

Digiprogram is an external programmer used for configuring the 462F control board.

### 1. DIGIPROGRAM CONNECTION

Using the supplied cable, connect Digiprogram to board 462DF as shown in fig. 1. Digiprogram has no internal battery of its own because it is powered directly by the control board.

As soon as it is connected, the Digiprogram display shows **8.8** for two seconds to let you check if all segments and dots are correctly powered up. After this, the Digiprogram goes into stand-by, displaying the status of inputs (see Chapter 3).

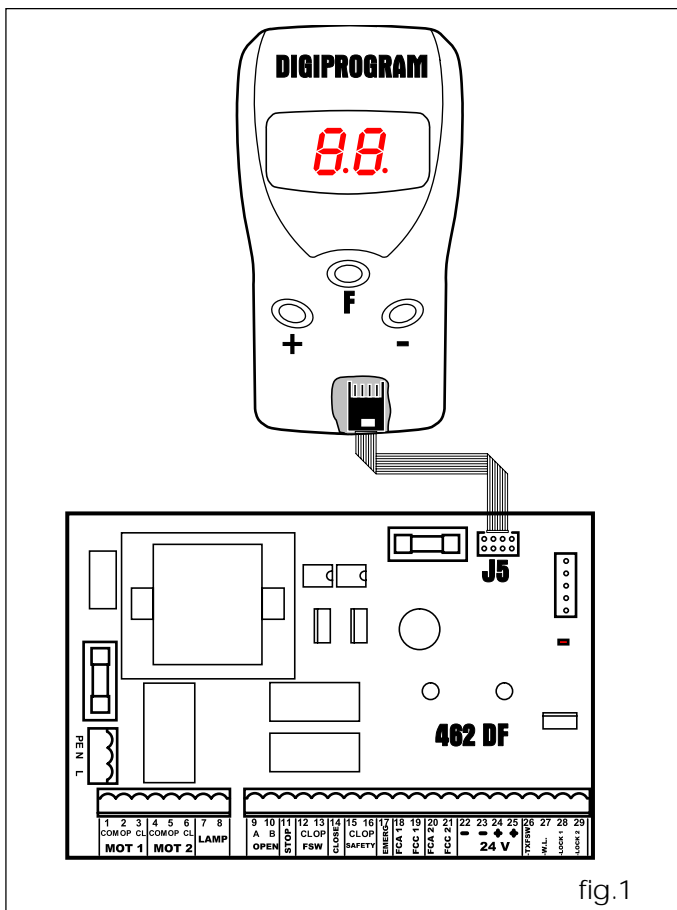


fig.1

### 2. PROGRAMMING

To program operation of the automated system, you have to access the "PROGRAMMING" mode. Programming is split into two parts: BASIC and ADVANCED.

#### 2.1 HOW TO ACCESS PROGRAMMING

To access **BASIC PROGRAMMING**, when on stand-by, press key **F** (the first basic function is shown).





To access **ADVANCED PROGRAMMING**, when on stand-by or from inside basic programming, press key **F** and, while you hold it down, press key **+** (the first advanced function is shown).



If you release key **F** (basic programming) or **F** and **+** (advanced programming), the value of the current function is shown, and can be modified with push-button **+** or **-**.

Next:

- if you press **F** (and hold it down), the display shows the name of the next function;
- if you release key **F**, the display shows the value of the function which can be modified with keys **+** and **-**, etc....;
- at the end, Digiprogram returns to stand-by mode.

The following tables indicate the sequence of functions accessible with **BASIC PROGRAMMING** and **ADVANCED PROGRAMMING**.

BASIC PROGRAMMING 		
Display	Function	Default
<b>LO</b>	<b>FUNCTION LOGICS</b> <b>A</b> = Automatic <b>E</b> = Semi-automatic <b>S</b> = "Safety" Automatic <b>b</b> = "B" Semi-automatic <b>C</b> = Dead-man <b>AP</b> = "Stepped" Automatic <b>EP</b> = "Stepped" Semi-automatic <b>SP</b> = "Stepped" Safety Automatic	<b>A</b>
<b>PA</b>	<b>PAUSE TIME</b> This has effect only if an automatic logic was selected. Adjustable from <b>0</b> to <b>59</b> sec. in one-second steps; subsequently, display changes to minutes and tens of seconds (separated by a dot) and time is adjusted in 10-second steps, up to the maximum value of <b>4.1</b> minutes. E.g. if the display shows <b>2.5</b> , pause time is 2 min. and 50 sec.	<b>25</b>
<b>F1</b>	<b>LEAF 1 FORCE</b> Adjusts thrust of Motor 1. Programmable from <b>1</b> (minimum force) to <b>50</b> (maximum force)	<b>25</b>
<b>F2</b>	<b>LEAF 2 FORCE</b> Adjusts thrust of Motor 2. Programmable from <b>1</b> (minimum force) to <b>50</b> (maximum force)	<b>25</b>
<b>cd</b>	<b>LEAF 1 CLOSING DELAY</b> Delays closing start of leaf 1 with respect to leaf 2. Programmable from <b>0</b> to <b>4.1</b> minutes (for the adjustment mode, see Pause time).	<b>5</b>
<b>EL</b>	<b>TIME LEARNING (see chapters 4 and 5)</b> Enables the selection between "simple" (automatic) learning and "complete" (manual choice of deceleration and stop points) learning. Note: wait for the <b>EL</b> to light up steady after a few seconds of flashing, before starting the learning cycle.	
	Simple learning  ≈ 1 sec. Complete learning  > 3 sec.	
	Exit without time learning 	
	<b>ATTENTION: the safety devices are disabled during the learning procedure! Therefore, carry out this operation avoiding any transit through the leaf movement area.</b>	

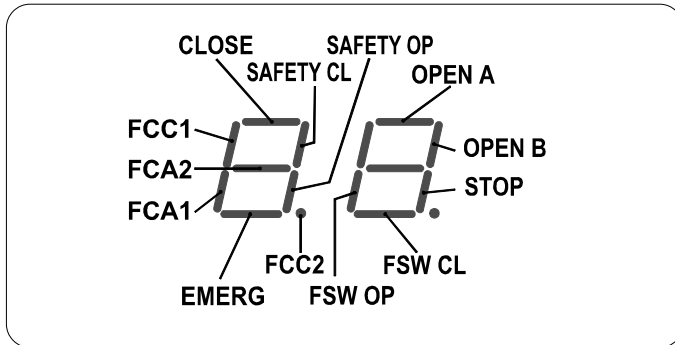
ADVANCED PROGRAMMING  + 		
Display	Function	Default
<b>bo</b>	<b>MAXIMUM TORQUE AT INITIAL THRUST:</b> The motors operate at maximum torque (ignoring the torque setting) at start of movement. Useful for heavy leaves.  <i>y</i> = Active <i>no</i> = Disabled	<i>no</i>
<b>cs</b>	<b>FINAL STROKE ON CLOSING:</b> The motors are activated at full speed for 1 s to facilitate locking of the electric lock.  <i>y</i> = Active <i>no</i> = Disabled Note: disabled in case of a sliding automated system.	<i>no</i>
<b>rs</b>	<b>REVERSING STROKE:</b> Before opening, while the gate is closed, the motors thrust to close for 2 s thus facilitating release of the electric lock.  <i>y</i> = Active <i>no</i> = Disabled Note: disabled in case of a sliding automated system.	<i>no</i>
<b>od</b>	<b>LEAF 2 OPENING DELAY (2s):</b> Enables delayed start (on opening) of leaf 2, avoiding interference between leaves.  <i>y</i> = Active <i>no</i> = Disabled	<i>y</i>
<b>fs</b>	<b>FAILSAFE:</b> If this function is activated, it enables an operation test of the photocells before any gate movement. If the test fails (photocells not serviceable), the gate does not start the movement.  <i>y</i> = Active <i>no</i> = Disabled	<i>no</i>
<b>pf</b>	<b>PRE-FLASHING (5s):</b> Activates the flashing lamp for 5 s before start of movement.  <i>y</i> = Active <i>no</i> = Disabled	<i>no</i>
<b>el</b>	<b>ELECTRIC LOCK ON LEAF 2:</b> For using the electric lock on leaf 2 instead of on leaf 1.  <i>y</i> = Active <i>no</i> = Disabled	<i>no</i>
<b>sp</b>	<b>INDICATOR-LIGHT:</b> If <i>0</i> is selected, the output functions as a standard indicator-light (lighted on opening and pause, flashing on closing, and off when gate closed). Different figures correspond to timed activation of the output, which can be used (via a relay) to power a courtesy lamp. Time can be adjusted from <i>0</i> to <i>59</i> s in 1 s steps, and from <i>1.0</i> to <i>4.1</i> min. in 10 s steps.  <i>0</i> = Standard indicator-light from <i>1</i> to <i>4.1</i> = Timed output	<i>0</i>

Display	Function	Default
<b>Ph</b>	<b>CLOSING PHOTOCELLS REVERSE ON RELEASE:</b> Enable this function if you want the closing photocells to stop movement and reverse it on release. Default setting is immediate reverse.  <i>y</i> = Active <i>no</i> = Disabled	<i>no</i>
<b>Ad</b>	<b>A.D.M.A.P. function:</b> If this function is enabled, the safety devices operate in compliance with French standard NFP 25/362.  <i>y</i> = Active <i>no</i> = Disabled	<i>no</i>
<b>AS</b>	<b>ASSISTANCE REQUEST (combined with next function):</b> If activated, at the end of countdown (settable with the next function "Cycle programming") it effects 8 s of pre-flashing at every Open pulse (job request). Can be useful for setting scheduled maintenance jobs.  <i>y</i> = Active <i>no</i> = Disabled	<i>no</i>
<b>nc</b>	<b>CYCLE PROGRAMMING:</b> For setting countdown of system operation cycles. Settable (in thousands) from <i>0</i> to <i>99</i> thousand cycles. The displayed value is updated as cycles proceed. This function can be used to check use of the board or to exploit the "Assistance request".	<i>0</i>
<b>SL</b>	<b>GEARMOTOR FOR SLIDING GATE</b> This function should be activated if the 462DF is commanding a gearmotor for a sliding gate.  <i>y</i> = Active <i>no</i> = Disabled Note: if this function is activated, the <i>cs</i> and <i>rs</i> functions are disabled.	<i>no</i>
<b>ra</b>	<b>DECELERATION FOR SLIDING GATE</b> Sets deceleration in hundredths of a second after the limit-switch has operated. Programmable from <i>0</i> to <i>99</i> hundredths of a sec. Note: modify this setting only if using a gearmotor for sliding gates (function <i>SL</i> active).	<i>0</i>
<b>br</b>	<b>BRAKING FOR SLIDING GATE</b> Sets braking time in hundredths of a sec. at end of deceleration. Programmable from <i>0</i> to <i>20</i> hundredths of a sec.	<i>15</i>
<b>PO</b>	<b>PARTIAL OPENING FOR SLIDING GATE</b> Sets partial opening time in sec. commanded by the OPEN-B input of the 462DF, only if using a gearmotor for sliding gate (function <i>SL</i> active). Programmable from <i>0</i> to <i>4.1</i> minutes (for the adjustment mode, see Pause time).	<i>5</i>
<b>dl</b>	<b>DOWNLOAD</b> Downloads the programming to board 462DF.	

### 3. STATUS OF INPUTS

In stand-by mode, the Digiprogram display is used to indicate the status of the inputs of the 462DF control board.

Fig 2 shows exactly how the LEDs on the display relate to the inputs.



The table below shows the status of the LEDs in relation to the status of the inputs.

Note the following: **LED LIGHTED** = closed contact  
**LED OFF** = open contact

Check the state of the signalling LEDs as per Table.

#### Operation of the status signalling LEDs

LEDs	LIGHTED	OFF
OP_A	Command activated	<b>Command inactive</b>
OP_B	Command activated	<b>Command inactive</b>
STOP	<b>Command inactive</b>	Command activated
CLOSE	Command activated	<b>Command inactive</b>
FSW CL	<b>Safety devices disengaged</b>	Safety devices engaged
FSW OP	<b>Safety devices disengaged</b>	Safety devices engaged
SAFETY CL	<b>Safety devices disengaged</b>	Safety devices engaged
SAFETY OP	<b>Safety devices disengaged</b>	Safety devices engaged
EMERG	<b>Command inactive</b>	Command activated
FCA1 (if used)	<b>Limit-switch free</b>	Limit-switch engaged
FCC1 (if used)	<b>Limit-switch free</b>	<b>Limit-switch engaged</b>
FCC2 (if used)	<b>Limit-switch free</b>	<b>Limit-switch engaged</b>
FCA2 (if used)	<b>Limit-switch free</b>	Limit-switch engaged

**NB.:** The status of the LEDs while the gate is closed at rest are shown in bold.

### 4. SIMPLE LEARNING

Check if the leaves are closed, then enter "BASIC PROGRAMMING", select the **L L** TIME LEARNING function and press the + push-button for one second: the display starts flashing and the leaves begin their opening movement - after this, follow the subsequent instructions according to type of operation.

#### 4.1 TIMED OPERATION

Wait for the leaves to reach the opening stop limit and, after a few seconds, press push-button + to stop the movement: the leaves stop and the display returns to stand-by mode.

The procedure has ended and the gate is ready to operate.

**Notes:** •If you want the leaves to slow down, a complete learning procedure is necessary (see chapter 5).

#### 4.2 LIMIT-SWITCH OPERATION

The motors stop automatically when the opening limit-switch is reached, but you must press push-button + to complete the procedure. The display returns to stand-by mode and the gate is ready to operate.

**Notes:** •both the limit-switches (opening and closing) for each leaf must be present on the system.

#### 4.3 OPERATION WITH GATECODER

The motors stop automatically when the opening stop limit is reached, the display returns to stand-by mode and the gate is ready to operate.

**Notes:** •one gatecoder per leaf must be present on the system;

- Using the gatecoder provides electronic anti-crushing control while the leaf is moving at full speed;
- the deceleration space near the stop limits is automatically set by the 462DF board.

#### 4.4 OPERATION WITH LIMIT-SWITCH AND GATECODER

The motors stop automatically when the opening limit-switch is reached. The display returns to stand-by mode and the gate is ready to operate.

**Notes:** •both the limit-switches (opening and closing) and a gatecoder for each leaf must be present on the system.  
•if the limit-switch is tripped during normal operation, this causes the movement to stop immediately;  
•Using the gatecoder provides electronic anti-crushing control while the leaf is moving at full speed;

### 5. COMPLETE LEARNING

Check if the leaves are closed, then enter "BASIC PROGRAMMING", select the **L L** TIME LEARNING function and press the + key for more than 3 seconds: the display starts flashing and leaf 1 begins the opening movement - after this, follow the subsequent instructions according to type of operation.

#### 5.1 TIMED OPERATION

By pressing key + the following functions are pulse-controlled:

- 1<sup>st</sup> PULSE -Deceleration on opening of leaf 1
- 2<sup>nd</sup> PULSE -Leaf 1 stops on opening and leaf 2 begins its opening movement
- 3<sup>rd</sup> PULSE -Deceleration on opening of leaf 2
- 4<sup>th</sup> PULSE -Leaf 2 stops on opening and immediately begins its closing movement
- 5<sup>th</sup> PULSE -Deceleration on closing of leaf 2
- 6<sup>th</sup> PULSE -Leaf 2 stops on closing and leaf 1 begins its closing movement
- 7<sup>th</sup> PULSE -Deceleration on closing of leaf 1
- 8<sup>th</sup> PULSE -Leaf 1 stops on closing

The display stops flashing and the gate is ready for normal operation.

**Notes:** •If you wish to eliminate deceleration in some stages, wait for the leaf to reach its stop limit and supply 2 consecutive pulses with key + (within 1 second).  
•If only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 4 pulses with key + until the leaf begins to close, and then resume normal procedure.

#### 5.2 OPERATION WITH LIMIT-SWITCHES

The motors decelerate automatically when they reach the limit-switches and, therefore, it is sufficient to inform the control board that the stop limits have been reached, by sending pulses with key +:

- FCA1 -Deceleration on opening of leaf 1
- 1<sup>st</sup> PULSE -Leaf 1 stops on opening and leaf 2 begins its opening movement
- FCA2 -Deceleration on opening of leaf 2
- 2<sup>nd</sup> PULSE -Leaf 2 stops on opening and immediately begins its closing movement
- FCC2 -Deceleration on closing of leaf 2
- 3<sup>rd</sup> PULSE -Leaf 2 stops on closing and leaf 1 begins its closing movement
- FCC1 -Deceleration on closing of leaf 1
- 4<sup>th</sup> PULSE -Leaf 1 stops on closing

The display stops flashing and the gate is ready for normal operation.

**Notes:** •If you wish to eliminate deceleration in some stages, you must supply a pulse with key + within 1 second of reaching the limit-switch.  
•If some limit-switches are not installed, start the corresponding deceleration by pressing key + (which replaces the limit-switch).

- If only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 4 pulses with key + until the leaf begins to close, and then resume normal procedure.

### 5.3 OPERATION WITH GATECODER

By pressing key + the following functions are pulse-controlled:

- 1<sup>st</sup> PULSE -Deceleration on opening of leaf 1 (it stops automatically on reaching the stop limit)
- 2<sup>nd</sup> PULSE -Leaf 2 opening movement begins
- 3<sup>rd</sup> PULSE -Deceleration on opening of leaf 2 (it stops automatically on reaching the stop limit)
- 4<sup>th</sup> PULSE -Leaf 2 closing movement begins
- 5<sup>th</sup> PULSE -Deceleration on closing of leaf 2 (it stops automatically on reaching the stop limit)
- 6<sup>th</sup> PULSE -Leaf 1 closing movement begins
- 7<sup>th</sup> PULSE -Deceleration on closing of leaf 1 (it stops automatically on reaching the stop limit)
- 8<sup>th</sup> PULSE -Exit learning cycle

The display stops flashing and the gate is ready for normal operation.

- Notes:**
- The deceleration pulse should be supplied a little earlier with respect to the stop limit to prevent the leaf reaching it at full speed (it would be taken for an obstacle).
  - If only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 5 pulses with key + until the leaf begins to close, and then resume normal procedure.

### 5.4 OPERATION WITH LIMIT-SWITCH AND GATECODER

When the learning cycle is stated, leaf 1 opens and deceleration begins when FCA1 operates. The stop limit is recognised automatically. By pressing key + the following functions are controlled by means of the successive pulses:

- 1<sup>st</sup> PULSE -Leaf 2 starts its opening movement. The start-of-deceleration point is commanded by the intervention of FCA2 and the stop limit is automatically recognised.
- 2<sup>nd</sup> PULSE -Leaf 2 starts its closing movement. The start-of-deceleration point is commanded by the intervention of FCC2 and the stop limit is automatically recognised.
- 3<sup>rd</sup> PULSE -Leaf 1 starts its closing movement. The start-of-deceleration point is commanded by the intervention of FCC1 and the stop limit is automatically recognised.
- 4<sup>th</sup> PULSE -Exit learning cycle

- Notes:**
- If some limit-switches are not installed, start the corresponding deceleration by pressing key + (which replaces the limit-switch).
  - If only one leaf is present, the entire sequence must nevertheless be effected. When the leaf has finished opening, supply 5 pulses with key + until the leaf begins to close, and then resume normal procedure.

## 6. CONNECTIONS

Inputs 18,19,20,21 of 462 DF are designed for the connection of opening and closing limit-switches which, according to type of programming - can command either leaf stop or start of deceleration. The non-used limit-switches must be jumper connected (if none are used, this is unnecessary).

Gatecoders can be installed to detect the leaf's angular position and obtain the electronic anti-crushing function and deceleration.

The limit-switches and Gatecoders can also be used combined (for details refer to paragraphs 4.4 and 4.5). To wire, consult fig. 2,3, and 4.

**FCA1** - Leaf 1 opening limit-switch

**FCC1** - Leaf 1 closing limit-switch

**FCA2** - Leaf 2 opening limit-switch

**FCC2** - Leaf 2 closing limit-switch

**N.B.:** Maximum configurations are shown on the drawings. All intermediate configurations are allowed, using only some elements (only 1 Gatecoder, only 1 limit-switch, 2 Gatecoders and 2 limit-switches etc.).

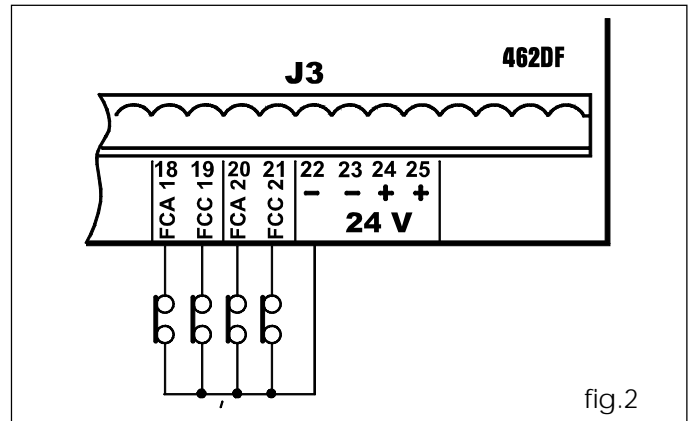


fig.2

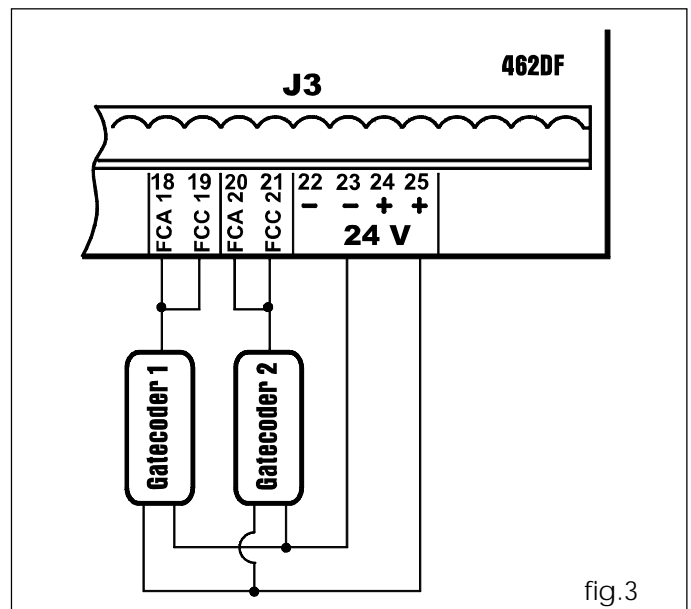


fig.3

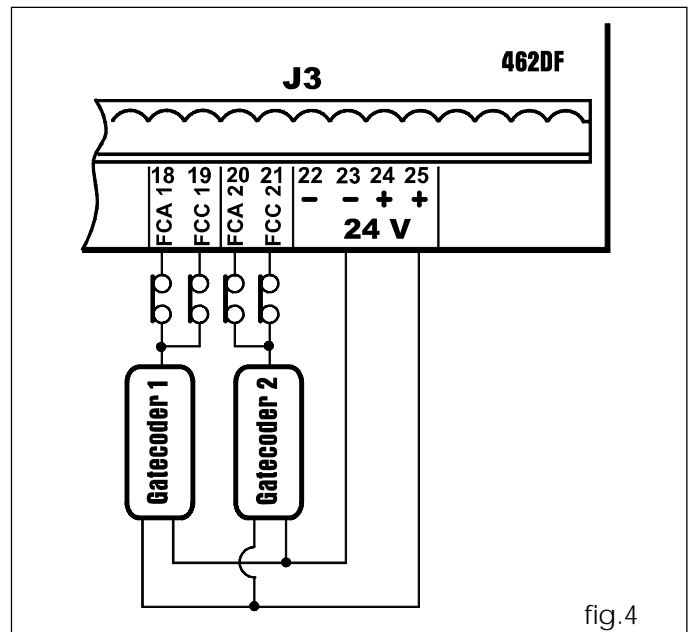


fig.4

PULSES											ENGLISH
LOGIC "A"	GATE STATUS	OPEN-A (*)	OPEN-B (*)	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFETY-OP	SAFETY-CL	SAFETY-OP/CL
	<b>CLOSED</b>	opens leaves and closes them after pause time	opens the free leaf and closes after pause time	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)
	<b>OPENING</b>	no effect (1)	no effect	no effect	Stops operation	blocks and, on release, reverses to close	no effect	blocks and, on release, continues opening	reverses to close	no effect	blocks movement
	<b>OPEN ON PAUSE</b>	recounts pause time	recounts pause time	re-closes leaf/leaves immediately	Stops operation	no effect -opening disabled-	recounts pause time	recounts pause time	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)
	<b>CLOSING</b>	re-opens the leaves immediately	re-opens leaf/leaves immediately	no effect	Stops operation	no effect	reverses to open	blocks and, on release, reverses to open	no effect	reverses to open	blocks movement
	<b>BLOCKED</b>	opens the leaves	opens leaf/leaves	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)

• Effects on other active pulse inputs in brackets.

(1) If the cycle began with OPEN-B (released leaf), an OPEN-A pulse will activate both leaves to open.

(\*) Logic A is set to operate with the timer: as long as the Open-B or Open-A command is active, the leaf or leaves stay open.

PULSES											ENGLISH
LOGIC "E"	GATE STATUS	OPEN-A	OPEN-B	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFE-OP	SAFE-CL	SAFE-OP/CL
	<b>CLOSED</b>	opens the leaves	opens the free leaf	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)
	<b>OPENING</b>	Stops operation (1)	Stops operation	no effect	Stops operation	blocks and, on release, reverses to close	no effect	blocks and, on release, continues opening	reverses to close	no effect	blocks movement
	<b>OPEN</b>	re-closes the leaves immediately (1)	re-closes leaf/leaves immediately	re-closes leaf/leaves immediately	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)
	<b>CLOSING</b>	re-opens the leaves immediately	re-opens leaf/leaves immediately	no effect	Stops operation	no effect	reverses to open	blocks and, on release, reverses to open	no effect	reverses to open	blocks movement
	<b>BLOCKED</b>	closes the leaves (1)	closes leaf/leaves	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)

• Effects on other active pulse inputs in brackets.

(1) If the cycle was started with OPEN-B (released leaf), both leaves are activated to open.

PULSES											ENGLISH
LOGIC "S"	OPEN-A	OPEN-B	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFETY-OP	SAFETY-CL	SAFETY-OP/CL	
<b>GATE STATUS</b>											
<b>CLOSED</b>	opens leaves and closes them after pause time	opens the free leaf and closes after pause time	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	
<b>OPENING</b>	re-closes the leaves immediately (1)	re-closes leaf/leaves immediately	no effect	Stops operation	blocks and, on release, reverses to close	no effect	blocks and, on release, continues opening	reverses to close	no effect	blocks movement	
<b>OPEN ON PAUSE</b>	re-closes the leaves immediately (1)	re-closes leaf/leaves immediately	re-closes leaf/leaves immediately	Stops operation	no effect -opening disabled-	re-closes after 5 seconds	re-closes after 5 seconds	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	
<b>CLOSING</b>	re-opens the leaves immediately	re-opens leaf/leaves immediately	no effect	Stops operation	no effect	reverses to open	blocks and, on release, reverses to open	no effect	reverses to open	blocks movement	
<b>BLOCKED</b>	closes the leaves (1)	closes leaf/leaves	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	

➤ Effects on other active pulse inputs in brackets.

(1) If the cycle began with OPEN-B (released leaf), an OPEN-A pulse will activate both leaves to open.

PULSES											ENGLISH
LOGIC "B"	OPEN-A	OPEN-B	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFE-OP	SAFE-CL	SAFE-OP/CL	
<b>GATE STATUS</b>											
<b>CLOSED</b>	opens the leaves	opens the free leaf	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	
<b>OPENING</b>	no effect (1)	no effect	no effect	Stops operation	Stops operation	no effect	stops operation (OPEN/CLOSE disabled)	reverses to close	no effect	blocks movement	
<b>OPEN</b>	no effect (1)	no effect	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	
<b>CLOSING</b>	no effect (1)	no effect	no effect	Stops operation	no effect	Stops operation	stops operation (OPEN/CLOSE disabled)	no effect	reverses to open	blocks movement	
<b>BLOCKED</b>	opens the leaves	opens leaf/leaves	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	

➤ Effects on other active pulse inputs in brackets.

(1) If the cycle was started with OPEN-B (released leaf), both leaves are activated to open.

LOGIC "C"	COMMANDS ALWAYS PRESSED					PULSES				
	OPEN-A	OPEN-B	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFE-OP	SAFE-CL	SAFE-OP/CL
<b>GATE STATUS</b>										
<b>CLOSED</b>	opens the leaves	opens the free leaf	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)
<b>OPENING</b>	no effect (1)	no effect	no effect	Stops operation	Stops operation	no effect	stops operation (OPEN/CLOSE disabled)	reverses for 1 second and then blocks	no effect	blocks movement
<b>OPEN</b>	no effect (1)	no effect	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)
<b>CLOSING</b>	no effect	no effect	no effect	Stops operation	no effect	Stops operation	stops operation (OPEN/CLOSE disabled)	no effect	reverses for 1 second and then blocks	blocks movement
<b>BLOCKED</b>	opens the leaves	opens leaf/leaves	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)

• Effects on other active pulse inputs in brackets.

(1) If the cycle was started with OPEN-B (released leaf), both leaves are activated to open.

LOGIC "AP"	COMMANDS ALWAYS PRESSED					PULSES				
	OPEN-A	OPEN-B	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFETY-OP	SAFETY-CL	SAFETY-OP/CL
<b>GATE STATUS</b>										
<b>CLOSED</b>	opens leaves and closes them after pause time	opens the free leaf and closes after pause time	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)
<b>OPENING</b>	Stops operation (1)	Stops operation	no effect	Stops operation	blocks and, on release, reverses to close	no effect	blocks and, on release, continues opening	reverses to close	no effect	blocks movement
<b>OPEN ON PAUSE</b>	Stops operation (1)	Stops operation	re-closes leaf/leaves immediately	Stops operation	no effect -opening disabled-	recounts pause time	recounts pause time	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)
<b>CLOSING</b>	re-opens the leaves immediately	re-opens leaf/leaves immediately	no effect	Stops operation	no effect	reverses to open	blocks and, on release, reverses to open	no effect	reverses to open	blocks movement
<b>BLOCKED</b>	closes the leaves (1)	closes leaf/leaves	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)

• Effects on other active pulse inputs in brackets.

(1) If the cycle began with OPEN-B (released leaf), an OPEN-A pulse will activate both leaves to open.

PULSES										
LOGIC "EP"	OPEN-A	OPEN-B	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFE-OP	SAFE-CL	SAFE-OP/CL
<b>GATE STATUS</b>										
<b>CLOSED</b>	opens the leaves	opens the free leaf	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)
<b>OPENING</b>	Stops operation (1)	Stops operation	no effect	Stops operation	blocks and, on release, reverses to close	no effect	blocks and, on release, continues opening	reverses to close	no effect	blocks movement
<b>OPEN</b>	re-closes the leaves immediately (1)	re-closes leaf/leaves immediately	re-closes leaf/leaves immediately	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)
<b>CLOSING</b>	re-opens the leaves immediately	Stops operation	no effect	Stops operation	no effect	reverses to open	blocks and, on release, reverses to open	no effect	reverses to open	blocks movement
<b>BLOCKED</b>	restarts moving in reverse direction (1)	restarts moving in reverse direction	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)

➤ Effects on other active pulse inputs in brackets.

(1) If the cycle was started with OPEN-B (released leaf), both leaves are activated to open.

PULSES										
LOGIC "SP"	OPEN-A	OPEN-B	CLOSE	STOP	FSW-OP	FSW-CL	FSW-OP/CL	SAFETY-OP	SAFETY-CL	SAFETY-OP/CL
<b>GATE STATUS</b>										
<b>CLOSED</b>	opens leaves and closes them after pause time	opens the free leaf and closes after pause time	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)	no effect (OPEN disabled)	no effect	no effect (OPEN disabled)
<b>OPENING</b>	Stops operation (1)	Stops operation	no effect	Stops operation	blocks and, on release, reverses to close	no effect	blocks and, on release, continues opening	reverses to close	no effect	blocks movement
<b>OPEN ON PAUSE</b>	Stops operation (1)	Stops operation	re-closes leaf/leaves immediately	Stops operation	no effect -opening disabled-	re-closes after 5 seconds	re-closes after 5 seconds	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)
<b>CLOSING</b>	re-opens the leaves immediately	re-opens leaf/leaves immediately	no effect	Stops operation	no effect	reverses to open	blocks and, on release, reverses to open	no effect	reverses to open	blocks movement
<b>BLOCKED</b>	closes the leaves (1)	closes leaf/leaves	closes leaf/leaves	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)	no effect -opening disabled-	no effect -closing disabled-	no effect (OPEN/CLOSE disabled)

➤ Effects on other active pulse inputs in brackets.

(1) If the cycle began with OPEN-B (released leaf), an OPEN-A pulse will activate both leaves to open.