

DCRSGREF – Control unit for shutters and/or shutters with buffer battery and electric brake release

Installation instructions

The control unit covered by this manual is designed for the control and activation of motors suitable for automation rolling shutters and radio release of the electric brake.

IMPORTANT WARNING

The manufacturer declines any responsibility for damages to people or materials due to improper use of the device, non-observance of the instructions herein or incorrect installation.

Installation of the control unit is therefore not allowed before carefully reading the following instruction manual. Installation should only be entrusted to technical personnel, qualified in the field of application of the device in question. Similar considerations apply to the programming phases and any maintenance interventions that might be necessary.

GENERAL TECHNICAL FEATURES:

- Supply power: 230Vac 50 +/-10%
- Engine power: 750 W
- Operation time: max. programmable time of 2 minutes 30 seconds
- Automatic closing time: max. programmable time of 3 minutes
- Electric brake release via radio: fixed time of 60 seconds
- Safety edge entry: 8K2 or NC wire (see dip5-6)
- Codes combination: 72 million codes
- Radio codes programming: self-learning
- Frequency: 433.92Mhz
- Sensitivity: greater than -100dbm
- Reception range: standard 50m (10m if human presence is detected)
- Antenna: incorporated
- Operating temperature: 0°C / 70°C

CONNECTIONS:

CON.1

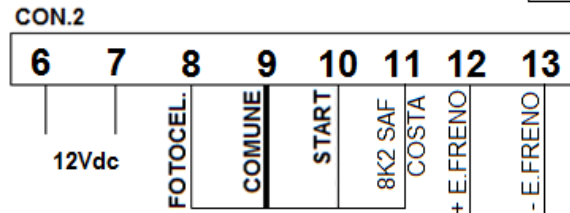
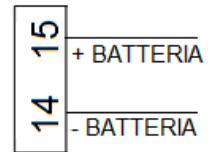
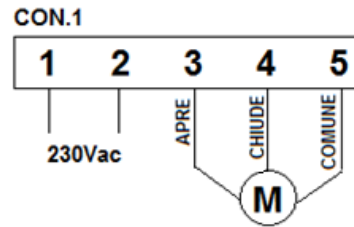
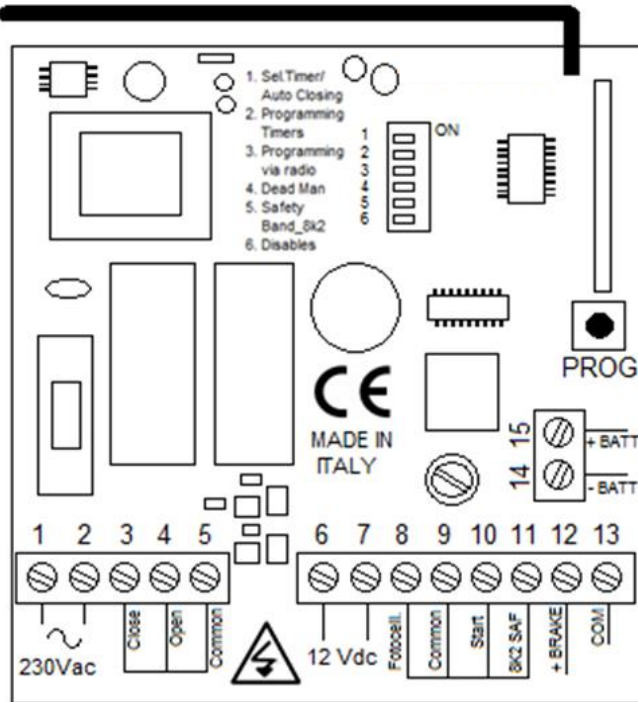
- 1 - 230 Vac line input (Phase)
- 2 - 230 Vac line input (Neutral)
- 3 - Motor output opens
- 4 - Motor output closes
- 5 - Common motor output

CON.2

- 6 - Services power output +12 Vdc
- 7 - Services power output - 12 Vdc
- 8 - Safety device input (NC)
- 9 - Common GND input
- 10 - Open-close command button input (NO)
- 11 -Entrance to safety edge 8k2
- 12 - Engine electric brake input (+)
- 13 - Engine electric brake input (-)
- 14 -Battery input 12V 1.2A - 7A (-)
- 15 -Battery input 12V 1.2A - 7A (+)

NOTE:

- Since the control unit is not equipped with any disconnecting device with reference to the 230Vac power supply, always provide a suitable disconnecting switch.
- Normally closed (NC) inputs must be jumpered if not used



OPERATION:

Step-by-Step Operation:

the first impulse (from the radio control or from the low voltage button) commands the opening until the opening limit switch is reached or the operating time expires; the second impulse commands the closing of the shutter.

If an impulse is sent before the operating time expires, the control unit stops the movement, and a further command causes the movement to resume in the opposite direction.

Auto lock :

The control unit allows shutter closing (when it is at the opening limit switch) automatically, without sending additional commands.

The choice of this operating mode is described in the automatic closing time programming mode.

Security device :

The control unit allows the power supply and connection of photocells, pneumatic safety edges, mechanical safety edges and resistive safety edges (8K2).

For photocell input (8) the intervention in the opening phase is not considered; in the closing phase it causes the motion to be reversed. If not used, this input (CON2 8-9) must be jumpered (or see table dip5-6)

For edge input (11) the intervention:

during the opening phase, it reverses motion for 2 seconds, freeing any obstacle

during closing, it reopens and disables automatic reclosing

if not used, see dip table 5-6.

OPTION SELECTION

dip 1 Sel. Timer / Auto closing:

ON Automatic closing with timer

OFF Automatic closing deactivated

dip2 Programming timer:

ON Operation time programming (1 OFF)

Closing time programming (1 ON)

OFF Operation time programming disabled

dip 3 Programming via radio:

- ON Radio programming of new transmitters enabled
- OFF Radio programming disabled

dip 4 Human presence detection in closing:

- ON To close, it is necessary to press and hold the transmitter button or the alternative button. If the button is not kept pressed, the maneuver stops
- OFF Normal operation

dip 5-6 exclusions and/or safety enablements

DIP5	DIP6	
ON	ON	Photo and sensitive edge both disabled
ON	OFF	Mechanical sensitive edge and photo both enabled
OFF	ON	8k2 edge and photo both enabled
OFF	OFF	Photo enabled – edge disabled

Automatic closing time programming

It can only happen if the door is at rest. After enabling programming with dip 1 and 2 on ON, it starts by pressing the start button or a previously programmed transmitter.
 It ends with a further press of the start button or of the transmitter.
 The time between the two pulses will remain set.
 A sound and light warning will indicate the start and the end of programming.

Operating time programming (standard setting is 25 seconds with stop when both opening and closing limit switch positions are reached)

It can only be done after closing the shutter with the start button or with a previously programmed transmitter.
 Once programming has been activated with switch 2 on ON and 1 on OFF, programming begins by pressing the start button or a previously programmed transmitter.
 A sound and light warning will indicate the start of programming and the door will open until it reaches the corresponding limit switch (the time opening stroke + 3 seconds is stored in memory).
 Once opened, the closing command is given by pressing the start button or a transmitter, until the door reaches the closed door limit switch: in this very moment, a sound and light signal will indicate the end of programming (the time closing stroke + 3 seconds is stored in memory).
 A margin of 3 seconds is added to the real operating time in order to ensure complete door movement.

Reset

If for any reason it is necessary to recover the maneuvering and automatic closing times programmed as initial standard settings, the process indicated below must be followed:

- A - Remove the 230V power supply
- B - Set the dips in the following position:
 - 1= OFF
 - 2= ON
 - 3= OFF
 - 4= ON
 - 5-6 = irrelevant
- C - Remove any cable connected to terminal 9.
- D - Power the panel at 230V, an acoustic signal warns that the process is completed. Restore the cables connected to terminal 9 and replace the dips in the same position as before starting the process

Storage of transmitter codes

To memorize the transmitter codes, the control panel must be in stable condition and the door must be stationary.

Manual storage

To memorize the code, press the PROG programming button until the acoustic indicator is activated.

The red LED lights up and when the button is released the LED remains lit, thus indicating that the device is ready to store the transmitter code.

From this moment on, any code received will be stored.

Then press the function on the transmitter, through which you want to activate the automation.

The red LED, accompanied by the acoustic indicator, will begin to flash, thus confirming that the storage has been performed.

Once 10 seconds have expired after the last reception of a code, the device automatically exits the storage function by turning off the red LED and by emitting two short acoustic signals.

When we memorize transmitters with an entry code (hidden button), this code is automatically learned

The hidden button is located on the back of the transmitter.

To activate it, insert the tip of a pen or something similar into its small hole.

Storage via radio with a transmitter occurs via the aforementioned hidden button.

Storage via radio with DEIMOS.433RC transmitter by pressing 1 and 4 together

In order to use this function, it is necessary to have previously memorized a transmitter code with hidden button, shutter closed (closing limit switch open) and having positioned dip.3 in the ON position.

Proceed as follows:

a) Press the hidden button of one of the previously memorized transmitters for 1 second, so to allow the device enter in the code sequence (the red LED lights up and the acoustic signal is activated)

b) From this moment, you can memorize the codes of the new transmitters

c) You will obtain confirmation of the storage by means of the flashing red LED and a short acoustic signal.

The control unit automatically exits the storage function, 2 seconds after the last code is received, by turning off the red LED

And by emitting two short acoustic signals.

Electric brake release via radio

In order to use this function, it is necessary to:

a) previously memorize a code for a transmitter with a hidden button

b) previously connect the two electric brake cables in terminal blocks 12 and 13 **by respecting the polarity**

c) previously connect the 12V battery (1.2Ah-7Ah) to terminal blocks 14 and 15 **by respecting the polarity.**

The release of the electric brake via radio can be carried out in the presence or absence of 230 Vac electric power.

Release is activated by pressing buttons 1 and 4 together for 6 seconds.

The brake will be released for 60 seconds, which is the time necessary to manually lift the shutter.

The control unit is equipped with a battery charging and charge maintenance system.

When the battery is running low, the control panel will emit acoustic signals in succession.

Deletion of all codes

The deletion of all codes is achieved by "resetting" the memory.

Press the PROG button for 4 seconds.

There will be a burst of flashing red lights and a short beep, indicating all previously stored codes have been erased.

The device will keep the code storage sequence, waiting for the new codes to be stored.

Exhausted memory indication

When there are 50 different stored codes (transmitters) and you try to store new codes, the control panel will carry out a series of red light flashes and a series of acoustic signals for 10 seconds, closing the process of programming, as the memory is exhausted.

THE REFERENCE STANDARDS IN FORCE IN TERMS OF EUROPEAN REGULATIONS ARE LISTED BELOW:

Machinery Directive 89/392 EEC

EN 60204-1 (Safety of machinery, electrical equipment of machines, part 1: general rules)

EN 12445 (Safety in the use of automated closures, test methods)

EN 12453 (Safety in the use of automated closings, requirements).

IN PARTICULAR, the Manufacturer does not assume any responsibility if the electrical system upstream of the automation does not comply with current regulations.