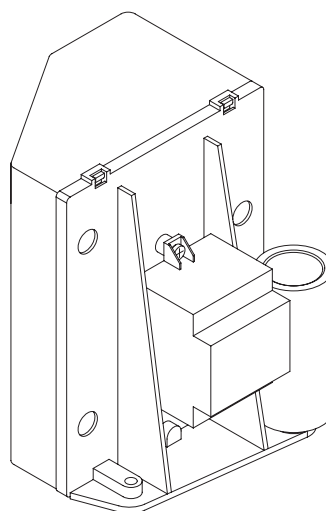


L8542396  
Rev. 01/08/03

# BENINCA®

CENTRALE DI COMANDO  
**CONTROL UNIT**  
STEUEREINHEIT  
**CENTRALE DE COMMANDE**  
CENTRAL DE MANDO  
**CENTRALKA STEROWANIA**

## CP.MS4



Libro istruzioni  
**Operating instructions**  
*Betriebsanleitung*  
**Livret d'instructions**  
Manual de instrucciones  
**Książeczka z instrukcjami**



UNIONE NAZIONALE COSTRUTTORI  
AUTOMATISMI PER CANCELLI, PORTE,  
SERRANDE ED AFFINI

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**Dichiarazione CE di conformità**  
**EC declaration of conformity**  
**EG-Konformitätserklärung**

**Déclaration CE de conformité**  
**Declaracion CE de conformidad**  
**Deklaracja UE o zgodności**

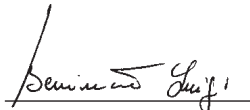
Con la presente dichiariamo che il nostro prodotto  
We hereby declare that our product  
Hiermit erklaren wir, dass unser Produkt  
Nous déclarons par la présente que notre produit  
Por la presente declaramos que nuestro producto  
Niniejszym oświadczamy że nasz produkt

**CP.MS4**

è conforme alle seguenti disposizioni pertinenti:  
complies with the following relevant provisions:  
folgenden einschlägigen Bestimmungen entspricht:  
correspond aux dispositions pertinentes suivantes:  
satisface las disposiciones pertinentes siguientes:  
zgodny jest z poniżej wyszczególnionymi rozporządzeniami:

Direttiva sulla compatibilità elettromagnetica  
(89/336/CCE, 93/68/CEE)  
EMC guidelines (89/336/EEC, 93/68/EEC)  
EMV-Richtlinie (89/336/EWG, 93/68/EWG)  
Directive EMV (89/336/CCE, 93/68/CEE)  
(Compatibilité électromagnétique)  
Reglamento de compatibilidad electromagnética  
(89/336/MCE, 93/68/MCE)  
Wytuczna odnośnie zdolności współdziałania elektromagne-  
tycznego (89/336/EWG, 93/68/EWG)

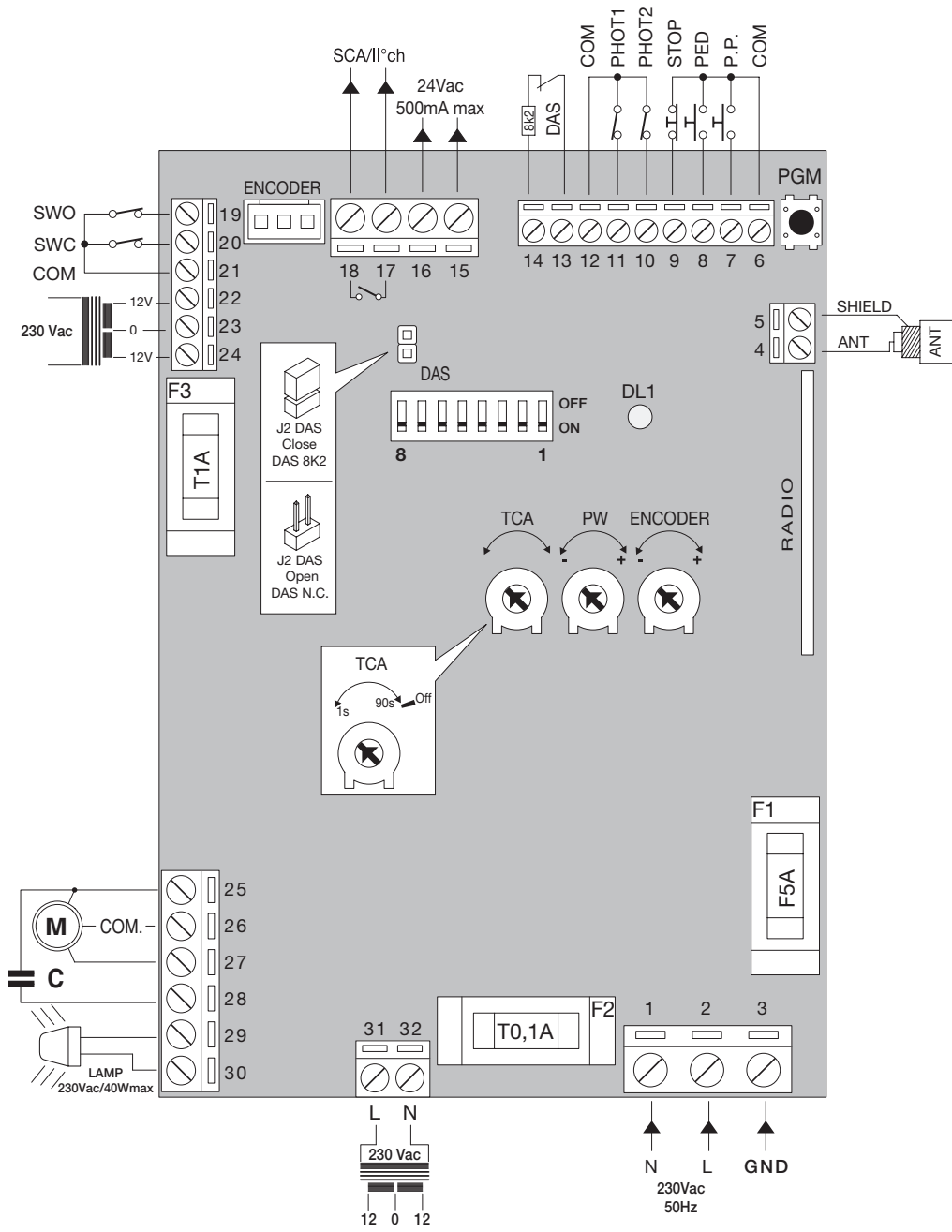
Direttiva sulla bassa tensione (73/23/CEE, 93/68/CEE)  
Low voltage guidelines (73/23/EEC, 93/68/EEC)  
Tiefe Spannung Richtlinie (73/23/EWG, 93/68/EWG)  
Directive bas voltage (73/23/CEE, 93/68/CEE)  
Reglamento de bajo Voltaje (73/23/MCE, 93/68/MCE)  
Wytuczna odnośnie niskiego napięcia (73/23/EWG,  
93/68/EWG)



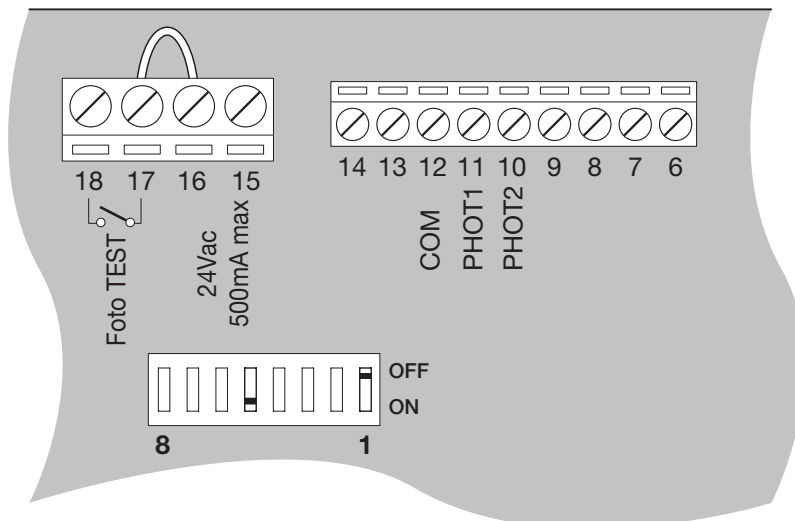
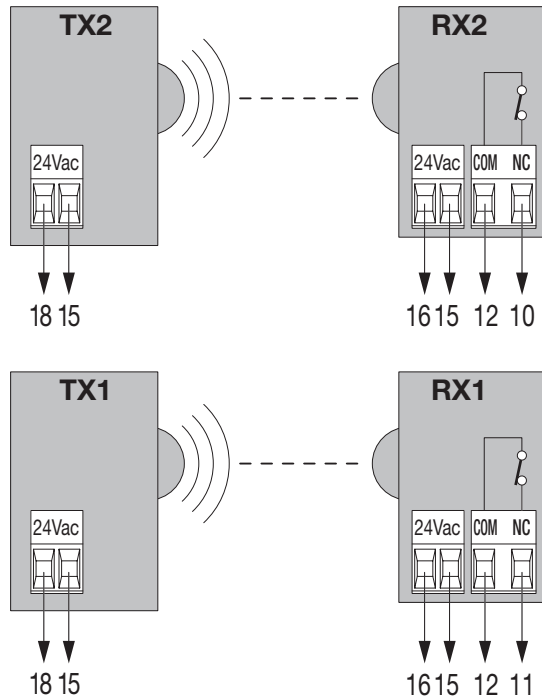
Benincà Luigi, Responsabile legale.  
Sandrigo, 01/03/2007.

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Automatismi Benincà SpA  
Via Capitello, 45  
36066 Sandrigo (VI)  
ITALIA



Collegamento dispositivi di sicurezza verificati  
 Connection of tested safety devices  
 Anschluss geprüfter Sicherheitsvorrichtungen  
 Branchement dispositifs de sécurité vérifiés  
 Conexión de los dispositivos de seguridad verificados  
 Połączenia sprawdzanych urządzeń bezpieczeństwa



## Control units CP.MS4

The control unit can be used to control 230Vac motors with power not exceeding 350W.

### GENERAL RULES

- a) The electrical installation and operating logic must comply with statutory regulations.
- b) Cables of different voltages must be physically separated or otherwise adequately screened with secondary insulation of at least 1 mm.
- c) Cables must be secured by additional clamps next to their terminals.
- d) Control all wiring connections are correct before powering.
- e) Check the Dip-Switch settings are correct.
- f) Unused N.C. inputs must be jumpered.

### INPUT/OUTPUT FUNCTIONS

| Terminals | Function     | Description   |
|-----------|--------------|---|
| 1-2-3     | Power supply | Input, 230VCA 50Hz (1-Neutral/2-Phase/3-GND)  |
| 4-5       | Antenna      | Connection, radio receiver board antenna (4-signal/5-screen).   |
| 6         | COM          | Common to control inputs.   |
| 7         | Step-by-Step | Input, step-by-step button (N.O. contact), operation presettable by Dip-Switch 4.   |
| 8         | PED          | Input, PEDESTRIAL push-button (N.O. contact), opens for about 7 seconds.  |
| 9         | STOP         | Input, STOP push-button (N.C. contact)  |
| 10        | PHOT2        | Input, connection to safety devices, N.C. contact (e.g. photocells)<br>This input is activated only during closure.<br>When the contact is open, the motor stops and immediately reverses its movement (the gate opens).  |
| 11        | PHOT1        | Input, connection of safety devices, N.C. contact.<br>(e.g. photocells) Input activated in the opening and closing phases.<br>During opening: when the contact is open, the motor stops and when the photocell is no longer darkened, the motor re-starts in the opening phase.<br>During closure: when the contact is open, the motor stops and when the photocell is no longer darkened, the motor movement is reversed (the gate opens). |
| 12        | COM          | Common to photocell inputs.   |
| 13-14     | COSTA        | Input, sensitive safety edge<br>Resistive edge: Jumper "DAS" closed<br>Mechanical safety edge: Jumper "DAS" open<br>When the safety edge is activated, the gate movement is stopped and the movement reversed for about 3 sec.<br>If the safety edge is not in use: "DAS" Jumper open and jumper between terminals 13-14.   |
| 15-16     | 24 Vac       | Output, 24VCA/0.5A max power supply of accessories  |
| 17-18     | SCA/II°ch    | Output, N.O. contact. It can be preset as open gate indicator light, 2 <sup>nd</sup> radio channel through DIP 1. Photocell power supply in FotoTest mode by DIP1: OFF and DIP5:ON  |
| 19        | SWO          | Input, OPENING limit switch (N.C. contact).   |
| 20        | SWC          | Input, CLOSING limit switch (N.C. contact).   |
| 21        | COM          | Common, limit switch  |
| 22-23-24  | Secondary    | Connection, winding of secondary transformer, 24V (22:12V/23:0V/24:12V)   |
| 25-26-27  | Motor, 230V  | Connection to motor (25:OPEN/26:COM/27:CLOSE)   |
| 25-28     | Capacitor    | Connection to capacitor   |
| 29-30     | Flasher      | Connection of flasher, 230VCA 40Wmax.   |
| 31-32     | Primary      | Connection, winding of primary transformer (31:L/32:N)  |

### TO CHECK CONNECTIONS

- 1) Cut-off power supply.
- 2) Manually release the wing, move it to approx. half-stroke and lock it again.
- 3) Reset power supply.
- 4) Send a step-by-step control signal by pressing the button or the remote control key.
- 5) The wing should start an opening movement. If this is not the case, invert the movement wires (25< >27) of the motor and the limit switch wires SWO-SWC (19< >20).
- 6) Adjust Time, Operating Logic and Motor Power.

### FUNCTION OF TRIMMERS

- ENC** The sensitivity to obstacle detection of the optical sensor is adjusted in both opening and closing phases. **Adjustment should be carried out in compliance with regulations in force.**  
If an obstacle is detected, the movement is stopped and reversed for about 3 sec.
- PW** Motor torque is adjusted.  
**Adjustment should be carried out in compliance with regulations in force.**
- TCA** The automatic closing time can be adjusted by this trimmer.  
Adjustment ranges from **1 sec** minimum to **90 sec** maximum.  
To disable the automatic closure set the trimmer to the maximum value (+)

### DIP-SWITCH FUNCTION

- DIP 1 "SCA/II°ch"** The operating mode of the SCA/ II°ch output to terminals 17-18 is adjusted.  
Off: Output is set as SCA (open gate indicator light) or as FotoTest if DIP5 is ON.  
On: Output is preset as 2<sup>nd</sup> ch (second radio channel).
- DIP 2 "PRELAM."** Forewarning flashing light enabled or disabled.  
Off: disabled forewarning flashing light.  
On: enabled forewarning flashing light. The flashing light is activated 3 sec before the starting of the motor.
- DIP 3 "BLI"** The PP input (Step-by-Step) is enabled or disabled in the opening phase.  
Off: During opening, all controls are regularly carried out.  
On: During opening, the PP input is disabled. Hence, also controls sent by the control unit are disabled.  
The other inputs are therefore still active.
- DIP 4 "P.P. Mod"** The "P.P. push-button" and the transmitter operating modes are selected.  
Off: Operation: OPEN > STOP > CLOSE > STOP >  
On: Operation: OPEN > CLOSE > OPEN >
- DIP 5 "Test DM"** The FotoTest functions and the single fault control are activated or deactivated in compliance with Directive on Machinery 98/37/CE.  
Off: Disabled functions.  
On: Enabled functions. Before any operation of the limit switches, the control unit carries out a check of single failures and correct operation of photocells.  
In case of faulty operation, no movement is carried out and LED DL1 flashes as indicated in paragraph "LED Diagnostics"  
Power the photocell transmitters (TX) through SCA outputs, as per wire diagram at page 4.
- DIP 6 "SLWD"** Braking is enabled or disabled.  
Off: Braking is disabled.  
On: Braking is enabled.  
For motors equipped with optical sensor (encoder) and DIP7 only: ON. The control unit carries out the final phase of the opening and closing movements at reduced speed (approx. 70 cm of stroke).  
**"WARNING: external mechanical factors, e.g. weight and friction on the sliding movement of the door leaf, as well as environmental factors, e.g. temperature, and weather agents may affect the performance of braking. Therefore, this functions requires a structure in good conditions and adequate maintenance."**

- DIP 7 "ENC"** The optical sensor is enabled or disabled (Encoder).  
 Off: Disabled optical sensor. Detection of obstacles and braking not enabled.  
 On: Enabled optical sensor. Through the ENC trimmer, the sensitivity of obstacle detection is adjusted in compliance with regulations in force.
- DIP 8 "Radio"** Programmable code transmitters are enabled or disabled.  
 Off: Receiver enabled for variable code transmitters (rolling-code) and programmable transmitters (self-learning and dip/switches).  
 On: Radio receiver enabled only for variable code (rolling-code) transmitters.

#### LEARNING OF OPENING AND CLOSING POSITIONS

Should a braking function be activated (DIP6:ON), the first operations are carried out at normal speed, without braking, in order to allow for the learning of the gate stroke.

Once the stroke is recorded, the control unit will control automatically the braking phases during opening and closure. This learning phase is performed also in case of power failure.

#### LED DIAGNOSTICS

The conditions of the control unit is indicated by the number of flashes of LED DL1:

- |                                |  |
|--------------------------------|--|
| 1 flash with 3 sec. interval   | The control unit is powered and is operating regularly     |
| 2 flashes with 3 sec. interval | Input, open STOP   |
| 3 flashes with 3 sec interval  | Input, open PHOT1  |
| 4 flashes with 3 sec interval  | Input, open PHOT2  |
| 5 flashes with 3 sec interval  | Input, open DAS  |
| 6 flashes with 3 sec interval  | Alarm, DM Test. Check the correct operation of photocells. |
| 7 flashes with 3 sec interval  | Alarm, optical sensor activation                           |

#### CONFIGURATION WITH BUILT-IN RECEIVER

The control unit is fitted with a built-in radio module for receiving remote controls both with fixed codes and variable codes (see dip-switch 4 functions), with a frequency of 433.92MHz.

For a transmitter to be used, the module first has to self-learn its code. The memorise procedure is illustrated below, the module can memorise up to 64 different codes.

##### Memorising a new transmitter by activating the P.P. function

- Press the PGM button once for 1sec and the Power LED will start blinking at 1 sec intervals.
  - Press the transmitter button within 10 sec to memorise with the P.P. (Step-by-step) function.
- To exit the programming procedure wait 10 sec or press the PGM button for 1 sec.

##### To memorise a new transmitter code with activation of 2nd radio channel output (DIP1:ON)

- Press push-button PGM twice, each time for at least 2 seconds, LED DL1 switches on with fixed light.
- Within the following 10 seconds, press the transmitter push-button to be memorised with 2<sup>nd</sup> radio channel function.

Wait for 10 sec or press PGM push-button for 1 second to exit the programming mode.

##### Remote Learning of a transmitter

If one transmitter has already been memorised others can be memorised without having to access the control unit as follows:

- Press the hidden key on the transmitter already stored in memory, the flashing light starts flashing.
- On the already memorised remote control, press the key corresponding to the function which must be copied.
- Within 10 sec, press the key of the new transmitter to which the function should be assigned.  
 E.g.: on key 1 of TX "A" the P.P. function is stored; this function should be assigned to key 2 of the new TX "B". Hence, press in sequence: hidden key of TX A >> key 1 of TX A >> key 2 of TX B

##### Cancelling all transmitters from the memory

- Keep the PGM key pressed for 15 sec, the DL1 LED and the courtesy light start flashing rapidly and switch off at completion of cancellation.
- Release the PGM key and the memory is now erased.

**N.B.:** For safety reasons, transmitters cannot be memorised during the open/close cycles of the motor. When entering the memorise transmitter procedure, if the Power LED gives a prolonged blink and then goes out, this signals that the receiver memory is full and no other transmitters can be memorised or that the transmitter is not compatible.

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