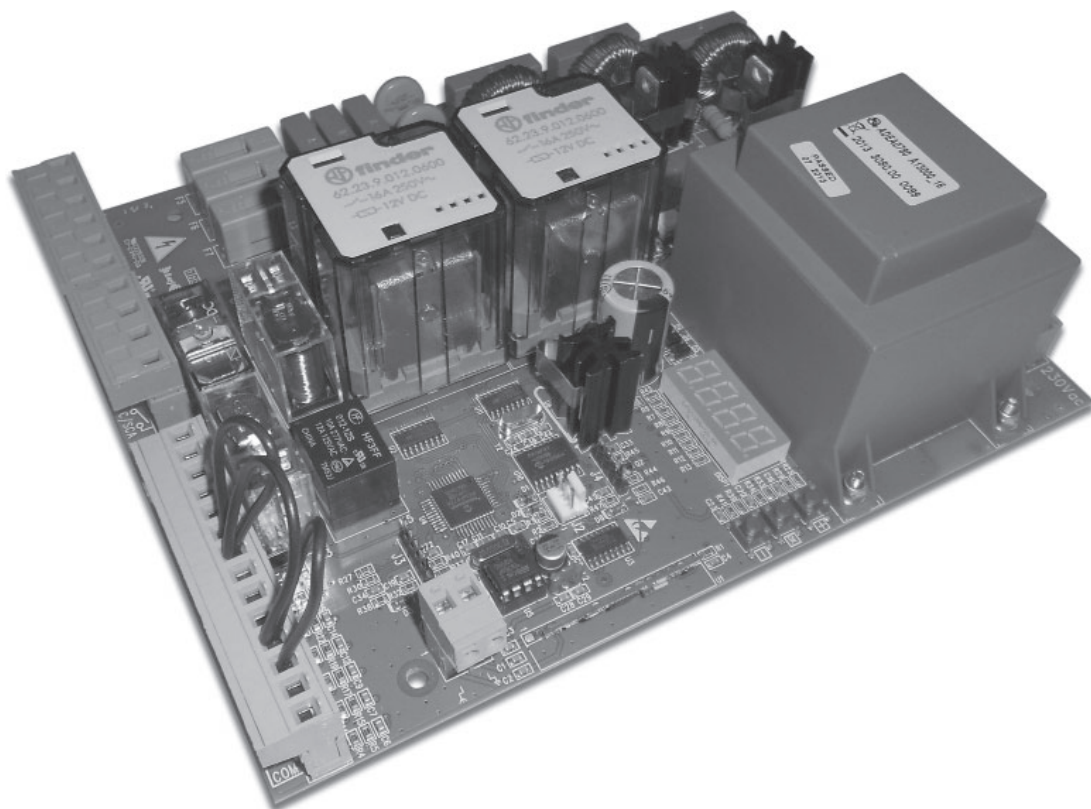


# 400RR

# DEA<sup>®</sup>

move as you like

- IT **Quadro di comando programmabile**  
*Istruzioni d'uso ed avvertenze*
- EN **Programmable control board**  
*Operating instructions and warnings*
- FR **Armoire de commande programmable**  
*Notice d'emploi et avertissements*
- DE **Programmierbare Steuereinheit**  
*Bedienungsanleitung und Hinweise*
- ES **Cuadro de maniobra programable**  
*Instrucciones de uso y advertencias*
- PT **Quadro de comando programável**  
*Instruções para utilização e advertências*
- PL **Uniwersalna centrala sterująca**  
*Instrukcja montażu i użytkowania*
- RU **Программируемая панель управления**  
*Инструкции и предупреждения*





# 400RR

## 400V three-phase control board for gate operators

Operating instructions and warnings

### Index

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## 1 WARNINGS SUMMARY

**WARNING! IMPORTANT SAFETY INSTRUCTIONS. CAREFULLY READ AND FOLLOW ALL WARNINGS AND INSTRUCTIONS THAT ACCOMPANY THE PRODUCT SINCE INCORRECT INSTALLATION COULD CAUSE HARM TO PEOPLE, ANIMALS OR THINGS. WARNINGS AND INSTRUCTIONS PROVIDE IMPORTANT INFORMATION REGARDING SAFETY, INSTALLATION, USE AND MAINTENANCE. KEEP THE INSTRUCTIONS TOGETHER THE TECHNICAL DOCUMENTATION AND FOR FUTURE REFERENCE.**

⚠ **WARNING** The device may be used by children of less than 8 years of age, people with reduced physical, mental or sensory impairment, or generally anyone without experience or, in any case, the required experience provided the device is used under surveillance or that users have received proper training on safe use of the device and are aware of the dangers related to its use.

⚠ **WARNING** Do not allow children to play with the device, the fixed commands or the radio controls of the system.

⚠ **WARNING** Product use in abnormal conditions not foreseen by the manufacturer may generate hazardous situations; meet the conditions indicated in these instructions.

⚠ **WARNING DEA** System reminds all users that the selection, positioning and installation of all materials and devices which make up the complete automation system, must comply with the European Directives 2006/42/CE (Machinery Directive), 2014/53/UE (RED Directive). In order to ensure a suitable level of safety, besides complying with local regulations, it is advisable to comply also with the above mentioned Directives in all extra European countries.

⚠ **WARNING** Under no circumstances use the device in an explosive atmosphere or in areas that may be corrosive or could damage product parts. Check that the temperatures at the installation site are suitable and comply with the temperatures declared on the product label.

⚠ **WARNING** When working with the “dead man” switch, make sure that there are no people in the area where the automatism is being used.

⚠ **WARNING** Check that there is a switch or an omni polar magneto-thermal circuit breaker that enables complete disconnection in case of over voltage category III conditions installed upstream from the power system.

⚠ **WARNING** To ensure an appropriate level of electrical safety always keep the 400V 3~ power supply cables apart (minimum 4mm in the open or 1 mm through insulation) from low voltage cables (motors power supply, controls, aerial and auxiliary circuits power supply), taking care to place them in plastics ducts and fasten the latter with appropriate clamps near the terminal boards.

⚠ **WARNING** If the power cable is damaged, it must be replaced by the manufacturer or its technical assistance service or, in any case, by a person with similar qualifications to prevent any risk.

⚠ **WARNING** All installation, maintenance, cleaning or repair operations on any part of the system must be performed exclusively by qualified personnel with the power supply disconnected working in strict compliance with the electrical standards and regulations in force in the nation of installation.

Cleaning and maintenance destined to be performed by the user must not be performed by unsupervised children.

⚠ **WARNING** Using spare parts not indicated by **DEA** System and/or incorrect re-assembly can create risk to people, animals and property and also damage the product. For this reason, always use only the parts indicated by **DEA** System and scrupulously follow all assembly instructions.

⚠ **WARNING** Changing the closing intensity could lead to dangerous situations. Therefore, qualified personnel should only perform increases to the closing force. After adjustment, compliance with regulatory limits values should be detected with a force impact-measuring instrument. The sensitivity of the obstacle detection may be adjusted gradually to the door (see programming instructions). The anti-crushing device operation must be checked after each manual adjustment. Manual modification of the force can only be done by qualified personnel by performing the measurement test according to EN 12445. Modifications to the force adjustment must be documented in the machine manual.

⚠ **WARNING** The compliance of the internal sensing obstacles device to requirements of EN12453 is guaranteed only if used in conjunction with motors fitted with encoders.

⚠ **WARNING** Any external security devices used for compliance with the limits of impact forces must be conform to standard EN12978.

♻ **WARNING** In compliance with EU Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), this electrical product should not be treated as municipal mixed waste. Please dispose of the product and bring it to the collection for an appropriate local municipal recycling.

**EVERYTHING THAT IS NOT EXPRESSLY PROVIDED FOR IN THE INSTALLATION MANUAL IS NOT ALLOWED. CORRECT OPERATOR OPERATION IS ONLY ENSUED WHEN THE REPORTED DATA IS RESPECTED. THE COMPANY DOES NOT RESPOND FOR DAMAGE CAUSED BY FAILURE TO COMPLY WITH THE INSTRUCTIONS CONTAINED IN THIS MANUAL. WITHOUT AFFECTING THE ESSENTIAL FEATURES OF THE PRODUCT, THE COMPANY RESERVES THE RIGHT TO MAKE ANY CHANGES DEEMED APPROPRIATE AND AT ANY TIME IN ORDER TO TECHNICALLY, STRUCTURALLY AND COMMERCIALY IMPROVE THE PRODUCT WITHOUT BEING REQUIRED TO UPDATE THIS DOCUMENT.**

## 2 PRODUCT DESCRIPTION

The 400RR control board has been manufactured exclusively to control **DEA** System automatism, with 400V 3 three-phase motor~ with or without magnetic encoder. The environment for which it has been designed and tested is the “normal” situation for industrial openings; the degree of protection from dust and water is indicated in the specific instruction manuals of each **DEA** System automatism, onto which the 400RR control board is mounted. In the case of control units supplied in a BOX, the protection rating is IP 55, if installed correctly.

## 3 TECHNICAL DATA

<b>Power supply (V)</b>	400V 3~ ±10% (50Hz)
<b>Flashing light output</b>	230 V ~ max 75mA art. LED230AI
<b>Auxiliary power supply output (24VAUX)</b>	+24 V ~ max 400mA (24Vaux + 24Vsic)
<b>Safety devices power supply output (24VSIC)</b>	
<b>Electric lock output</b>	12 V ~ max 15VA (max 1 art. 115)
<b>LC/SCA contact capacity</b>	max 5A
<b>Max motor capacity</b>	1200W
<b>Fuse F5=F6=F7</b>	T5A 250V retarded
<b>Fuse F8</b>	!!NOT INSTALLED!!
<b>Fuse F9</b>	T400mA retarded
<b>Operating temperature range</b>	-20=50 °C
<b>Radio receiver frequency</b>	433,92 MHz “rolling code / dipswitch”
<b>Max. number of transmitter controlled</b>	100

## 4 ELECTRICAL CONNECTIONS

Execute the wiring following the directions of "Table 1" and diagrams on page I-1.

**WARNING** To ensure an appropriate level of electrical safety always keep the 400V 3~ power supply cables apart (**minimum 4mm in the open or 1 mm through insulation**) from low voltage cables (motors power supply, controls, aerial and auxiliary circuits power supply), taking care to place them in plastics ducts and fasten the latter with appropriate clamps near the terminal boards.

**WARNING** For connection to the mains, use a multipolar cable having a minimum section 3x1,5 mm<sup>2</sup> and complying with the current regulations. For connecting the motors, use a minimum cross section 1,5 mm<sup>2</sup> cable and complying with the current regulations. As an example, if the cable is out side (outdoor), must be at least equal to H07RN-F, whereas if it (in a raceway), must be at least equal to H05VV-F.

**WARNING** All cables must be stripped in the immediate nearbys of the terminals. Keep cables slightly longer in order to eliminate subsequently any excess.

**WARNING** In case of operators provided with electromechanical brake, remind to deactivate the electronic brake of the control board (P029=0).

**Table 1 "terminal board connections"**

<b>1-2-3</b>	Three-phase power supply connection: Connect the three phases to clamps 1, 2 and 3
<b>4-5-6</b>	Three-phase motor output: 4=phase T1, 5=phase T2, 6=phase T3 (max 1200W)
<b>7-8</b>	Flashing light output 230V ~ max 75mA
<b>9-10</b>	Clean Contact with max capacity 5A: this contact may be used to command a opened gate warning light (P027=0), or a courtesy light (P027≠0), or to pilot an eventual mechanical brake (P029=2). In case of mechanical brake, opened gate warning light and courtesy light are deactivated independently from the value assigned to P027.
<b>11-12</b>	24V ~ Power supply output for controlled safety devices. To be used as power supply for photocell transmitters (in all cases) and of safety devices when testing these latter before each gate operation.
<b>11-13</b>	24V ~ Power supply output for auxiliary circuits and uncontrolled safety devices. To be used as power supply for any auxiliary devices, photocell receivers (in all cases) and of safety devices when testing these latter before each gate operation.
<b>14-15</b>	12V ~ max 15VA Electric lock output
<b>16</b>	Common inputs
<b>17</b>	N.C. external safety device input. In case of activation, it reverses the movement (P018=0) or it stops (P018=1). If unused, short-circuit to terminal n° 16 or n° 24
<b>18</b>	N.C. input Limit switch in opening. If unused, short-circuit to terminal n° 16 or n° 24
<b>19</b>	N.C. input Limit switch in closing. If unused, short-circuit to terminal n° 16 or n° 24
<b>20</b>	N.O. Pedestrian opening button input. If activated, it partially opens the gate (P030>3); Separate lock (P030=1); Man present command (P030=2); separated/CLOSE present man command (P030=3); centralized closing (P030=0)
<b>21</b>	N.C. Photocell input. In case of activation it reverses the movement only while closing (P026=0) or it reverses the movement while closing and stops while opening (P026=1). If unused short-circuit to terminal n° 16 or n° 24.
<b>22</b>	N.C. Stop input. If activated, it stops the movement during any operation, if unused, short-circuit to terminal n° 16 or n° 24
<b>23</b>	N.O. Start input. If activated it opens or closes the gate. It can work in "reversal" mode (P025=0) or "step by step" (P025=1)
<b>24</b>	Common inputs
<b>25</b>	Radio antenna signal input
<b>26</b>	Radio antenna earth input

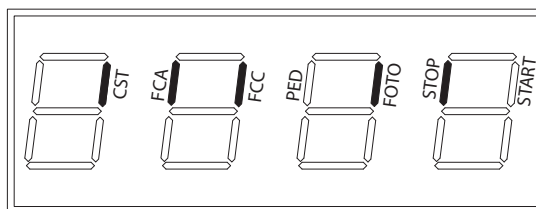
## 5 USE INSTRUCTIONS

### 1 Power Supply

After making all connections to the terminal board, remember to short-circuit, whenever needed, any unused input (see "connection to the control board") and power the card: on the display you will read for a few seconds "rES-" followed by the symbol "---" which stands for gate closed.

### 2 Visualisation of inputs status

By pressing the "OK" key when the control board awaits further instructions ("---") the display shows some vertical segments: each one of them is associated to one of the control board inputs. When the segment is lighted it means that the contact associated to it is closed, on the contrary, when it is not lighted the contact is open.



**WARNING** During the programming of motor stroke, the control board detects automatically the presence and type of photocells, safety devices and limit switches installed. It is therefore essential that during this phase all above devices are properly connected and in operation.

**WARNING** BEFORE STARTING THE PROGRAMMING OF MOTOR STROKE, IT IS RECOMMENDED TO SELECT THE TYPE OF OPERATOR YOU INTEND TO USE: PARAMETER P034=0 OPERATOR WITH ENCODER; P034=1 OPERATOR WITHOUT ENCODER.

### 3 Motor stroke learning

#### 3.1 Door/gate positioning

Instructions	Function	Display
	1. Scroll down the parameters until you visualize procedure P001	P001
	2. Confirm! The control board is ready for the positioning of the gate/door	⋮OP-1⋮
	3. Position gate/door in its standstill position after opening <sup>1</sup>	
	4. Confirm! The control board has memorized the gate/door position	P001

#### 3.2 Motor stroke learning

Instructions	Function	Display
	1. Scroll down the parameters until you visualize procedure P003	P003
	2. Confirm! The control board awaits a further confirmation	⋮APP-⋮
	3. Confirm by pressing on the OK key for a few seconds! The procedure starts	APP-
	4. Now the gate/door starts to close at a slow speed until it reaches the stroke end while closing (or the limit switch).	
	5. On the display you will read "---". Motor stroke memorization done!	----

**WARNING** If during the door opening you have no access to the push buttons of the control board, you may configure and memorize the stroke by using the buttons of a 4-channel remote control stored in memory.

#### 3.3 Door/gate positioning and Motor stroke memorization

Instructions	Function	Display
	1. Scroll down the parameters until you visualize procedure P001	P001
	2. Confirm! The control board is ready for the positioning of the gate/door	⋮OP-1⋮
CH2=	3. Position gate/door in its standstill position after opening <sup>1</sup>	
CH3=	4. Confirm! Now the gate/door starts to close at a slow speed until it reaches the stroke end while closing (or the limit switch).	APP-
CH4=	5. On the display you will read "---". Motor stroke memorization done!	----

<sup>1</sup> By pushing the button the gate must open, by pushing the button the gate must close. If this does not happen, you must **turn the control board off**, swap the two motor cables (clamps 4 and 5) and **give power supply to the control board** again. Only in case you use limit switches, first of all position the gate where you want it to stop in closing and then adjust the closing cam so that it presses on the closing limit switch in that point. Then position the gate in the opening position and adjust the opening cam so that it presses on the opening limit switch in that point.

## 4 Built-in radio receiver

400RR control board includes a 433,92MHz built-in radio receiver accepting both transmitters with HCS coding (complete rolling code or just fixed part), and HT12E dip-switch coding:

- The type of coding is selected by programming the working parameter P008 “type of coding” (see Parameters Table);
- The receiver memory capacity can contain up to 100 different transmitters;
- When receiving a pulse from the transmitter, depending on your channel selection and linking, the start or the pedestrian inputs are activated. In fact, by programming one of the working parameters it is possible to choose, according to one’s needs, which key of the memorized transmitters will activate the start input and which one will activate the pedestrian input (see “Channel selection and linking on the transmitter”);
- While you memorize each transmitter the display shows a progressive number by which you will be able to trace and, if necessary, delete each transmitter individually.

### 4.1 Deletion of all transmitters

Instructions	Function	Display
	1. Scroll down the parameters until you visualize P004	P004
	2. Confirm! The control board awaits a further confirmation	CRnC
	3. Confirm by pressing on the OK key for a few seconds! The procedure starts	CRnC
	4. Done! The transmitters memory has been deleted	P004
	5. Scroll down the parameters until you visualize “- - - -”. The control board awaits a further confirmation	- - - -

**WARNING** If you need to vary the type of encoding, and only if other remotes with different encoding are memorized, you need to erase memory (P004) **AFTER** you have set the new encoding.

### 4.2 Memorization of transmitters <sup>1</sup>

Instructions	Function	Display
	1. Scroll down the parameters until you visualize P005	P005
	2. Confirm! The receiver enters in memorization mode The flashing light blinks!	LEAr
	3. Press on any key of the transmitter	
	4. Memorization done! The flashing light goes out for 2 seconds The display visualizes the number of the transm. just memorized (es. “r001”)	r001
	5. The receiver reverts automatically to memorization mode The flashing light blinks!	LEAr
	6. Memorize all necessary transmitters	
	7. Wait 10 seconds before quitting the memorization mode The receiver will now receive all the memorized transmitters	- - - -

### 4.3 How to activate the memorization mode without operating on the control board <sup>1</sup>

Instructions	Function	Display
	1. Press simultaneously on key CH1 and CH2, or on the hidden key of a transmitter already memorized.	LEAr

### 4.4 How to search and delete a transmitter

Instructions	Function	Display
	1. Scroll down the parameters until you visualize P006	P006
	2. Confirm! You can now select the transmitter	r001
	3. Scroll down the transmitter numbers until you reach the transmitter to be deleted (eg. “r003”)	r003
	4. Confirm the deletion by pressing the OK key for a few seconds	r003
	5. OK! The transmitter is deleted	r - - -
	6. You can now select the parameter	P006
	7. Scroll down the parameters until you visualize “- - - -”. The control board awaits further instructions	- - - -

<sup>1</sup> Make sure that the receiver is set to receive the type of coding of the transmitter you wish to memorize: visualize and, if necessary, update parameter P008 “Type of coding”.



## 5 Channel selection and linking on the transmitter

The built-in receiver can control both the start input and the pedestrian one. By setting the correct value of the parameter "P009 Selection and linking of radio channels" it is possible to decide which button of the transmitter will activate each input. If you check on the "working parameters" table you will realize that the P009 parameter allows you to choose among 16 different combinations. If, for instance, you attribute value "3" to the parameter P009, all memorized transmitters will activate the start input through the CH1 and the pedestrian input through CH4. Please see chapter "8.4 Personalization of working parameters" in order to select the right combination.

### 5.1 Personalization of working parameters

Instructions	Function	Display
	1. The control board is ready to receive instructions	----
	2. Scroll down the parameters until you visualize the one you wish to set (ex. P010)	P010
	3. Confirm! The display shows the set parameter value	d100
	4. Increase or decrease the value until you reach the value you wish to define	d080
	5. Confirm! The display shows again the parameter	P010
	6. Scroll down the parameters until you visualise "----". The control board awaits further instructions	----
	7. The operator is now ready to work according to the new working parameters.	

### 5.2 Resetting of default parameters (P007)

400RR control board software includes a reset procedure to restore default values (the one set by the maker) of all settable parameters, see Table 2 Parameters. The value originally set for each parameter is shown in the "working parameters table". In case you should reset all values and restore all default values, proceed as follows:

Instructions	Function	Display
	1. The control board is ready to receive instructions	----
	2. Scroll down the parameters until you visualize P007	P007
	3. Confirm! The control board awaits a further confirmation	DEF
	4. Confirm by pressing on the OK button. The procedure starts	DEF
	5. All parameters are now set at their original value	P007
	6. Scroll down the parameters until you visualise "----". The control board awaits further instructions	----

### 5.3 Safety devices

The control board 400RR allows installers to set up installations truly comply with European regulations concerning automatic enclosure devices. More specifically, this control board allows you to comply with the limits set by the same regulations as to impact forces in case of collision with obstacles.

400RR control board in fact, when used with **DEA** operators equipped with encoder (parameter P034=0) has a built-in anti-crush safety device, that, associated to the possibility of adjusting the motor speed, allows you to comply with the limits imposed by the above mentioned regulations in most installations. In particular you can adjust the anti-crush safety device sensitivity by the proper adjustment of the values assigned to the following parameters:

- **P014** motor force in opening cycle: from 30 (min. force, max sensitivity) to 100 (max force, neutralized sensitivity);
- **P015** motor force in closing cycle: from 30 (min. force, max sensitivity) to 100 (max force, neutralized sensitivity);

**WARNING** in case of operators without encoder (P034=1) the speed adjustment and the anti-crush device are not activated.

In case the gate structural features do not allow you to comply with the above force limits, it is possible to use external safety device inputs (clamp n°12). "CST" input can be configured by setting properly parameter P018:

- **P018=0** "safety edge" mode functioning: when the input is activated, it reverses the movement direction;
- **P018=1** "photoelectric barrier" mode functioning: when the input is activated, it stops the movement

**WARNING** If the CST input is not used, shortcircuit it to terminal n°16 or n°24. If you power the external safety devices by using 24VSIC output (terminal n°12), their proper working is tested before each gate operation.

	PAR.	PROCEDURE
<b>PROGRAMMING PROCEDURES</b>	P001	Positioning of gate/door
	P002	Unused parameter
	P003	Memorization of the motor stroke
	P004	Deletion of the radio receiver memory
	P005	Memorization of transmitters
	P006	Search and deletion of a transmitter
	P007	Resetting of default parameters

	PAR.	PARAMETER DESCRIPTION
<b>OPERATING PARAMETERS</b>	P008	Type of coding of the radio receiver
	P009	Channel selection and linking to "start" and "pedestrian" inputs
	P010	Motor speed during normal stroke (calculated as % of max speed)
	P011	Motor speed during slow-down phase (calculated as % of max speed)
	P012	Slow-down duration (expressed as % of total stroke)
	P013	Unused parameter
	P014	Motor force in opening (if =100 -> max force, obstacle impact sensibility deactivated)
	P015	Motor force in closing (if =100 -> max force, obstacle impact sensibility deactivated)
	P016	Unused parameter
	P017	Unused parameter
	P018	Selection of type of external safety device: rib / barrier. If the "rib" mode is selected, when the CST input is activated the movement direction is inverted; If the "barrier" mode is selected, when the CST input is activated the movement is stopped.
	P019	Time of automatic closing (expressed in sec). If=0 the automatic closing is deactivated
	P020	Time of pre-flashing (expressed in sec)
	P021	Recording delay of closing limit switch: if= 1, when the door arrives on FCC, the operator stops after about 1 min. delay. If door arrives at the stroke while this delay, the operator immediately stops. Figure set by the factory: "0".
	P022	Ramp rate duration - If=0 the motor starts immediately at the selected speed - If=1 the motor speeds up progressively until it reaches the selected speed

SETTABLE VALUES	

SETTABLE VALUES							DEFAULT VALUES	
<ul style="list-style-type: none"> <li>• 000: HCS fix-code</li> <li>• 001: HCS rolling-code</li> <li>• 002: HT12E Dip-switch</li> </ul>							000	
	START	PED		START	PED		001	
001	CH1	CH2	009	CH3	CH4			
002	CH1	CH3	010	CH4	CH1			
003	CH1	CH4	011	CH4	CH2			
004	CH2	CH1	012	CH4	CH3			
005	CH2	CH3	013	CH1	/			
006	CH2	CH4	014	CH2	/			
007	CH3	CH1	015	CH3	/			
008	CH3	CH2	016	CH4	/			
50.....100							100	
30.....100							060	
10.....50							025	
							/	
30.....100							090	
30.....100							090	
							/	
							/	
<ul style="list-style-type: none"> <li>• 000: safety ribs mode</li> <li>• 001: photoelectric barriers mode</li> </ul>							000	
0.....255							010	
0.....15							002	
<ul style="list-style-type: none"> <li>• 000: deactivated</li> <li>• 001: activated</li> </ul>							000	
<ul style="list-style-type: none"> <li>• 000: deactivated</li> <li>• 001: activated</li> </ul>							000	

EN

OPERATING PARAMETERS	P023	Collectivity function: if it is activated it deactivates both start and pedestrian inputs for the whole duration of automatic opening and closing.
	P024	Ram blow function: if it is activated, it pushes the motors close for one second before each opening movement, so as to ease the releasing of any electric lock.
	P025	Operating program: reversal (start->open, start->close, start->open ...), step-by-step (start->open, start->stop, start-close...)
	P026	PHOTO input functioning: if=0 photocells are activated while closing and at start when gate is closed; if=1 photocells are always activated; if=2 photocells are activated while closing only. PHOTO input activation, when activated, provokes: the inversion (while closing), the stop (while opening) and prevent the starting (when gate is closed).
	P027	Clean contact operation: - If=0, open gate fixed warning light, the contact is always closed when the gate is moving or opened, it opens again only when the closing movement is completed; - If=1, open gate intermittent light, the contact is slow while opening and fast while closing, always closed when the gate is opened, it opens again when the closing movement is completed; - If>1 courtesy light, the contact is closed during every movement, it opens again when the motor stops according to a pre-settable delay (expressed in sec); <b>Warning:</b> if P029=2, the value assigned to P027 is not considered and the contact is used to pilot an eventual electro-mechanical brake.
	P028	Short reversal at end of stroke: when the gate/door reaches the end of stroke, it reverses shortly the movement so as to "release" the mechanical stress due to the gate/door's pressure on the end of stroke itself.
	P029	Anti-inertia braking devices: if=0 no devices foreseen; if=1 electrical brake is activated: the command circuit drives the operator so to generate a braking force at each stop; if=2 electro-mechanical driving is activated. <b>Warning:</b> in this case the clean contact can't be used as opened gate warning light or courtesy light. Refer to picture 1 at page 67 and to instructions manual of the operator to connect the electro-mechanical brake.
	P030	"PED" input functioning -If=0, it ensures the door or gate closing in any position, "AP" input works normally. -If=1 the "PED" input starts the closing while "AP" starts the opening. -If=2 the "PED" input (permanent command) starts the closing, the "AP" input (permanent command) starts the opening. The gate stops at release. -If=3 the "AP" input starts the opening up, the "PED" input (permanent command) starts the closing up. The door stops once released "PED". -If>3 "PED" starts the pedestrian opening. The selected value indicates the duration of the pedestrian stroke (expressed as a % of the total stroke). The "AP" input normally works.
	P031	Limitation of motor force when it reaches the end of stroke while closing -If=0, limitation is disabled (force level at the end of stroke is set automatically); -If≠0, it indicates the force value (expressed as a % of the max value) the motor exerts at the end of stroke while closing.
	P032	Reaction at detection of an obstacle while opening -If=0 the door inverses travelling direction; -If≠0 the door inverses travelling direction <b>only</b> for the set time (expressed in sec).
	P033	Reaction at detection of an obstacle while closing -If=0 the door reverses travelling direction; -If≠0 the door reverses travelling direction <b>only</b> for the time set (expressed in sec).
	P034	Operation with or without encoder -If=0 the encoder is installed: the speed adjustment and the anti-crushing device are available -If=1 the encoder is not installed: the speed adjustment and the anti-crushing device are not available. It is necessary to use the limit switches.

		DEFAULT VALUES
	<ul style="list-style-type: none"> <li>• 000: deactivated</li> <li>• 001: activated</li> </ul>	000
	<ul style="list-style-type: none"> <li>• 000: deactivated</li> <li>• 001: activated</li> </ul>	000
	<ul style="list-style-type: none"> <li>• 000: inversion</li> <li>• 001: step-by-step</li> </ul>	000
	<ul style="list-style-type: none"> <li>• 000: photocells are activated while closing and when gate is closed</li> <li>• 001: photocells are always activated</li> <li>• 002: fotocells are activated at closing only</li> </ul>	000
	<ul style="list-style-type: none"> <li>• 000: open gate fixed warning light</li> <li>• 001: open gate intermittent warning light</li> <li>• &gt;001: courtesy light with settable delay-off</li> </ul>	000
	<ul style="list-style-type: none"> <li>• 000: deactivated</li> <li>• 001: activated</li> </ul>	000
	<ul style="list-style-type: none"> <li>• 000: Anti-inertia braking devices deactivated</li> <li>• 001: Electrical brake activated</li> <li>• 002: Electro-mechanical brake activated</li> </ul>	000
	<ul style="list-style-type: none"> <li>• 000: Central lock</li> <li>• 001: Separate lock</li> <li>• 002: Man present command</li> <li>• 003: separated/CLOSE present man command</li> <li>• &gt;003: Pedestrian</li> </ul> (4%tot.....50%tot)	020
	0.....100	000
	0.....10	000
	0.....10	000
	<ul style="list-style-type: none"> <li>• 000: encoder is installed</li> <li>• 001: encoder is NOT installed</li> </ul>	000

## 6 MESSAGES SHOWN ON THE DISPLAY

WORKING STATUS MESSAGES		
Mess.	Description	
----	Gate is closed	
J L	Gate is open	
OPEN	Opening under way	
CLOS	Closing under way	
STEP	While in step-by-step mode, the control board awaits further instructions after a START command	
bLOC	Stop command received	
bARR	CST activated while working in barrier mode	
ERROR MESSAGES		
Mess.	Description	Possible solutions
Err1 Err2	They point out that the gate has exceeded: - (Err1), the max allowed number of reversals (50) without ever reaching the end of stroke (or stop) while closing; - (Err2) the max number of uninterrupted operations (10) of the anti-crush safety device; therefore an "emergency operation" is under way: the control board sets the motors at a slow speed and searches the stops (or ends of stroke) in order to reset the positioning system. Once the stops (or ends of stroke) while closing are found again the message disappears and the control board awaits further instructions "----" and then resumes working normally.	In case the gate is not properly closed after the emergency operation (maybe because of false stops or obstacles due to mechanical frictions), proceed as follows: - Disconnect the power supply, check manually that no particular frictions and/or obstacles are present during the complete stroke of the gate/door. Leave the gate/door half-open. - Connect the power supply again and subsequently give a start pulse. At this point the gate/door will start to close at slow speed until reaching the stop (or end of stroke). Make sure that the gate operation is properly completed. Adjust force and motor speed values, if needed. If the gate keeps working improperly repeat the motor stroke memorization procedure.
Err3	External photocells and/or safety devices are activated or out of order.	Make sure that all safety devices and/or photocells installed are working properly.
Err4	The motors are not connected or signals control board failure.	Make sure that the motors are properly connected. If the message reappears change the control board.
Err6	Possible motor overheating due to obstacles hindering the gate/door movement. The control board does not respond to instructions.	Remove any obstacle and wait until the message "Err6" is replaced by message "bLOC" and the control board responds to instructions again (a few seconds).
Err7	Operators movement not detected.	- Make sure that operators and encoders connections are well done. - Check the setting of parameter P034 (Motor selection with or without encoder) and make sure it is correct. - If this error appears again, replace the control panel.

## 7 INSTALLATION TEST

The testing operation is essential in order to verify the correct installation of the system. **DEA** System wants to summarize the proper testing of all the automation in 4 easy steps:

- Make sure that you comply strictly as described in paragraph 2 "WARNINGS SUMMARY";
- Test the opening and closing making sure that the movement of the leaf match as expected. We suggest in this regard to perform various tests to assess the smoothness of the gate and defects in assembly or adjustment;
- Ensure that all safety devices connected work properly;
- Perform the measurement of impact forces in accordance with the standard 12445 to find the setting that ensures compliance with the limits set by the standard EN12453.

**WARNING** With control boards range "RR" disconnect the power supply wires before unlocking the operator manually. When you start the operator again the first operation will bring the door to a complete closing. If you do not follow this procedure the door will lose its right positioning.

## 8 PRODUCT DISPOSAL

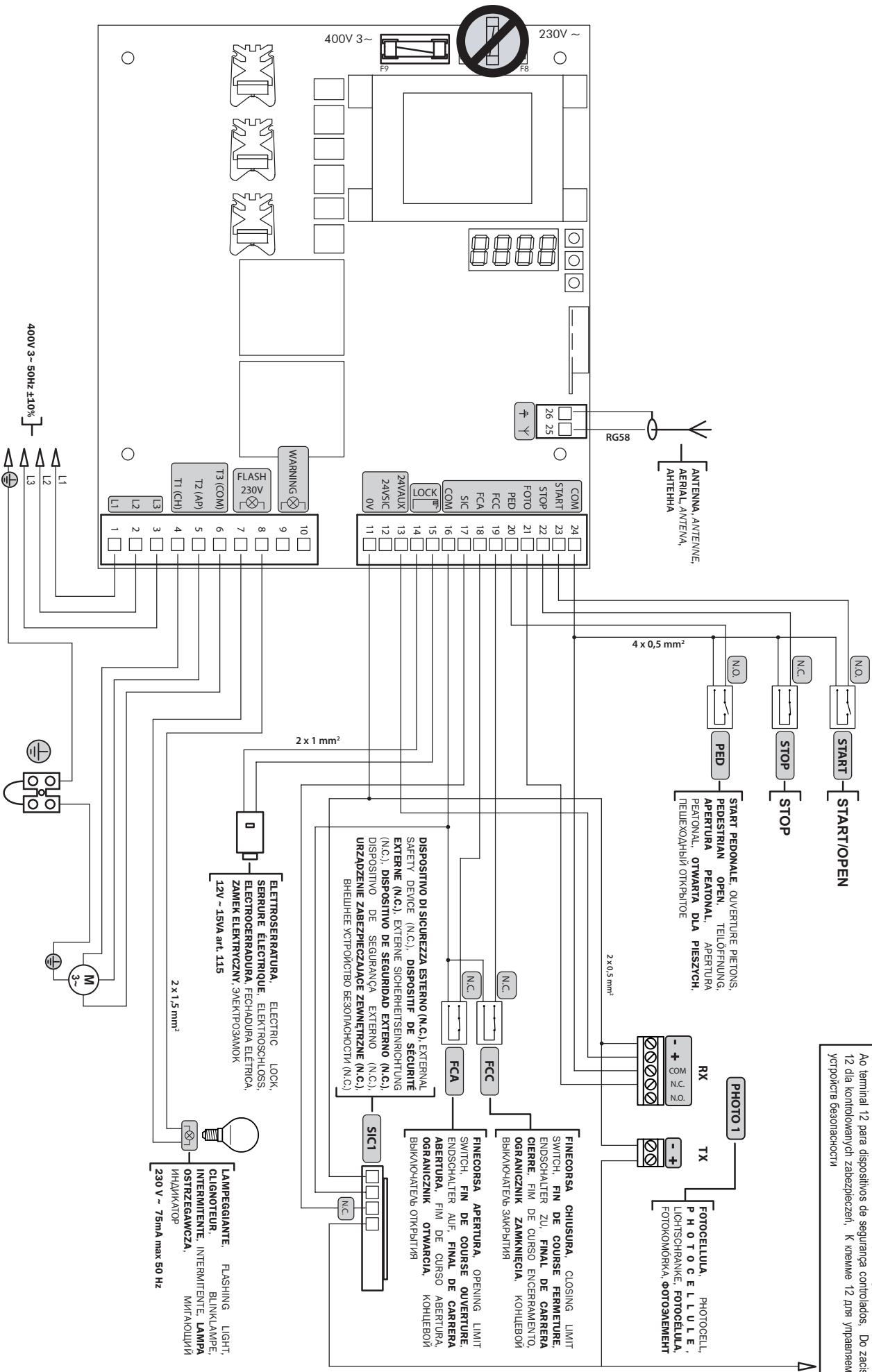


**WARNING** In compliance with EU Directive 2002/96/EC on waste electrical and electronic equipment (WEEE), this electrical product should not be treated as municipal mixed waste. Please dispose of the product and bring it to the collection for an appropriate local municipal recycling.

Schema elettrico - Wiring Diagram - Schéma électrique - Elektroschema - Esquema eléctrico  
 Esquema eléctrico - Schemat elektrusly - Электросхема подключения

Al morsetto 13 per collegamento normale. To terminal n. 13 for normal connection. A la borne 13 pour connexion normale. An Klemme 13 für Normalschluss. Al terminal 13 para una conexión normal. Para o terminal nº 13 para ligação normal. Do zaciski 13 dla podłączenia normalnego. К клемме 13 для нормального подключения.

Al morsetto 12 per sicurezza controllata. To terminal n. 12 for controlled safety devices. A la borne 12 pour sécurités contrôlées. An Klemme 12 Anschluss mit Testfunktion. El borne 12 para seguridades controladas. Ao terminal 12 para dispositivos de segurança controlados. Do zaciski 12 dla kontrolowanych zabezpieczeń. К клемме 12 для управляемых устройств безопасности.



LAMPEGGIANTE. FLASHING LIGHT.  
 CLIGNOTEUR. BLINKLAMPPE.  
 INTERMITENTE. INTERMITENTE LAMP.  
 OSTRZEBAWCZA. MIYGAJĄCA LAMP.  
 230 V - 75mA max 50 Hz

DISPOSITIVO DI SICUREZZA ESTERNO (N.C.). EXTERNAL SAFETY DEVICE (N.C.). DISPOSITIF DE SECURITE EXTERNE (N.C.). EXTERNE SICHERHEITSEINRICHTUNG (N.C.). DISPOSITIVO DE SEGURANCA EXTERNO (N.C.). URZADZENIE ZABEZPIEZAJACE ZEWNETRZNE (N.C.). BHEILHREE YCTPOKHOCTBO BECOYHOCHOCTH (N.C.)

FINECORSA CHIUSURA. CLOSING LIMIT SWITCH. FIN DE COURSE FERMETURE. ENDSCHALTER ZU. FINAL DE CARRERA CIERRE. FIM DE CORSO ENGRAMENTO. OGRANICZNIK ZAMKNIĘCIA. КОНЦЕВОЙ ВЫКЛЮЧАТЕЛЬ ЗАКРЫТИЯ

FINECORSA APERTURA. OPENING LIMIT SWITCH. FIN DE COURSE OUVERTURE. ENDSCHALTER AUF. FINAL DE CARRERA ABERTURA. FIM DE CURSO ABERTURA. KONЦЕВОЙ ВЫКЛЮЧАТЕЛЬ ОТКРЫТИЯ

START PEDONALE. OUVERTURE PIETONS. PEDESTRIAN OPEN. TEILOEFFNUNG. APERTURA PEATONAL. АПЕРТУРА ПЕШЕХОДНОЙ ОТКРЫТОЕ

PHOTOCELL. FOTOCÉLULA. PHOTOCELL. FOTOCÉLULA. FOTOKOŃCZKA. ФОТОЭЛЕМЕНТ

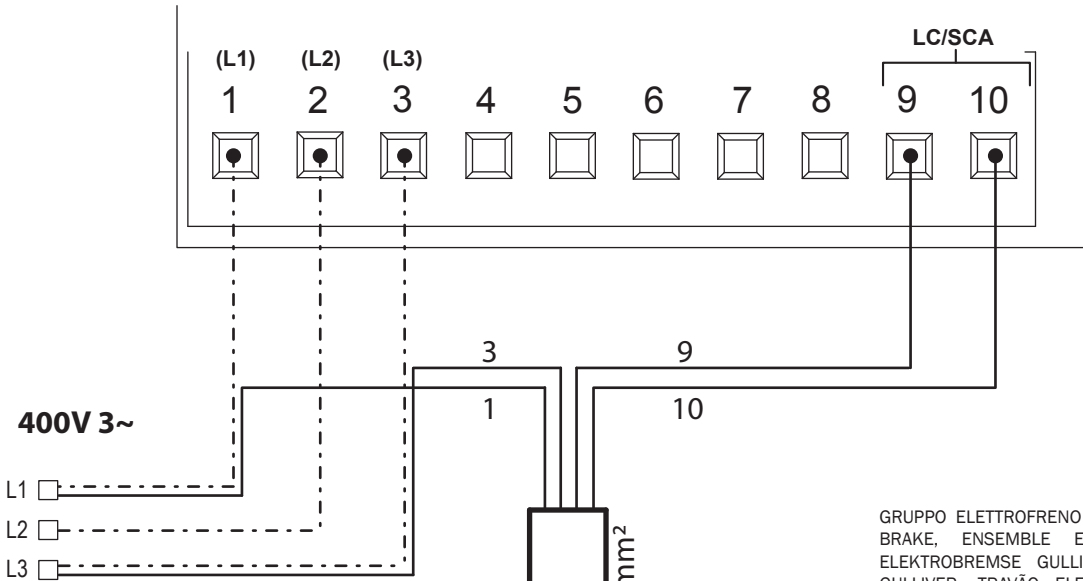
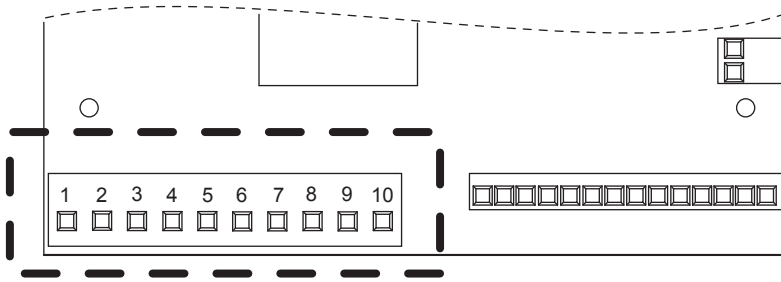
ELECTROSERRATURA. ELECTRIC LOCK. SERRURE ELECTRIQUE. ELEKTROSCHLOSS. ELECTROERRADURA. FECHADURA ELÉTRICA. ZAMEK ELEKTRYCZNY. ЗАКЛЮЧАЮЩИЙ ЗАМОК

COM 24  
 START 23  
 STOP 22  
 FOTO 21  
 PED 20  
 FCC 19  
 FCA 18  
 S/C 17  
 COM 16  
 ZAVLUX 15  
 24VSSIC 14  
 0V 13  
 12  
 11

10  
 9  
 8  
 7  
 6  
 5  
 4  
 3  
 2  
 1

400V 3 - 50Hz ±10%

**Schema di collegamento con elettrofreno - Electro-brake wiring diagram - Schéma de branchement du électro-frein  
 Anschlussschema mit Elektrobremse - Esquema de conexión electro freno - Esquema de ligações para o travão eléctrico  
 Schemat połączenia z hamulcem elektrycznym - Схема подключения с электротормозом**

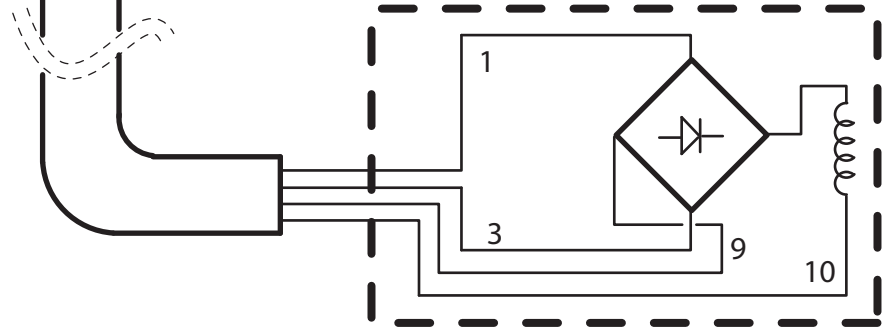


**400V 3~**

- L1 □
- L2 □
- L3 □

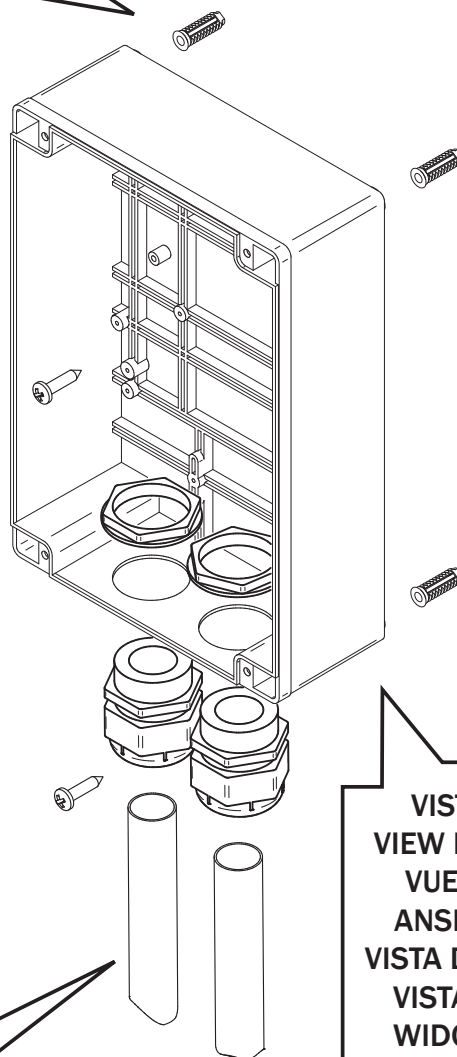
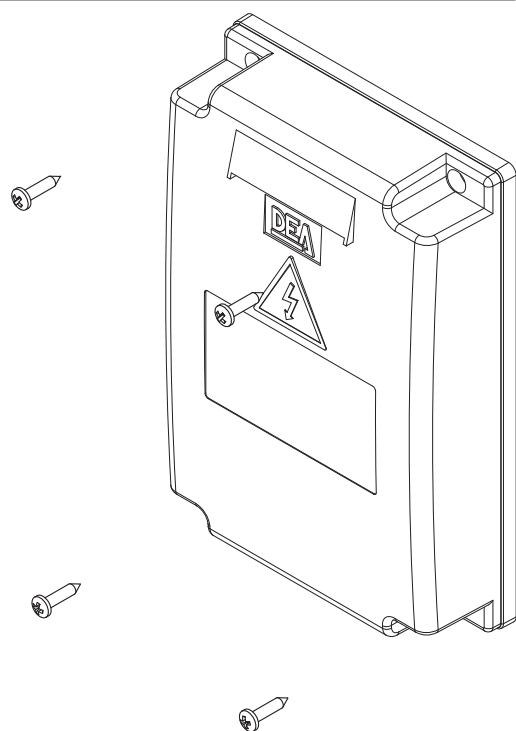
Collegamento per alimentazione a 400V 3~  
 400V 3~ power supply connection  
 Branchement pour alimentation en 400V 3~  
 Anschluss Netzspannung bei 400V 3~  
 Conexión para alimentación de 400V 3~  
 Ligaçao para a tensão de alimentação 400V 3~  
 Połączenie dla zasilania 400V 3~  
 Подключение к сети электропитания 400 В 3~

GRUPPO ELETTROFRENO GULLIVER, GULLIVER ELECTRO-BRAKE, ENSEMBLE ELECTRO-FREIN DU GULLIVER, ELEKTROBREMSE GULLIVER, GRUPO ELECTRO FRENO GULLIVER, TRAVÃO ELECTROMECHANICO DO GULLIVER, ZESPÓŁ HAMULCA ELEKTRYCZNEGO GULLIVER, ЭЛЕКТРОГРУППА ГУЛЛИВЕР



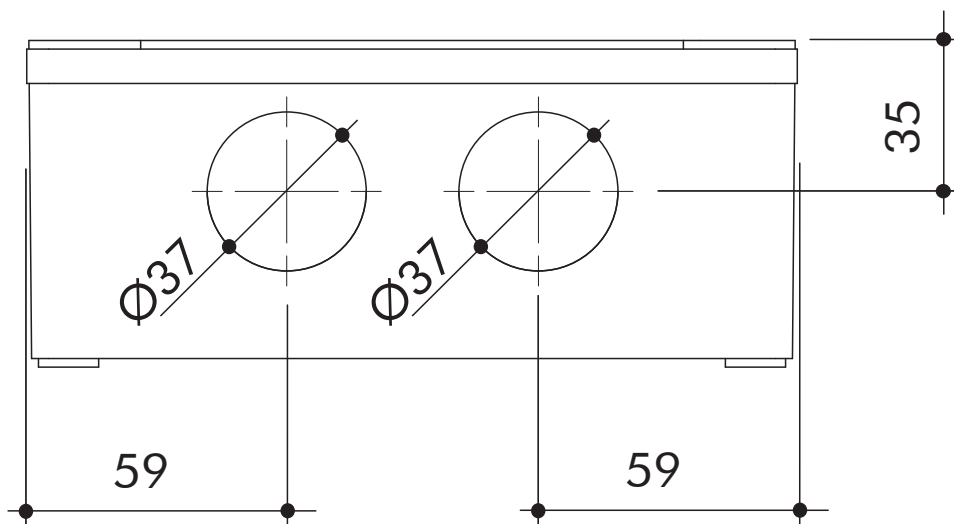


**Eseguire** il fissaggio alla parete usando opportuni tasselli per viti Ø5 (non fornite); **Fix** the box on the wall with appropriate bushings to anchor screws Ø5 (not included); **Le** fixer au mur en utilisant des douilles à expansion pour vis adéquates Ø5 (pas incluses); **Die** Wandbefestigung vornehmen, verwenden Sie geeignete Dübel für Ø5 Schrauben (nicht im Lieferumfang); **Efectuar** la fijación a la pared utilizando adecuados tacos para tornillos de Ø5 (no incluidos); **Executar** a fixação a parede usando apropriadas rolhas para parafusos Ø5 (não fornecidas); **Zamocować** do ściany, przy pomocy odpowiednich kołków do śrub Ø5 (nie na wyposażeniu); **Выполнить** крепление к стене с помощью соответствующих дюбелей для болтов Ø 5 (не входят в комплект).

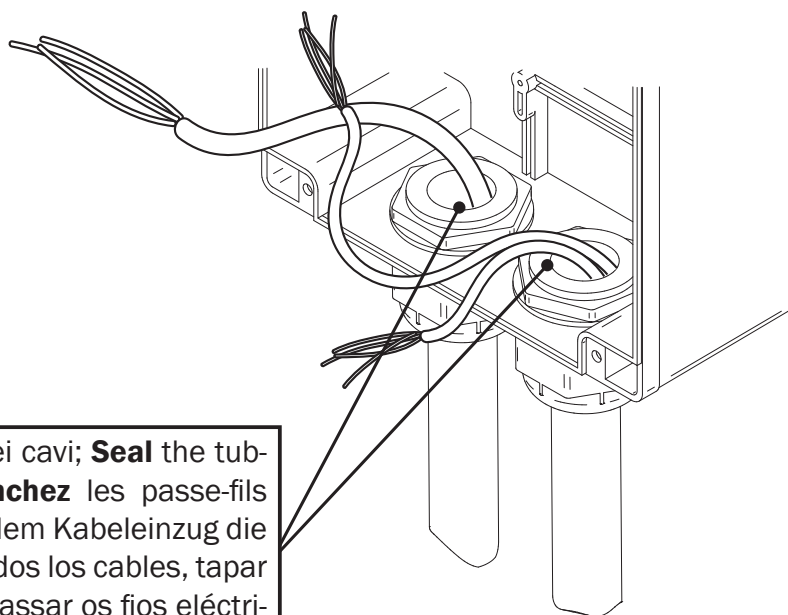


**Passaggio** cavi 400V 3~ all'interno di una canaletta Ø20 raccordata con fermatubi PG29 (non forniti); **Pass** 400V 3~ cables inside a grommet Ø20 connected with tube fastening PG29 (items not included); **Passage** des fils 400V 3~ dans un passe-fil Ø20 raccordée avec un bloque tube PG29 (ces outils ne sont pas inclus); Kabelführung für die 400V 3~ Einspeisung in Ø20 Kunststoffrohr mit Pg29 Rohrverschraubung (nicht im Lieferumfang); **Paso** de los cables 400V 3~ por el interior de una canaletta de Ø20 unida con pasacable PG29 (no incluidos); **Passagem** cabos 400V 3~ ao interno de um cano Ø20 com fixação do tubo PG29 (não fornecidos); **Przejście** kabli 400V 3~ wewnątrz kanaliku Ø20 połączonego z zaciskami przewodów PG29 (nie na wyposażeniu); **Прход** кабелей 400 В 3~ внутри канала Ø20, связанного с фиксаторами PG29 (не входят в комплект).

**Passaggio** cavi a bassissima tensione all'interno di una canaletta Ø20 raccordata con fermatubi PG29 (non forniti); **Pass** very low tension cables inside a grommet Ø20 connected with tube fastening PG29 (items not included); **Passage** des fils à très basse tension dans un passe-fil Ø20 raccordée avec un bloque tube PG29 (ces outils ne sont pas inclus); Kabelführung für die Schwachstromkabel in Ø20 Kunststoffrohr mit Pg29 Rohrverschraubung (nicht im Lieferumfang); **Paso** de los cables de tensión muy baja por el interior de una canaletta de Ø20 unida con paratubo PG29 (no incluidos); **Passagem** cabos a baixíssima tensão ao interno de um cano Ø20 com fixação do tubo PG29 (não fornecidos); **Przejście** kabli bardzo niskiego napięcia wewnątrz kanaliku Ø20 połączonego z zaciskami przewodów PG29 (nie na wyposażeniu); **Прход** кабелей очень низкого напряжения внутри канала Ø20, связанного с фиксаторами PG29 (не входят в комплект).



**VISTA DA "A"** Fori da eseguire sul fondo della scatola con seghe a tazza Ø37 per l'inserimento dei fermatubi; **VIEW FROM "A"** Holes to be drilled on the bottom of the box with a hole saw Ø37 to introduce tube fastening; **VUE DE "A"** Trous à percer au fond du boîtier avec une scie-cloche Ø37 afin d'introduire des bloque tube; **ANSICHT "A"** Mit einem 37mm Kronenbohrer die Rohrdurchführungen vohrnemen; **VISTA DESDE "A"** Agujeros que deben hacerse en la base de la caja con sierras cilíndricas de Ø37 para la introducción de los paratubo; **VISTA DE "A"** Furos pra executar no fundo da caixa com serra a xícara Ø37 para inserimento dos fixação do tubo; **WIDOK Z "A"** Otwory do wykonania na dnie skrzynki z wiertłami Ø37 dla włożenia zacisku; **ВИД ИЗ "A"** Отверстия для выполнения в нижнем основании ящика с помощью кольцевой пилы Ø37 для установки фиксаторов.



**Sigillare** le canalette dopo il passaggio dei cavi; **Seal** the tubing trays after installing the wires; **Étanchez** les passe-fils après que vous avez passé des fils; **Nach** dem Kabeleinzug die Rohröffnungen abdichten; **Una** vez colocados los cables, tapar las canaletas; **Tapar** os cabos depois de passar os fios eléctricos; **Zapiecztować** kanały po przejściu kabli; **Плотно** закрыть каналы после выполнения прохода кабелей.

# EU Declaration of Conformity (DoC)

Company name:	DEA SYSTEM S.p.A.
Postal address:	Via Della Tecnica, 6
Postcode and City:	36013 Piovene Rocchette (VI) - ITALY
Telephone number:	+39 0445 550789
E-Mail address:	deasystem@deasystem.com

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus model/Product:	400RR – 400RR/C – 400RR/PROBOX
Type:	Universal control panel for 230V operators
Batch:	See the label on the back of the user manual

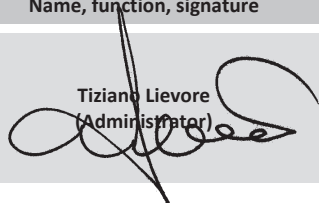
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Directive 2014/53/UE (RED Directive)  
Directive 2011/65/EU (RoHS)

The following harmonised standards and technical specifications have been applied:

Title:	Date of standard/specification
EN61000-6-2	2005 + EC:2005
EN61000-6-3	2007 + A1:2011
EN301 489-1 v2.1.1	2017
EN301 489-3 v2.1.1	2017 final draft
EN60335-1	2012 + EC:2014 + A11:2015
EN62233	2008
EN300 220-1 v3.1.1	2017
EN300 220-2 v3.1.1	2017
EN50581	2012

## Additional information

Signed for and on behalf of:		
Revision:	Place and date of issue:	Name, function, signature
00.03	Piovene Rocchette (VI) 12/06/17	Tiziano Lievore (Administrator) 

**BATCH**



**DEA SYSTEM S.p.A.**

Via Della Tecnica, 6 - 36013 PIOVENE ROCCHETTE (VI) - ITALY

**tel:** +39 0445 550789 - **fax:** +39 0445 550265

**Internet:** <http://www.deasystem.com> - **E-mail:** [deasystem@deasystem.com](mailto:deasystem@deasystem.com)