DITEC

AUTOMATIC ENTRANCE SPECIALISTS

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(I) Manuale di installazione quadro elettronico per automazione VALOR.

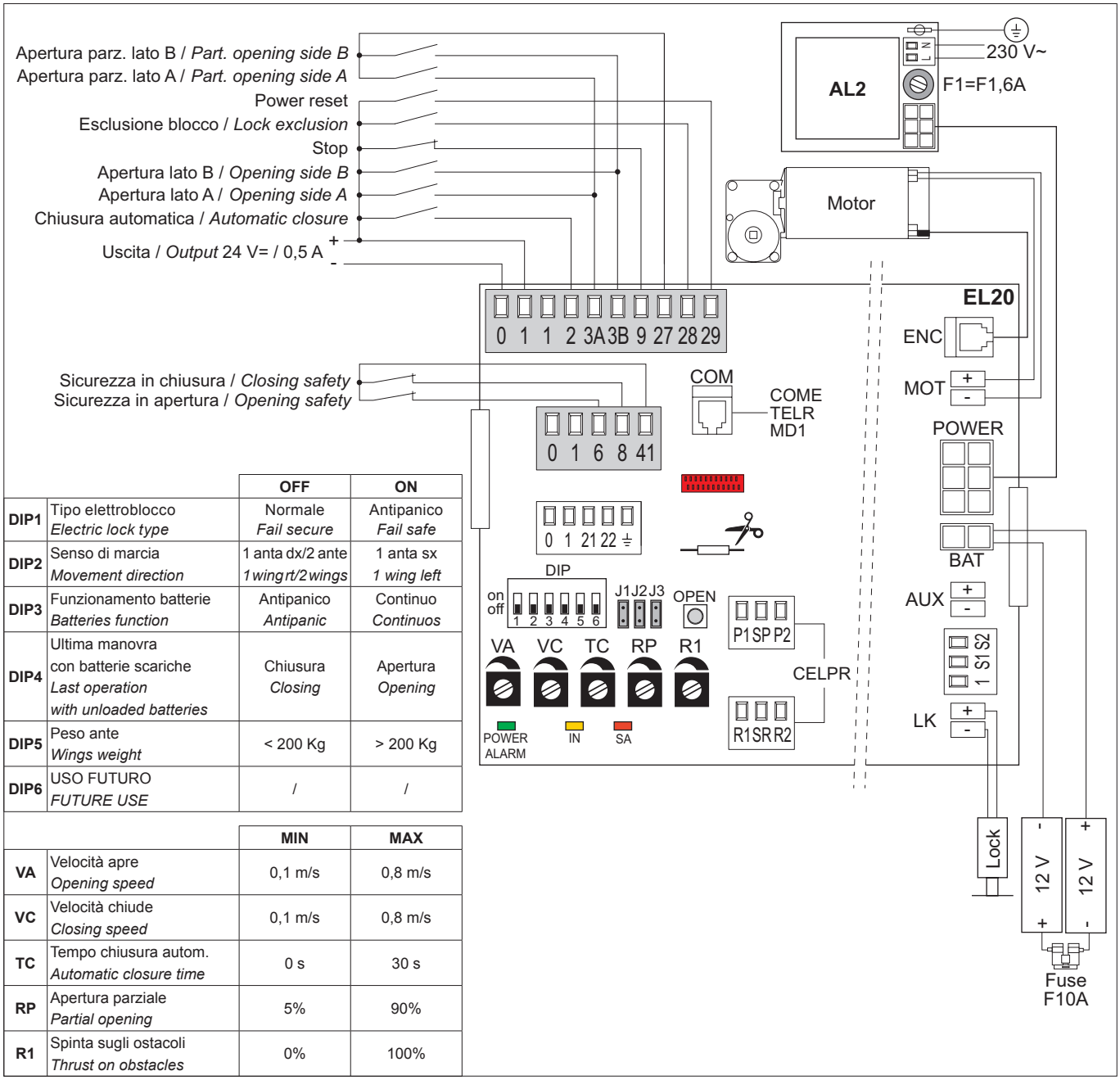
(GB) Electric board installation handbook for VALOR automations.

(F) Manuel d'installation armoire électrique pour automatisme VALOR.

(D) Installationsanleitung der Automatiktürsteuerung VALOR.

(E) Manual de instalación del tablero eléctrico para automación VALOR.

(P) Manual de instalação quadro eléctrico para automação VALOR.



		OFF	ON
DIP1	Tipo elettroblocco *Electric lock type*	Normale *Fail secure*	Antipanico *Fail safe*
DIP2	Senso di marcia *Movement direction*	1 anta dx/2 ante *1 wing rt/2 wings*	1 anta sx *1 wing left*
DIP3	Funzionamento batterie *Batteries function*	Antipanico *Antipanic*	Continuo *Continuos*
DIP4	Ultima manovra con batterie scariche *Last operation with unloaded batteries*	Chiusura *Closing*	Apertura *Opening*
DIP5	Peso ante *Wings weight*	< 200 Kg	> 200 Kg
DIP6	USO FUTURO *FUTURE USE*	/	/

		MIN	MAX
VA	Velocità apre *Opening speed*	0,1 m/s	0,8 m/s
VC	Velocità chiude *Closing speed*	0,1 m/s	0,8 m/s
TC	Tempo chiusura autom. *Automatic closure time*	0 s	30 s
RP	Apertura parziale *Partial opening*	5%	90%
R1	Spinta sugli ostacoli *Thrust on obstacles*	0%	100%

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GENERAL SAFETY WARNINGS

⚠ This installation manual is intended for professionally competent personnel only. Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with the present standards. Read the instructions carefully before installing the product. Bad installation could be dangerous. Before installing the product, make sure it is in perfect condition. Use original spare parts only for repairs or replacements of products.

1. TECHNICAL DATA

Refer to the technical specifications and EC Declaration of Conformity in the VALOR automation's manuals.

2. ELECTRICAL CONNECTIONS

Warning: make a jumper on all N.C. contacts if not in use. The terminals with the same number are equal.

2.1 Commands

Command		Function	Description
1 — 2	N.O.	AUTOMATIC CLOSING	A permanent contact enables the automatic closing. Selector switches COMH-K and COME automatically select the automatic closing.
1 — 3A **1 — 3B**	N.O.	SIDE A OPENING SIDE B OPENING	The opening manoeuvre starts when the contact is closed.
27 — 3A **27 — 3B**	N.O. N.O.	SIDE A PARTIAL OPENING SIDE B PARTIAL OPENING	Partial opening occurs when the contact is closed.
1 — 9	N.C.	STOP	All movements are stopped when the contact is opened. All normal or emergency operations are excluded when the contact is opened. *Warning: when the contact closes again the door proceeds with the interrupted manoeuvre.*
1 — 28	N.O.	BLOCK EXCLUSION	The block operation is excluded when the contact is closed. The exclusion is automatic in the fully open and partial two-way positions with COMH, COMK and COME.
1 — 29	N.O.	POWER RESET	All acquired data is annulled when the contact is closed. The automation can start acquisition again after 3 seconds.

2.2 Non testable safety devices

Command		Function	Description
41 — 6	N.C.	OPENING SAFETY	With J3=ON the opening speed is reduced in the last 500 mm of the door wing stroke when the contacts are opened.
41 — 8	N.C.	REVERSAL SAFETY CONTACT	With J3=ON the opening of the contact during the closure manoeuvre causes the movement to invert (opening).

2.3 Testable safety devices

Command		Function	Description
1 — 6	N.C.	OPENING SAFETY	The opening speed is reduced in the last 500 mm of the door wing stroke when the contacts are opened.
1 — 8	N.C.	REVERSAL SAFETY CONTACT	The opening of the contact during the closure manoeuvre causes the movement to invert (opening).
41 — +		SAFETY TEST	With J3=ON connect terminal 41 of the control panel to the corresponding test terminal on the safety device. Terminal 41 activates a test of the safety device on each cycle. If the test fails the SA led flashes and the test is repeated.

2.4 Outputs and accessories

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Output	Value	Description
0 - **1** +	24 V= / 0,5 A (max)	**Accessories power supply.** External accessories power supply output. *Note: the maximum absorption of 0.5 A corresponds to the sum of all terminals 1.*
COM		Allows the connection of possible commands for distances under 4,5 m.
0 - **1** + **21** **22** ⏚		Allows the connection of 1 or 2 COME selector switches or the display or the connection of the DMCS software, or the network connection of a maximum of 4 automations. *Note: use a data transmission type screened cable.*
		FUTURE USE
OPEN	OPENING	The opening operation is activated with a brief press.
	SETTINGS RESET	Keep the OPEN button pressed (for 4 s), until the IN LED starts to flash. To confirm the operation, press the OPEN button again for 2 seconds within 4 seconds. The SETTINGS RESET annuls all the remote software settings made via DMCS, MD1, TEL2, COME. After SETTINGS RESET it is possible to adjust the control panel directly.
- MOT + ENCODER		**Motor-encoder connection.** Connect the motor and encoder to the control panel by means of the supplied cables.
POWER		**AL2 power supply unit connection.**
VALABE	2 x 12 V / 1,2 Ah	**Anti-panic battery kit (VALABE).** With DIP3=OFF with the mains power supply off, the automation will carry out an opening operation at low speed. When the door is open the power supply is disconnected from the control panel. To charge the batteries, connect the mains power and the battery kit at least 30 minutes before starting the system. *Warning: to allow charging, the battery kit must be connected to the control panel at all times. Periodically check the efficiency of the battery kit.*
VALABC	2 x 12 V / 7 Ah	**Continuous mode battery kit (VALABC).** Con DIP3=ON with the mains power supply off, the battery kit will guarantee continuous operation. With DIP4 select the last operation with the batteries flat. To charge the batteries, connect the mains power and the battery kit at least 30 minutes before starting the system. *Warning: to allow charging, the battery kit must be connected to the control panel at all times. Periodically check the efficiency of the battery kit.*
- AUX +	24 V= / 200 mA	**Bistable blocking device.** Bistable blocking device power supply output (auxiliary coil).
- LK +	24 V= / 1 A	**Electric block.** Blocking device power supply output.

2.5 Limit switch connection

Command		Function	Description
1 — **S1**	N.O.		FUTURE USE
1 — **S2**	N.O.		FUTURE USE

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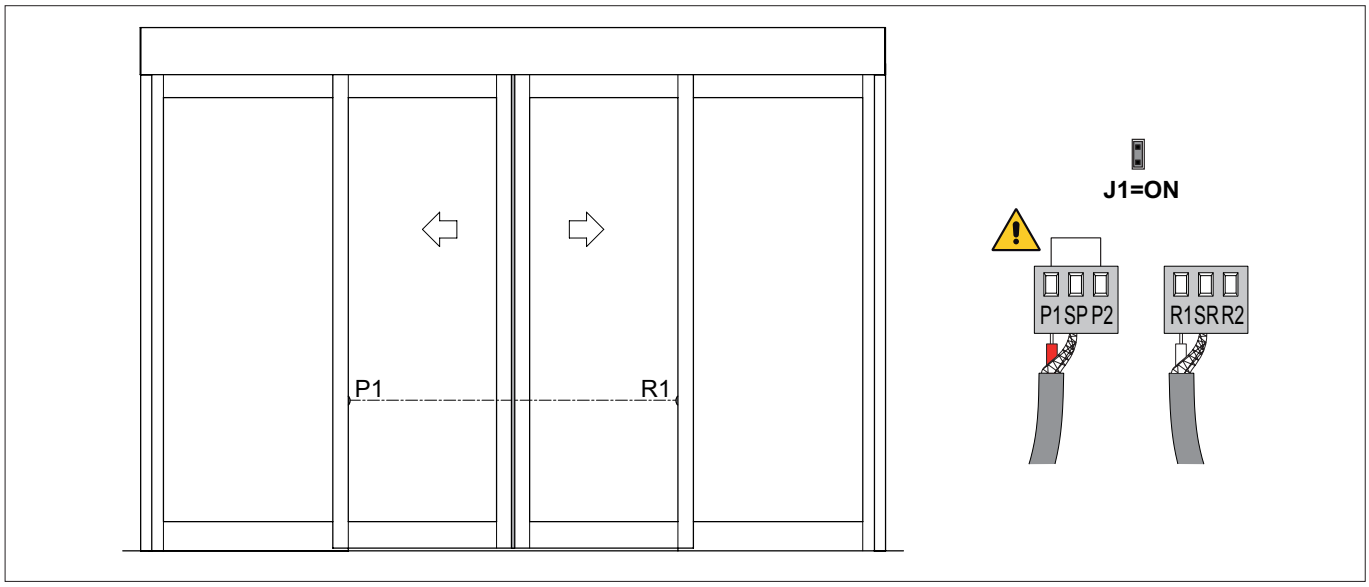
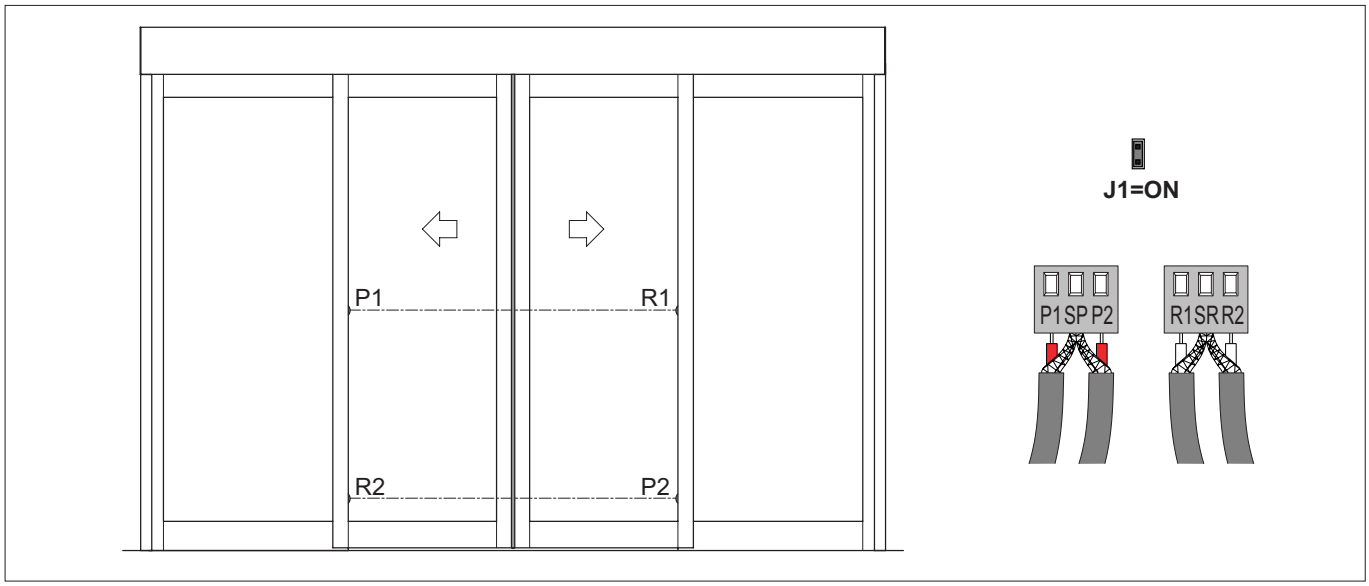
2.6 CELPR photocell connection





2.7 Trimmer

	Description	MIN.	MAX.
VA	**Opening speed.** Adjust the opening speed.	0,1 m/s	0,8 m/s
VC	**Closing speed.** Adjust the closing speed.	0,1 m/s	0,8 m/s
TC	**Automatic closure time.** Adjust the time that passes between the end of the opening manoeuvre and the start of the automatic closing manoeuvre.	0 s	30 s
RP	**Partial opening.** Adjust the range when the command is given between 27-3A (3B). With the trimmer at minimum, the opening is equal to 5% of the normal opening; with the trimmer at maximum, the opening is equal to 90% of the normal opening.	5%	90%
R1	**Thrust on obstacles.** If there is an obstacle, stop the movement during the opening operation, or invert it during the closing operation. After the obstacle has been removed, the door automatically searches for the stop, continuing its stroke at the learning speed.	0%	100%

2.8 Dip-Switches

	Description	OFF	ON
DIP1	**Block type.**	Normal block/bistable block.	Anti-panic block.
DIP2	**Direction selection.** The opening direction is intended by viewing the automation from the side being examined.	Right-hand opening for single door wing automations. Selection for double door wing automations.	Left-hand opening for single door wing automations.
DIP3	**Batteries.**	Anti-panic operation.	Continuos operation.
DIP4	**Flat batteries.**	Last operation closing.	Last operation opening.
DIP5	**Door weight.**	< 200 Kg	> 200 Kg
DIP6	**FUTURE USE**	/	/

2.9 Jumper

	Description	OFF	ON
J1	**Integrated photocell.**	Disabled.	Enabled.
J2	**FUTURE USE**	/	/
J3	**Safety test terminal 41.**	Disabled.	Enabled.

2.10 Signals

LED	ON	Flashing
POWER ALARM	24 V= power supply.	Encoder / automation fault.
IN	During the commands: 1-3A, 1-3B, 27-3A, 27-3B.	Flashes once each time the dip switch and command 1-2 status changes.
SA	Safeties 41-6 and 41-8 open.	Safety test failure.

3. STARTING

ATTENTION: Before performing any type of operation, make sure that the automation is turned off and the batteries are disconnected.

The operations related to point 3.4 are performed without safeties.

The trimmer can only be adjusted with the automation idle.

3.1 Select the correct direction with DIP2.

3.2 Set trimmer TC to the minimum and trimmers VA, VC, RP, R1 halfway.

3.3 Make a jumper on the safeties (41-6 and 41-8) and the stop (1-9). Set J1=OFF.

3.4 Turn on (mains and batteries). SETTINGS RESET with the OPEN button as indicated in paragraph 2.4.
Attention: the control panel performs an automatic POWER RESET on each start and the first opening or closing manoeuvre is performed at low speed allowing the automatic self-learning of the stop positions (acquisition).
Check that the automation is operating correctly with further opening and closing commands and set the desired speed with VA and VC.

3.5 Adjust the thrust on obstacles with trimmer R1.

3.6 Remove the jumper and connect the safeties (41-6 and 41-8) and the stop (1-9). If the CELPR photocells are present, set J1=ON.

3.7 Select the battery function with DIP3 and DIP4.

3.8 Adjust the automatic closing with the TC (enabled by command 1-2).

3.9 Set the partial opening with RP if required.

3.10 Connect possible accessories and check they are functioning.

3.11 If the automation encounters an obstacle during closure, it is detected and the automation opens again.
If the automation encounters an obstacle during opening, it is detected and the automation stops.
If the obstacle is detected twice in a row, it is considered as the new stop until it is removed.
Warning: check the operating force and that the contact force between the door and the obstacle is lower than that indicated by the DIN 18650-1 standard.

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4. TROUBLESHOOTING

Problem	Possible causes	Remedy
The automation does not open and close or does not perform the set operations.	Operations selector switch fault.	SETTINGS RESET with the OPEN button as indicated in paragraph 2.4. *Warning: this operation may cancel previously carried out remote adjustments.*
	Operations selector switch incorrectly set.	Check and correct the settings of the operations selector switch.
The automation does not open and close.	No power. (POWER ALARM led off).	Check that the control panel is on.
	Short circuited accessories.	Disconnect all accessories from terminals 0-1 (a voltage of 24V= must be present) and reconnect them one at a time.
	Blown line fuse.	Replace the transformer fuse.
	The stop contact is open.	Check terminal 9 of the control panel and the position of the operations selector (if present).
	The automation is locked by bolts and locks.	Check that the door moves freely.
The automation opens but does not close.	The safety contacts are open. (SA LED on).	Check terminals 6 and 8 of the control panel.
	The photocells are activated. (SA LED on).	Check that the photocells are clean and operating correctly.
	Incorrect J1 setting. (SA LED on).	If J1=ON, check the effective connection of the CELPR photocells.
	The radars are activated.	Check that the radar is not subjected to vibrations, does not make false readings or the presence of moving objects within its range.
	The automatic closing does not work.	Check jumper 1-2 and the position of the operations selector (if present).
	Incorrect J3 setting. (flashing SA LED)	Check the connections of the safeties as illustrated in paragraphs 2.1 and 2.2.
The external safeties do not activate.	Incorrect connections between the photocells and the control panel.	Connect the N.C. safety contacts together in series and remove possible jumpers.
The automation opens on its own.	The radars are instable or detect moving objects.	Check that the radar is not subjected to vibrations, does not make false readings or the presence of moving objects within its range.
The automation opens/closes briefly and then stops.	Defective encoder. (flashing POWER ALARM LED).	Replace the encoder.
	Inverted motor wires. (flashing POWER ALARM LED).	Check the motor wires.
	There is a presence of friction.	Manually check that the door wings move freely and adjust the door wing in height by lifting it.

5. APPLICATION EXAMPLE WITHOUT SELECTOR

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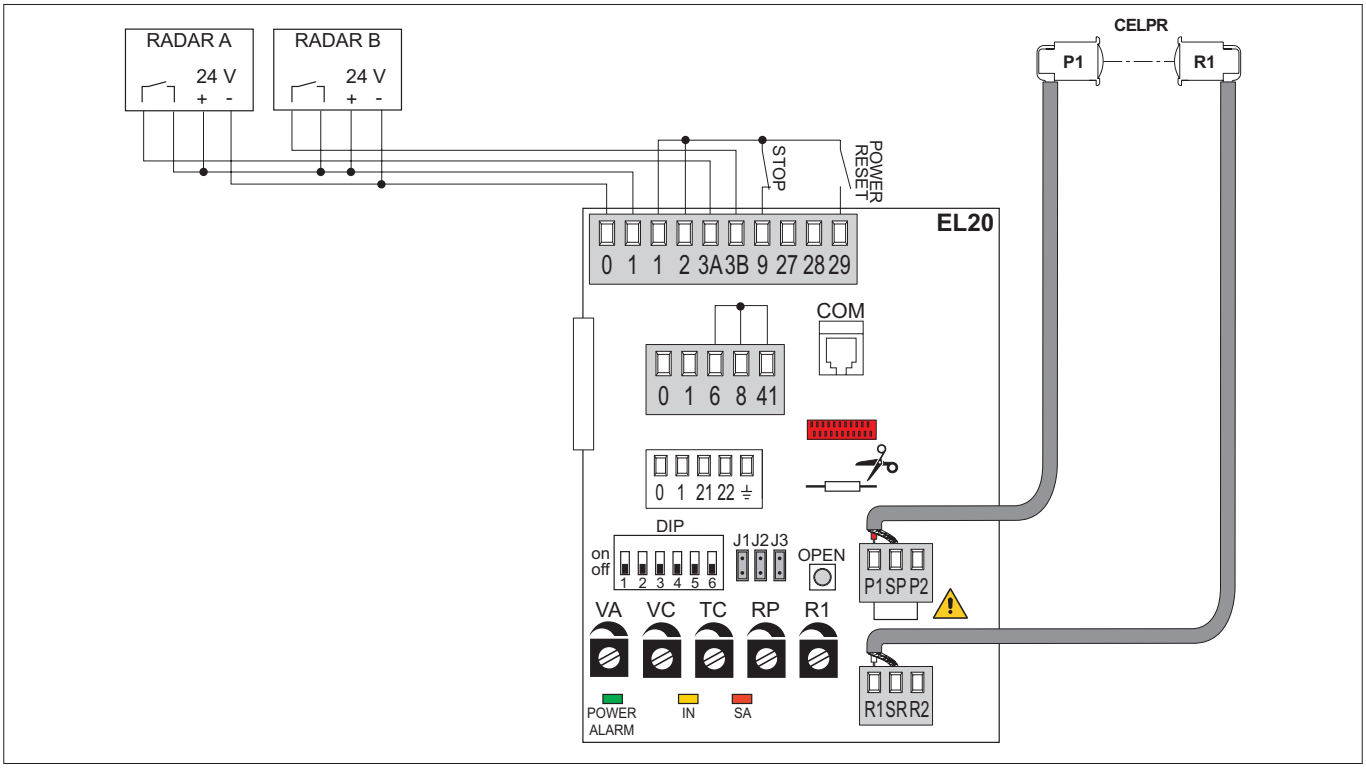
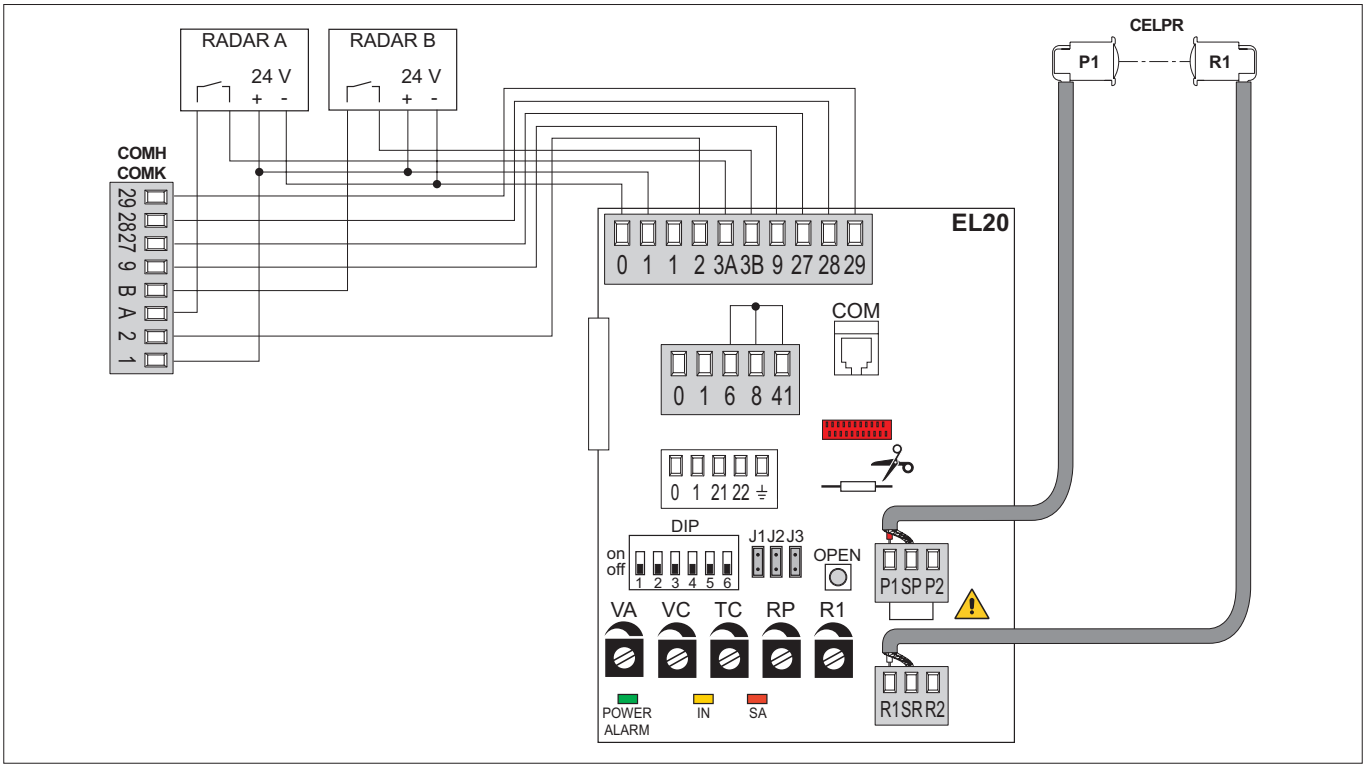
The automation opens with commands 1-3A, 1-3B of the RADAR, and automatically closes with jumper 1-2.
Make the safety on the passage opening with CELPR photocells.
The switch between 1-9 stops the automation at that point and no other normal or emergency operation is permitted.
Contact 1-29 can be used for the POWER RESET of the control panel.



6. APPLICATION EXAMPLE WITH COMH-COMK SELECTOR

The automation opens with the 1-3A, 1-3B RADAR commands and automatically closes based on the operation chosen on the selector. Make the safety across the passage opening with the CELPR photocells.
With the selector in the STOP position all normal and emergency operations are excluded.
Contacts 41-6 and 41-8 are independent from the selector, therefore they must have jumpers if not in use.
The POWER RESET of the control panel is available on the operations selector switch.



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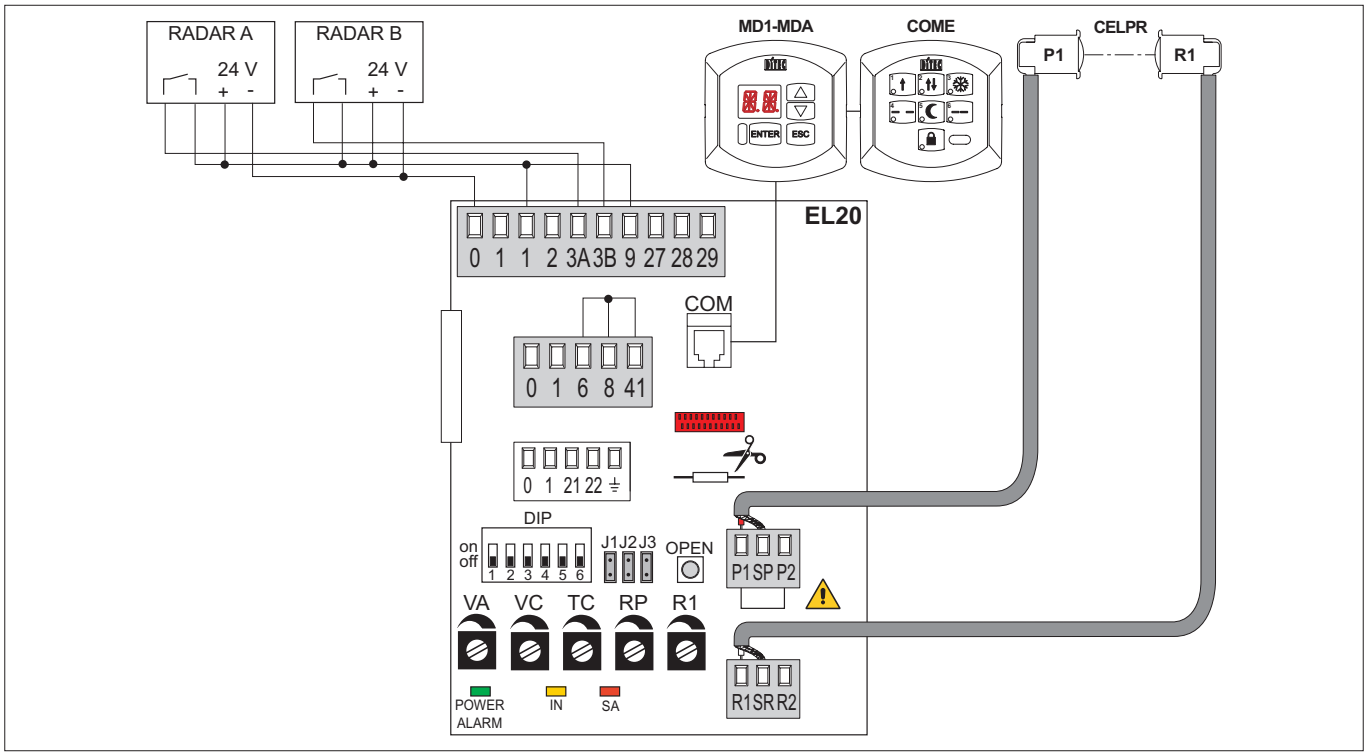
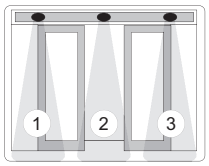
7. APPLICATION EXAMPLE WITH COME SELECTOR

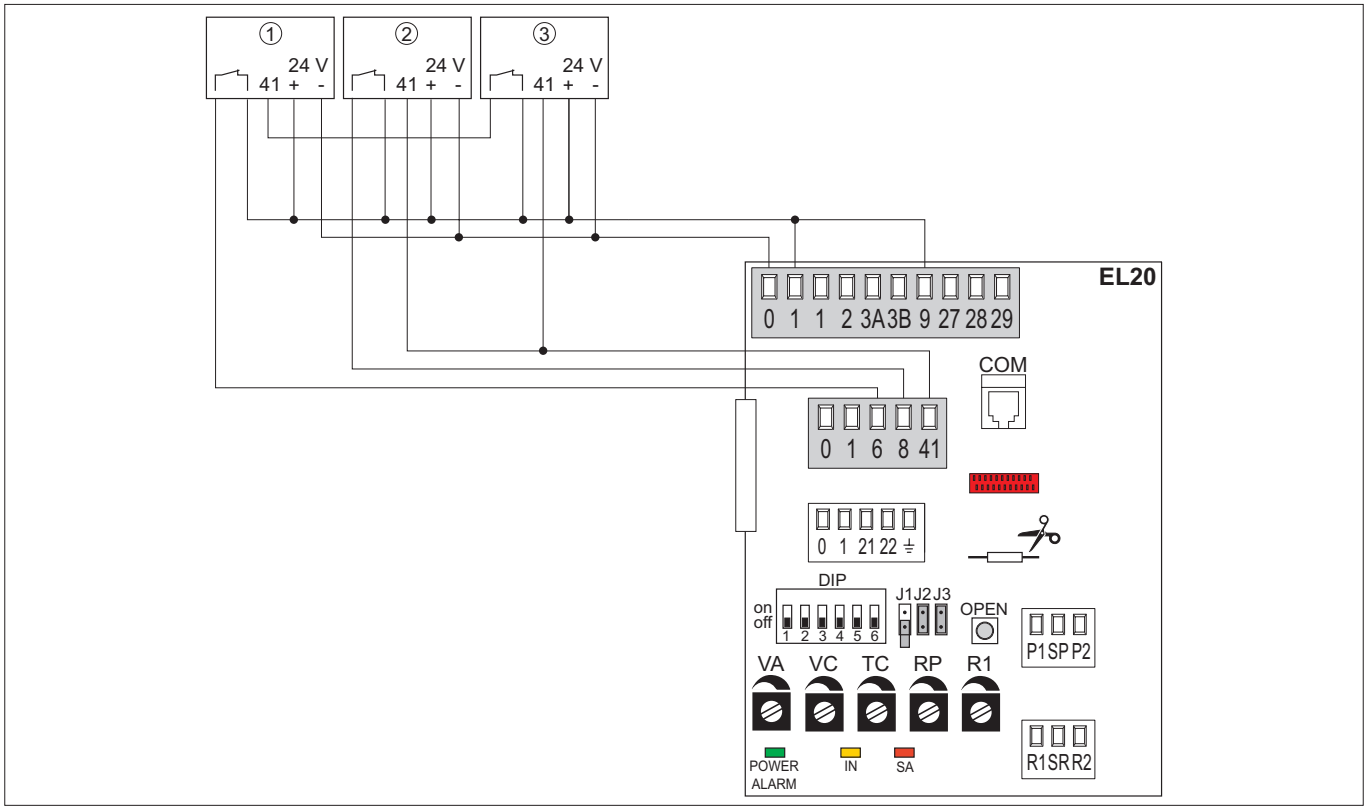
The automation opens with the 1-3A, 1-3B RADAR commands and automatically closes based on the operation chosen on the selector. Makes the safety across the passage opening with the CELPR photocells.
With the selector in the STOP position all normal and emergency operations are excluded.
Contacts 41-6 and 41-8 are independent from the selector, therefore they must have jumpers if not in use.
Contact 1-9 is in series to the STOP, selector set, therefore it must have a jumper if not used.
The POWER RESET of the control panel is available on the operations selector switch through a key combination.
A MD1-MDA device can be connected to access the adjustment and the diagnosis of the control panel.



8. APPLICATION EXAMPLE WITH AUTOCONTROLLED SAFETY DEVICE



Autocontrolled safety devices can be connected as illustrated in the diagram.
Set J1=OFF.
Device 1 performs the safety on the left side during opening.
Device 2 performs the reverse safety contact on the passage opening during the closing operation.
Device 3 performs the safety on the right side during opening.



9. AUTOMATIONS IN PARALLEL

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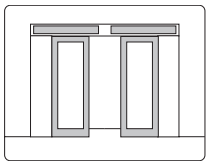

It is possible to command two automations [DRIVE1] and [DRIVE2] side by side, making the connections indicated in the diagram with the electronic selector switch COME.
Set J1=OFF and J3=OFF on both control panels.
Note: adjust the automatic closing trimmers (TC) and the opening (VA) and closing (VC) speed trimmers in the same position on both automations so as to obtain the simultaneous opening and closing of the door wings.