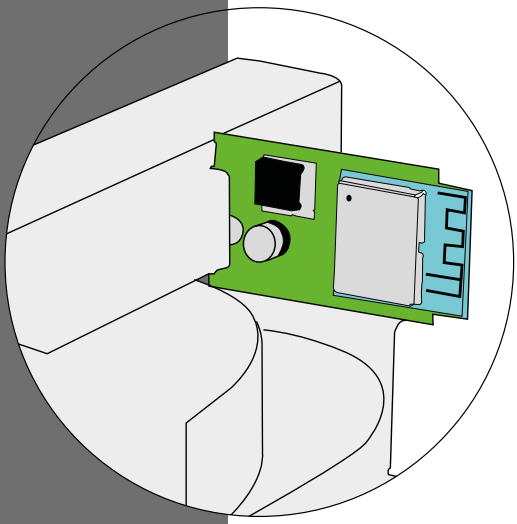
>MOVING LIFE

GUIDA ALL'INSTALLAZIONE
INSTALLATION GUIDE

250T-WIFI
TauApp



D-MNL0T-WIFY 22-02-2023 - Rev.04

IT - Istruzioni originali

MADE IN ITALY

Control units parameters - ENGLISH

- D749MA control units parameters **70**
- K126MA control units parameters **76**
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CONTROL UNITS PARAMETERS

[1] **LEGEND: UNITS OF MEASUREMENT**

PWM	Fraction of the power supply voltage applied to the motor 0 = 0 Volt, 1005 = maximum voltage (depends on the type of control panel power supply)
PE	Encoder Steps - generally 1 PE = about 1mm
PEx10	Encoder Steps x 10
n/sec	Fractions of a second (example 100/sec = hundredths of a second)

Up + Setup = to make the new parameters effective you must start the setup procedure after the uploading is completed.
Upload = the new parameters are effective once the uploading is completed

LIST OF SUPPORTED CONTROL UNITS

Control units list with the relative **MINIMUM** revision necessary in order to update the control unit through the app

CONTROL UNIT	FIRMWARE
K101M	8v00
D749MA	8v02
K126MA	8v01
K206MA	8v00
K100M	8v01

CONTROL UNIT	FIRMWARE
K590M	8v01
D770M	8v01
K995S	8v00
K995B	8v00
D729MA	8v00

D749MA CONTROL UNIT PARAMETERS

MOTOR 1 and 2 PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
PWM setup OP	Initial speed in the memorization procedure of the opening stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM start movem.	Starting speed of every manoeuvre (to which the control unit adds a short initial acceleration)	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005

End Approach OP	Final 'slow' opening stroke: it sets the stroke to cover at the minimum speed before the stop on the opening limit switch – a percentage of the total stroke	PE	1-100
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-100
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
PWM Approach CL	Increase of the minimum closing speed used to approach the closing mechanical limit switch, once the software closing limit switch has been passed, if an electric lock is present - valid only for motor 1.	PWM	0-1005
Tmr approach CL	Pushing time in the closing limit switch for which the "PWM approach CL" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Limit Obstacle	Additional offset to the limit switches to delimit the obstacle detection zone	PE	0-255
Pedestrian	Percentage of the total stroke that sets the position for the 'pedestrian' opening - it can only be set on operator 1	%	1-100

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	100/sec	6000-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	4/sec	1-100

Tmr wait runtime	"runtime mode" waiting time, necessary to allow the switch on of all external devices connected to the DIAMOND control unit (photocells and so on) when it activates after the stand-by	100/sec	1-250
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	sec	1-240
Tmr Motor torque	Short acceleration time of the operator	100/sec	1-250
Tmr unlock ES	Electric lock releasing time	10/sec	1-250
Tmr pwr on ES	Additional time to the electric lock activation "Tmr unlock ES"	10/sec	1-250
Tmr ram blow	Ram blow's duration timer (thrust on the limit switch to free the electric lock)	100/sec	1-250

CONFIGURE OUTPUT

#	PARAMETER NAME	DESCRIPTION
A 16 - 17	**Gate open FL**	**"Open automation light" function - default. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 3W lamp.**
	Traffic Light	"Traffic light" function. ACTIVE with open automation. INACTIVE during maneuvers and with closed automation. It must be used in conjunction with a relay that exchanges red light and green light.
	Courtesy Light	"Courtesy light" function. ACTIVE during maneuvers. It stays on for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". It is possible to connect a lamp of max 3W
	Electric Lock	"Electric Lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is NOT possible to directly control an electric lock. Interpose a relay of max 3w.
	Vandal-proof	"Vandal-proof" function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is NOT possible to directly control an electromagnet. Interpose a relay of max 3w section "B"

B 16 - 18	**Gate open FL**	"Open automation warning light" function. ACTIVE when the automation is open, it flashes during maneuvers. It is possible to connect a lamp of max 15W directly.
	Traffic Light	Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter "Tmr Courtesy/2ch". It is possible to connect a lamp of max 15W.
	Electric Lock	**"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is possible to directly control an electric lock of max 15w**
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
C 19 - 20	**Gate open FL**	"Open automation warning light" function. ACTIVE when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Traffic Light	"Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. NO contact, max 1A
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed using the basic parameter "Tmr Courtesy/2ch". NO contact, max 1A
	Electric Lock	"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". NO contact, max 1A
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. NO contact, max 1A

Dipswitch 14-29	Configuration of software DIP switch. *(see list below)*

DIPSWITCH SW

#	PARAMETER NAME	DESCRIPTION
14	**Out 12 V aux hi**	ON = the output on terminals 11 and 12 remains active even with the control panel in stand-by OFF = the output on terminals 11 and 12 turns off during stand-by
15	**AUTO INC TCA**	ON = automatically increases the TCA (automatic closing time) in case of high traffic (if it fails to close due to the intervention of the safety devices) OFF = normal TCA
16	**pre flashing CL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
17	**Disable TRA**	ON = Disables the leaf delay of the 2nd motor OFF = Enables the leaf delay of the 2nd motor
18	**Wait Photo OP**	ON = the automation stops while opening and remains in stand-by, as long as the INTERNAL photocells remain engaged OFF = the automation continues the opening even if the photocells are engaged
19	**Slow Reverse**	ON = it reverses the direction with a braking distance that cannot be set in order to manage the inertia of the automation. Reversal of direction due to the intervention of the safety devices, all except the “obstacle”. Or manually in “two-stroke” mode. OFF = it reverses the direction by stopping the automation with a short braking. It can be set using the special parameter “Tmr elect. Brake “ Reversal of direction due to the intervention of the safety locks, all except the “obstacle”. Or manually in “two-stroke” mode.
20	**MANUAL command**	ON = “Man Present” function ACTIVE - In this case the AP/CH input becomes “OPEN” and the “PEDESTRIAN” input becomes “CLOSE”. The CLOCK function is deactivated. OFF = standard AP/CH and PEDESTRIAN inputs
21	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter “Tmr Courtesy / 2ch” has passed, the automation performs a maneuver. OFF = normal operation
22	**Fototest mode**	ON = enables (if DIP6 is ON) the execution of the phototest only when the automation (closed or open) starts a maneuver. OFF = enables (if DIP6 is ON) the execution of the phototest from any point where the automation starts a maneuver.
23	**Safety Switch**	ON = disables the “manual release” function associated with the STOP input OFF = enables the “manual release” function associated with the STOP input
24	**FOTE CL once**	ON = Enables the automatic reclosing after the external photocell has no more obstacles OFF = Disables the automatic reclosing

25	**OP/CL single**	ON = Enables the single OPEN and CLOSE commands: the OP/CL input becomes OPEN, the PEDESTRIAN command becomes CLOSE
		OFF = Disables the single OPEN and CLOSE commands
26	**TCA range**	ON = Sets the range of the TCA trimmer from 0 to 12 seconds
		OFF = Sets the range of the TCA trimmer from 0 to 120 seconds
27	**Dis.Obst.OP**	ON = Disables the obstacle detection in OPENING
		OFF = Enables the obstacle detection in OPENING

ADVANCED PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr elect. brake	Duration timer of the electronic braking system	100/sec	0 - 255
Tmr ostacle prs	Duration range before which the presence of an obstacle is recognized as an alarm	100/sec	0 - 255
Search zone L.S.	Percentage of additional encoder steps during the limit switch search in the realignment maneuver	PE	0 - 255
Attempts TCA obs	Number of automatic closing attempts after the detection of an obstacle in the CLOSING PHASE	N°	0 - 255
Tmr check Encod	Duration timer of the encoder's check signals	100/sec	0 - 255
Tmr mask Motor	Time during which the encoder does not detect an obstacle during the initial start.	100/sec	0 - 255
Tmr post accel.	Duration timer of the power surge check at the end of the acceleration phase	100/sec	0 - 255
PWM ofs battery	Speed increase in case of mains power failure compared to PWM setup	PWM	0 - 255
PWM max setup	Speed limit attainable form the stroke setup procedure	PWM	0 - 255
PWM torque start	Additional PWM (x10) to standard PWM (open/close) during the initial start	PWM	0 - 255
Extra force BATT.	Additional force in case of power failure	PWM	0 - 255
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr max Overcur.	Limit time set, after which the motor overconsumption signal (maximum current) is recognized as an alarm	100/sec	0 - 255
Setup Push L.S.	Number of the attempts to search for the mechanical stop of the limit switch during the setup procedure	N°	0 - 255
PWM ofs search L.S.	Additional speed related to PWM setup used during the realignment procedure	PWM	0 - 255
Tmr disable SAF	Time needed to disable the SAFETY inputs (eg. FIXED EDGE) after their intervention	100/sec	0 - 255

K126MA CONTROL UNIT PARAMETERS

PARAMETRI MOTORE 1

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
PWM setup OP	Initial speed in the memorization procedure of the opening stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM start movem.	Starting speed of every manoeuvre (to which the control unit adds a short initial acceleration)	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
End Approach OP *(for control units firmware version from 9.00)*	Final 'slow' opening stroke: it sets the stroke to cover at the minimum speed before the stop on the opening limit switch – a percentage of the total stroke	PE	1-100
MAX end approach *(for control units firmware version 8.06)*	Maximum distance of the "slow" stroke: determines the maximum distance adjustable via the RALL trimmer to be carried out at the minimum speed before stopping at the limit switches.	%	0-100
End Approach CL *(for control units firmware version from 9.00)*	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-100
MIN end approach *(for control units firmware version 8.06)*	Minimum distance of the "slow" stroke: determines the minimum fixed distance to be carried out at minimum speed before stopping at the limit switches. Expressed as a % of the total stroke.	%	0-100
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000

Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
PWM Approach CL	Once overtaken the software limit switch in the closing manoeuvre,if the 'Push Limit Sw' is in ON, it increases the minimum speed in the closing manoeuvre used to approach the closing mechanical limit switch; It decreases if the DIP is in OFF	PWM	0-1005
PWM Approach OP	Increase of the minimum opening speed used to approach the opening mechanical limit switch, once the software opening limit switch has been passed, if the "Push Limit Sw" DIP is ON; Decrease in case the DIP is OFF	PWM	0-1005
Tmr Approach OP	Pushing time on the opening limit switch for which the "PWM approach OP" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Tmr Approach CL	Pushing time in the closing limit switch for which the "PWM approach CL" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255
Pedestrian	Percentage of the total stroke that sets the position for the 'pedestrian' opening - it can only be set on operator 1	%	1-100

BASIC PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	100/sec	6000-36000
Tmr Courtesy/2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	4/sec	1-100
Tmr wait runtime	"runtime mode" waiting time, necessary to allow the switch on of all external devices connected to the DIAMOND control unit (photocells and so on) when it activates after the stand-by	100/sec	1-250

Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	sec	1-240
Tmr Motor torque	Short acceleration time of the operator	100/sec	1-250
Tmr unlock ES	Electric lock releasing time	10/sec	1-250
Tmr pwr on ES	Additional time to the electric lock activation "Tmr unlock ES"	10/sec	1-250
Tmr Back Jump	Return time from the closing limit switch	100/sec	1-250

CONFIGURE OUTPUT

#	PARAMETER NAME	DESCRIPTION
A 16 - 17	**Gate open FL**	**"Open automation light" function - default. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 3W lamp.**
	Traffic Light	"Traffic light" function. ACTIVE with open automation. INACTIVE during maneuvers and with closed automation. It must be used in conjunction with a relay that exchanges red light and green light.
	Courtesy Light	"Courtesy light" function. ACTIVE during maneuvers. It stays on for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". It is possible to connect a lamp of max 3W
	Electric Lock	"Electric Lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is NOT possible to directly control an electric lock. Interpose a relay of max 3w.
	Vandal-proof	"Vandal-proof" function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is NOT possible to directly control an electromagnet. Interpose a relay of max 3w section "B"
B 16 - 18	**Gate open FL**	"Open automation warning light" function. ACTIVE when the automation is open, it flashes during maneuvers. It is possible to connect a lamp of max 15W directly.
	Traffic Light	Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter "Tmr Courtesy/2ch". It is possible to connect a lamp of max 15W.
	Electric Lock	**"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is possible to directly control an electric lock of max 15w**
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w

C 19 - 20	**Gate open FL**	"Open automation warning light" function. ACTIVE when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Traffic Light	"Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. NO contact, max 1A
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed using the basic parameter "Tmr Courtesy/2ch". NO contact, max 1A
	Electric Lock	"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". NO contact, max 1A
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. NO contact, max 1A

Dipswitch 14-29	dipswitch from 14 to 29. (see list below)

DIPSWITCH 14-29

#	PARAMETER NAME	DESCRIPTION
14	**Out 12 V aux hi**	ON = the output on terminals 11 and 12 remains active even with the control panel in stand-by OFF = the output on terminals 11 and 12 turns off during stand-by
15	**AUTO INC TCA**	ON = automatically increases the TCA (automatic closing time) in case of high traffic (if it fails to close due to the intervention of the safety devices) OFF = normal TCA
16	**pre flashing CL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
17	**Push Limit Sw**	ON = pushes the opening and closing limit switches according to the time set by the motor parameters "Tmr approach OP" and "Tmr approach CL" OFF = no push on the limit switches
18	**Wait Photo OP**	ON = the automation stops while opening and remains in stand-by, as long as the INTERNAL photocells remain engaged OFF = the automation continues the opening even if the photocells are engaged

19	**Slow Reverse**	ON = it reverses the direction with a braking distance that cannot be set in order to manage the inertia of the automation. Reversal of direction due to the intervention of the safety devices, all except the “obstacle”. Or manually in “two-stroke” mode. OFF = it reverses the direction by stopping the automation with a short braking. It can be set using the special parameter “Tmr elect. Brake “ Reversal of direction due to the intervention of the safety locks, all except the “obstacle”. Or manually in “two-stroke” mode.
20	**MANUAL command**	ON = “Man Present” function ACTIVE - In this case the AP/CH input becomes “OPEN” and the “PEDESTRIAN” input becomes “CLOSE”. The CLOCK function is deactivated. OFF = standard AP/CH and PEDESTRIAN inputs
21	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter “Tmr Courtesy / 2ch” has passed, the automation performs a maneuver. OFF = normal operation
22	**Fototest mode**	ON = enables (if DIP6 is ON) the execution of the phototest only when the automation (closed or open) starts a maneuver. OFF = enables (if DIP6 is ON) the execution of the phototest from any point where the automation starts a maneuver.
23	**Safety Switch**	ON = disables the “manual release” function associated with the STOP input OFF = enables the “manual release” function associated with the STOP input
24	**FOTE CL once**	ON = it closes immediately after the external photocell has no more obstacles, without waiting for the complete opening
		OFF = Function disabled
25	**OP/CL single**	ON = Enables the use of the AP/CH input with only “OPEN” function and of the PEDESTRIAN input with only “CLOSE” function
		OFF = standard AP/CH and PEDESTRIAN inputs functions
26	**TCA range**	ON = Sets the range of the TCA trimmer from 0 to 12 seconds
		OFF = Sets the range of the TCA trimmer from 0 to 120 seconds
27	**Dis.Obst.OP**	ON = Disables the obstacle detection in OPENING
		OFF = Enables the obstacle detection in OPENING
28	**CF close all**	ON= Enables total closure after FIXED EDGE in opening
		OFF= Normal operation

ADVANCED PARAMETERS

NOME PARAMETRO	USE	U.M.	RANGE
Tmr elect. brake	Duration timer of the electronic braking system	100/sec	0 - 255
Tmr ostacle prs	Duration timer of the OBSTACLE's presence signal before turning the alarm off	100/sec	0 - 255
Search zone L.S.	Percentage of additional encoder steps during the search for limit switches in the realignment maneuver	PE	0 - 255
Attempts TCA obs	Number of automatic closing attempts after the detection of an obstacle in the CLOSING PHASE	N°	0 - 255
Tmr check Encod	Duration timer of the encoder's check signals	100/sec	0 - 255
Tmr mask Motor	Duration timer of the operator's alarm masking during the starting phase	100/sec	0 - 255
Tmr post accel.	Duration timer of the power surge check at the end of the acceleration phase	100/sec	0 - 255
PWM ofs battery	Speed increase in case of mains power failure compared to PWM setup	PWM	0 - 255
PWM max setup	Speed limit attainable form the stroke setup procedure	PWM	0 - 255
PWM torque start	Additional PWM (x10) to the standard PWM (open/close) during the initial start	PWM	0 - 255
Extra force BATT.	Additional force in case of power failure	PWM	0 - 255
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr max Overcur.	Limit time set, after which the motor overconsumption signal (maximum current) is recognized as an alarm	100/sec	0 - 255
Setup Push L.S.	Number of the attempts to search for the mechanical stop of the limit switch during the setup procedure	N°	0 - 255
PWM ofs search L.S.	Additional speed (compared to the minimum one) used in the alignment procedure	PWM	0 - 255
Tmr disable SAF	Duration timer of SAFETY inputs' disabling (i.e. SAFETY EDGE) after an intervention	100/sec	0 - 255

K124MA CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	10 ms	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	10 ms	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	10 ms	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	10 ms	1-2000
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-8000
PWM setup OP	**Initial** speed in the memorization procedure of the **opening** stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	0-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	0-255
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255
Pedestrian	Percentage of the total stroke that sets the position for the 'pedestrian' opening - it can only be set on operator 1	%	0-100

BASIC PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	10 ms	600 - 3600
Tmr Courtesy	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1 - 7200
Tmr Preflashing	Pre-flashing time	x250 ms	1-100
Tmr Motor torque	Short acceleration time of the operator	10 ms	1-250
Tmr Back Jump	Return time from the closing limit switch	PE	1-250
Tmr unlock ES	Electric lock releasing time	100 ms	1-250
Tmr pwr on ES	Additional time to the electric lock activation "Tmr unlock ES"	100 ms	1-250
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	s	1-240
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr 2ch radio	Activation time of the 2ch output in monostable mode	s	

CONFIGURE OUTPUT

#	PARAMETER NAME	DESCRIPTION
A	**Flashing Classic**	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
14-15	**Flashing Paused**	It flashes during the opening, the pause of the TCA and during closing

B 16 - 17	**Gate open FL**	“Open automation light”. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light” function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	“Courtesy light” function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter “Tmr Courtesy/2ch”. It is possible to connect a lamp of max 1 A.
	Gate Open FI	“Open automation warning light” function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
	Electric Lock	“Electric lock” function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters “Tmr unlock ES” and “Tmr pwr on ES”. It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
	Error	Alarms or errors present

C 16-18	**Gate open FL**	“Open automation light”. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light” function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	“Courtesy light” function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter “Tmr Courtesy/2ch”. It is possible to connect a lamp of max 1 A.
	Gate Open FI	“Open automation warning light” function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
	Electric Lock	“Electric lock” function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters “Tmr unlock ES” and “Tmr pwr on ES”. It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
	Error	Alarms or errors present

C 14 - 15 (uscita mors. 19-20)	**Gate open FL**	"Open automation light". ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter "Tmr Courtesy/2ch". It is possible to connect a lamp of max 1 A.
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed using the basic parameter "Tmr Courtesy/2ch". NO contact, max 1A
	Gate Open FI	"Open automation warning light" function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
	Electric Lock	"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Error	Alarms or errors present

Dipswitch 14-24	dipswitch from 14 to 24. (see list below)

DIPSWITCH 14-24

#	PARAMETER NAME	DESCRIPTION
14	**Out 12 V aux hi**	ON = the output on terminals 11 and 12 remains active even with the control panel in stand-by OFF = the output on terminals 11 and 12 turns off during stand-by
15	**AUTO INC TCA**	ON = automatically increases the TCA (automatic closing time) in case of high traffic (if it fails to close due to the intervention of the safety devices) OFF = normal TCA
16	**pre flashing CL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
17	**Wait Photo OP**	ON = the automation stops while opening and remains in stand-by, as long as the INTERNAL photocells remain engaged OFF = the automation continues the opening even if the photocells are engaged
18	**MANUAL command**	ON = "Man Present" function ACTIVE - In this case the AP/CH input becomes "OPEN" and the "PEDESTRIAN" input becomes "CLOSE". The CLOCK function is deactivated. OFF = standard AP/CH and PEDESTRIAN inputs

19	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter "Tmr Courtesy / 2ch" has passed, the automation performs a maneuver. OFF = normal operation
20	**FOTE CL once**	ON = it closes immediately after the external photocell has no more obstacles, without waiting for the complete opening
		OFF = Function disabled
21	**OP/CL single**	ON = Enables the use of the AP/CH input with only "OPEN" function and of the PEDESTRIAN input with only "CLOSE" function
		OFF = standard AP/CH and PEDESTRIAN inputs functions
22	**TCA range**	ON = Sets the range of the TCA trimmer from 0 to 12 seconds
		OFF = Sets the range of the TCA trimmer from 0 to 120 seconds
23	**Dis.Obst.OP**	ON = Disables the obstacle detection in OPENING
		OFF = Enables the obstacle detection in OPENING
24	**CF close all**	ON= Enables total closure after FIXED EDGE in opening
		OFF= Normal operation

ADVANCED PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Reverse Brake	Braking for photocell intervention and stop (no obstacles)	%	5-100
Tmr test ciclico	Cyclic test time	s	1-240

K128MA CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-100
PWM setup OP	**Initial** speed in the memorization procedure of the **opening** stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255
Pedestrian	Percentage of the total stroke that sets the position for the 'pedestrian' opening - it can only be set on operator 1	%	1-100

BASIC PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	100/sec	6000-36000
Tmr Courtesy	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	4/sec	1-100
Tmr Motor torque	Short acceleration time of the operator	PE	1-250
Tmr Back Jump	Return time from the closing limit switch	100/sec	1-250
Tmr unlock ES	Electric lock releasing time	10/sec	1-250
Tmr pwr on ES	Additional time to the electric lock activation "Tmr unlock ES"	10/sec	1-250
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	sec	1-240
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr 2ch radio	Activation time of the 2ch output in monostable mode	s	

CONFIGURE OUTPUT

#	PARAMETER NAME	DESCRIPTION
A	**Flashing Classic**	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
14-15	**Flashing Paused**	It flashes during the opening, the pause of the TCA and during closing

	Gate open FL	"Open automation light". ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter "Tmr Courtesy/2ch". It is possible to connect a lamp of max 1 A.
	Error	Alarms or errors present
B	**Gate Open FI**	"Open automation warning light" function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
16 - 17	**Electric Lock**	"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing

	Gate open FL	“Open automation light”. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light” function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	“Courtesy light” function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter “Tmr Courtesy/2ch”. It is possible to connect a lamp of max 1 A.
	Error	Alarms or errors present
C	**Gate Open FI**	“Open automation warning light” function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
16-18	**Electric Lock**	“Electric lock” function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters “Tmr unlock ES” and “Tmr pwr on ES”. It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing

C 14 - 15 (terminal output 19-20)	**Gate open FL**	"Open automation light". ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter "Tmr Courtesy/2ch". It is possible to connect a lamp of max 1 A.
	Error	Alarms or errors present
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed using the basic parameter "Tmr Courtesy/2ch". NO contact, max 1A
	Gate Open FI	"Open automation warning light" function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
	Electric Lock	"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w

Dipswitch 14-24	dipswitch from 14 to 24. (see list below)

DIPSWITCH 14-24

#	PARAMETER NAME	DESCRIPTION
14	**Out 12 V aux hi**	ON = the output on terminals 11 and 12 remains active even with the control panel in stand-by OFF = the output on terminals 11 and 12 turns off during stand-by
15	**AUTO INC TCA**	ON = automatically increases the TCA (automatic closing time) in case of high traffic (if it fails to close due to the intervention of the safety devices) OFF = normal TCA
16	**pre flashing CL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
17	**Wait Photo OP**	ON = the automation stops while opening and remains in stand-by, as long as the INTERNAL photocells remain engaged OFF = the automation continues the opening even if the photocells are engaged
18	**MANUAL command**	ON = "Man Present" function ACTIVE - In this case the AP/CH input becomes "OPEN" and the "PEDESTRIAN" input becomes "CLOSE". The CLOCK function is deactivated. OFF = standard AP/CH and PEDESTRIAN inputs

19	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter "Tmr Courtesy / 2ch" has passed, the automation performs a maneuver. OFF = normal operation
20	**FOTE CL once**	ON = it closes immediately after the external photocell has no more obstacles, without waiting for the complete opening
		OFF = Function disabled
21	**OP/CL single**	ON = Enables the use of the AP/CH input with only "OPEN" function and of the PEDESTRIAN input with only "CLOSE" function
		OFF = standard AP/CH and PEDESTRIAN inputs functions
22	**TCA range**	ON = Sets the range of the TCA trimmer from 0 to 12 seconds
		OFF = Sets the range of the TCA trimmer from 0 to 120 seconds
23	**Dis.Obst.OP**	ON = Disables the obstacle detection in OPENING
		OFF = Enables the obstacle detection in OPENING
24	**CF close all**	ON= Enables total closure after FIXED EDGE in opening
		OFF= Normal operation

ADVANCED PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Reverse Brake	Braking for photocell intervention and stop (no obstacles)	%	5-100
Tmr test ciclico	Cyclic test time	s	1-240

K130MA CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-100
PWM setup OP	**Initial** speed in the memorization procedure of the **opening** stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255
Pedestrian	Percentage of the total stroke that sets the position for the 'pedestrian' opening - it can only be set on operator 1	%	1-100

BASIC PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	100/sec	6000-36000
Tmr Courtesy	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	4/sec	1-100
Tmr Motor torque	Short acceleration time of the operator	100/sec	1-250
Tmr Back Jump	Return time from the closing limit switch	PE	1-250
Tmr unlock ES	Electric lock releasing time	10/sec	1-250
Tmr pwr on ES	Additional time to the electric lock activation "Tmr unlock ES"	10/sec	1-250
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	sec	1-240
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr 2ch radio	Activation time of the 2ch output in monostable mode	s	

CONFIGURE OUTPUT

#	PARAMETER NAME	DESCRIPTION
A	**Flashing Classic**	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
14-15	**Flashing Paused**	It flashes during the opening, the pause of the TCA and during closing

ENGLISH

B 16 - 17	**Gate open FL**	“Open automation light”. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light” function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	“Courtesy light” function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter “Tmr Courtesy/2ch”. It is possible to connect a lamp of max 1 A.
	Gate Open FI	“Open automation warning light” function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
	Electric Lock	“Electric lock” function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters “Tmr unlock ES” and “Tmr pwr on ES”. It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
	Error	Alarms or errors present

C 16-18	**Gate open FL**	“Open automation light”. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light” function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	“Courtesy light” function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter “Tmr Courtesy/2ch”. It is possible to connect a lamp of max 1 A.
	Gate Open FI	“Open automation warning light” function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
	Electric Lock	“Electric lock” function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters “Tmr unlock ES” and “Tmr pwr on ES”. It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
	Error	Alarms or errors present

C 14 - 15 (uscita mors. 19-20)	**Gate open FL**	"Open automation light". ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 15 W lamp.
	Traffic Light	Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter "Tmr Courtesy/2ch". It is possible to connect a lamp of max 1 A.
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed using the basic parameter "Tmr Courtesy/2ch". NO contact, max 1A
	Gate Open FI	"Open automation warning light" function. (fixed) – ACTIVE when the automation is open. NO contact, max 1A
	Electric Lock	"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is possible to directly control an electric lock of max 15w
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Error	Alarms or errors present

Dipswitch 14-25	dipswitch from 14 to 25. (see list below)

DIPSWITCH 14-25

#	PARAMETER NAME	DESCRIPTION
14	**Out 12 V aux hi**	ON = the output on terminals 11 and 12 remains active even with the control panel in stand-by OFF = the output on terminals 11 and 12 turns off during stand-by
15	**AUTO INC TCA**	ON = automatically increases the TCA (automatic closing time) in case of high traffic (if it fails to close due to the intervention of the safety devices) OFF = normal TCA
16	**pre flashing CL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
17	**Wait Photo OP**	ON = the automation stops while opening and remains in stand-by, as long as the INTERNAL photocells remain engaged OFF = the automation continues the opening even if the photocells are engaged

18	**Slow Reverse**	ON = it reverses the direction with a braking distance that cannot be set in order to manage the inertia of the automation. Reversal of direction due to the intervention of the safety devices, all except the “obstacle”. Or manually in “two-stroke” mode.
		OFF = it reverses the direction by stopping the automation with a short braking. It can be set using the special parameter “Tmr elect. Brake “ Reversal of direction due to the intervention of the safety locks, all except the “obstacle”. Or manually in “two-stroke” mode.
19	**MANUAL command**	ON = “Man Present” function ACTIVE - In this case the AP/CH input becomes “OPEN” and the “PEDESTRIAN” input becomes “CLOSE”. The CLOCK function is deactivated.
		OFF = standard AP/CH and PEDESTRIAN inputs
20	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter “Tmr Courtesy / 2ch” has passed, the automation performs a maneuver.
		OFF = normal operation
21	**FOTE CL once**	ON = it closes immediately after the external photocell has no more obstacles, without waiting for the complete opening
		OFF = Function disabled
22	**OP/CL single**	ON = Enables the use of the AP/CH input with only “OPEN” function and of the PEDESTRIAN input with only “CLOSE” function
		OFF = standard AP/CH and PEDESTRIAN inputs functions
23	**TCA range**	ON = Sets the range of the TCA trimmer from 0 to 12 seconds
		OFF = Sets the range of the TCA trimmer from 0 to 120 seconds
24	**Dis.Obst.OP**	ON = Disables the obstacle detection in OPENING
		OFF = Enables the obstacle detection in OPENING
25	**CF close all**	ON= Enables total closure after FIXED EDGE in opening
		OFF= Normal operation

ADVANCED PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Reverse Brake	Braking for photocell intervention and stop (no obstacles)	%	5-100
Tmr test ciclico	Cyclic test time	s	1-240

K206MA CONTROL UNIT PARAMETERS

MOTOR 1 PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
PWM setup OP	**Initial** speed in the memorization procedure of the **opening** stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM start movem.	Starting speed of every manoeuvre (to which the control unit adds a short initial acceleration)	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
End Approach OP	Final 'slow' opening stroke: it sets the stroke to cover at the minimum speed before the stop on the opening limit switch – a percentage of the total stroke	PE	1-100
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-100
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255

PWM Approach CL	Reduction of the minimum closing speed used to approach the closing mechanical limit switch once the software closing limit switch has been passed.	PWM	0-1005
PWM Approach OP	Reduction of the minimum opening speed used to approach the opening mechanical limit switch once the software closing limit switch has been passed.	PWM	0-1005
Tmr Approach CL	Push time on the closing limit switch - used only if DIP17 "Push Limit Sw" is ON	100/sec	0-1005
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	100/sec	6000-36000
Tmr Courtesy/2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	4/sec	1-100
Tmr wait runtime	"runtime mode" waiting time, necessary to allow the switch on of all external devices connected to the DIAMOND control unit (photocells and so on) when it activates after the stand-by	100/sec	1-250
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	sec	1-240
Tmr Motor torque	Short acceleration time of the operator	100/sec	1-250
Tmr unlock EB	Electric lock releasing time (Electric lock releasing time)	10/sec	1-250
Tmr pwr on EB	Additional time to the electric lock activation "Tmr unlock EB" (Additional time to the electric lock activation "Tmr unlock EB")	10/sec	1-250
Configure Output	Configure outputs	-	-

CONFIGURABLE OUTPUTS

#	PARAMETER NAME	DESCRIPTION
A 16 - 17	**Gate open FL**	**"Open automation light" function - default. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 3W lamp.**
	Traffic Light	"Traffic light" function. ACTIVE with open automation. INACTIVE during maneuvers and with closed automation. It must be used in conjunction with a relay that exchanges red light and green light.
	Courtesy Light	"Courtesy light" function. ACTIVE during maneuvers. It stays on for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". It is possible to connect a lamp of max 3W
	Led Bar Traf.l	"Traffic light boom LEDs" function (RED) with the automation stopped, the LEDs are flashing - during the maneuvers the flashing is synchronized with the flashing function. When the automation is OPEN, the output is OFF.
	Vandal-proof	"Vandal-proof" function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is NOT possible to directly control an electromagnet. Interpose a relay of max 3w section "B"
B 16 - 18	**LED Bar Flash**	**"Flashing boom LEDs" function: with the automation stopped, the LEDs are flashing - during the maneuvers the flashing is synchronized with the flashing function**
	LED Bar Fixed	"Fixed boom LEDs" function: with the automation stopped, the LEDs remain on - during maneuvers they flash in synchrony with the flashing function
	Led Bar Traf.l	"Traffic light boom LEDs" function (RED) with the automation stopped, the LEDs are flashing - during the maneuvers the flashing is synchronized with the flashing function. When the automation is OPEN, the output is OFF.
	Vandal-proof	"Vandal-proof" function: active with closed automation. Inactive during maneuvers and with open automation
C 19 - 20	**Gate open**	"Open automation warning light" function. ACTIVE when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Traffic Light	"Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. NO contact, max 1A
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed using the basic parameter "Tmr Courtesy/2ch". NO contact, max 1A
	Led Bar Traf.l	"Traffic light boom LEDs" function (GREEN). When the automation is OPEN, the output is ON, OFF in all other cases.
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. NO contact, max 1A

Dipswitch 14-24	Dipswitch dal 14 al 29. (vedere lista sotto)

DIPSWITCH 14-24

#	PARAMETER NAME	DESCRIPTION
14	**Out 12 V aux hi**	ON = the output on terminals 11 and 12 remains active even with the control panel in stand-by OFF = the output on terminals 11 and 12 turns off during stand-by
15	**AUTO INC TA**	ON = automatically increases the TCA (automatic closing time) in case of high traffic (if it fails to close due to the intervention of the safety devices) OFF = normal TCA
16	**pre flashing CL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
17	**Push Limit Sw**	ON = pushes the opening and closing limit switches according to the time set by the motor parameters "Tmr approach OP" and "Tmr approach CL" OFF = no push on the limit switches
18	**Fototest mode**	ON = enables (if DIP6 is ON) the execution of the phototest only when the automation (closed or open) starts a maneuver. OFF = enables (if DIP6 is ON) the execution of the phototest from any point where the automation starts a maneuver.
19	**Slow Reverse**	ON = it reverses the direction with a braking distance that cannot be set in order to manage the inertia of the automation. Reversal of direction due to the intervention of the safety devices, all except the "obstacle". Or manually in "two-stroke" mode. OFF = it reverses the direction by stopping the automation with a short braking. It can be set using the special parameter "Tmr elect. Brake " Reversal of direction due to the intervention of the safety locks, all except the "obstacle". Or manually in "two-stroke" mode.
20	**Safety Switch**	ON = disables the "manual release" function associated with the STOP input OFF = enables the "manual release" function associated with the STOP input
21	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter "Tmr Courtesy / 2ch" has passed, the automation performs a maneuver. OFF = normal operation
22	**OP Power Fault**	It enables forced opening in the event of a power failure on battery
23	**TCA range**	ON = Sets the range of the TCA trimmer from 0 to 12 seconds OFF = Sets the range of the TCA trimmer from 0 to 120 seconds
24	**Dis.Obst.OP**	ON = Disables the obstacle detection in OPENING OFF = Enables the obstacle detection in OPENING

ADVANCED PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr elect. brake	Duration timer of the electronic braking system	100/sec	0 - 255
Tmr ostacle prs	Duration timer of the OBSTACLE's presence signal before turning the alarm off	100/sec	0 - 255
Search zone L.S.	Percentage of additional encoder steps during the search for limit switches in the realignment maneuver	PE	0 - 255
Attempts srch L.S.	Number of attempts to find the limit switch (mechanical stop)	N°	0 - 255
Tmr check Encod	Duration timer of the encoder's check signals	100/sec	0 - 255
Tmr mask Motor	Duration timer of the operator's alarm masking during the starting phase	100/sec	0 - 255
Tmr post accel.	Duration timer of the power surge check at the end of the acceleration phase	100/sec	0 - 255
PWM ofs battery	Speed increase in case of mains power failure compared to PWM setup	PWM	0 - 255
PWM max setup	Speed limit attainable form the stroke setup procedure	PWM	0 - 255
PWM torque start	Additional PWM (x10) to the standard PWM (open/close) during the initial start	PWM	0 - 255
Extra force BATT.	Additional force in case of power failure	PWM	0 - 255
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr max Overcur.	Limit time set, after which the motor overconsumption signal (maximum current) is recognized as an alarm	100/sec	0 - 255
Setup Push L.S.	Number of the attempts to search for the mechanical stop of the limit switch during the setup procedure	N°	0 - 255
PWM ofs search L.S.	Additional speed (compared to the minimum one) used in the alignment procedure	PWM	0 - 255
Tmr extra torque	Additional time to the duration of the starting point of the motor	100/sec	0 - 255

D770M CONTROL UNIT PARAMETERS

MOTORS 1 and 2 PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
TRAmin_OP*	Opening second motor delay. Trimmer TRA add more time.	x10ms	1-2000
TRAmin_CL*	Closing second motor delay. Trimmer TRA add more time.	x10ms	1-2000
TMRextraRUN	Additional (overtravel) time at the end of each maneuver necessary to ensure complete opening or closing	x10ms	1-2000
TMRextraRAL	Additional (overtravel) time at the end of each maneuver with deceleration inserted, necessary to ensure complete opening or closing	x10ms	1-2000
TMRinv_OP	Recovery time (mechanical clearances) in reversal of direction from closing to opening maneuver	x10ms	1-2000
TMRinv_CL	Recovery time (mechanical clearances) in reversal of direction from opening to closing maneuver	x10ms	1-2000
Pedestrian*	Percentage of pedestrian opening (related to the full stroke of motor 1)	%	1-100

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	x10 ms	600-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	x250 ms	1-100
Attempts TCA obs	Attempts to close after an obstacle (fixed edge)		0-255
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	sec	1-240
Tmr disable SAF	Duration timer of SAFETY inputs' disabling (i.e. SAFETY EDGE) after an intervention	x10 ms	1-250
Tmr unlock ES	Electric lock releasing time	x100 ms	1-250
Tmr pwr on ES	Additional time to the electric lock activation "Tmr unlock ES"	x100 ms	1-250
Tmr ram blow	Ram blow's duration timer (thrust on the limit switch to free the electric lock)	x10 ms	1-250

CONFIGURABLE OUTPUTS

#	PARAMETER NAME	DESCRIPTION
K2 22 - 23	**Gate open FL**	"open automation warning light" function - default. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Courtesy Light	"Courtesy light" function. Active during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	Gate Open FI	"open automation warning light" function - active when the automation is open. NO contact, max 1A
K3 20 - 21	**Gate open FL**	"open automation warning light" function - default. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Courtesy Light	"Courtesy light" function. Active during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	Gate Open FI	"open automation warning light" function - active when the automation is open. NO contact, max 1A
"Flashing lights" 19 - 20	**Flashing Classic**	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing

Dipswitch 13-19	Dipswitch dal 13 al 19. (vedere lista sotto)

DIPSWITCH SW

#	PARAMETER NAME	DESCRIPTION
13	**PreFlashingCL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
14	**Disable TRA**	ON = Disables the leaf delay of the 2nd motor OFF = Enables the leaf delay of the 2nd motor
15	**Wait Photo OP**	ON = the automation stops while opening and remains in stand-by, as long as the INTERNAL photocells remain engaged OFF = the automation continues the opening even if the photocells are engaged
16	**Fototest mode**	ON = enables (if DIP6 is ON) the execution of the phototest only when the automation (closed or open) starts a maneuver. OFF = enables (if DIP6 is ON) the execution of the phototest from any point where the automation starts a maneuver.
17	**FOTE CL once**	ON = Enables the automatic reclosing after the external photocell has no more obstacles OFF = Disables the automatic reclosing
18	**OP/CL single**	ON = Enables the single OPEN and CLOSE commands: the OP/CL input becomes OPEN, the PEDESTRIAN command becomes CLOSE OFF = Disables the single OPEN and CLOSE commands
19	**CF CLOSE ALL**	ON = the intervention of the FIXED EDGE during the opening causes the automation to close completely OFF = the intervention of the FIXED EDGE during the opening causes the automation to close for a short distance
20	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter “Tmr Courtesy / 2ch” has passed, the automation performs a maneuver. OFF = normal operation

K590M CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Base Power OP	Opening base power		0-65535
Base Power CL	Closing base power		0-65535
Power for Heavy	Adding power level for heavy gates (DIP 9 ON)		0-65535
Pedestrian	Percentage of pedestrian opening (related to the full stroke of the motor)	%	0-100

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	x10 ms	600-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	x250 ms	1-100
Attempts TCA obs	Automatic closing attempts after the detection of an obstacle in the CLOSING PHASE	n°	0-255
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP SWITCH SW13 "**CL after FOTE**" is in ON, it sets the time after which the automation starts closing	sec	1-240
Tmr disable SAF	Time needed to disable safety devices (CF photocells, etc.) after intervention that allows the reversal of direction and the continuation till the end	x10 ms	1-250
Tmr Back Jump	Return time from the closing limit switch	x10 ms	1-250

CONFIGURABLE OUTPUTS

#	PARAMETER NAME	DESCRIPTION
K4 14 - 15	**Gate open FL**	"open automation warning light" function - default. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Gate Open FI	"open automation warning light" function - active when the automation is open. NO contact, max 1A
	Courtesy Light	"Courtesy light" function. Active during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
K5 12 - 13	**Gate open FL**	"open automation warning light" function - default. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Gate Open FI	"open automation warning light" function - active when the automation is open. NO contact, max 1A
	Courtesy Light	"Courtesy light" function. Active during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radio" function -default. The activation time can be programmed with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
Lampeggiante 19 - 20	**Flashing Classic**	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing

Dipswitch 13-28	Dipswitch dal 13 al 28. (vedere lista sotto)

DIPSWITCH SW

#	PARAMETER NAME	DESCRIPTION
13	**CL after FOTE**	ON = it ends the opening and closes again after the photocell is released OFF = function disabled
14	**FOTE CL once**	ON = Enables the automatic reclosing after the external photocell has no more obstacles OFF = Disables the automatic reclosing
15	**PreFlashingCL**	ON = with DIP5 OFF it activates the pre-flashing only during closing operations OFF = Pre-flashing depends only on DIP 5
16	**Auto INC TCA**	ON = automatic increase of the TCA in heavy traffic OFF = automatic increase of the TCA with heavy traffic disabled
17	**Fototest mode**	ON = enables (if DIP6 is ON) the execution of the phototest only when the automation (closed or open) starts a maneuver. OFF = enables (if DIP6 is ON) the execution of the phototest from any point where the automation starts a maneuver.
18	**CF Close ALL**	ON = in opening after the intervention of the FIXED EDGE the automation closes completely OFF = in opening after the intervention of the FIXED EDGE the automation closes for a short distance
19	**Brake on FC**	ON = at the end of an opening or closing maneuver, it moves in the opposite direction for a short distance to facilitate immediate stop. OFF = function disabled
20	**Dis. MAN RC**	ON = manual programming of radio controls disabled OFF = manual programming of radio controls enabled
21	**Dis. PIN RC**	ON = programming via PIN of radio controls disabled OFF = programming via PIN of radio controls enabled
22	**Dis. REM RC**	ON = remote programming of radio controls disabled OFF = remote programming of radio controls enabled

D729MA CONTROL UNIT PARAMETERS

MOTOR 1 and 2 PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
PWM setup OP	Initial speed in the memorization procedure of the opening stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM start movem.	Starting speed of every manoeuvre (to which the control unit adds a short initial acceleration)	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
End Approach OP	Final 'slow' opening stroke: it sets the stroke to cover at the minimum speed before the stop on the opening limit switch – a percentage of the total stroke	PE	0-100
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	0-100
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	0-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	0-255

PWM Approach CL	Once overtaken the software limit switch in the closing manoeuvre,if the 'Push Limit Sw' is in ON, it increases the minimum speed in the closing manoeuvre used to approach the closing mechanical limit switch; It decreases if the DIP is in OFF. Only valid for engine 1.	PWM	0-1005
Tmr approach CL	Pushing time in the closing limit switch for which the "PWM approach CL" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255
Pedestrian	Percentage of the total stroke that sets the position for the 'pedestrian' opening - it can only be set on operator 1	%	0-100

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	100/sec	600-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Push and Go	Number of encoder steps to be performed manually (manual push on the leaf) to give the opening command of one or both leaves.	PE	0-255
Tmr TCA	Automatic closing duration timer (TCA)	sec	1-240
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP 3 'CLOSE AFTER PHOTOCELL' is in ON, it sets the time after which the automation starts closing	sec	1-240
Tmr Motor torque	Short acceleration time of the operator	100/sec	1-250
Tmr unlock ES	Electric lock releasing time	100/sec	1-250
Tmr pwr on ES	Additional time for the electric lock activation "Tmr unlock ES"	100/sec	1-250
Tmr ram blow	Ram blow's duration timer (thrust on the limit switch to free the electric lock)	100/sec	1-250

CONFIGURE OUTPUT

#	PARAMETER NAME	DESCRIPTION
A 8 - 9	**Gate open FL**	**"Open automation light" function - default. ACTIVE with open automation, flashes during maneuvers. It is possible to directly connect a max 3W lamp.**
	Gate open FI	"open automation warning light" function. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Traffic Light	"Traffic light" function. ACTIVE with open automation. INACTIVE during maneuvers and with closed automation. It must be used in conjunction with a relay that exchanges red light and green light.
	Courtesy Light	"Courtesy light" function. ACTIVE during maneuvers. It stays on for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". It is possible to connect a lamp of max 3W
	Foto Test	Photocell test
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
B 9 - 10	**Gate open FL**	"open automation warning light" function - default. Active when the automation is open, it flashes during maneuvers. It is possible to directly connect a lamp of max 3W.
	Gate open FI	"open automation warning light" function. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Traffic Light	Traffic light" function. ACTIVE when the automation is open. INACTIVE during maneuvers and when the automation is closed. It must be used in conjunction with a relay that exchanges the red light and the green light.
	Courtesy Light	"Courtesy light" function - default. ACTIVE during maneuvers. Remains active for the time that can be set with the basic parameter "Tmr Courtesy/2ch". It is possible to connect a lamp of max 15W.
	Flashing Classic	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
	Vandal-proof	Vandal-proof function: ACTIVE with closed automation. INACTIVE during maneuvers and with open automation. It is possible to directly control an electromagnet of max 15w
	Electric Lock	**"Electric lock" function. ACTIVE at the start of a closed automation maneuver. It can be set using the basic parameters "Tmr unlock ES" and "Tmr pwr on ES". It is possible to directly control an electric lock of max 15w**

Dipswitch 11-29	dipswitch dal 14 al 29. (vedere lista sotto)

DIPSWITCH SW

#	PARAMETER NAME	DESCRIPTION
11	**AUTO INC TCA**	ON = automatically increases the TCA (automatic closing time) in case of high traffic (if it fails to close due to the intervention of the safety devices) OFF = normal TCA
12	**Disable TRA**	ON = Disables the leaf delay of the 2nd motor OFF = Enables the leaf delay of the 2nd motor
13	**Wait Photo OP**	ON = the automation stops while opening and remains in stand-by, as long as the INTERNAL photocells remain engaged OFF = the automation continues the opening even if the photocells are engaged
14	**Slow Reverse**	ON = it reverses the direction with a braking distance that cannot be set in order to manage the inertia of the automation. Reversal of direction due to the intervention of the safety devices, but not because of an “obstacle”. Or by manual control in “two-stroke” mode. OFF = it reverses the direction by stopping the automation with a short braking. It can be set using the special parameter “Tmr elect. Brake “ Reversal of direction due to the intervention of the safety locks, but not because of an “obstacle”. Or by manual control in “two-stroke” mode.
15	**Test Cyclic**	ON = cyclic test ACTIVE: after the time set by the basic parameter “Tmr Courtesy / 2ch” has passed, the automation performs a maneuver. OFF = normal operation
16	**Fototest mode**	ON = enables (if DIP6 is ON) the execution of the phototest only when the automation (closed or open) starts a maneuver. OFF = enables (if DIP6 is ON) the execution of the phototest from any point where the automation starts a maneuver.
17	**Reposition**	ON = enables repositioning with reversible motors OFF = disables repositioning with reversible motors
18	**CF CLOSE ALL**	ON = the intervention of the FIXED EDGE during the opening causes the automation to close completely OFF = the intervention of the FIXED EDGE during the opening causes the automation to close for a short distance
19	**Enable CF**	ON = enables FIXED EDGE input (CF) OFF = disables FIXED EDGE input (CF)
20	**Enable CF-R**	ON = enables RESISTIVE FIXED EDGE input (CF-R) OFF = disables RESISTIVE FIXED EDGE input (CF-R)
21	**Enable Pedest**	ON = enables pedestrian OFF = disables pedestrian
22	**Enable FOTI**	ON = enables internal photocell OFF = disables internal photocell
23	**En. Foto TEST**	ON = enables phototest OFF = disables phototest

K100M CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Pedestrian	Time for pedestrian opening	x10 ms	1-2000

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	x10 ms	600-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	x250 ms	1-100
Attempts TCA obs	Automatic closing attempts after the detection of an obstacle in the CLOSING PHASE	n°	0-255
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP SWITCH SW "**CL after FOTE**" is in ON, it sets the time after which the automation starts closing	sec	1-240
Tmr disable SAF	Time needed to disable safety devices (CF photocells, etc.) after intervention that allows the reversal of direction and the continuation till the end.	x10 ms	1-250
Tmr Back Jump	Return time from the closing limit switch	x10 ms	1-250

CONFIGURABLE OUTPUTS

#	PARAMETER NAME	DESCRIPTION
Output V ac 3 - 4	**Flashing Classic**	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
Output V dc 5 - 6	**Gate open FL**	"open automation warning light" function - default. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Gate Open FI	"open automation warning light" function - active when the automation is open. NO contact, max 1A
	Courtesy Light	"Courtesy light" function. Active during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radiol" function -default The activation time can be programmed using the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	Flashing Classic	Flashing during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	Flashing during the opening, the pause of the TCA and during closing

Dipswitch 11-26	Dipswitch dal 11 al 26. (vedere lista sotto)

DIPSWITCH SW

#	PARAMETER NAME	DESCRIPTION
11	**CL after FOTE**	ON = it ends the opening and closes again after the photocell is released OFF = function disabled
12	**PreFlashing**	ON = pre-flashing OFF = function disabled
13	**PreFlashingCL**	ON = activates the pre-flashing only during closing operations (DIP13 OFF) OFF = Pre-flashing depends only on DIP13
14	**Dis. MAN RC**	ON = manual programming of radio controls disabled OFF = manual programming of radio controls enabled
15	**Dis. PIN RC**	ON = programming via PIN of radio controls disabled OFF = programming via PIN of radio controls enabled
16	**Dis. REM RC**	ON = remote programming of radio controls disabled OFF = remote programming of radio controls enabled

K101M CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	x10 ms	600-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	x250 ms	1-100
Tmr CL after FOT	Closing time after PHOTOCELL – if DIP SWITCH SW "**CL after FOTE**" is in ON, it sets the time after which the automation starts closing	sec	1-240

CONFIGURABLE OUTPUTS

#	PARAMETER NAME	DESCRIPTION
Output V ac 3 - 4	**Flashing Classic**	It flashes during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	It flashes during the opening, the pause of the TCA and during closing
Output V dc 5 - 6	**Gate open FL**	"open automation warning light" function - default. Active when the automation is open, it flashes during maneuvers. NO contact, max 1A
	Gate Open FI	"open automation warning light" function - active when the automation is open. NO contact, max 1A
	Courtesy Light	"Courtesy light" function. Active during maneuvers. It remains active for the time that can be set with the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	2ch bistable	"2nd channel bistable radio" function. NO contact, max 1A
	2ch monostable	"2nd channel monostable radiol" function -default The activation time can be programmed using the basic parameter "Tmr Courtesy / 2ch". NO contact, max 1A
	Flashing Classic	Flashing during opening and closing
	Flashing Fixed	Fixed light during opening and closing
	Flashing Paused	Flashing during the opening, the pause of the TCA and during closing

Dipswitch 11-26	Dipswitch dal 11 al 26. (vedere lista sotto)

DIPSWITCH SW

#	PARAMETER NAME	DESCRIPTION
11	**CL after FOTE**	ON = it ends the opening and closes again after the photocell is released OFF = function disabled
12	**PreFlashing**	ON = pre-flashing OFF = function disabled
13	**PreFlashingCL**	ON = activates the pre-flashing only during closing operations (DIP13 OFF) OFF = Pre-flashing depends only on DIP13
14	**Dis. MAN RC**	ON = manual programming of radio controls disabled OFF = manual programming of radio controls enabled
15	**Dis. PIN RC**	ON = programming via PIN of radio controls disabled OFF = programming via PIN of radio controls enabled
16	**Dis. REM RC**	ON = remote programming of radio controls disabled OFF = remote programming of radio controls enabled

K995MA-S CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
PWM setup OP	Initial speed in the memorization procedure of the opening stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM start movem.	Starting speed of every manoeuvre (to which the control unit adds a short initial acceleration)	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
End Approach OP	Final 'slow' opening stroke: it sets the stroke to cover at the minimum speed before the stop on the opening limit switch – a percentage of the total stroke	PE	1-100
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-100
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255

PWM Approach CL	Once overtaken the software limit switch in the closing manoeuvre,if the 'Push Limit Sw' is in ON, it increases the minimum speed in the closing manoeuvre used to approach the closing mechanical limit switch; It decreases if the DIP is in OFF	PWM	0-1005
PWM Approach OP	Increase of the minimum opening speed used to approach the opening mechanical limit switch, once the software opening limit switch has been passed, if the "Push Limit Sw" DIP is ON; Decrease in case the DIP is OFF	PWM	0-1005
Tmr Approach OP	Pushing time on the opening limit switch for which the "PWM approach OP" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Tmr Approach CL	Pushing time in the closing limit switch for which the "PWM approach CL" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	x10 ms	600-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	x250 ms	1-100
Tmr TCA	Automatic closing duration timer (TCA)	sec	1-240
Tmr Motor torque	Short acceleration time of the operator	x10 ms	1-250
Tmr back Jump	Return time from the closing limit switch	x10 ms	1-250

Dipswitch 11-29	dipswitch dal 11 al 29. (vedere lista sotto)

DIPSWITCH SW

#	PARAMETER NAME	DESCRIPTION
11	**Slow Reverse**	ON = enables the "soft" reversal upon intervention of the photocell contact OFF = disables the "soft" reversal upon intervention of the photocell contact
12	**Test Cyclic**	ON = enables the cyclic maneuver test. (Use TMR Courtesy/2ch to set the pause time) OFF = disables the cyclic maneuver test
13	**Fototest mode**	ON = enables the execution of the phototest only on maneuvers with closed or open automation start. OFF = enables the execution of the phototest from any point where the automation starts a maneuver.
14	**Dis. MAN RC**	ON = manual programming of radio controls disabled OFF = manual programming of radio controls enabled

15	**Dis. PIN RC**	ON = programming via PIN of radio controls disabled OFF = programming via PIN of radio controls enabled
16	**Dis. REM RC**	ON = remote programming of radio controls disabled OFF = remote programming of radio controls enabled

ADVANCED PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr elect. brake	Duration timer of the electronic braking system	100/sec	0 - 255
Tmr ostacle prs	Duration timer of the OBSTACLE's presence signal before turning the alarm off	100/sec	0 - 255
Search zone L.S.	Percentage of additional encoder steps during the search for limit switches in the realignment maneuver	PE	0 - 255
Attempts TCA obs	Number of automatic closing attempts after the detection of an obstacle in the CLOSING PHASE	N°	0 - 255
Tmr check Encod	Duration timer of the encoder's check signals	100/sec	0 - 255
Tmr mask Motor	Duration timer of the operator's alarm masking during the starting phase	100/sec	0 - 255
Tmr post accel.	Duration timer of the power surge check at the end of the acceleration phase	100/sec	0 - 255
PWM ofs battery	Speed increase in case of mains power failure compared to PWM setup	PWM	0 - 255
PWM max setup	Speed limit attainable form the stroke setup procedure	PWM	0 - 255
PWM torque start	Additional PWM (x10) to the standard PWM (open/close) during the initial start	PWM	0 - 255
Extra force BATT.	Additional force in case of power failure	PWM	0 - 255
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr max Overcur.	Limit time set, after which the motor overconsumption signal (maximum current) is recognized as an alarm	100/sec	0 - 255
Setup Push L.S.	Number of the attempts to search for the mechanical stop of the limit switch during the setup procedure	N°	0 - 255
PWM ofs search L.S.	Additional speed (compared to the minimum one) used in the alignment procedure	PWM	0 - 255
Tmr disable SAF	Duration timer of SAFETY inputs' disabling (i.e. SAFETY EDGE) after an intervention	100/sec	0 - 255

K995MA-B CONTROL UNIT PARAMETERS

MOTOR PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
PWM Open	Maximum speed of the automation in the opening manoeuvres	PWM	0-1005
PWM Close	Maximum speed of the automation in the closing manoeuvres	PWM	0-1005
PWM setup OP	Initial speed in the memorization procedure of the opening stroke - it can be increased by the procedure itself which determines the minimum speed necessary to ensure the complete stroke up to the mechanical stop during the opening maneuver	PWM	0-1005
PWM start movem.	Starting speed of every manoeuvre (to which the control unit adds a short initial acceleration)	PWM	0-1005
PWM setup CL	**Initial** speed in the learning procedure of the **closing** stroke – it can be increased by the same procedure that sets the minimum required speed to ensure the complete stroke up to the mechanical stop during the closing manoeuvre	PWM	0-1005
End Approach OP	Final 'slow' opening stroke: it sets the stroke to cover at the minimum speed before the stop on the opening limit switch – a percentage of the total stroke	PE	1-100
End Approach CL	Final 'slow' closing stroke: it sets the stroke to cover at the minimum speed before the stop on the closing limit switch – a percentage of the total stroke	PE	1-100
Limit switch OP	Position of the software limit switch in the opening manoeuvre: it sets the point in which the automation stops in the opening manoeuvre before reaching the mechanical stop	PE	0-255
Limit switch CL	Position of the software limit switch in closing: it determines the point beyond which the encoder will no longer detect the obstacle, but it will recognize the same as a closing limit switch.	PE	0-255
Acceleration OP	Acceleration time from minimum to maximum speed in the opening manoeuvre	100/sec	1-2000
Acceleration CL	Acceleration time from minimum to maximum speed in the closing manoeuvre	100/sec	1-2000
Deceleration OP	Deceleration time from maximum to minimum speed in the opening manoeuvre	100/sec	1-2000
Deceleration CL	Deceleration time from maximum to minimum speed in the closing manoeuvre	100/sec	1-2000
Base power OP	Opening base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255
Base power CL	Closing base power – it expresses the level of 'power' to overcome to detect an obstacle; to the power base it is always added the force detected in the learning stroke procedure plus the FR trimmer value	-	1-255

PWM Approach CL	Once overtaken the software limit switch in the closing manoeuvre,if the 'Push Limit Sw' is in ON, it increases the minimum speed in the closing manoeuvre used to approach the closing mechanical limit switch; It decreases if the DIP is in OFF	PWM	0-1005
PWM Approach OP	Increase of the minimum opening speed used to approach the opening mechanical limit switch, once the software opening limit switch has been passed, if the "Push Limit Sw" DIP is ON; Decrease in case the DIP is OFF	PWM	0-1005
Tmr Approach OP	Pushing time on the opening limit switch for which the "PWM approach OP" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Tmr Approach CL	Pushing time in the closing limit switch for which the "PWM approach CL" minimum speed increase is applied. It is only used if the "Push Limit Sw" DIP is in ON	100/sec	0-255
Limit Obstacle	Additional offset to the standard limit switches to delimit the obstacle detection zone	PE	0-255

"BASIC" PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr Work timeout	Maximum working time (timeout) after which the automation stops even if the manoeuvre has not been completed yet	x10 ms	600-36000
Tmr Courtesy/ 2ch	Activation time of the 'courtesy light' output (if present) of the 2CH output in monostable mode	sec	1-900
Tmr Preflashing	Pre-flashing time	x250 ms	1-100
Tmr TCA	Automatic closing duration timer (TCA)	sec	1-240
Tmr Motor torque	Short acceleration time of the operator	x10 ms	1-250
Tmr back Jump	Return time from the closing limit switch	x10 ms	1-250

Dipswitch 11-29	dipswitch dal 11 al 29. (vedere lista sotto)

DIPSWITCH SW

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15	**Dis. PIN RC**	ON = programming via PIN of radio controls disabled OFF = programming via PIN of radio controls enabled
16	**Dis. REM RC**	ON = remote programming of radio controls disabled OFF = remote programming of radio controls enabled

ADVANCED PARAMETERS

PARAMETER NAME	USE	U.M.	RANGE
Tmr elect. brake	Duration timer of the electronic braking system	100/sec	0 - 255
Tmr ostacle prs	Duration timer of the OBSTACLE's presence signal before turning the alarm off	100/sec	0 - 255
Search zone L.S.	Percentage of additional encoder steps during the search for limit switches in the realignment maneuver	PE	0 - 255
Attempts TCA obs	Number of automatic closing attempts after the detection of an obstacle in the CLOSING PHASE	N°	0 - 255
Tmr check Encod	Duration timer of the encoder's check signals	100/sec	0 - 255
Tmr mask Motor	Duration timer of the operator's alarm masking during the starting phase	100/sec	0 - 255
Tmr post accel.	Duration timer of the power surge check at the end of the acceleration phase	100/sec	0 - 255
PWM ofs battery	Speed increase in case of mains power failure compared to PWM setup	PWM	0 - 255
PWM max setup	Speed limit attainable form the stroke setup procedure	PWM	0 - 255
PWM torque start	Additional PWM (x10) to the standard PWM (open/close) during the initial start	PWM	0 - 255
Extra force BATT.	Additional force in case of power failure	PWM	0 - 255
MAX current motr	Maximum absorption threshold beyond which the control unit detects an alarm (motor over-absorption)		0 - 255
Tmr max Overcur.	Limit time set, after which the motor overconsumption signal (maximum current) is recognized as an alarm	100/sec	0 - 255
Setup Push L.S.	Number of the attempts to search for the mechanical stop of the limit switch during the setup procedure	N°	0 - 255
PWM ofs search L.S.	Additional speed (compared to the minimum one) used in the alignment procedure	PWM	0 - 255
Tmr disable SAF	Duration timer of SAFETY inputs' disabling (i.e. SAFETY EDGE) after an intervention	100/sec	0 - 255

>MOVING LIFE
Via Enrico Fermi, 43 - 36066 Sandrigo (VI) - Italy
Tel +39 0444 750190
info@tauitalia.com - www.tauitalia.com