3. Funzionamento STANDARD (Dip 1 OFF / Dip 2 OFF)

Sono possibili le seguenti opzioni:

Funzionamento Up-Down (Dip3 On)
Start1 comanda l'apertura (apre-stop-apre-stop)
Start2 comanda la chiusura (chiude-stop-chiude-stop)

Funzionamento Start-Stop (Dip3 Off)
Start1 comanda apertura e chiusura (Apre-stop-chiude-stop).
Start2 è disabilitato.

Chiusura automatica (Dip4 On)
Abilita la chiusura al termine del tempo di pausa

Funzionamento condominiale (Dip5 On)
I comandi di apertura vengono ignorati se la serranda si sta già aprendo

Funzionamento a inversione (Dip6 On)
Se è attivo il funzionamento Start-Stop, Start1 durante l'apertura e la chiusura, inverte il moto, anziché fermare il serramento.

Dip1	**OFF**	Funzione UOMO PRESENTE disabilitata	
Dip2	**OFF**	Funzione OROLOGIO disabilitata	
Dip3	**ON**	Comandi separati: Start1 apre, Start2 chiude (up-down)	
	OFF	Comandi unificati: Start1 apre e chiude (start-stop)	
Dip4	**ON**	Chiusura automatica abilitata	
	OFF	Chiusura automatica disabilitata	
Dip5	**ON**	Start1 ignorato in apertura (logica condominiale)	
	OFF	Start1 accettato in apertura	
Dip6	**ON**	Logica "ad inversione"	Si applica solo all'ingresso Start1 quando questo è impostato in modo Start-Stop
	OFF	Logica passo-passo	

Collegare i cavi del dispositivo che comanda l'ingresso Start1 tra i morsetti **L3** e **L8** della centrale.
Collegare i cavi del dispositivo che comanda l'ingresso Start2 tra i morsetti **L4** e **L8** della centrale.

STOP

L'ingresso di STOP è predisposto per dispositivi con contatto normalmente chiuso.
Il comando di STOP provoca il blocco immediato dell'avvolgibile.
Se il comando di STOP viene dato durante l'apertura o la pausa, non ci sarà la successiva richiusura automatica.

Collegare i cavi del dispositivo che comanda l'ingresso di stop tra i morsetti **L5** e **L8** della centrale.

RICEVITORE AD INNESTO

La centrale è predisposta per l'innesto di un ricevitore della serie MR con architettura super-eterodina ad elevata sensibilità.

⚠ **ATTENZIONE: Prima di eseguire le seguenti operazioni togliere alimentazione alla centrale. Porre la massima attenzione al verso di innesto dei moduli estraibili.**

Il modulo ricevitore MR ha a disposizione 4 canali ad ognuno dei quali è associato un comando della centrale CX EASY2:

- CANALE 1 → START 1
- CANALE 2 → START 2
- CANALE 3 → STOP
- CANALE 4 → LUCI DI CORTESIA

La logica di funzionamento dei canali 1 e 2 è la stessa impostata per gli ingressi START1 e START2 da morsettiera.

⚠ **ATTENZIONE: Per la programmazione dei 4 canali e delle logiche di funzionamento leggere attentamente le istruzioni allegate al ricevitore MR.**

ANTENNA ESTERNA

Si consiglia di utilizzare l'antenna esterna per garantire la massima portata radio.

Collegare il polo caldo dell'antenna al morsetto **L1** della centrale e la calza al morsetto **L2**.

SEGNALAZIONI DI ANOMALIE

All'inizio di ogni ciclo di lavoro, la centrale esegue il test di funzionamento del circuito di pilotaggio del motore (triac).
Inoltre, se abilitati mediante gli appositi dip switch, esegue anche il test degli ingressi per fotocellula e costa.
In caso di anomalia non si ha l'avvio del ciclo.

Le segnalazioni sono riportate tramite il lampeggiante:

- Lampeggio di 4 secondi circa: anomalia del triac (o motore scollegato)
- Lampeggio di 8 secondi circa: anomalia della fotocellula o della costa

PROGRAMMAZIONE DELLA LOGICA DI FUNZIONAMENTO

È possibile ottenere diverse logiche di funzionamento della centrale agendo semplicemente sui dip-switch presenti sulla scheda.

Qui di seguito sono illustrate le funzioni associate ad ogni singolo dip-switch.

DIP	FUNZIONE	IMPOSTAZIONE		DESCRIZIONE
1	Funzione UOMO PRESENTE	ON	Abilitata	L'utente apre e chiude mantenendo attivo il relativo comando
		OFF	Disabilitata	
2	Funzione OROLOGIO	ON	Abilitata	Quando si attiva l'ingresso START2 la serranda si apre e si richiude automaticamente solo quando l'ingresso viene disattivato.
		OFF	Disabilitata	
3	Comando di start	ON	Up-Down	Start1 comanda l'apertura / Start2 comanda la chiusura
		OFF	Start-Stop	Start1 comanda apertura e chiusura / Start2 è disabilitato
4	Chiusura automatica	ON	Abilitata	L'avvolgibile viene chiuso automaticamente dopo il tempo impostato con il trimmer PAUSE
		OFF	Disabilitata	L'avvolgibile rimane aperto terminata la fase di apertura. Sarà necessario comandare la chiusura con un altro comando di START
5	Start in apertura	ON	Abilitato	Un comando di START durante la fase di apertura non viene sentito
		OFF	Disabilitato	Un comando di START durante la fase di apertura viene accettato
6	Funzionamento a inversione (START1)	ON	Abilitato	Lo Start durante l'apertura provoca la chiusura. Lo Start durante la chiusura provoca l'apertura
		OFF	Disabilitato	Funzionamento passo-passo
7	Prelampeggio	ON	Disabilitato	Il lampeggiante si accende nel momento in cui il motore viene avviato
		OFF	Abilitato	Il lampeggiante si accende per 2 sec. e poi viene avviato il motore
8	Fotocellula	ON	Attiva sempre	L'intervento della fotocellula durante l'apertura o la chiusura causa l'arresto dell'avvolgibile. Al ripristino della fotocellula l'avvolgibile si riaprirà completamente
		OFF	NON attiva in apertura	L'intervento della fotocellula durante l'apertura viene ignorato. L'intervento della fotocellula durante la chiusura causa la riapertura completa dell'avvolgibile
9	Test fotocellula	ON	Abilitato	La centrale effettua un test di funzionamento sulle fotocellule prima di avviare ogni apertura o chiusura. Se le fotocellule non funzionano correttamente l'avvolgibile non entra movimento e si ha un lampeggio di circa 8 secondi. **ATTENZIONE: collegare correttamente il TX della fotocellula (pag.4)**
		OFF	Disabilitato	
10	Tipo di costa di sicurezza	ON	Costa a gomma conduttiva	Selezionare questa opzione se si utilizzano coste a gomma conduttiva con resistenza nominale 8K2
		OFF	Costa tradizionale o costa ottica	Selezionare questa opzione se si utilizzano coste tradizionali con contatto normalmente chiuso o coste ottiche
11	Costa di sicurezza	ON	Attiva sempre	L'intervento della costa durante l'apertura o la chiusura causa l'arresto dell'avvolgibile. **L'eventuale chiusura automatica viene annullata**
		OFF	NON attiva in apertura	L'intervento della costa durante l'apertura viene ignorato. L'intervento della costa durante la chiusura causa la riapertura completa dell'avvolgibile. **L'eventuale chiusura automatica viene annullata**
12	Test costa di sicurezza	ON	Abilitato	La centrale effettua un test di funzionamento sulle coste prima di avviare ogni apertura o chiusura. Se le coste non funzionano correttamente l'avvolgibile non entra movimento e si ha un lampeggio di circa 8 secondi. **NON abilitare la funzione di test se si utilizzano delle coste a gomma conduttiva o delle coste tradizionali non equipaggiate con apposita centralina per il controllo del funzionamento**
		OFF	Disabilitato	

IMPORTANT REMARKS

For any installation problem please contact our Customer Service at the number +39-0172.812411 operating Monday to Friday from 8:30 to 12:30 and from 14:00 to 18:00.

V2 has the right to modify the product without previous notice; it also declines any responsibility to damage or injury to people or things caused by improper use or wrong installation.

⚠ **Please read this instruction manual very carefully before installing and programming your control unit.**

- This instruction manual is only for qualified technicians, who specialize in installations and automations.
- The contents of this instruction manual do not concern the end user.
- Every programming and/or every maintenance service should be done only by qualified technicians.

AUTOMATION MUST BE IMPLEMENTED IN COMPLIANCE WITH THE EUROPEAN REGULATIONS IN FORCE:

EN 60204-1 (Machinery safety. electrical equipment of machines, part 1: general rules)

EN 12453 (Safe use of automated locking devices, requirements)

- The installer must provide for a device (es. magnetotermical switch) ensuring the omnipolar sectioning of the equipment from the power supply. The standards require a separation of the contacts of at least 3 mm in each pole (EN 60335-1).
- After making connections on the terminal board, use one hose clamp to fix dangerous voltage wires near the terminal board and another hose clamp to fix safety low voltage wires used for accessories connection; this way, in case of accidental detachment of a conducting wire, dangerous voltage parts will not come into contact with safety low voltage ones.
- The plastic case has an IP55 insulation; to connect flexible or rigid pipes, use pipefittings having the same insulation level.
- Installation requires mechanical and electrical skills, therefore it shall be carried out by qualified personnel only, who can issue the Compliance Certificate concerning the whole installation (EEC Machine Directive 89/392, Annex IIA).
- The automated vehicular gates shall comply with the following rules: EN 12453, EN 12445, EN 12978 as well as any local rule in force.
- Also the automation upstream electric system shall comply with the laws and rules in force and be carried out workmanlike.
- The door thrust force adjustment shall be measured by means of a proper tool and adjusted according to the max. limits, which EN 12453 allows.
- Connect the earthing lead of the motors to the electricity grid earth system.
- Observe all necessary precautions (e.g. anti-static bracelet) for handling parts sensitive to electrostatic discharges.

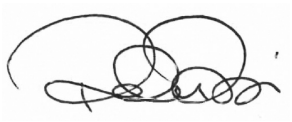
EU DECLARATION OF CONFORMITY

The manufacturer V2 S.p.A., headquarters in Corso Principi di Piemonte 65, 12035, Racconigi (CN), Italy

Under its sole responsibility hereby declares that the products:
CX EASY2

comply with the following directives:
- 2014/30/EU (EMC Directive)
- 2014/35/EU (Low Voltage Directive)
- ROHS-3 2017/2102

Racconigi, 01/03/2024
V2 S.p.A. legal representative
Roberto Rossi





DISPOSAL

As for the installation operations, even at the end of this product's life span, the dismantling operations must be carried out by qualified experts.

This product is made up of various types of materials: some can be recycled while others need to be disposed of.

Find out about the recycling or disposal systems envisaged by your local regulations for this product category.

Important! – Parts of the product could contain pollutants or hazardous substances which, if released into the environment, could cause harmful effects to the environment itself as well as to human health.

As indicated by the symbol opposite, throwing away this product as domestic waste is strictly forbidden. So dispose of it as differentiated waste, in accordance with your local regulations, or return the product to the retailer when you purchase a new equivalent product.

Important! – the local applicable regulations may envisage heavy sanctions in the event of illegal disposal of this product.

DESCRIPTION OF THE CONTROL UNIT

- 230V - 50Hz or 120V - 60Hz power supplies, depending on the model, for 1 x 700 W max. single phase motor.
- 2 inputs for key selector switch or button activation.
- Input for safety photocell.
- Input for safety edge, capable of handling standard edges with switch normally closed, optical edges and conductive rubber edges with nominal resistance of 8.2 kOhms.
- Output for blinking light, 120/230V - 40W
- Pre-opening safety device testing.
- Dip-switch programmable operational logic.
- Adjustment of the operation time by means of a trimmer.
- Quick plug-in connector for inserting a MR series receiver.
- LED monitoring of inputs.
- Courtesy light output.
- IP55 casing.

TECHNICAL SPECIFICATIONS

	230V models	**120V models**
Power supply	230 V / 50 Hz	120V / 60Hz
Max motor load	700 W	700 W
Max accessories load 24V	3 W	3 W
Working temperature	-20 ÷ +60 °C	-20 ÷ +60 °C
Protection fuse	F1 = 5A delayed	F1 = 8A delayed
Dimensions	170 x 185 x 70 mm	
Weight	800 g	
Protection	IP55	

ELECTRICAL CONNECTION TABLE

L1	Antenna
L2	Antenna shield
L3	START1 - Activation input 1 for connection to traditional devices with NO contacts (open/close)
L4	START2 - Activation input 2 for connection to traditional devices with NO contacts (close/timer)
L5	STOP command. N.C. switch
L6	Photocell. N.C. switch
L7	Edge. Switch N.C. or resistive rubber edge
L8	Commands common (-) line
L9 - L10	Power output 24 Vac for RX photocell and accessories
L10 - L11	Power supply for functional test TX photocell

C1	Motor open
C2	Motor common
C3	Motor close
D1 - D2	Courtesy light timer activation switch
D3 - D4	230V - 40W / 120V - 40W blinker
N	230V / 120V power supply - neutral
L	230V / 120V power supply - phase
J1	NOT USED

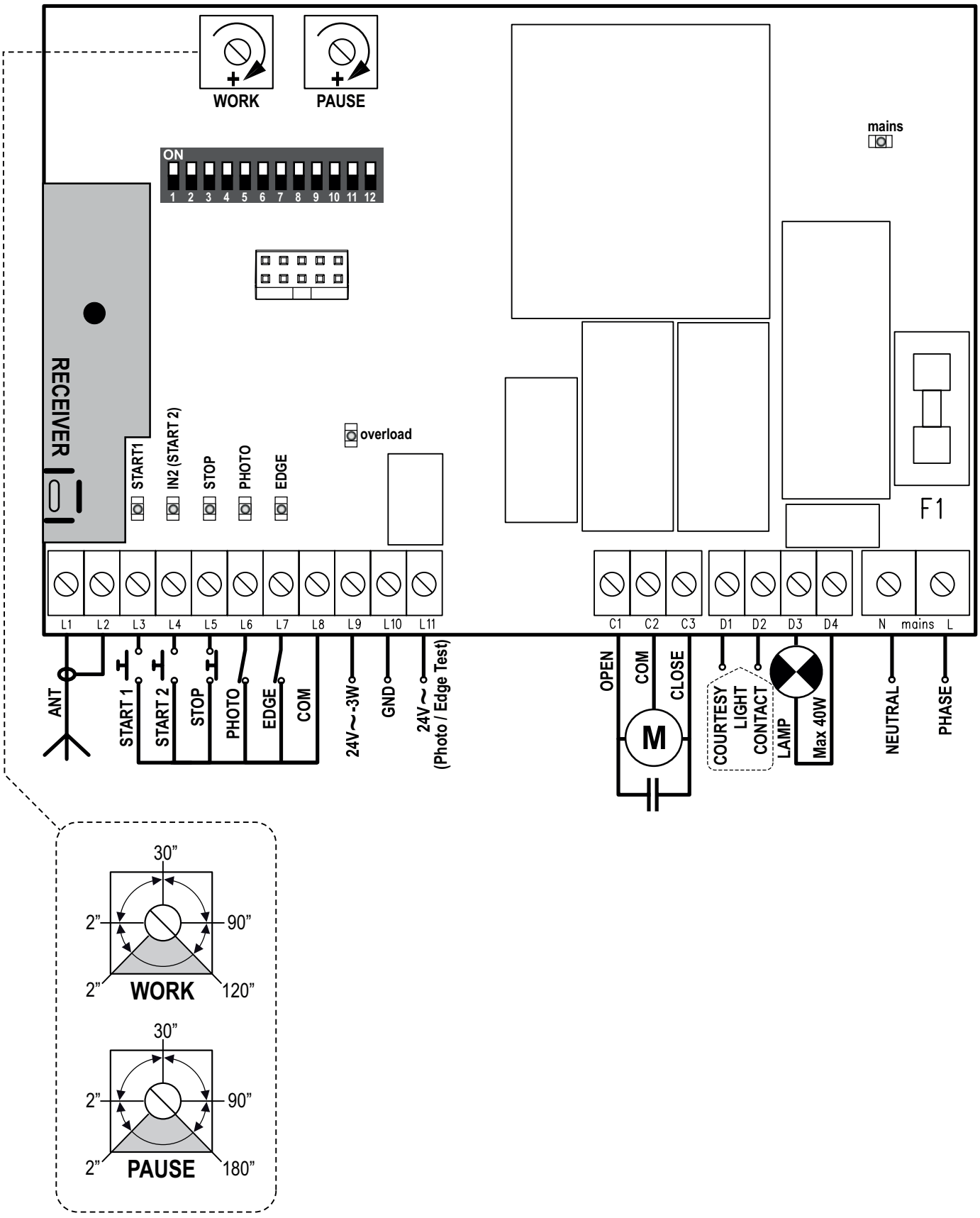
ADJUSTMENT OF OPERATING TIMES

The operating times can be adjusted using two trimmers on the controller:

WORK: Operating time for the motor (2 to 120 seconds)

⚠ **WARNING: The times must be adjusted with the shutter in standby**

PAUSE: Pause time that precedes automatic closure (2 to 180 seconds)



⚠ **PLEASE NOTE: If not used, the normally closed inputs (STOP, PHOTO, EDGE) must be jumpered with the commands common line COM (-). Disable the functional test for photocells and safety devices (Dip 9 and 12 in the OFF position)**

CONTROL UNIT INDICATORS (LEDS)

The highlighted boxes indicate the state of the LEDs when the roller shutter is resting.

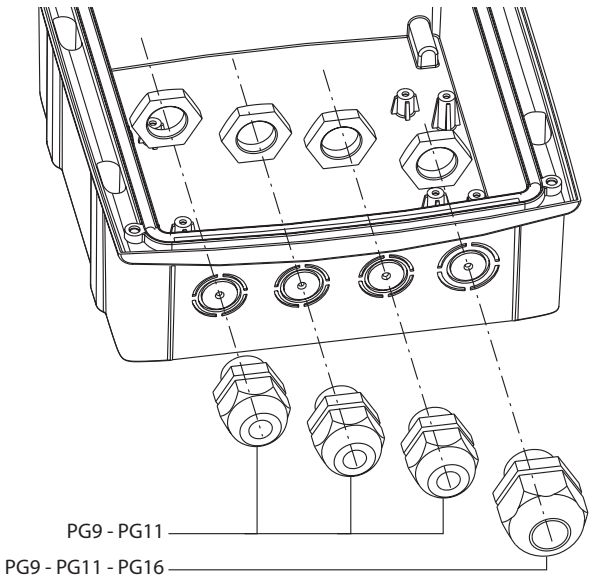
<table>
<tr><th>LED</th><th>ON</th><th>OFF</th></tr>
<tr><td>START</td><td>START1 input closed</td><td>START1 input open</td></tr>
<tr><td>IN2</td><td>START2 input closed</td><td>START2 input open</td></tr>
<tr><td>STOP</td><td>STOP input closed</td><td>STOP input open</td></tr>
<tr><td>PHOTO</td><td>PHOTO input closed</td><td>PHOTO input open</td></tr>
<tr><td rowspan="5">EDGE</td><td colspan="2">Standard edge</td></tr>
<tr><td>EDGE input closed (edge not pressed)</td><td>EDGE input open (edge pressed)</td></tr>
<tr><td colspan="2">Resistive rubber edge</td></tr>
<tr><td>EDGE input closed (edge pressed)</td><td rowspan="2">EDGE input open (fault)</td></tr>
<tr><td>Edge NO pressed: 8K2 between EDGE input and common (-)</td></tr>
<tr><td>mains</td><td>Control unit powered-up</td><td>Control unit NOT powered-up</td></tr>
<tr><td>overload</td><td>Accessory power supply overload</td><td>Accessory power supply within normal operational limits</td></tr>
</table>

CABLE GLAND ASSEMBLY

The casing can accept 4 cable glands in the special easy-break housings. The type of cable gland is indicated in the figure.

⚠ **PLEASE NOTE:**

- Remove the electronic circuit board before drill the casing.
- Drill the container using a suitably sized cutter, according to the dimensions of the cable gland.
- Fix the cable glands using the special nuts



INSTALLATION

Installation of the control unit, the safety devices and accessories must be performed with the power supply disconnected.

POWER SUPPLY

The control unit must be powered by means of a 230 V - 50 Hz or 120 V - 60 Hz power line, depending on the model, protected by a differential magnetothermal switch in compliance with legal regulations.

Connect the power cables to the control unit **L** and **N** terminals.

MOTOR

The controller can drive an alternating current asynchronous motor equipped with limit switch.

Connect the cables for motor as follows:

- Opening cable to terminal **C1**
- Closing cable to terminal **C3**
- Common return cable to terminal **C2**

BLINKER

The control unit provides for the use of a 230 V - 40 W or 120 V - 40 W blinker with built-in intermittence.

Connect the cables to terminals **D3** and **D4**

COURTESY LIGHT

This output has a normally-open clean contact relay which closes for approx. 1 second at the start of an opening phase. This switch may be used to activate a courtesy light timer (max. load: 230V - 4A).

PLEASE NOTE: If there is no timer, the courtesy light can be controlled using channel 4 of receiver MR: bistable or timer programmable channel (read the instructions for the receiver MR thoroughly).

The switch is on terminals **D1** and **D2**

PHOTOCELLS

The control unit has a 24VAC power supply for photocells with switch normally closed, and can perform an operational test before starting the roller shutter opening procedure.

The photocell can be used with two settings:

1. Photocell always active:
Intervention of the photocell during opening or closing causes the roller shutter to stop.
When the photocell restores, the roller shutter re-opens completely.

2. Photocell NOT active during opening:
Intervention of the photocell during opening is ignored.
Intervention of the photocell during closing causes the gate to re-open completely.

Independently of the setting selected, when the gate is paused while opening, the time count for any automatic re-closure will only start after the photocell restores.

- Connect the photocell transmitter power cables between terminals **L10 (GND)** and **L11 (+)** on the control unit.
- Connect the photocell receiver power cables between terminals **L10 (GND)** and **L9 (+)** on the control unit.
- Connect the photocell receiver output between terminals **L6** and **L8** on the control unit.

SAFETY EDGES

The control unit has an input for controlling safety edges; this input is capable of controlling standard edges with switch normally closed and conductive rubber edges with nominal resistance of 8.2 kOhms.

Edges can be used with two settings:

1. Edge always active:
Intervention of the photocell during opening or closing causes the roller shutter to stop.

2. Edge NOT active during opening:
Intervention of the edge during opening is ignored.
Intervention of the edge during closing causes the roller shutter re-open completely.

⚠ **NOTE: Independently of the settings selected, any subsequent automatic re-closure will be cancelled.**

Standard edge with switch normally closed: connect the edge cables between terminals L7 and L8 on the control unit.

In order to satisfy the requirements of standard EN12978, it is necessary to install safety edges with a control unit which constantly monitors correct operation. If control units are used with the option of running tests by means of interrupting the power supply, connect the control unit power supply cables between terminals **L10 (GND)** and **L11 (+)**.

Conductive rubber edge: connect the edge cables between terminals **L7** and **L8** on the control unit.

⚠ **PLEASE NOTE: operational testing on edges is reserved for optical edges and standard edges (only if equipped with suitable control units).**

DO NOT enable testing if conductive rubber edges are used or standard edges used without a suitable control unit for controlling function.

⚠ **NOTE: use the special interface (code 35A024) for connection of the optical bars, de-activating the operational test on the bars**

START INPUTS

The START1 and START2 inputs are factory set for connection to devices with normally open (NO) contacts. Their operation depends on the operating mode set on dipswitches 1, 2, 3, 4, 5, and 6.

1. DEAD MAN function (Dip 1 ON)
The user opens (START1) and closes (START2) maintaining this command active.

⚠ **WARNING: The settings of Dips 2, 4, 5, and 6 are ignored**

Dip1	**ON**	DEAD MAN function enabled
Dip2		CLOCK Function disabled regardless of the position of Dip 2
Dip3	**ON**	Individual Controls: START1 opens, START2 closes (Up-Down)
	OFF	Unified Controls: START1 opens and closes (Start-Stop) START2 disabled
Dip4		Automatic closure disabled regardless of the position of Dip 4
Dip5		Condominium logic disabled regardless of the position of Dip 5
Dip6		Inversion mode disabled regardless of the position of Dip 6

WARNING: with the DEAD MAN function on, the intervention of the photocell or of the safety edge during the closure phase always makes the rolling shutter to stop.

2. CLOCK Function (Dip 2 ON)

⚠ **WARNING: Set Dip 1 to OFF**

START1 Input: Normal impulse input, able to manage opening and closing, even if the CLOCK function is active.

START2 Input: Timer input. When the START2 input is activated, the shutter opens and closes automatically only after the input is deactivated.
If automatic closure is activated (Dip 4 ON), when the timer is deactivated the shutter does not close immediately; it closes after the set pause time.

Dip1	**OFF**	The DEAD MAN function must be disabled
Dip2	**ON**	Clock Function enabled
Dip3		START1 and START2 have different functions regardless of the position of Dip 3
Dip4	**ON**	When the START2 input is released, the pause time countdown starts, after which the shutter closes
	OFF	When the START2 input is released, the shutter closes immediately
Dip5	**ON**	The START1 input impulse is not accepted when opening (Condominium Logic)
	OFF	The START1 input impulse is accepted even when opening
Dip6	**ON**	The input impulse on opening/closure causes direction change
	OFF	The input impulse on opening/closure causes stop (Step-Step Logic)