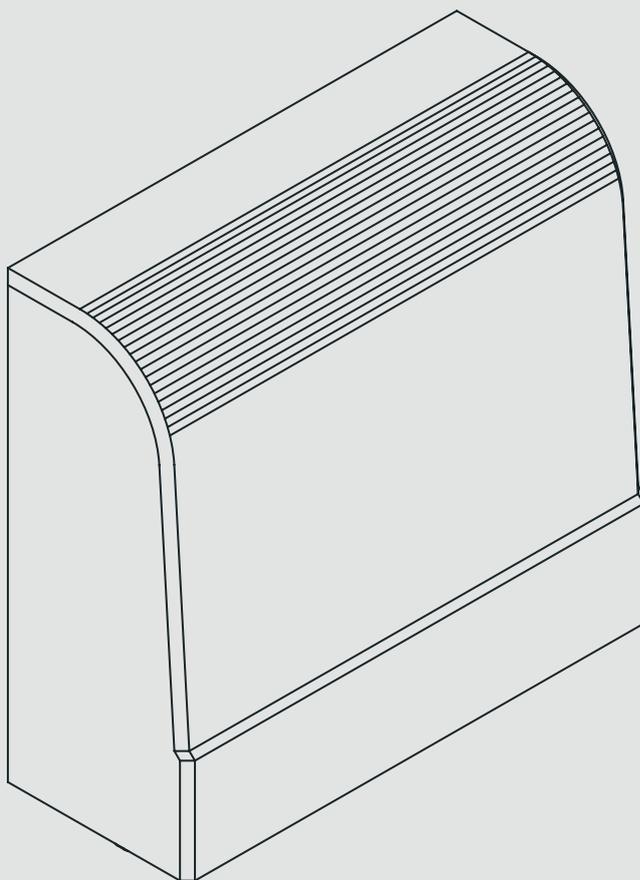


KER



BENINCA[®]
TECHNOLOGY TO OPEN



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

KER

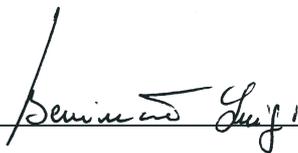
è conforme alle seguenti disposizioni pertinenti:
complies with the following relevant provisions:
folgenden einschlagigen Bestimmungen entspricht:
correspond aux dispositions pertinentes suivantes:
satisface las disposiciones pertinentes siguientes:
zgodny jest z poniżej wyszczególnionymi rozporządzeniami:

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)
Wytyczna odnośnie zdolności współdziałania elektromagne-
tycznego (89/336/EWG, 93/68/EWG)

Norme armonizzate applicate in particolare:
Applied harmonized standards, in particular:
Angewendete harmonisierte Normen, insbesondere:
Normes harmonisées utilisées, notamment:
Normas armonizadas utilizadas particularmente:
Normy standard najczęściej stosowane:

EN 55022, EN 61000-3-2, EN 61000-3-3, EN 50082-1

Data/Firma

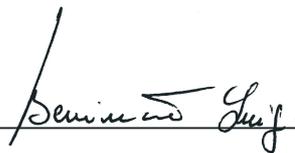


Direttiva sulla bassa tensione (73/23/CEE, 93/68/CEE)
Low voltage guidelines (73/23/EEC, 93/68/EEC)
Tiefe Spannung Richtlinie (73/23/EWG, 93/68/EWG)
Directive bas voltage (73/23/CEE, 93/68/CEE)
Reglamento de bajo Voltaje (73/23/MCE, 93/68/MCE)
Wytyczna odnośnie niskiego napięcia (73/23/EWG, 93/
68/EWG)

Norme armonizzate applicate in particolare:
Applied harmonized standards, in particular:
Angewendete harmonisierte Normen, insbesondere:
Normes harmonisées utilisées, notamment:
Normas armonizadas utilizadas particularmente:
Normy standard najczęściej stosowane:

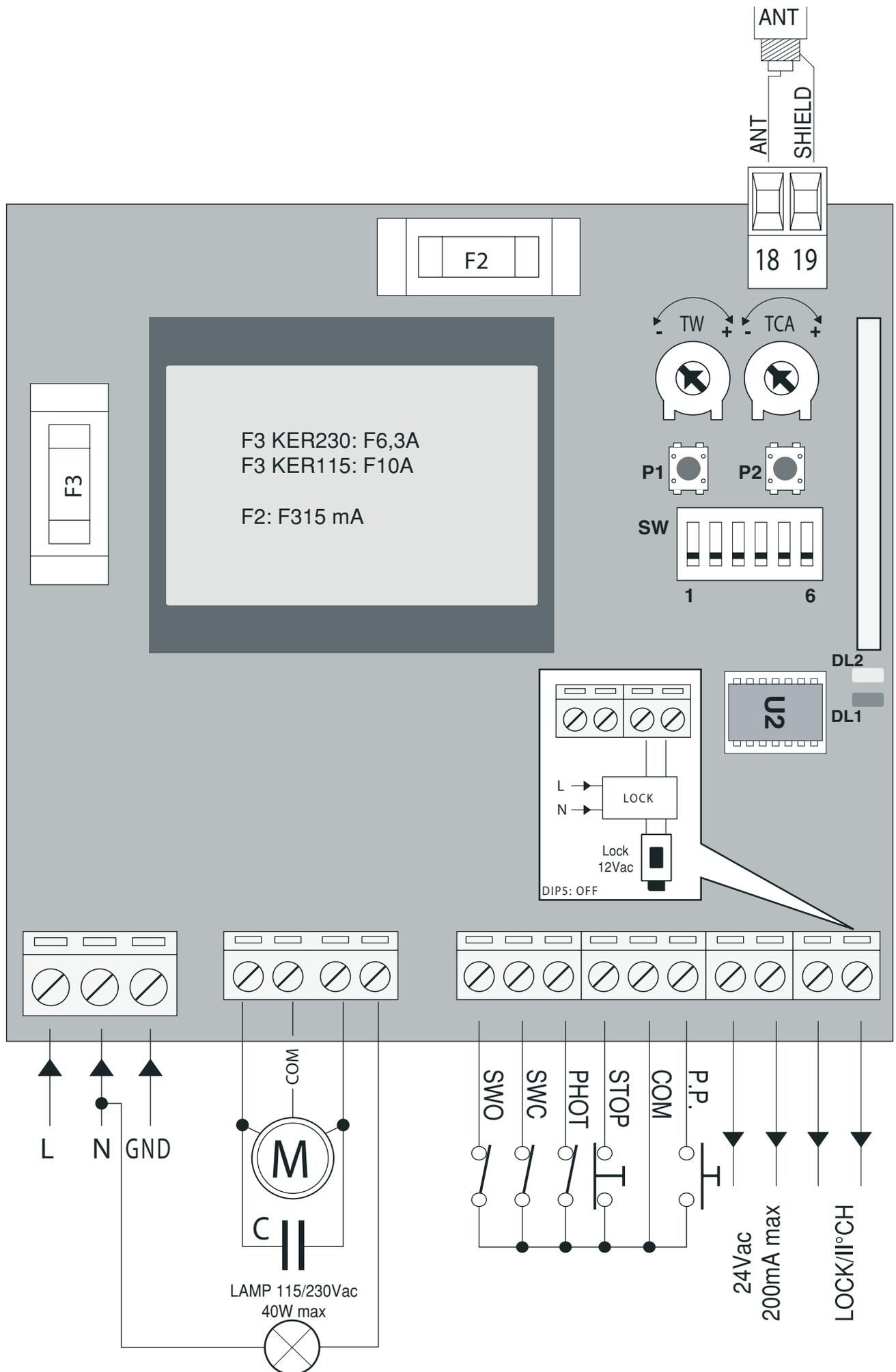
EN 60204-1, EN 60335-1

Data/Firma



BENINCA®

Automatismi Benincà SpA
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ITALIA



KER control unit

The KER electronic control unit can be used to control 1 motor with power not higher than 750W.

GENERAL WARNINGS

- a) The wire connections and the operating logic should be in compliance with regulations in force.
- b) The cables featuring different voltage should be physically detached, or adequately insulated by an additional shield of at least 1 mm.
- c) The cables should be further fastened in proximity to the terminals.
- d) Check all connections before powering the unit.
- e) Check that settings of the Dip-Switches are the required ones.
- f) Normally Closed inputs which are not in use should be short-circuited.

INPUT/OUTPUT FUNCTIONS

Terminals	Function	Description
L-N-GND	Power supply	Input, 23VAC, 50/60Hz (KER) Input, 115VAC, 50/60Hz (KER 115V) (1-Phase/2-Neutral/GND-earth)
MOT-COM-MOT	Motor	Connection to motor: (MOT-move/COM-Common/MOT-move)
N-BLINK	LAMP	Output, flashing light connection KER: 230VAC 40W max. KER 115V: 115VAC 40W max.
SWO	SWO	Input, OPEN limit switch (Normally Closed contact)
SWC	SWC	Input, CLOSE limit switch (Normally Closed contact)
PHOT(CHIUDE)	PHOT	Input, connection of safety devices, N.C. contact (e.g. photocells): - in the closing phase, when the contact is opened the motor is stopped and its direction is immediately reversed; - in the opening phase, the triggering of the contact has no effect on the motor. In the "Service man" operating mode, this contact acts as CLOSE control signal. In this case connect it to a N.O. (Normally Open) button.
STOP	STOP	Input, STOP push-button (Normally Closed contact)
COM	COM	Common, for all control inputs.
P.P (OPEN).	Step-by-Step	Input, Step-by-Step push-button (Normally Open contact) In the "Service man" operating mode, it acts as OPEN control.
24 VAC	24VAC	Output, power supply of accessories, 24VAC/200mA max
SCA-SCA	Ch.II/Lock	Non-insulated, free contact. Configurable output through DIP-SWITCH 5. DIP5 ON: Output, second radio channel of the incorporated receiver (24VAC/3W max). DIP5 OFF: Connection to the Lock optional card for the control of the electric lock. Do not connect the electric lock directly to the output.
SHIELD-ANT	Antenna	Connection of the extractable radio receiver card and the built-in radio module (SHIELD- DISPLAY/ANT-signal).

Note:

The control unit is equipped with a "P2" button with the same functions as the Step-by-Step button, useful to control the automatic system during installation.

HOW TO CHECK CONNECTIONS:

- 1) Cut off power supply.
- 2) Manually release the door and push it for about half stroke. Lock the door again.
- 3) Restore power supply.
- 4) Send a step-by-step control through P2 push-button, P.P. input or radio-control signal.
- 5) The door must move in the opening phase. In the negative, with motor stopped, it is sufficient to invert the motor and limit switch (MOT/MOT) wires (SWO/SWC).
- 6) Proceed by adjusting Times and operating Logics.

DIP-SWITCH FUNCTION

Dip-Switches	Function	Description
DIP1	Torque adjustment / radio learning	It is possible to switch between the torque adjustment mode and the radio learning. Off: RADIO LEARNING mode (see section "Radio learning") On: TORQUE ADJUSTMENT mode (see section "Torque Regulation").
DIP2	Bloc of flats	The bloc of flat function is enabled or disabled. Off: the bloc of flat function is disabled. On: the bloc of flat function is enabled. The Step-by-Step signal or the transmitter signal has no effect during opening.
DIP3	TCA Special	The TCA special is enabled or disabled. Off: Special TCA function is disabled. On: Special TCA function is enabled. If a PP control signal is sent in the first 5 seconds of the TCA calculation, the TCA is ignored and the closing operation is started. If the PP control signal is sent after the first 5 seconds and before the preset TCA time has elapsed, the time is reset and the new TCA counting starts.
DIP4	P.P. : operating mode	The operating mode of the "P.P. button" and of the transmitter is selected. Off: Operation: OPEN>STOP>CLOSE>STOP> On: Operation: OPEN>CLOSE>OPEN>
DIP5	Radio channel II /LOCK	The operating mode of the output to SCA terminals is selected (for a correct operation of the logics see the table "Inputs/ outputs functions – SCA-SCA paragraph" at page 4). Off: Impulse output for the control of the Lock card for electric lock On: Impulse output, radio channel II of the incorporated receiver
DIP6	Step-by-Step: 3-STEP mode	The 3 steps is enabled or disabled. On: The PP control sequence is the following: OPEN>STOP>CLOSE>OPEN>STOP>CLOSE>... Off: The control sequence is the one preset by DIP 4. NOTE: it operates with DIP 4 only on OFF.

TRIMMER OPERATIONS

- TW** The maximum duration of the opening and closing operation is adjusted. It should be preset at around 4sec more compared to the actual stroke time of the system.
The adjustment varies from 3 sec minimum to 180 sec maximum.
- TCA** The automatic closure time can be adjusted.
The adjustment varies from 3 sec minimum to 180 sec maximum.
With TCA trimmer entirely turned clockwise, the LED DL2 (green) switches off and the TCA is deactivated.

SERVICE MAN MODE

By moving all DIPs to ON, the control unit switches to the SERVICE MAN mode. The PHOT input takes the CLOSE Button function (connect the push-button with a N.O. contact).
The PP input acts as OPEN Button (connect the push-button with a N.O. contact).
The SWO and SWC inputs are disabled.
During the entire operation, the OPEN/CLOSE push-buttons must be kept pressed. When the STOP input opens, the motor stops.
By pressing the OPEN/CLOSE buttons simultaneously, the motor stops.

TORQUE REGULATION (DIP1:ON)

When DIP1 is moved to ON, the card indicates the torque applied at that moment through a number of flashes (from 1 to 4) of the DL2 green LED, followed by a 3 sec interval. The maximum torque is indicated with the DL2 green LED with fixed light. To increase the torque, press the P1 key. The DL2 LED changes the number of flashes to indicate the selected torque value.
Once the desired torque is selected, to learn this setting move the DIP1 to OFF.

RADIO LEARNING (DIP1:OFF)

The KER control unit is equipped of a built-in radio module for the reception of variable code, with 433.92 MHz frequency.
To use a remote control, its code must be stored in memory. The memorisation procedure is shown hereunder. Up to 64 different codes can be stored in the memory of the device.

By pressing the P1 key, the control unit enters the radio self-learning phase: the red DL1 LED flashes 1 time per second, awaiting for the key to be matched to the Step-by-Step function; Once the key is learned, exit from the programming mode;
By pressing the P1 key twice, the red DL1 LED flashes two times per second and enters the learning mode of Channel 2, radio/pedestrian*.
Once the key is learned, exit from the programming mode.
To exit the programming mode without learning any radio control code, press P1 key until the red DL1 LED returns flashing in the "mains" power supply mode (see LED diagnostics, page 7).

** NOTE: Keep in mind that if DIP5 is OFF, the matched key acts as pedestrian key (opening for around 7 seconds), otherwise, with DIP5 to ON, the matched key operates as 2nd channel on the SCA output.*

To reset the receiver memory, press P1 and P2 keys simultaneously and keep them pressed for around 10 seconds (during this time-lapse, both DL1 and DL2 LEDs flash rapidly). After ten seconds, the two LEDs remain switched on with fixed light. Release the push-buttons. When the LEDs return to the initial configuration, this means that the control unit has performed the resetting of the memory.

Note:

The transmitters are stored in an EPROM memory (U2), which can be removed and repositioned in a new KER control unit, if required.

For safety reasons, it is not possible to store transmitter codes into memory during the opening/closing phases of the motor.

LED DISGNOSTICS

The red LED indicates the activation of inputs, according to the following legend:

STOP	fixed light
PHOT	rapid flashing
SWO	1 flash at every 2 second interval
SWC	2 flashes at every 2 second interval
OPEN+CLOSE	3 flashes at every 2 second interval

With slow flashing, the red LED indicates that the unit is powered from the mains.

The green LED indicates the movement direction of the motor and the status of the gate according to the following legend:

OPENING	1 flash at every 1 second interval
CLOSING	2 flashes at every 1 second interval
Open gate without TCA	fixed light
Open gate with TCA	rapid flashing
Closed gate	LED off