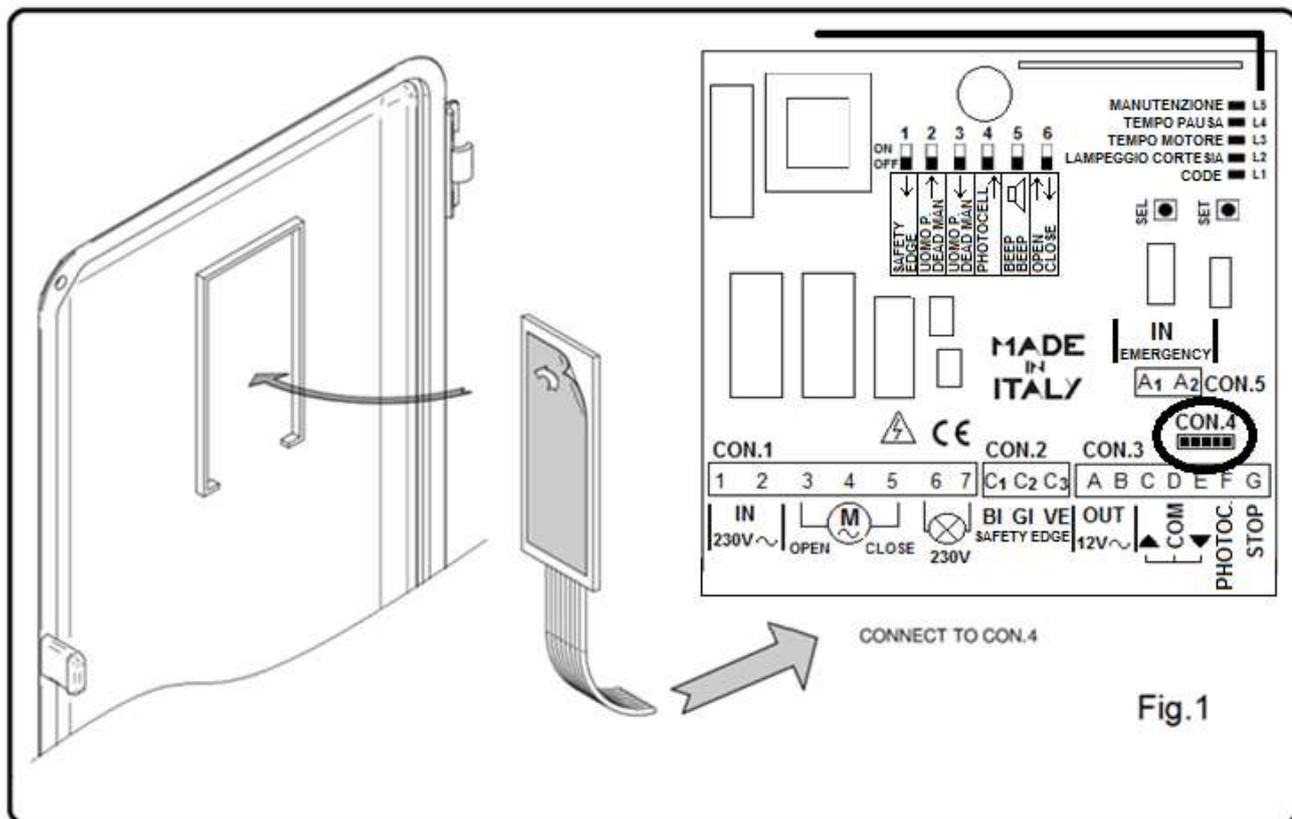
- Power: 5VDC
- Keys output voltage: 5VDC
- Operating temperature: from -20 to +55 °C
- Controls : Open/Stop/Close
- Flashing LED: Maintenance
- Fixed light LED: Break of balancing spring

### Connection of the M-TOUCH push-button panel

Disconnect power to the M-PLUS control unit.

Fasten the push-button panel to the cover of the control unit box by gluing the side of the push-button panel fitted with double-sided tape as shown in figure 1.

Insert the connection cable of the push-button panel in the **CON.4** connector to the mandatory position of the control unit as shown in figure 1.



### Declaration of Conformity

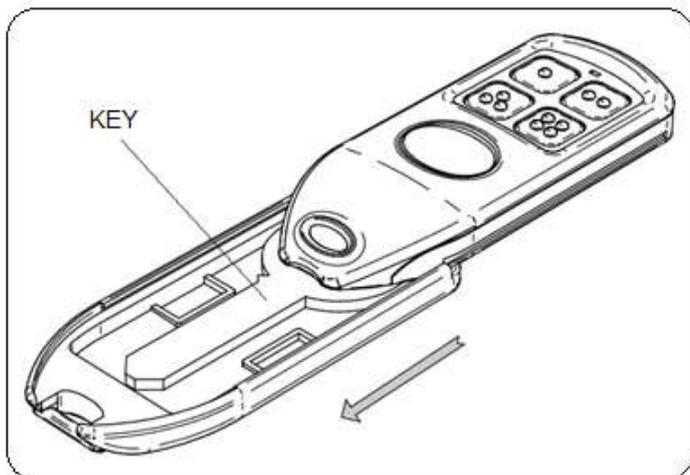
The manufacturer declares that the product M-TOUCH Pushbutton Panel complies with the specifications of the EMC Directive 2004/108/EC.

Masinara S.p.A.  
Antonio Isola  
Administrator

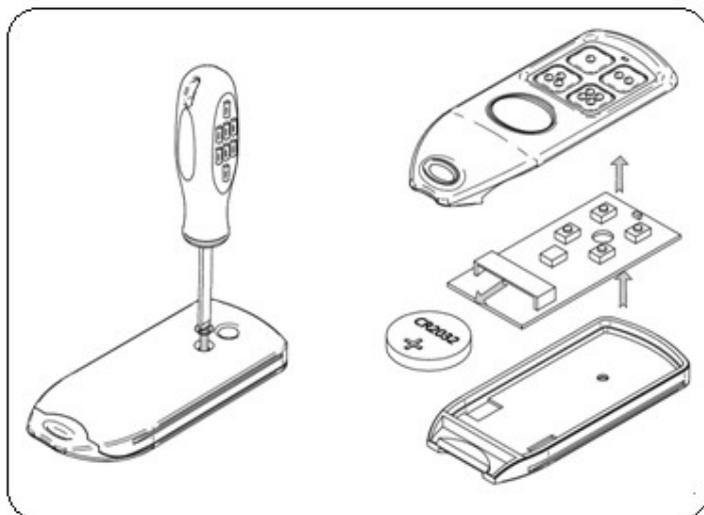


## 8. KEY- IN REMOTE CONTROL

- Transmission channels: 4
- Working frequency: 433.92MHz;
- Coding: 66 bit rolling code
- Lithium battery power supply: 3Vdc (CR 2032)
- Effective remote power: <10Mw;
- Consumption: <20mA
- Operating temperature: -20÷60°C
- Dimensions: 75x32x8,7mm



**Warning:** The batteries must be disposed of in the appropriate bins according to the regulations in force.



### Declaration of Conformity

The manufacturer declared that the product KEY-IN Remote Control complies with the specifications of European Directive R&TTE 99/5/EC and based on harmonized regulations:

ETS EN 301 489-1; ETS EN 301 489-3;

ETS EN 300 220-1; ETS EN 300 220-3;

EN 60215.

Masinara S.p.A.  
Antonio Isola  
Administrator



## **9. EUROPEAN REFERENCE STANDARDS AND DECLARATION OF CONFORMITY:**

---

Machine Directive 2006/42/EC

UNI EN 12453:2017 Industrial, commercial and garage doors and gates - Safety in use of motorized doors - Requirements and test methods

UNI EN 12978: 2009 - Protective devices for motorized doors and gates

CEI EN 60335-1: 2012-01 Safety of household and similar electrical appliances - Part 1: General rules

CEI EN 61000-6-2: 2016-05 Electromagnetic compatibility (CEM) Part 6-2

Generic standard - Immunity to interference in an industrial environment

CEI EN 61000-6-3: 2011-09 Electromagnetic compatibility (CEM) Part 6-3

Generic standard - Interference emission in residential, commercial and industrial environments, as well as for small businesses.

### **AN INTEGRAL PART OF THIS MANUAL ARE:**

#### **Incorporation statement**

Pursuant to the Machinery Directive 2006/42/EC for a partly completed machinery Annex II Part B

#### **Declaration of conformity**

Pursuant to the EMC Directive 2014/30/EU

The manufacturer hereby declares that the product M-PLUS CONTROL UNIT is compliant with the aforementioned EC Directive and is intended exclusively for the control of motors capable of automating rolling shutters

Applied standards:

UNI EN 12453:2017

UNI EN 12978: 2009-10

CEI EN 60335-1: 2012-01

CEI EN 61000-6-2: 2016-05

CEI EN 61000-6-3: 2011-09

The technical file is deposited at the manufacturer's technical office and can be shown to the authorities in charge upon motivated request.

Pursuant to EC Directive 2006/42/EC partly completed machinery is intended exclusively for assembly or implementation in other machines (or other partly completed machinery/incomplete systems), in order to build a complete machine under this Directive.

The start-up of this product is prohibited until it is ensured that the machine/complete system inside of which it is installed complies with the requirements of the aforementioned Directives.

Masinara S.p.A.

Antonio Isola

Administrator

