## ENTRE/MATIC



Ditec DAS107
IP2239EN
Technical Manual
Automation for
sliding doors
(Original instructions)

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## Key

This symbol indicates instructions or notes regarding safety, to which special attention must be paid.

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## 1. General safety precautions <br> 

## Failure to respect the information given in this manual may cause personal injury or damage to the device. <br> Keep these instructions for future reference

This assembly and installation manual is intended exclusively for the use of qualified personnel. Installation, electrical connections and adjustments must be performed by qualified personnel, in accordance with Good Working Methods and in compliance with the current regulations. Read the instructions carefully before installing the product.
Incorrect installation could be dangerous.
The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environ-
ment or left within reach of children, as they are a potential source of danger.
Before installing the product, make sure it is in perfect condition.
Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard.
Before installing the motorisation device, make all the necessary structural modifications to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas.
Make sure the existing structure is up to standard in terms of strength and stability. The motorisation device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorised, or for any deformations during use.
The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account the applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door or gate.
The safety devices must protect against crushing, cutting, trapping and general danger areas of the motorised door or gate.

4Display the signs required by law to identify hazardous areas.
Each installation must bear a visible indication of the data identifying the motorised door or gate.
When necessary, connect the motorised door or gate to an effective earthing system that complies with the current safety standards.
During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.
The automation protection casing must be removed by qualified personnel only.
 The electronic parts must be handled using earthed antistatic conductive arms. The manufacturer of the motorisation device declines all responsibility if component parts not compatible with safe and correct operation are fitted.
Only use original spare parts when repairing or replacing products.
The installer must supply all information concerning the automatic, manual and emergency operation of the motorised door or gate, and must provide the user with the operating instructions.
2. List of tools
Tape measure
Pencil
3mm Allen key
Samm open-end spanner
TORX T20 spanner
Scissors
TOLl

## 3. Contents of the kit



|  | Ref. | Description | Qty |
| :---: | :---: | :---: | :---: |
| BOX - A | 1 | Beam profile $\mathrm{L}=4400 \mathrm{~mm}$ | 2 |
| BOX - B | 14 | Cover profile $L=4400 \mathrm{~mm}$ | 2 |
| BOX - C | 2 | End stop | 2 |
|  | 3 | Power supply unit | 1 |
|  | 4 | Gearmotor | 1 |
|  | 5 | Control panel | 1 |
|  | 7 | Carriage | 4 |
|  | 8 | Belt | 1 |
|  | 9 | Belt connection bracket | 2 |
|  | 10 | Belt restrainer hook | 2 |
|  | 12 | Belt transmission | 1 |
|  | 13 | Carriage anti-derailing device | 4 |
|  | 15 | Cover end plate | 2 |
|  | 16 | Function selector switch COM500MKS | 1 |
|  | 17 | Pair of photocells | 2 |
|  | 18 | Cover supports | 2 |
|  | 19 | Cover restraints | 5 |
|  |  | Connection cables | 3 |
|  |  | Cable fastener | 10 |
|  |  | Cable fastener ties | 15 |
|  |  | M6x16 screws | 4 |
|  |  | Ditec Entrematic logo | 1 |
|  |  | Technical manual | 1 |
|  |  | User manual | 1 |
|  | OPTI | NAL ACCESSORIES |  |
|  | 6 | Batteries DAS901BAT1 | 1 |
|  | 11 | Anti-panic block DAS801LOKA | 1 |
|  | 1 | Standard block DAS801LOK complete with release cord | 1 |

The given operating and performance features can only be guaranteed with the use of DITEC Entrematic accessories and safety devices.
Unless otherwise specified, all measurements are expressed in mm.

## 4. Standard installation



| Ref. | Code | Description |  |
| :---: | :--- | :--- | :--- |
| $\mathbf{1}$ | Ditec DAS107 | Automation for sliding doors |  |
| 2 | COM500MKS | Function selector switch |  |
| 3 |  | Photocells |  |
| 4 |  | Opening sensors |  |

Connect the power supply to an approved omnipolar switch with an opening distance of the contacts of
A at least 3 mm (not supplied). The connection to the mains must be made via an independent channel, separated from the connections to command and safety devices.

## 5. Technical specifications

|  | Ditec DAS107 |
| :--- | :--- |
| Power | $110 \mathrm{~V} \sim \div 220 \mathrm{~V} \sim \pm 10 \% ; 50 / 60 \mathrm{~Hz}$ |
| Rated power | max. 100 W |
| Max. load 1 door wing | 120 kg |
| Max. load 2 door wings | $80 \mathrm{~kg} /$ door wing |
| Temperature | $-20^{\circ} \mathrm{C} /+50^{\circ} \mathrm{C}$ |
| Degree of protection | P 20 |
| Power supply for accessories | $24 \mathrm{~V}=1 \mathrm{~A}$ |
| Max speed | $0,5 \mathrm{~m} / \mathrm{s}(1$ wings $) ; 1.0 \mathrm{~m} / \mathrm{s}(2 \mathrm{wings})$ |
| Intermittance | $\mathrm{S} 3=100 \%$ |
| Minimum number of maneuvers in AVERAGE | 1.000 .000 cycles* $(2 \mathrm{wings} \times 80 \mathrm{~kg} / 1 \mathrm{wing} \times 100 \mathrm{~kg})^{\text {conditions of use }}$ |

* test carried out by Entrematic Italy laboratory


## 6. Assembling the automation

### 6.1 Cutting and preparing the beam

Cut the beam profile to the size shown.
To make it easier to fix the beam to the wall, it is useful to drill holes of $\varnothing 8 \mathrm{~mm}$ every 400 mm .
NB: remove any cutting residue from the aluminium, cleaning the carriage slide guides in particular.


### 6.2 Cutting and preparing the cover

Cut the cover profile to the size shown.


Automation with two door wings


The values shown here are calculated by considering an overlap of $\mathrm{S}=50$

| LT |  | PL |  | LM |  | B |  | C |  | D |  | E |  | F |  | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ＊2400 | N | 940 |  | 520 | ¢ | 80 | $\begin{gathered} n \\ \dot{\omega} \\ \stackrel{\rightharpoonup}{0} \end{gathered}$ | 420 | $\begin{aligned} & \underset{\sim}{N} \\ & \underset{N}{N} \\ & \underset{N}{N} \\ & \stackrel{\omega}{O} \end{aligned}$ | 580 | $\frac{\stackrel{\circ}{\circ}}{\stackrel{\circ}{o}}$ | 960 | $\begin{aligned} & \text { P} \\ & \underset{\text { f}}{ } \end{aligned}$ | 350 |  | 50 |
| ＊2600 | $\stackrel{ \pm}{\sim}$ | 1040 | $\stackrel{\text { d }}{\substack{\text { d }}}$ | 570 |  | 130 |  | 470 |  | 630 |  | 1010 |  | 400 |  | 50 |
| ＊2800 | N | 1140 | $\dot{\sim}$ | 620 |  | 180 |  | 520 |  | 680 |  | 1060 |  | 450 |  | 50 |
| ＊3000 | \％ | 1240 |  | 670 |  | 230 |  | 570 |  | 730 |  | 1110 |  | 500 |  | 50 |
| 2800 |  | 1340 | $\begin{aligned} & \stackrel{-}{\lambda} \\ & i n \\ & \stackrel{\rightharpoonup}{0} \end{aligned}$ | 720 |  | 80 |  | 420 |  | 580 |  | 960 |  | 350 |  | 50 |
| 3000 |  | 1440 |  | 770 |  | 130 |  | 470 |  | 630 |  | 1010 |  | 400 |  | 50 |
| 3300 |  | 1590 |  | 845 |  | 205 |  | 545 |  | 705 |  | 1085 |  | 475 |  | 50 |
| 3600 |  | 1740 |  | 920 |  | 280 |  | 620 |  | 780 |  | 1160 |  | 550 |  | 50 |
| 4000 |  | 1940 |  | 1020 |  | 380 |  | 720 |  | 880 |  | 1260 |  | 650 |  | 50 |
| 4400 |  | 2140 |  | 1120 |  | 480 |  | 820 |  | 980 |  | 1360 |  | 750 |  | 50 |

＊Lenght increased compared to the obatined opening passage due to power supply dimension．



Automation for a single door wing with right-hand opening

The values shown here are calculated by considering an overlap of $\mathrm{S}=50$


| LT | PL |  | LM |  | A | B |  | c |  | D |  | E |  | F | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2000 | 915 | $\begin{aligned} & \underset{\sim}{\overline{1}} \\ & \stackrel{\omega}{\omega} \\ & \dot{N} \\ & \stackrel{\rightharpoonup}{N} \end{aligned}$ | 1015 | $\begin{aligned} & \stackrel{0}{+} \\ & \stackrel{\sim}{\sim} \end{aligned}$ | 30 | 370 | $\begin{aligned} & \hat{\omega} \\ & \vdots \\ & \hat{\theta} \end{aligned}$ | 710 | $\begin{aligned} & \stackrel{-}{1} \\ & \stackrel{1}{3} \\ & \underset{\sim}{u} \\ & \underset{\sim}{\omega} \end{aligned}$ | 870 | $\stackrel{\stackrel{?}{\square}}{\stackrel{\rightharpoonup}{\circ}}$ | 1250 | $\begin{aligned} & \text { f } \\ & \stackrel{\text { N }}{\hat{\circ}} \end{aligned}$ | 40 | 50 |
| 2200 | 1015 |  | 1115 |  | 30 | 470 |  | 810 |  | 970 |  | 1350 |  | 40 | 50 |
| 2600 | 1215 |  | 1315 |  | 30 | 670 |  | 1010 |  | 1170 |  | 1550 |  | 40 | 50 |
| 3000 | 1415 |  | 1515 |  | 30 | 870 |  | 1210 |  | 1370 |  | 1750 |  | 40 | 50 |
| 3300 | 1565 |  | 1665 |  | 30 | 1020 |  | 1360 |  | 1520 |  | 1900 |  | 40 | 50 |
| 3600 | 1715 |  | 1818 |  | 30 | 1170 |  | 1510 |  | 1670 |  | 2050 |  | 40 | 50 |
| 4000 | 1915 |  | 2015 |  | 30 | 1370 |  | 1710 |  | 1870 |  | 2250 |  | 40 | 50 |
| 4400 | 2115 |  | 2215 |  | 30 | 1570 |  | 1910 |  | 2070 |  | 2450 |  | 40 | 50 |



SET MENU 1 コ = П

Automation for a single door wing with left-hand opening


The values shown here are calculated by considering an overlap of $S=50$

| LT |  | PL |  | LM |  | A | B |  | C |  | D |  | E |  | F | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2000 | $\begin{aligned} & \stackrel{N}{\Gamma} \\ & + \\ & \omega_{\sim}^{\prime} \\ & \pm \\ & \hline \end{aligned}$ | 915 |  | 1015 | $\begin{aligned} & \Gamma \\ & \stackrel{\rightharpoonup}{+} \\ & \stackrel{\sim}{u} \end{aligned}$ | 40 | 1780 | $\begin{aligned} & \text { + } \\ & \stackrel{1}{+} \\ & \stackrel{1}{2} \end{aligned}$ | 1440 | $\stackrel{-}{1}$$\stackrel{1}{3}$$\vdots$$\vdots$+$\pm$$J$$\vdots$$\vdots$ | 1280 | $\frac{\stackrel{\rightharpoonup}{a}}{\stackrel{\rightharpoonup}{o}}$ | 900 | $\begin{aligned} & 0 \\ & \text { í } \\ & \text { t } \end{aligned}$ | 120 | 50 |
| 2200 |  | 1015 |  | 1115 |  | 40 | 1880 |  | 1540 |  | 1380 |  | 1000 |  | 120 | 50 |
| 2600 |  | 1215 |  | 1315 |  | 40 | 2080 |  | 1740 |  | 1580 |  | 1200 |  | 120 | 50 |
| 3000 |  | 1415 |  | 1515 |  | 40 | 2280 |  | 1940 |  | 1780 |  | 1400 |  | 120 | 50 |
| 3300 |  | 1565 |  | 1665 |  | 40 | 2430 |  | 2090 |  | 1930 |  | 1550 |  | 120 | 50 |
| 3600 |  | 1715 |  | 1815 |  | 40 | 2580 |  | 2240 |  | 2080 |  | 1700 |  | 120 | 50 |
| 4000 |  | 1915 |  | 2015 |  | 40 | 2780 |  | 2440 |  | 2280 |  | 1900 |  | 120 | 50 |
| 4400 |  | 2115 |  | 2215 |  | 40 | 2980 |  | 2640 |  | 2480 |  | 2100 |  | 120 | 50 |




### 6.3 Assembling the carriages

Assemble the anti-derailing wheel [13] on the carriages, in the position shown in the figure.


### 6.4 Assembling the transmission

Position the transmission as shown at page 11, 12, 13 in position [F].


### 6.5 Assembling the belt

Insert the belt in the motor pulley (to make this operation easier, turn the pulley).
Wrap the belt around the transmission.
Join the belt ends in line with the belt connection brackets [9], and lock it in place with the belt restrainer hook [10]. Cut off any excess.

Example for an automation with two door wings


### 6.6 Installing the door wing block (optional)

The door wing blocking device can be fitted to keep the door closed.
The automation automatically recognises the blocking device and acts properly.

- Fasten the door wing blocking device inside the box by means of the screws supplied.
- Place the door wing in the closure position.
- Check that, with the door closed, the block is resting correctly on the block hook-up bracket, preventing the door from sliding.
- Make the electrical connections as explained in chapter 8.1.

For more information, refer to the blocking device manual.


### 6.7 Installing the end stops

Insert the end stops [2] in the beam profile and fix them in place.
Refer to the images on pages 11-12-13 for the correct positioning.

## LEFT



RIGHT


### 6.8 Assembling the cover supports

Insert the cover supports [19] in the cover profile and fix them in place (A) near the end plate, as shown in the figure.
Use the screws supplied to fix the heads to the casing profile, as shown.
Insert the cover restraints (20) along the cover profile.
To fix the cover to the beam, push up the support 18, insert it in the beam and fix it by screws (B).


Insert the cover support (18) at the ends of the guide of the cover.
Screw the end plate (15) to the cover.


## 7. Installing the automation

### 7.1 Beam fastening

- Establishing the fixing height from the highest point of the finished floor.
- Measure the height, including the door wing connection. The installation height is equal to $\mathrm{HM}+40 \mathrm{~mm}$.
- Fix the beam profile in the points indicated, using wall plugs and bolts. NB: the heads of the screws/bolts must not be more than 6.5 mm .
- Distribute the fixing points every 400 mm , and at different heights if necessary.
- Make sure the top surface of the beam is perpendicular with the floor and not deformed lengthwise with the shape of the wall. If the wall is not straight and smooth, iron plates must be fixed to it and then the guide in turn fixed to the plates.

NOTE: the maximum space for the wings between cover and beam is 65 mm .
WARNING: The fastening of the beam to the wall must be suitable in order to sustain the weight of the door wings.

7.2 Installing and adjusting the door wings

Fix the carriages to the door wings as shown in the figure.


AUTOMATION WITH ONE DOOR WING WITH RIGHT-HAND OPENING


The vertical position of the door wing can be adjusted, as shown in the figure.
Loosen the screws [A] and adjust the height with the screws [B].
Move the door wing manually to make sure the movement is free and without friction, and that all the wheels (including the anti-derailing wheel) are resting on the guide.


### 7.3 Adjusting the belt

Adjust the belt tension by means of the screw [A].
WARNING: incorrect adjustment impairs the correct functioning of the automation.


## 8. Electrical connections

AConnect the automation to an efficient earthing system that complies with current safety standards.
During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.
The automation protection casing must be removed by qualified personnel only.
An omnipolar disconnection switch with a contact opening distance of at least 3 mm must be fitted on the mains supply.
Check there is an adequate residual current circuit breaker and overcurrent cut-out upstream of the electrical system.
Make sure the yellow/green conductor is at least 3 mm longer than the brown and blue conductors.
Install an electric switch next to the automatic system.

- Connect an electric cable - type H05RN-F 3G1,5 or H05RR-F 3G1,5 - to the terminals L (brown), N (blue), $(\underset{)}{(\text { lyellow/green) on the power supply connector. }}$
Make sure there are no sharp edges that may damage the power supply cable.
If the power cable is damaged, have it replaced by the manufacturer or qualified personnel.
- Connect the power cable [1] to the terminal board [2].
- Connect the connection cable [3] to the power supply unit [4].



## Power supply



### 8.1 Control panel commands

Jumper the unused NC contacts


NOTE: Power supply output for external accessories $24 \mathrm{~V}=1 \mathrm{~A}$. The maximum absorption of 1 A corresponds to the sum of all terminals power supply output.

### 8.1.1 Commands

| Contact |  |  | Description |
| :---: | :---: | :---: | :---: |
| 1 - - 5 | N.O. | OUTER SIDE OPENING | Connect the external sensor. <br> The closure of the contact activates the door opening operation. |
| $\begin{aligned} & 10- \\ & 7 \bullet \end{aligned}$ |  | POWER SUPPLY <br> T0 <br> ACCESSORIES | Power supply to the external sensor. |
| $8-1$ | N.C. | REVERSAL SAFETY CONTACT 1 | Connect safety photocell and inner safety sensor contact. |
| $8 \longrightarrow 11$ | N.C. | REVERSAL SAFETY CONTACT 2 | Connect safety photocell and outer safety sensor contact. |
| 8 -_- 12 | N.O. | KEY OPENING | The closure of the contact via a key command activates an opening operation and a closure after time selected by menu 04.Can be used for opening in night/CLOSED mode. In presence of power supply, a command $8-12$ opens the door partially / see menu 11) and closes after time selected by menu 04. In the absence of a power supply, a command $8-12$ causes the reactivation of the battery for the time needed to carry out a total opening operation.The door remain in open position and the battery disconnected from control unit. |


| $\begin{aligned} & 8 \bullet- \\ & 14 \bullet- \end{aligned}$ |  | POWER SUPPLY TO <br> ACCESSORIES | Power supply to the photocells. |
| :---: | :---: | :---: | :---: |
| 15 _ 16 | N.O. | OPENING INNER SIDE | Connect the internal sensor. <br> The closure of the contact activates the door opening operation. |
| $\begin{aligned} & 15 \bullet- \\ & 17 \bullet- \end{aligned}$ |  | POWER SUPPLY TO <br> ACCESSORIES | Power supply to internal sensors. |
| $18 \longrightarrow 19$ |  | BLOCKING DEVICE <br> CONNECTION | Output for connecting an electro-mechanical block (optional). The blocking device is automatically selected during the learning phase (see parameter 0 ) |

## 9. Adjustments

- 1 UP: To step up in parameter or value menu;
- 2 SELECT: Enters into parameters or value menu and program a value into menu;
- 3 DOWN: To step down in parameter or value menu;
- 4 LEARN/EXIT:
a) LEARN has 2 functions:
- Pushing it for more than 2 seconds the display show "L" for enable a learning phase.
- Pushing it for more than 10 seconds the displat show "L" for return to default factory set parameters.
b) EXIT jumps out from value menu without saving or parameter menu


The two-digit display show $\square \cap$ when the operator is powered.

### 9.1 Adjusting the parameters

1. Press key 2-SELECT to visualize the first parameter.
2. Press key 1-UP or key 2-DOWN to select the required parameter.
3. Press key 2 -SELECT again to view the value of the selected parameter. The value will flash twice.
4. Press key 1-UP or key 2-DOWN again to set a permitted parameter value.
5. Press key 2-SELECT to confirm the selected value.
6. Press key 4-LEARN/EXIT to quit without making any further modifications.
7. Press key 4-LEARN/EXIT again to quit the parameter selection. The display will show $\square \cap$. The display goes back to normal operation $\square \sqcap$ after 3 min of inactivity.

### 9.2 Restoring the factory settings

To restore the factory settings, press key 4 -LEARN for 10 s . The display will flash with $L$. The successful restoration of the predefined parameters is confirmed by $\square \sqcap$.

## 10. Start-up

Start-up must be carried out in the following order when the operator is installed
To allow a correct learning of door weight, the "learning phase" must performed with door leaf installed.

- Connect the accessories and jumper the N.C contact 8-9 and 8-11 if not used;
- Connect the mains power supply to the control unit;
- Select the opening direction by menu 12;
- Connect the battery kit DAS901BAT1 if present;
- Push the learn button for 2 seconds and release it when there is a flashing "L" in the display.

During the learning phase, the following accessories/parameters are automatically detected:

- Batteries
- Blocking device and type of blocking device
- Measurement of the passage opening
- Calculation of the door wing weight

When the learn is finished the display can show parameter 67. It is necessary to confirm the number of installed wings:

1) press 2-SELECT
2) press 2 -SELECT again. The value 67 will flashes
3) press 1-UP or 2-DOWN to select the required value
4) press 2-SELECT to confirm the selected value
5) press 4-LEARN for more than 2 s to return the display "on" mode. After 2 s the automation closes and is ready for normal operation.

NOTE:
If the door cannot perform a correct learning phase due to mechanical reason the display could show menu numbers messages that are not present in the standard menu. Remove the mechanical obstacles and restart again the learning sequence.

If necessary, you can adjust the following main parameters:


Make sure the installation complies with the current regulations and the essential requisites laid down by the relevant authorities.

### 10.4 Description of the parameters

i
In the "INSTALLATION SETTINGS" column you can note the modified setting values.

| Display | Description | Factory setting | Installation setting |
| :---: | :---: | :---: | :---: |
|  | Opening speed selection ( $10 \div 70 ; 10=10 \mathrm{~cm} / \mathrm{s} ; 70=50 \mathrm{~cm} / \mathrm{s})$ Sets the maximum opening speed. | $4$ |  |
|  | Closing speed selection ( $10 \div 70 ; 10=10 \mathrm{~cm} / \mathrm{s} ; 70=50 \mathrm{~cm} / \mathrm{s}$ ) <br> Sets the maximum closing speed. | AUTO |  |
| $\square \sqsupset$ | Automatic closing time selection ( $00 \div 60 \mathrm{~s}$ ) <br> Adjusts the time during which the automation remains open following an internal or external opening command. | $17$ |  |
| $54$ | Selection of automatic closing time after a "KEY" command $100 \div 60$ s) <br> Adjusts the time during which the automation remains open following a key opening command "KEY". | $[1$ |  |
| $\square \square$ | Block type selection ( $00 \div 05$ ) <br> $00=$ no blocking device <br> 01 = DO NOT USE <br> 02 = DO NOT USE <br> 03 = anti-panic blocking device <br> 04 = standard blocking device <br> 05 = DO NOT USE | AUTO |  |
|  | Closure thrust before opening operation ( $00 \div 01$ ) <br> $00=$ Disabled <br> $01=$ Enabled <br> If this function is enabled (01), the automation applies a closure thrust to guarantee the correct release on the opening of the electric lock, if the selector is set on CLOSED DOOR or ONE WAY. | AUTO |  |
| $17$ | Configuration of photocells $1(00 \div 01)$ $\begin{aligned} & 00=N O \\ & 01=N C \end{aligned}$ | $11$ |  |
| $\square \square$ | Configuration of photocells $2(00 \div 01)$ $\begin{aligned} & 00=N O \\ & 01=N C \end{aligned}$ |  |  |
| $11$ | Partial opening selection (00 $\div 99 \%$ ) | $\square \square$ |  |
| $1 \beth$ | Opening direction selection ( $00 \div 01$ ) <br> The opening direction is determined by the position of the belt connecting bracket. <br> $00=$ right hand opening for single door wing automation. <br> $01=$ left hand opening for single door wing automation and for double door automations. | T1 |  |
| 1 I | Acceleration and braking performance ( $01 \div 05$ ) <br> $01=$ minimum performance <br> $05=$ maximum performance | $[3$ |  |


| Display | Description | Factory setting | Installation setting |
| :---: | :---: | :---: | :---: |
|  | Selection of the battery $(00 \div 01)$ $\begin{aligned} & 00=\text { No battery } \\ & 01=12 \mathrm{~V} \end{aligned}$ | AUTO |  |
|  | Adjustment of the opening delay with blocking device $(00 \div 99 \mathrm{~s} \times 0.1)$ <br> Adjusts the opening delay time when a blocking device is installed, if the selector is set on CLOSED DOOR or ONE-WAY. |  |  |
|  | Close kick force <br> The force applied from the operator to the door leaf during the close kick ( $00-19 \mathrm{~N} \times 10$ ). |  |  |
|  | Selection of number of wings $(00 \div 01)$ <br> $00=$ Automation with one door wing <br> 01 = Automation with two door wings | $\begin{gathered} \text { TO } \\ \text { BE SET } \end{gathered}$ |  |

## 11. Example of connection

11.1 Example of connection with opening radar and photocell

11.2 Example of connection with opening + safety sensors PASAA2


PASAA2 INNER SENSOR


## PASAA2 OUTER SENSOR



Set the selection DIP switches on selector PASAA2 as shown below:

IP2239EN-2016-05-11

If used also photocell in combination with sensors:

- not connect the blue wire of sensor to terminal15;
- not connect the NPN wire of photocell receiver to terminal 9;
- connect the blue wire of sensors and the NPN wire of receiver togheter.

NOTE: the safety sensors work in normal mode, without possibilities of the testing of the safety contact.
11.3 Example of connection with opening +safety sensors PAS024AS


PASO24AS INNER SENSOR


PAS024AS OUTER SENSOR


If used also photocell in combination with sensors:

- not connect the grey wire of sensor to terminal15;
- not connect the NPN wire of photocell receiver to terminal 9;
- connect the grey wire of sensors and the NPN wire of receiver togheter.

NOTE: the safety sensors work in normal mode, without possibilities of the testing of the safety contact.

## 12. Troubleshooting / alarms

| Problem |
| :--- |
| Solution  <br> The automation doesn't open and <br> the motor doesn't start up Check and change the functions selector switch settings. <br> Make sure there are no objects on the sensor's detection path. <br> Check the power supply switch inside the building.  <br> The motor starts up but the auto- <br> mation doesn't open Check any locks, releasing them if necessary. <br> Make sure there are no objects hindering the opening of the automa- <br> tion. <br> The automation doesn't close Check and change the functions selector switch settings. <br> The automation opens and closes  <br> by itself. Make sure there are no objects on the sensor's detection path. <br> area. |

### 12.1 Alarms

- The control panel display shows error signals.
- During normal operation, the display shows $\square \square$.
- If the display is switched off, check the mains power supply and the power cable, then RESET from the function selector switch. Alternatively, disconnect the power supply and then reconnect it. If the problem persists, replace the control panel or power supply unit.
- When there is an alarm, the display alternates the error type (e.g. E 4 - Motor error) with a 2-figure number indicating the specific error (e.g. $\square \exists$ - Encoder error).
- If there are several errors, they will be visualised in alphabetic order and in sequence.
- On each control panel there is a green LED.
- If this LED is switched off or flashing, this means the control panel is malfunctioning.

| E2 - Emergency battery error | Solution |  |
| :--- | :--- | :--- |
| Error | Cause | Recharge or replace the batteries. |
|  | Emergency battery error. <br> The batteries are almost completely worn down. | Replace the control panel. |
|  | Emergency battery error. <br> The battery voltage is incorrect. | Battery error. <br> The batteries are disconnected or short-circuit- <br> ed, or the internal thermal fuse is faulty. <br> The power supply current of the batteries does <br> not comply with the specifications. | | Recharge or replace the batteries. |
| :--- |


| Error | Cause | Solution |
| :--- | :--- | :--- |
| 24 V output overcurrent error． | Make a RESET．If the problem persists，check <br> the sensors and accessories connected to the <br> 24 V output． |  |

E4－Motor／encoder error

| Error | Cause | Solution |
| :--- | :--- | :--- |

E6－Communication error

| Error | Cause | Solution |
| :--- | :--- | :--- |
|  | Motor control communication error． <br> Motor control processor disconnected from the <br> circuit． | Make a RESET．If the problem persists，replace <br> the control panel． |
| Communication error on the function selector <br> switch． | Make a RESET．If the problem persists，replace <br> the function selector switch． <br> Fircuit． |  |

E7－Motor temperature error

| Error | Cause |
| :--- | :--- |
| The automation work cycle is too high for the |  |
| speed and open automation time settings． |  |

## Solution

If the motor is hot，bring the automation to OPEN DOOR mode and wait for at least 1 minute． Reduce the speed and increase the open auto－ mation time．

## IMPORTANT

After removing the fault or replacing the automation components，check the following：
1．the movement of the door ladjust the necessary parameters so that the door works cor－ rectly）；
2．the parameters relating to accessories have been correctly set；
3．the installation complies with local laws and the minimum requisites of the relevant authori－ ties．

## 13. Routine maintenance plan

Perform the following operations and checks every 6 months, according to the intensity of use of the automation.
Without any power supply from the mains or from batteries:

- Clean and lubricate the mobile parts (the carriage slide guides and the floor guides).
- Check the belt tension.
- Clean sensors and photocells.
- Check the stability of the automatic system and make sure that all screws are correctly tightened.
- Check the correct alignment of the door wings, the position of the end stops, and the correct triggering of the blocking device (if installed).
After restoring the power supply from the mains or batteries:
- Check the blocking device is working correctly (if installed).
- Check the stability of the automation, and make sure it moves smoothly.
- Check that all control functions are operating correctly.
- Make sure the command and safety sensors are working correctly.

NB: for spare parts, see the spares price list.

1 Only use original spare parts when repairing or replacing products.

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