Last version of this manual

IP2282EN • 2026/09/15



Technical Manual

Ditec DAS107PLUS

Automation for sliding doors

(Translation of the original instructions)

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Key

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

This symbol indicates useful information for the correct functioning of the product.

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GENERAL SAFETY PRECAUTIONS FOR TECHNICAL PERSONNEL

WARNING! Important safety instructions • Please follow these instructions carefully • Failure to observe the information given in this manual may lead to severe personal injury or damage to the equipment • Keep these instructions for future reference.

WARNING! During maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts • The protection cover of the operator must be removed by qualified personnel only • This manual and those for any accessories can be downloaded from www.ditecautomations.com

This installation manual is intended for qualified personnel only • 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. Wrong installation could be dangerous • Before installing the product, make sure it is in perfect condition • The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as they are a potential source of danger • Do not install the product in explosive areas and atmospheres: the presence of inflammable gas or fumes represents a serious safety hazard • Make sure that the temperature range indicated in the technical specifications is compatible with the installation site • Before installing the motorization device, make sure that the existing structure, as well as all the support and guide elements, are up to standards in terms of strength and stability. Verify the stability and smooth mobility of the guided part, and make sure that no risks of fall or derailment subsist • Make all the necessary structural modifications to create safety clearance and to guard or isolate all the crushing, shearing, trapping and general hazardous areas • The motorization device manufacturer is not responsible for failure to observe Good Working Methods when building the frames to be motorized, or for any deformation 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 motorized door or gate • The safety devices must protect against crushing, cutting, trapping and general danger areas of the motorized door or gate. Display the signs required by law to identify hazardous areas • Each installation must bear a visible indication of the data identifying the motorized door or gate • Before connecting the power supply, make sure the plate data correspond to those of the mains power supply • For devices that are permanently connected to the mains supply, an omni polar disconnection switch with a contact opening distance of at least 3 mm must be fitted on the mains supply. Check that there is an adequate residual current circuit breaker and a suitable overcurrent cutout upstream of the electrical installation in accordance with Good Working Methods and with the laws in force • When requested, connect the motorized door or gate to an effective earthing system that complies with the current safety standards • The electronic parts must be handled using earthed antistatic conductive arms • The manufacturer of the motorization declines all responsibility if component parts not compatible with safe and correct operation are fitted • Only use original spare parts for repairing or replacing products • Before commissioning the installation to the end user, make sure that the automation is adequately adjusted in order to satisfy all the functional and safety requirements, and that all the command, safety, and manual release devices operate correctly • The installer must supply all information concerning the automatic, manual and emergency operation of the motorized door or gate, and must provide the user with the operation and safety instructions.

Declaration of incorporation of partly completed machinery
(Directive 2006/42/EC, Annex II-B)

We:
ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44 Landskrona
Sweden

Declare under our sole responsibility that the type of equipment with name:

Ditec DAS107PLUS	Sliding door operator, sold also in kit form as articles DAS107K1PN, DAS107K2P

Comply with the following directives and their amendments:

2006/42/EC	Machinery Directive (MD) for the following essential health and safety requirements: 1.1.2, 1.1.3, 1.2.1, 1.2.2, 1.2.3, 1.2.4.2, 1.2.6, 1.3.9, 1.4.3, 1.7.2, 1.7.3, 1.7.4, 1.7.4.1, 1.7.4.2.
2014/30/EU	Electromagnetic Compatibility Directive (EMCD)
2011/65/EU	Restriction of hazardous substances (RoHS 2)
2015/863/EU	Restriction of hazardous substances (RoHS 2 Amendment)

Harmonized European standards that have been applied:

EN 60335 -1:2012/A5:2021	EN ISO 13849 -1:2015	EN 61000 -6-2:2005
EN 60335-2-103:2015	EN 16005:2023 + A1:2024	EN 61000 -6-3:2007+A1:2011

Other standards or technical specifications that have been applied:

IEC 60335-1: 2010 ed.5 + Corr 1:2010, + Corr. 2:2011	IEC 60335-2-103:2006+A1:2010
DIN 18650-1:2010	

EC type examination or certificate issued by a notified or competent body concerning the equipment:
TÜV SÜD B 058029 0050

The manufacturing process ensures the compliance of the equipment with the technical file.

The equipment must not be used until the final installed automatic entrance system has been declared in compliance with the Machinery Directive 2006/42/EC.

Responsible for technical file:
Matteo Fino
Ditec S.p.A.
Largo U. Boccioni, 1
21040 Origgio (VA)
Italy

Signed for and on behalf of ASSA ABLOY Entrance Systems AB by:

Place	Date	Signature	Position
Origgio	2026/09/15	Matteo Fino	CEO Ditec



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Machinery Directive

According to the Machinery Directive (2006/42/EC), the installer who motorises a door or gate has the same obligations as the manufacturer of a machine, and as such must:

- prepare the technical documentation, which must contain the documents indicated in Annex V of the Machinery Directive;
- (the technical documentation must be kept and made available to the competent national authority for at least ten years, starting from the date of construction of the motorised door);
- draw up the EC statement of conformity according to Annex II-A of the Machinery Directive and hand it over to the customer;
- affix the EC marking to the motorised door in accordance with point 1.7.3 of Annex I of the Machinery Directive.
- ensure compliance of the motorised door or gate with safety regulations, by installing the necessary safety devices;

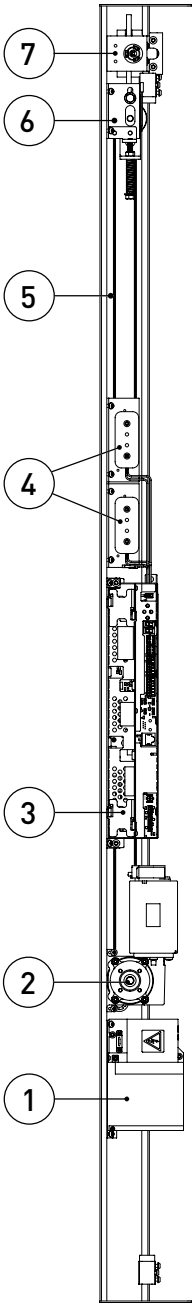
Revision

Following chapters have been revised:

Ref.	**Rev.** 2025/06/10 → 2026/09/15
2.5	Added examples of possible beam fastenings
2.7	Added adjustment information for the carriage and modified the carriage positioning dimension
6	Updated startup parameter settings
7.2	Added information on parameter 13,34,65.

1. Technical specifications

Power supply	100 V~ / 240 V~ (-10%/ +10%) 50/60 Hz
Power consumption	100 W Max
Power supply rated power	75 W
Opening speed (2 door wings)	1 m/s
Closing speed (2 door wings)	1 m/s
Maximum load	1 wing - 120 kg 2 wings - 160 kg (80+80 Kg)
Intermittence	S3= 100%
Temperature	-20 °C +50 °C
Degree of protection	IP20 (for internal use only)
Power supply for accessories	24 V⎓ 0,64 A
Durability test	1.000.000 cycles



1.1 Main components

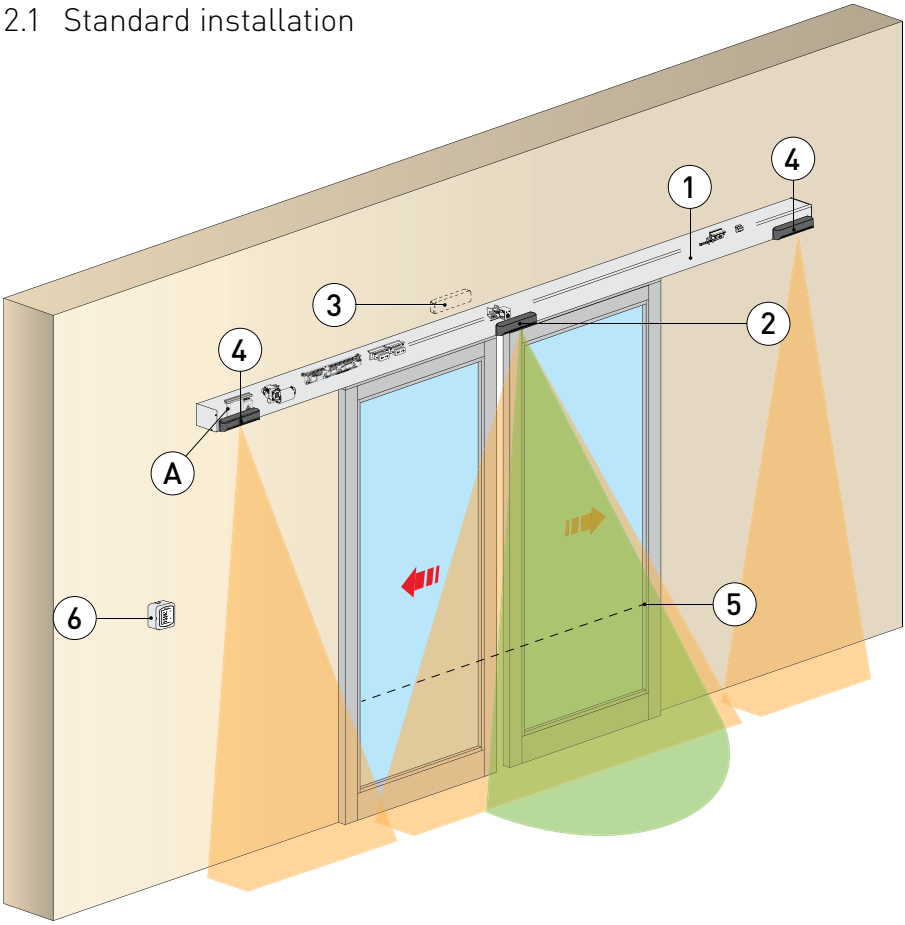
Ref.	Code	Description
1	**1DAS1ALP2**	75 W power supply unit
2	**1DAS1MR**	Gearmotor
3	**1DAS1QEP**	Control panel
4	**DAS901BAT1** **DAS902BAT2**	12 V batteries (optional, set parameter 43= 05) 24 V batteries (optional, the fuse in the cable harness is T10A)
5	**DAS802B50**	Drive belt
6		Belt transmission
7	**DAS801LOK** **DAS801LOKA**	Lock with external lock release lever Anti-panic lock

NOTE: the given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

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2. Installation

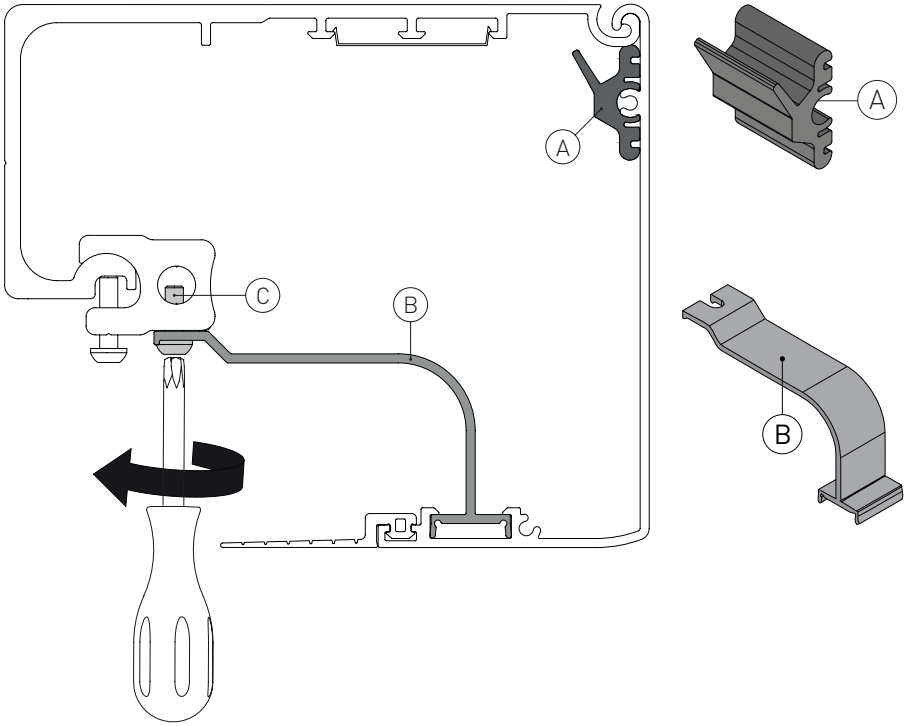
2.1 Standard installation



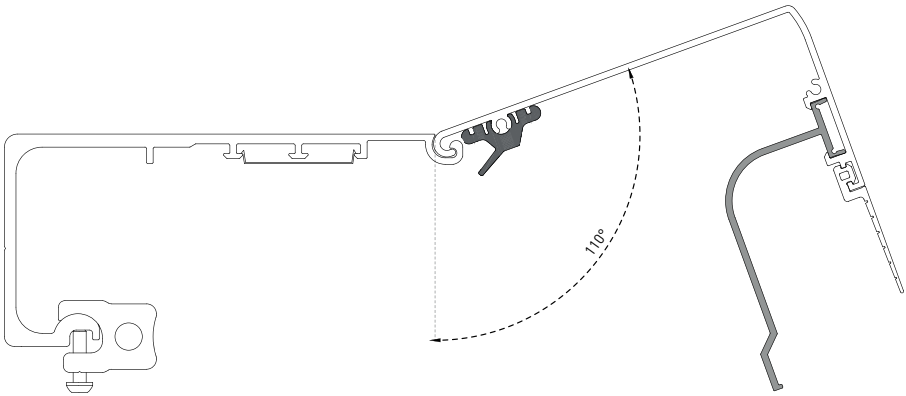
Rif.	Description
1	Automation for sliding doors
2 3	Combined opening and safe closing sensor
4	Safe opening sensor
5	Safety photocell
6	Function selector switch
A	Connect the power supply cable to a type-approved omnipolar switch with category III insulation and a contact opening distance of at least 3mm. The connections to the mains and low voltage wires must be made on an independent channel separated from the connections to the command and safety devices (SELV = Safety Extra Low Voltage).

2.2 Removing and installing the cover

To remove the cover, unscrew the screw C and release the cover supports B, extract the clips A and lift the cover to remove it. Without extracting the clips A the cover cannot be removed

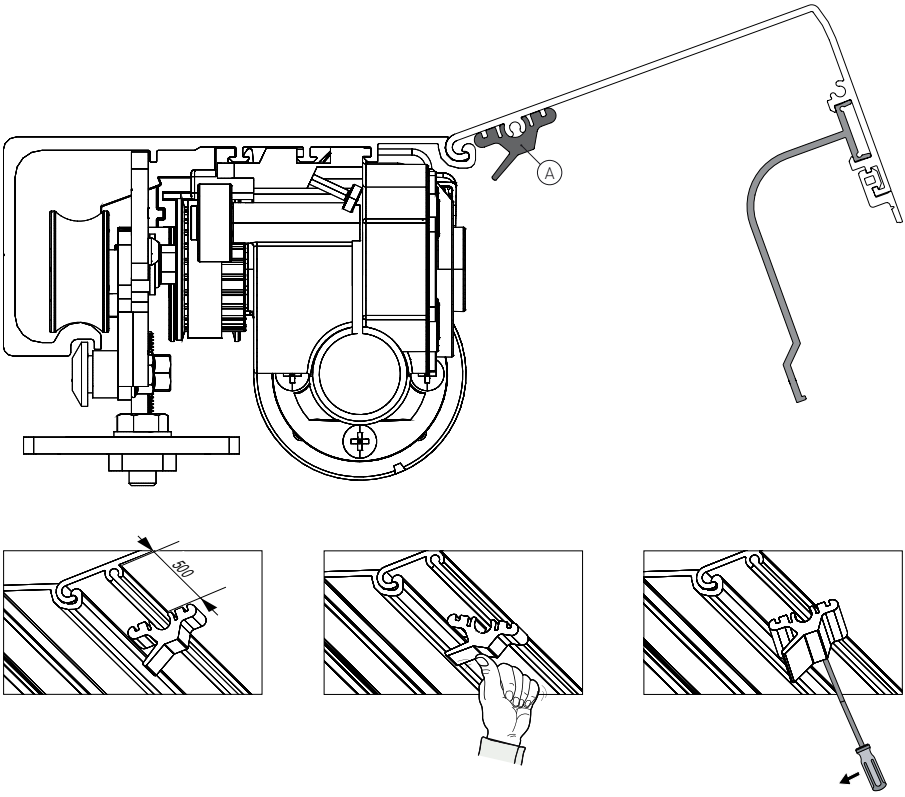


2.3 Cover rotation



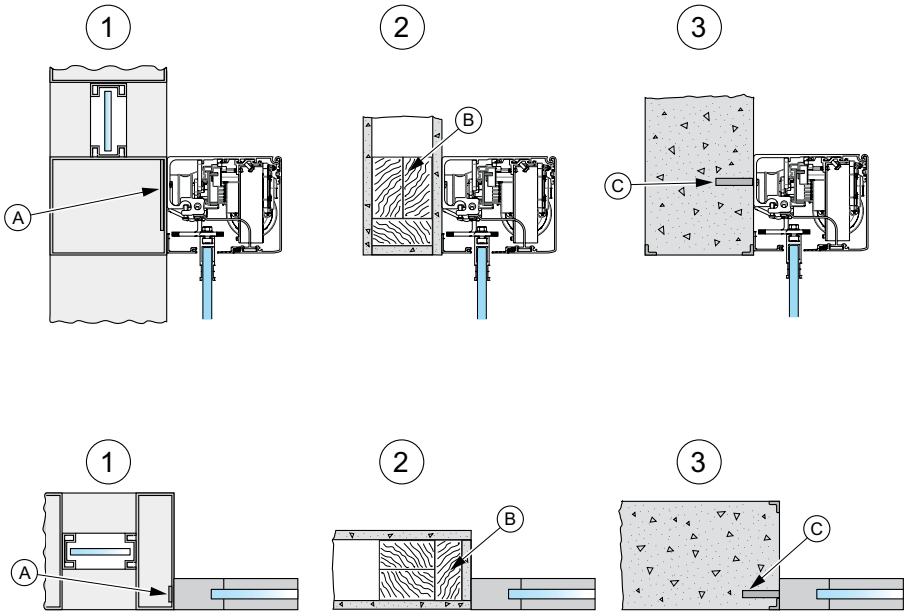
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2.4 Inserting and removing cover clips [A]



3. Installation examples

3.1 Examples of possible fastening of the beam



1. Aluminium profile system
2. Plasterboard wall
3. Reinforced concrete wall and brick wall

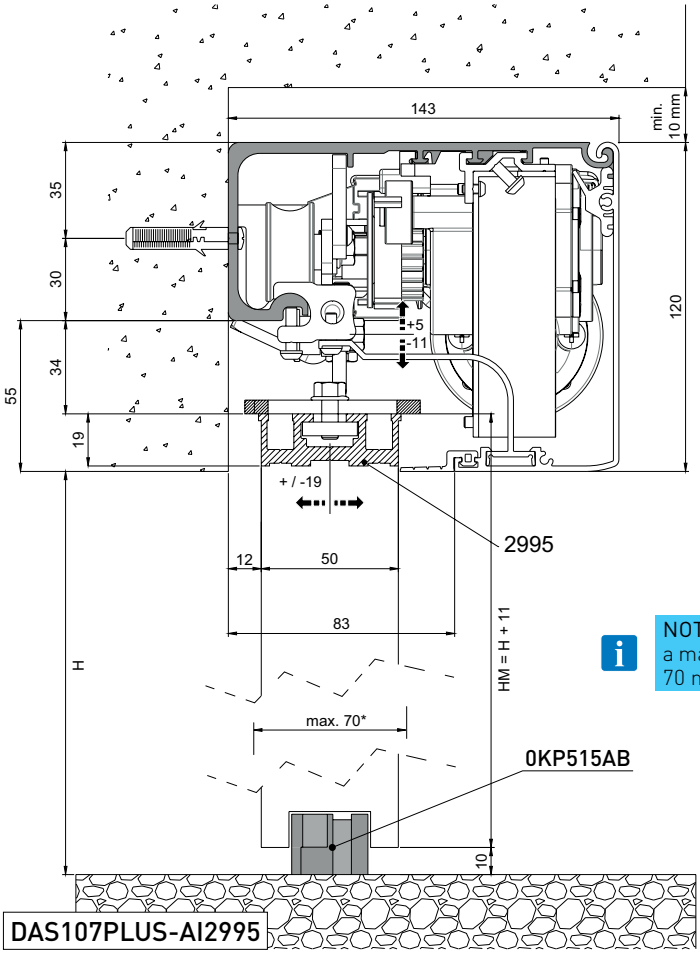
a. Steel or aluminium reinforcement or rivet nut
b. Wood reinforcement**
c. Expansion-shell bolt (for brick wall min. M6x85)

Base material	Minimum requirements of wall profile
Steel	5 mm*
Aluminum	6 mm*
Reinforced concrete	min. 50 mm from the underside
Wood	50 mm
Brick wall	Expansion shell bolt,min. M6x85. Min. 50 mmf rom the underside

* Thinner wall profiles, not less than 2mm, must be reinforced with rivet nuts.

** The fixing screw to the operator beams hall not go into the gap between the upper and lower wooden beam.

3.2 Fastening of box using supplied wing anchoring brackets



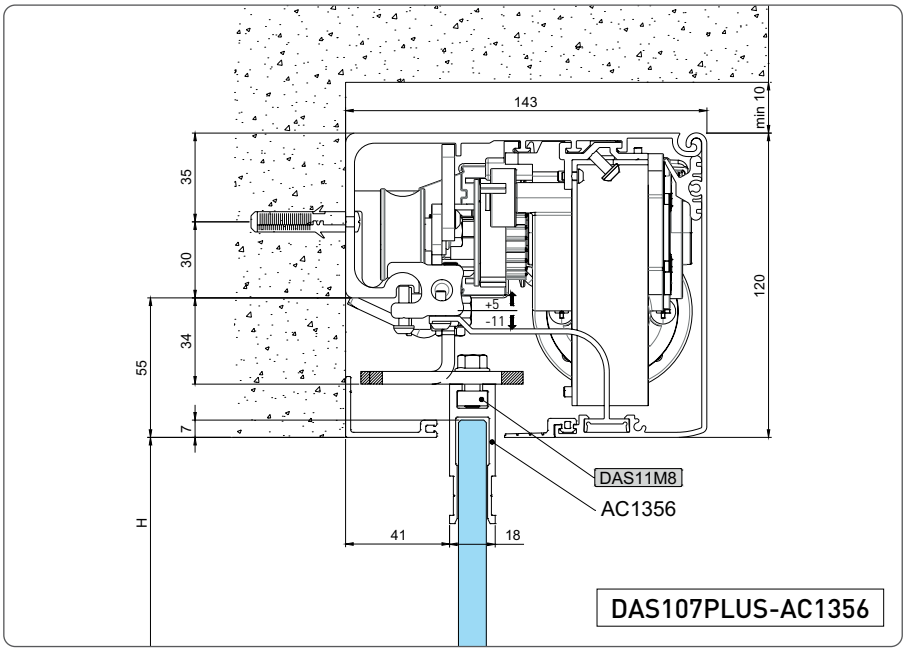
NOTE*: use doors with a maximum thickness of 70 mm

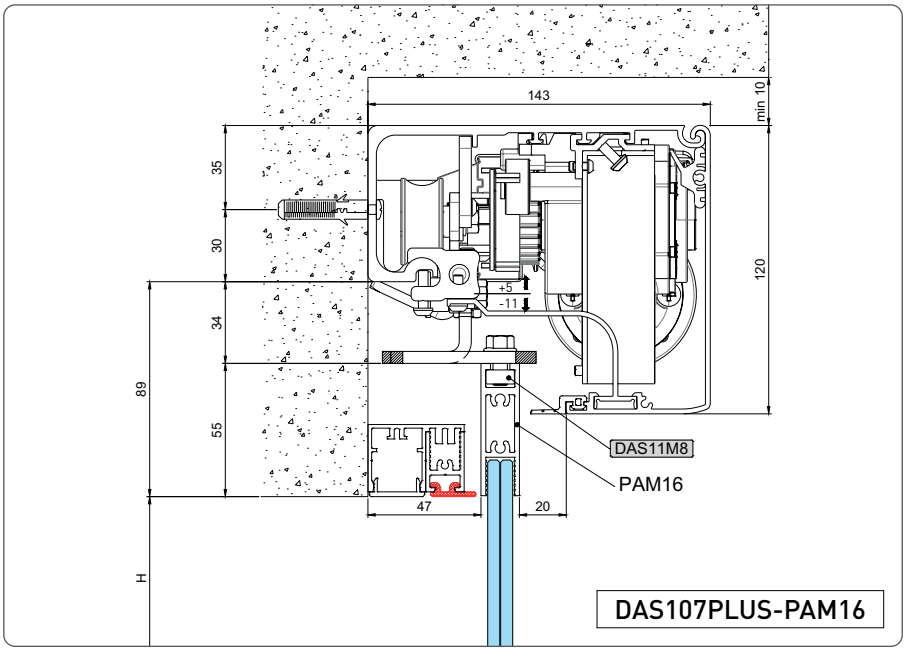
Unless otherwise specified, all measurements are expressed in millimetres (mm). The figure shows the measurements for fastening the DAS107PLUS automation to the wall, considering that the automation door wings are made using profiles not manufactured by us. If the door wings are made with DITEC profiles in the ALU/PAM series: refer to the measurements given in the relative manuals. Drill a hole in the box using the reference line on the back and fasten it with M6 Ø12 steel plugs or 6MA screws (not supplied). Distribute the fixing points approx. every 400 mm. Make sure the box is positioned evenly, with its back surface perpendicular to the floor and not deformed lengthwise by the shape of the wall. If the wall is not straight and smooth, iron plates must be fixed to it and then the box in turn fixed to the plates.

WARNING: the fastening of the box to the wall must be sufficient to sustain the door wing weight.

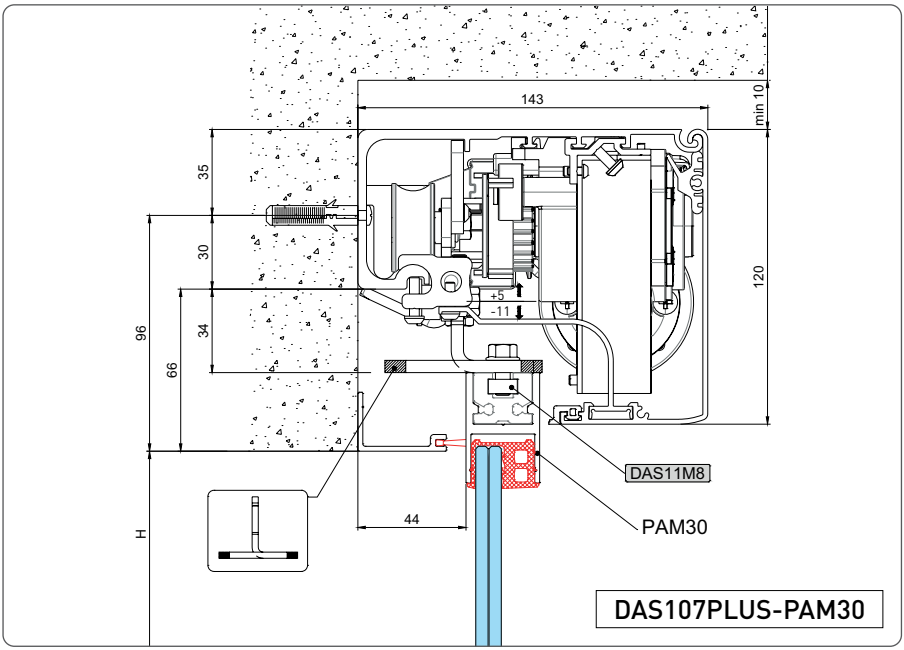
WARNING: do not damage the wheel guide during assembly.
Clean the guide thoroughly before installing the wings.

3.3 Examples with DAS11M8

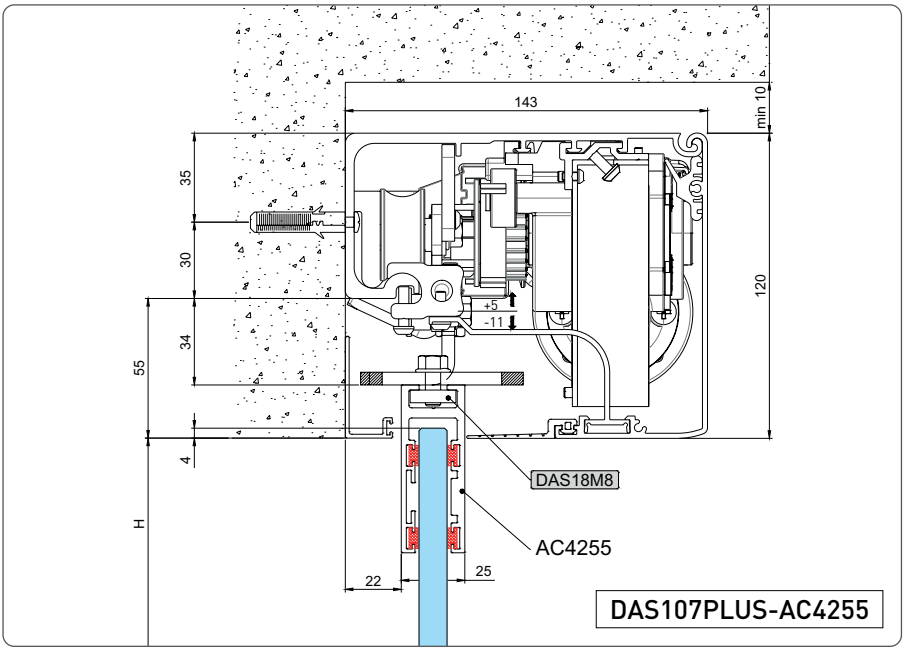


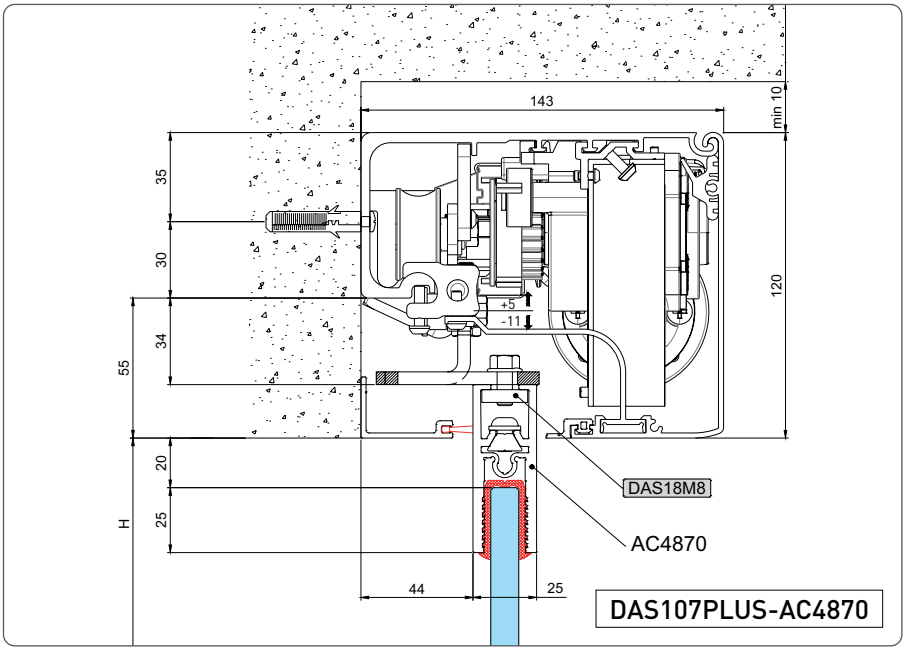


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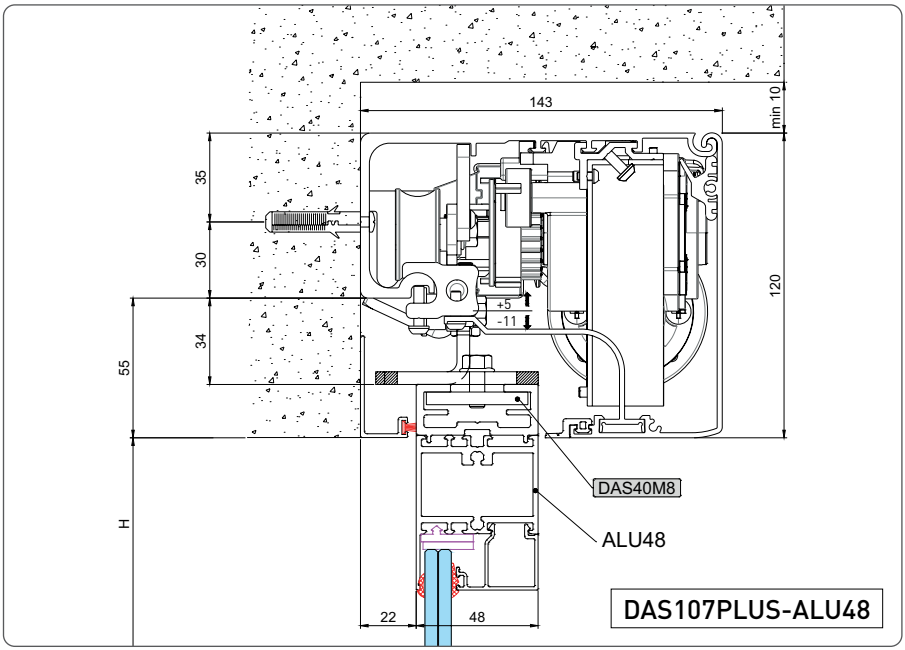


3.4 Examples with DAS18M8



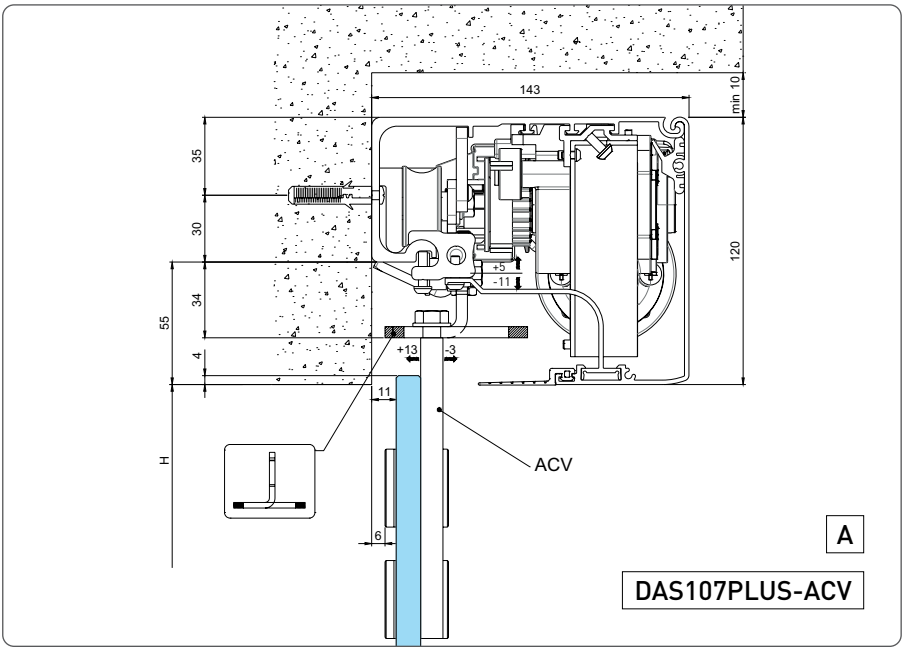


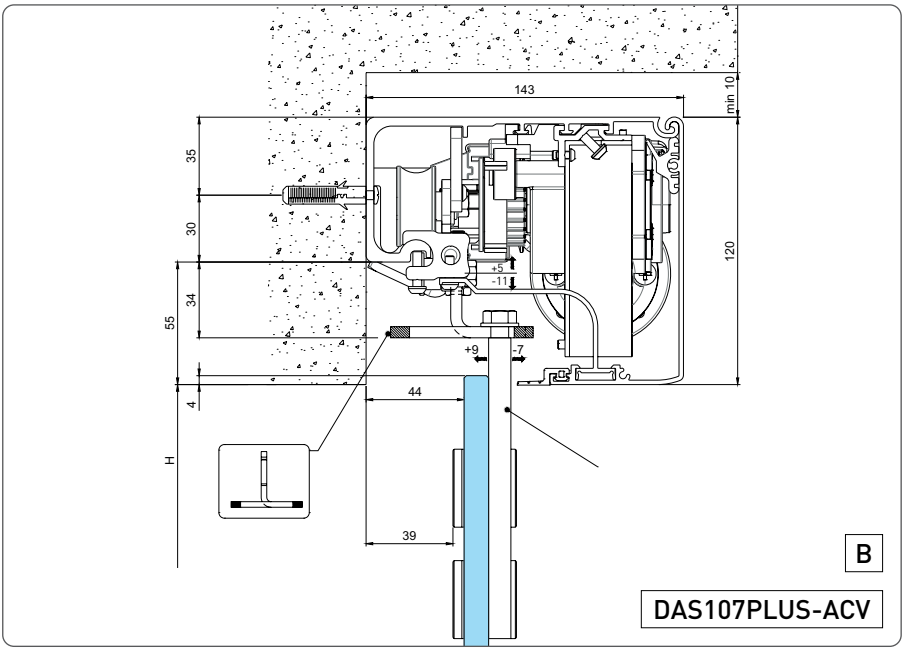
3.5 Examples with DAS40M8



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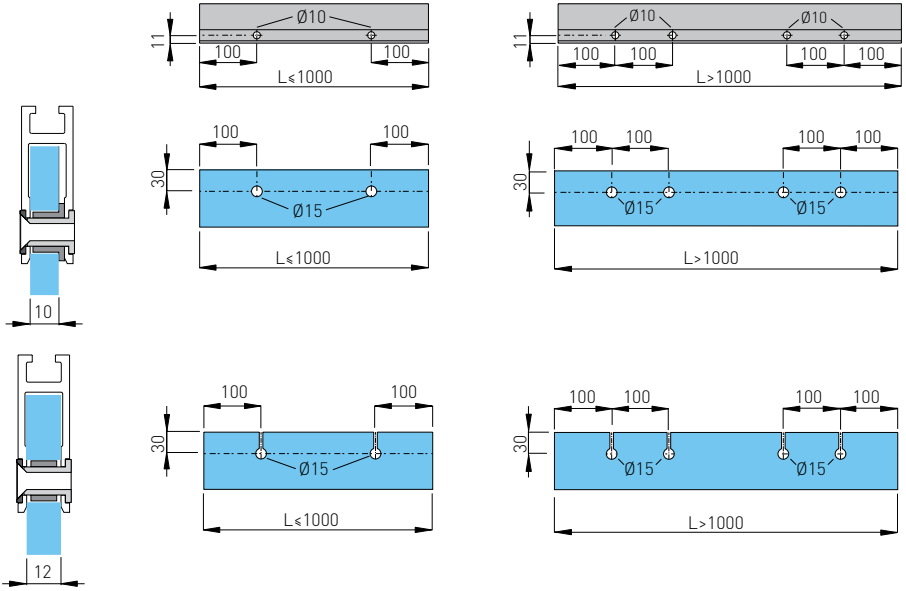
3.6 Examples with ACV





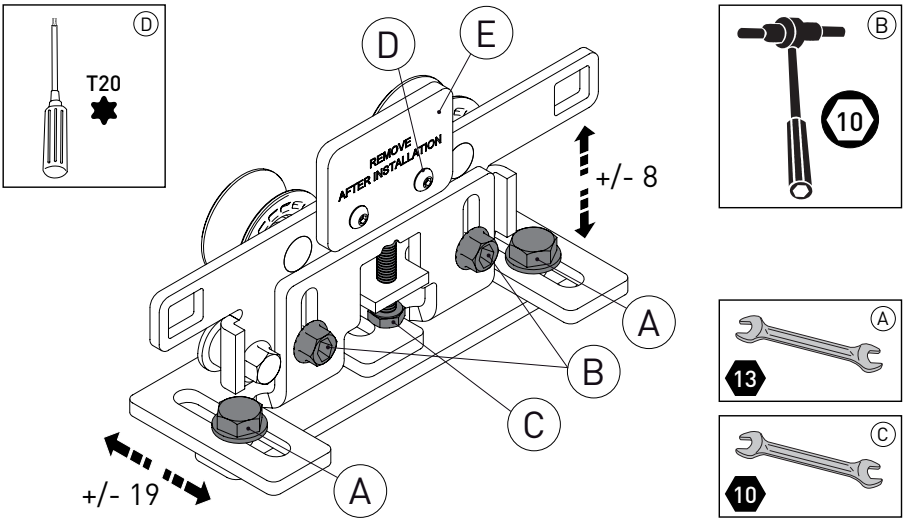
4. Preparing the glass door wing

The diagram indicates the process measurements of the AC1356 aluminium profile and glass.
Ø10 through holes are required on the aluminium profile and Ø15 on the glass for fastening.
The number of holes and related distance between centres are based on the door wing width.
Silicon should ideally be used between the edge of the glass and the internal base of the profile.



NOTE: For applications with an AC4255 or AC4870 glass door wing attachment, refer to the relevant manual.

4.1 Installing and adjusting the door wings



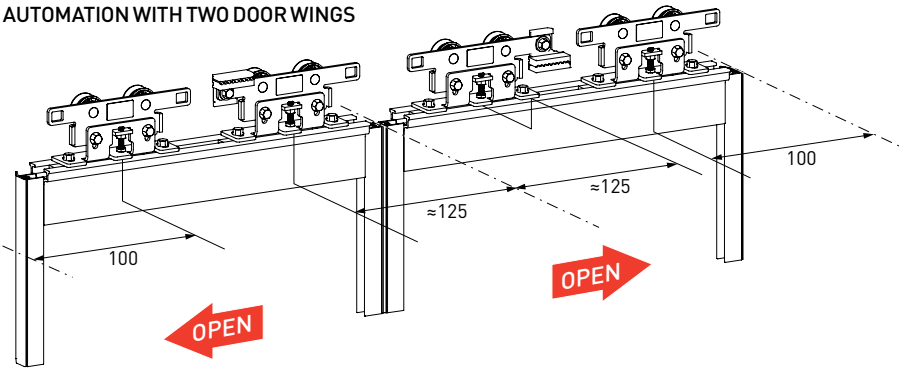
WARNING: after door leaves installation and adjustment REMOVE ALL THE CARRIAGE SELF SUPPORT BRACKETS (E).

Fix the door wing to the carriage with screws [A].
The door wing can be adjusted as shown in the figure.

- loosen the screws [B] and adjust the height by turning the screws [C];
- Adjust the lateral position of the door wing, check that the trolley is parallel to the sliding track, and secure it by turning the screws [A];
- Tighten screws B alternately, first one and then the other, initially applying light force and then gradually increasing the force in several steps, so that the carriage does not rotate and the load on the wheels remains evenly distributed.
- move the door wings manually and make sure they move smoothly and freely and that all the wheels rest on the guide and do not rotate freely.

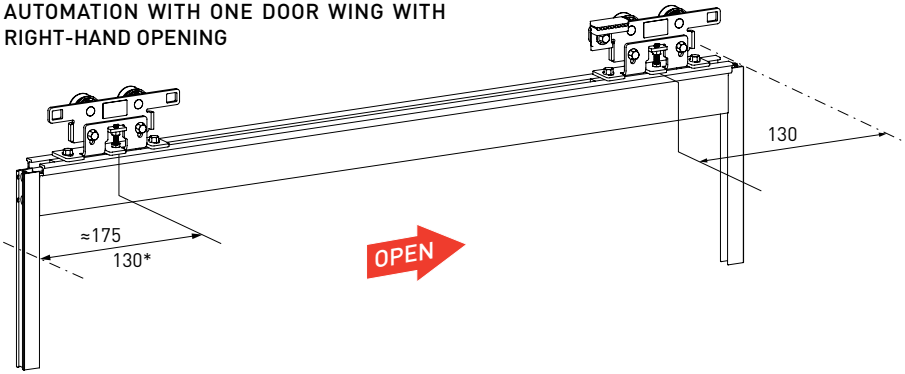
WARNING: for all-glass door wings without seals, leave a gap of at least 10 mm in the closed position to avoid contact between the glass sheets.

AUTOMATION WITH TWO DOOR WINGS

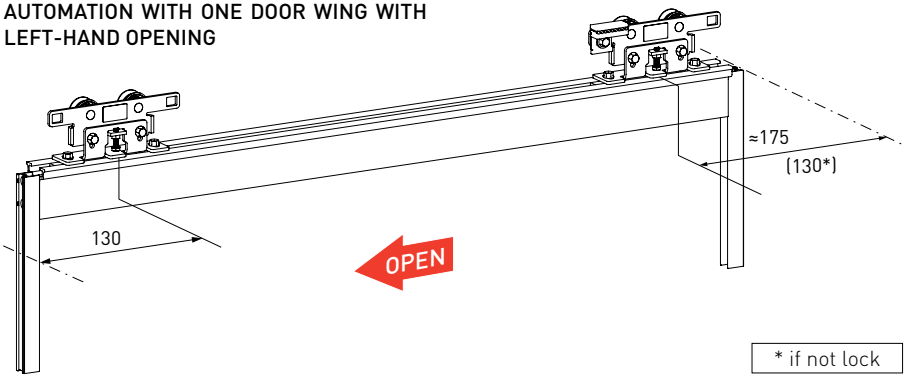


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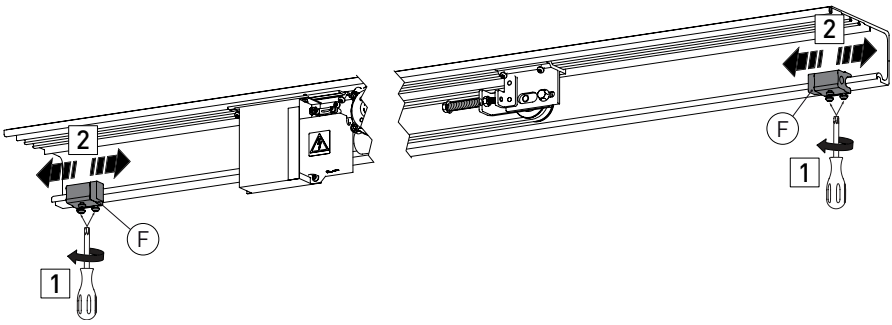
AUTOMATION WITH ONE DOOR WING WITH RIGHT-HAND OPENING



AUTOMATION WITH ONE DOOR WING WITH LEFT-HAND OPENING



- Position the end stops (F) in contact with the carriages in the opening and closing positions.
- In 2-wings automations there is a third end stop (in opening position) to use as a cover support.

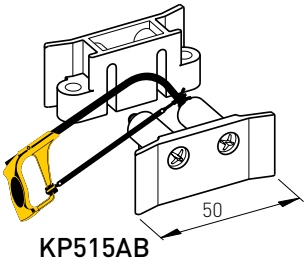


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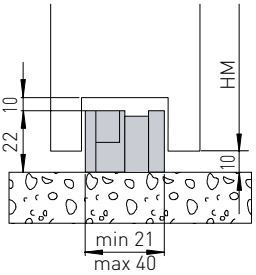
4.2 Installing the floor guides

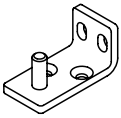
The floor guides must be made of an anti-friction material such as PVC, NYLON or TEFLON.
The length of the floor guide should be no greater than the overlap between the fixed and mobile door wings, and should not enter the passage opening.

4.2.1 Examples of floor guides

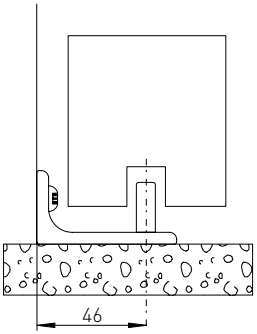


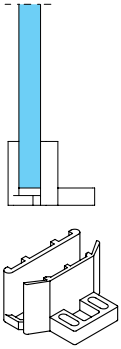
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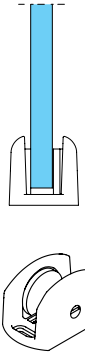


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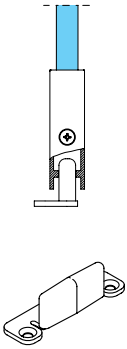




KP369



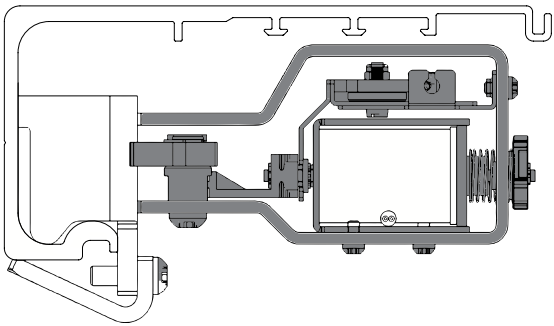
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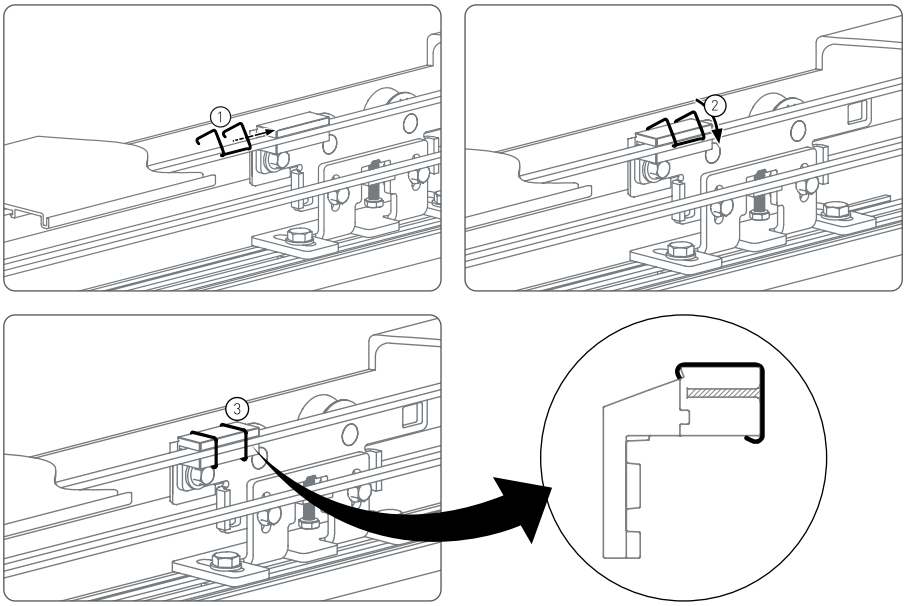
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4.3 Installing the door wing lock (optional)

A blocking device can be installed to keep the door wings closed. For installation, refer to the blocking device installation manual.



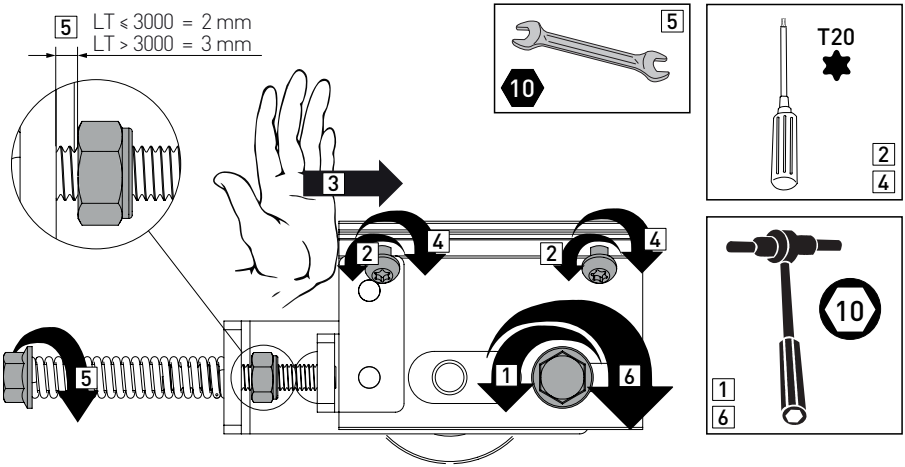
4.4 Belt stop installation



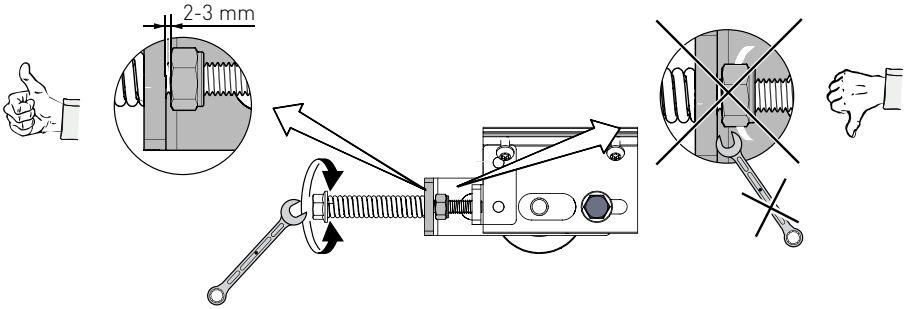
4.5 Adjusting the belt

The belt tension is factory-adjusted and readjustment is normally not needed.

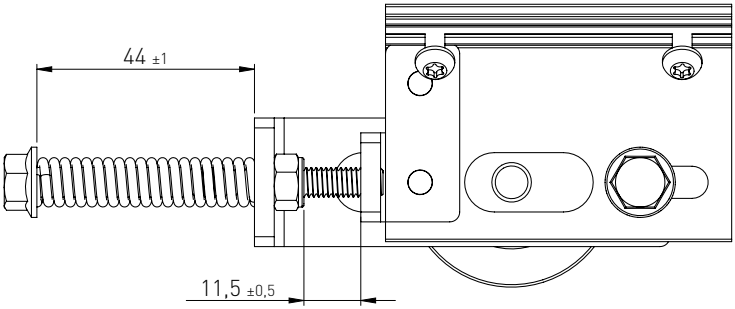
If despite this, the belt tension has to be corrected, proceed as follows:



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Factory precharge of the spring:



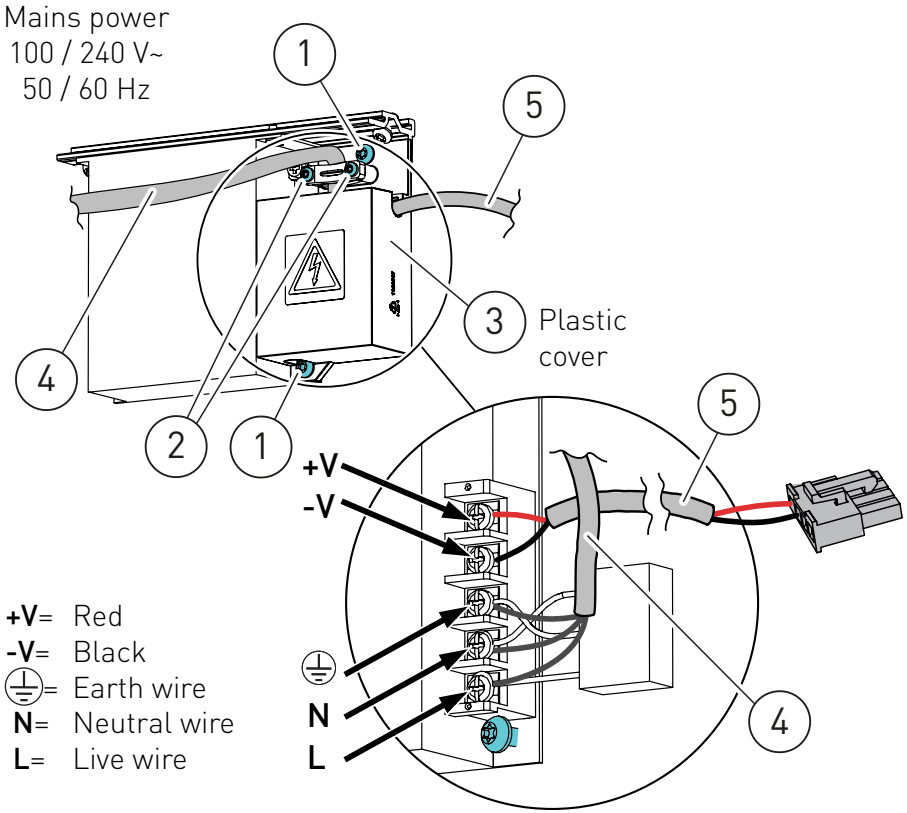
WARNING: incorrect adjustment impairs the correct functioning of the automation.

5. Electrical connections

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.

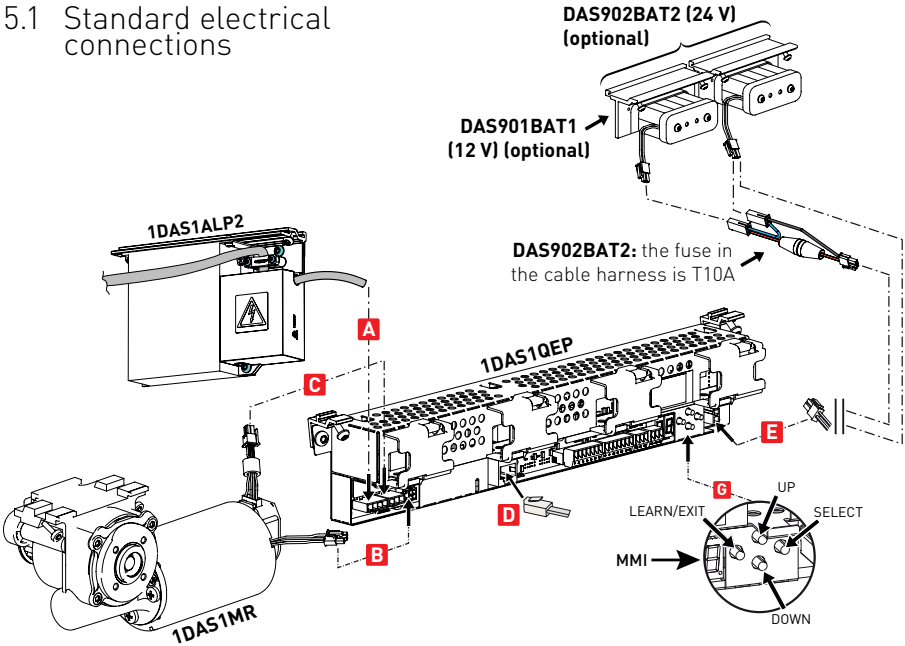
Connect the automation to an efficient earthing system that complies with current safety standards. An omnipolar disconnection switch with a contact opening distance of at least 3 mm must be fitted on the mains supply.
Check there is an adequate residual current circuit breaker and overcurrent cutout upstream of the electrical system.
Install an electric switch next to the automatic system.
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.

- Use a H05RN-F 3G1,5 or H05RR-F 3G1,5 type electric cable. [4]
- Loose the screws (1) to remove the plastic cover (3).
- Connect the mains power cable (4) and PS cable - POWER SUPPLY-CU (5).
- Fix the plastic cover (3) with screws (1).
- Fasten the mains power cable with screws (2).



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5.1 Standard electrical connections



Ref.	Output	Description
A		Power supply unit connection
B		Motor connection
C		Encoder connection
D	DO NOT USE	**Connection for:** - Program selector (OMS); - Connector for interface DAS900CTI. Green LED: if this LED is switched off or flashing, it means the control panel is malfunctioning.
E		**DAS901BAT1 - DAS902BAT2 battery kit connection (optional)** In the event of a power failure the operator will carry out an opening operation (factory setting). See parameters 10, 36, 37, 38, 40, 41 and 43 for selection and monitoring. NOTE: Monitoring will be made if parameter 10 is set to Convenience Monitoring (01). WARNING: for charging purposes, the battery kit must be connected to the control panel at all times. Periodically check the efficiency of the battery kit. When there is no voltage, the door can only be opened with a KEY command connected between 8-12. NOTE: use battery type 12 V, 1,2 Ah NiMH.If a different type of battery is used it can damage! DAS902BAT2: the fuse in the cable harness is T10A.

6 Software releases with included SW versions

SW versions readable by Configuration Tool:

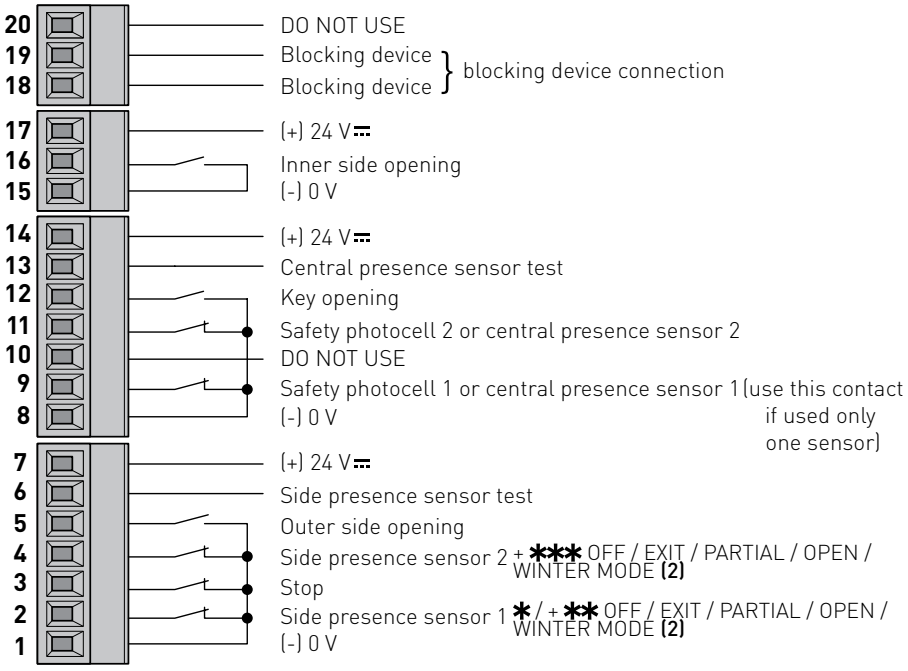
RELEASE	VERSIONS			
SW 6.0	MCB 14.4.17.2	MC 14.4.17.2	OMS B* 7.2.17.2	OMS S** 1.4.17.5
SW 7.0	MCB 15.4.17.2	MC 14.4.17.2	OMS B* 7.2.17.2	OMS S** 1.4.17.6
SW 8.0	MCB 16.4.17.2	MC 15.4.17.2	OMS B* 7.2.17.2	OMS S** 1.4.17.7

MCB + MC = MCU --> 1DASQEP

* = COM500ES | ** = COM501ES/ ER, COM502ES/ER

7 Control panel commands

NOTE: Power supply output for external accessories 24 V⎓ 0,64 A.
The maximum absorption of 0,64 A corresponds to the sum of all terminals power supply output (1-7; 8-14; 15-17).



(1) on MCU with CF vers. 8.0
(2) on MCU SW 8.0

CF: 1016394-V8.0

* use this contact if used only one sensor.

WARNING: Jumper the unused N.C. contacts.

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7.1 Commands

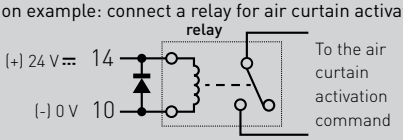
Contact		Function	Description
1 — t — 2 (ref. param. 27) (if param. 2B= 00)	N.C.	SIDE PRESENCE SENSOR 1	Connect side presence sensor 1 as shown in the example in chapter 11.

** Additional functions terminal 1-2 (ref. parameter 2B), with priority over selector selection. Available on control unit with SW 7.0 and later:

Contact		Function	Description
1 — 2 (if param. 2B= 01)	N.O.	OFF	The door closes and remains closed and locked (if lock is present).
1 — 2 (if param. 2B= 02)	N.O.	EXIT	The door opens only with the internal sensor (15-16) or with the key opening command (8-12).
1 — 2 (if param. 2B= 03)	N.O.	PARTIAL	The door opens partially with the internal (15-16) and external (1-5) sensors or with the key opening command (8-12).
1 — 2 (if param. 2B= 04)	N.O.	OPEN	The door opens and remains open.
1 — 2 (if param. 2B= 05)	N.O.	WINTER MODE	The door opens partially with the internal (15-16) and external (1-5) sensors or with the key opening command (8-12), in all the selected operating modes, except DOOR CLOSED
1 — t — 3 (if param. 45=02)	N.C.	PRIORITY OPENING	Use for priority opening impulse with any function selector setting, in the presence of mains power or continuity batteries (DAS902BAT2 with P38=01)
1 — t — 3 (ref. param. 46)	N.C.	STOP	The opening of the safety contact causes the current operation to stop. ⚠ WARNING: when the contact closes again, the door closes. The emergency opening (battery 12 V), is priority (=door opens in case of mains power failure even if STOP contact is open).
1 — t — 4 (ref. param. 28) (if param. 2C= 00)	N.C.	SIDE PRESENCE SENSOR 2	Connect side presence sensor 2 as shown in the example in chapter 11.

*** Additional functions terminal 1-4 (ref. parameter 2C), with priority over selector selection. Available on control unit with SW 7.0 and later:

Contact		Function	Description
1 — 4 (if param. 2C= 01)	N.O.	OFF	The door closes and remains closed and locked (if lock is present).
1 — 4 (if param. 2C= 02)	N.O.	EXIT	The door opens only with the internal sensor (15-16) or with the key opening command (8-12).
1 — 4 (if param. 2C= 03)	N.O.	PARTIAL	The door opens partially with the internal (15-16) and external (1-5) sensors or with the key opening command (8-12).
1 — 4 (if param. 2C= 04)	N.O.	OPEN	The door opens and remains open.
1 — 4 (if param. 2C= 05)	N.O.	WINTER MODE	The door opens partially with the internal (15-16) and external (1-5) sensors or with the key opening command (8-12), in all the selected operating modes, except DOOR CLOSED
1 — 5	N.O.	OUTER SIDE OPENING	Connect the external sensor as shown in the examples in paragraphs 8. The closure of the contact activates the door opening operation.
6 ● (ref. param. 29)		SIDE PRESENCE SENSOR TEST	Connect the test clamp of the side sensors. Clamp 6 activates a test on the side safety sensors before every operation. If the test fails, an alarm message appears on the display. The door will open and remain open until the fault is cleared.

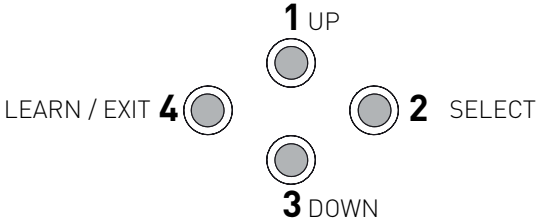
Contact		Function	Description
1 ● — - 7 ● — +		POWER SUPPLY TO ACCESSORIES	24 V ⎓ accessories power supply.
8 — t — 9 (ref. param. 07)	N.C.	SAFETY PHOTOCELL 1 OR CENTRAL PRESENCE SENSOR 1	Connect safety photocell 1 or central presence sensor 1 as shown in the examples in chapter 11.
14 ● — +24V ⎓ 10 ● — - 0V ⎓ max 100 mA (ref. param. 47-48)		C SWITCH. OPEN COLLECTOR OUTPUT. ELECTRONIC REPORTING OF DOOR STATE	Between 14 and 10 there are 24V when the door is closed. When the door opens more than 10 cm (single leaf) the power supply OFF. With Parameter 47 and 48 it is possible to configure differently the C-Switch and the activation space in decimetres. With the DAS900CT it is possible to configure the space in millimeters. Application example: connect a relay for air curtain activation 
8 — t — 11 (ref. param. 08)	N.C.	SAFETY PHOTOCELL 2 OR CENTRAL PRESENCE SENSOR 2	Connect safety photocell 2 or central presence sensor 2 as shown in the examples in chapter 11.
8 — 12 (ref. param. 04)	N.O.	KEY OPENING	Closing the contact via a key command activates an opening operation and a closing operation after the time selected by parameter 04. If used for opening in DOOR CLOSED mode: - In the presence of a mains power supply or continuity batteries, a 8-12 command partially opens the door (ref. parameter 11) and closes it after the time selected by parameter 04. - If there is no mains power supply, a 8-12 command reactivates the batteries, if present, for the time required to perform a complete opening operation and then the batteries are disconnected from the control panel.
13 ● (ref. param. 09)		CENTRAL PRESENCE SENSOR TEST	Connect the test clamp of the presence sensors. Command 13 activates a test on the central safety sensors before every operation. If the test fails, an alarm message appears on the display. The door will open and remain open until the fault is cleared.
13 ● (ref. param. 66)		STOP MONITORING	To monitor the STOP contact of the photocell of break-out system, see manuals DAS902KSB48 and DAS902KRB48. Set parameter 45=01; 46=01; 66=01
8 ● — - 14 ● — +		POWER SUPPLY TO ACCESSORIES	24 V ⎓ accessories power supply.

15 — 16	N.O.	INNER SIDE OPENING	Connect the internal sensor as shown in the examples in chapter 11. The closure of the contact activates the door opening operation.
15 ● — - 17 ● — +		POWER SUPPLY TO ACCESSORIES	24 V ⎓ accessories power supply.

18 ● — ⊠ — ● 19 (ref. param. 05)		BLOCKING DEVICE CONNECTION	Output for connecting an electro-mechanical lock (optional). NOTE: the type of blocking device must be selected manually during the learning phase.

8. Adjustment and selection of control functions

The control panel has a two-figure display that displays text and/or numbers.
It has four buttons (MMI).



The procedure to switch on the display is as follows: on

- press the 2-SELECT key to launch the display test 88

NOTE: verify that all seven segments of the two displays light up correctly to avoid misreading.

- **1 UP**: to increase the parameter number or value in it;
- **2 SELECT**: to enter a parameter or value to be programmed in the memory;
- **3 DOWN**: to decrease the parameter number or value in it;
- **4 LEAR/EXIT**:
  - **LEARN** has 3 functions: 1, 2, 3.
    1. Quick learning. If pressed for longer than 1 second but less than 2, the electronic accessories connected to the control board are recognised.
    2. Normal learning. If pressed for longer than 2 seconds, the display flashes L. Two seconds after releasing the button, a complete learning cycle begins which performs an opening and closing operation to carry out the operations described in chapter 8.
    3. Restore factory settings. If pressed for longer than 10 seconds, the control panel restores the factory settings dP.
  - **EXIT** quits the parameter menu or value without saving the changes. If **EXIT** is not pressed, the control panel returns to the default display on after 3 minutes of inactivity.

NOTE: the set value is stored by the control panel by pressing SELECT irrespective of whether the value has been modified or not. Press EXIT if you do not want to store the value.

When a value is programmed, that parameter is excluded from the learning cycle.Even if a new learning cycle is executed, that value will not be modified. To include the parameters in the learning cycle again, the factory settings must be set.

8.1 Display test

a. When the display shows "", push the SELECT button and each of the two display windows make a rotating test pattern.

b. Verify that all seven segments of the two display windows are lit during the test. If not there is a risk of misjudgment of the digits shown in a defective display.

c. When the display test is finalized the display shows two steady digits indicating the first parameter.

Display	Character	Display	Character	Display	Character	Display	Character	Display	Character
	0		5		A		e		S
	1		6		b		F		t
	2		7		C		n		
	3		8		d		o		
	4		9		E		P		

8.2 Status indication on the display

The display shows the different impulses that are active. The status viewing starts with showing  as for Status, then one or many numbers representing the different active impulses in to the operator. The different impulses are:

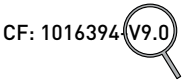
00= Key Impulse
01= Inner impulse
02= Outer impulse
05= Presence impulse 1
06= Presence impulse 2
07= Side Presence impulse 1
08= Side Presence impulse 2
09= Stop impulse
10= Priority opening impulse
13= Close command
24= Push and Go impulse

9. Start up

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

Start-up and adjustment must be performed in the following order when the automation is installed:
1. Connect the accessories, opening and safety sensors, blocking device, batteries and selector.
2. Jumper the safety contacts 1-2, 1-3, 1-4, 8-9, 8-11 on the control panel if not used by sensors.
3. With the door in the closed position connect the mains power supply to the automation.
4. Set the following parameters:

NOTE: Starting from control unit with CF V 9.0, it is possible to use the CT Configuration Tool



Parameter	Description	Settings
05	Lock configuration	The lock is not automatically learned, set manually the lock type: **00**= no lock. **03**= antipanic lock DAS801LOKA **04**= standard lock DAS801LOK
06	Lock release	If the lock is present, set **01** **00**=Off **01**=On
09	Central presence sensor test	**00**= None (factory setting). **01**= Presence sensor 1, inner sensor (if a presence sensor with monitoring is installed). **02**= Presence sensor 1, inner sensor and 2, outer sensor (set if two presence sensors with monitoring are installed).
12	Selection of opening direction	**00**= right hand opening for single door wing automation. **01**= left hand opening for single door wing automation and for double door automation (factory setting).
13	Hold force (00÷60 N)	Adjustment of the force used to keep the door in closed position. Depending on the SW version and CF configuration of the panel, the factory setting may be 00 or 20. NOTE: If you want the motor to maintain a thrust in the closed position, set a value other than 00 (recommended 20)
29	Side presence sensor test	**00**= None (factory setting). **01**= Presence sensor 1 (set if a presence sensor with monitoring is installed). **02**= Presence sensor 1 and 2 (set if two presence sensors with monitoring are installed).
34	Hold Force in EXIT and OFF Mode Selection	**00**= Off. **01**= On. With an electromechanical lock this hold force can be unnecessary. Depending on the SW version and CF configuration of the panel, the factory setting may be 00 or 01 NOTE: if you want the motor to maintain a holding thrust set to 01
38	Convenience battery 24V, DAS902BAT2	Select whether the automation continues to operate normally even in the event of power failure **00**= Off (factory setting) **01**= On
41	Battery Type	What type of battery that is mounted in the operator is identified during the Learn. Make sure that the type of battery installed is correctly acquired and that the battery works as desired (opening maneuver only, factory selection, or convenience battery \ref parameter 38) **00**= No battery. **01**= 12V (set parameter 43= 05). **02**= 24V.

43	Opening Delay For Lock	If installed 12V battery (DAS901BAT1), set **05**
65	Sustainable Drive Mode	**00**= Off **01**= On **Depending on the SW version and CF configuration of the panel, the factory setting may be 00 or 01.** The (+) 24 V DC to accessories like sensors is turned off when: - the mode selector is in OFF and the door is closed. - the mode selector is in DOOR OPEN and the door is open. **The power to the motor is turned off when the door is closed (only if parameter 13=00).** **Moreover if SW 8.0: The motor power is limited to 75W** **NOTE:** If you want to get full power performance set parameter 65 to 00. See also parameters 13 and 34 for holding force. In RBO and SBO type escape route systems, which use photocells, set parameter 65= 00 because the photocells must remain powered. **02**= Extended. DO NOT USE
67	Selection of the type of automation	**00**= Automation with one door wing*. **01**= Automation with two door wings*.
B1	Operation mode selector key lock (for COM500ES, COM501ES/ER, COM502ES/ER)	It is possible to activate a program selector lock to prevent unwanted operations. **00**= No access code (factory setting). **01**= Hold for two sec.possible use with COM500ES, COM501ES, COM502ES **02**= Passcode, possible use with COM500ES, COM501ES, COM502ES. **03**= Key, to use with COM501ER and COM502ER See parameter b1 at chapter 10.2 for more information

* If the Configuration Tool CT is used, disable the "learn access":





NOTE: If the 12 V battery is used set parameter **43**= 05

5. Open the cover just enough to press the **LEARN** button for 2 seconds, the display flashes L.

WARNING: To enable the stroke and weight of the door wings to be acquired correctly, the acquisition phase must be performed with the door wings installed.

6. Leave ajar the casing without fixing it so that the sensors remain in their working position. Free the area of action of the sensors so that they are detected and monitored during the learning cycle.
7. The automation performs opening and closing operations.

During this cycle, the following accessories connected to the control panel are recognised and some parameters detected:

Accessory / Parameter	Parameter number
High Speed Closing	**02**
Whether the sensors are monitored or not	**9, 29, 31**
Presence of battery and type	**41**
Measurement of width of passage opening	**59**
Door type	**67**
Calculation of weight of door wing(s)	**68**
Calculation of friction in the system	**69**

At the end of the learning cycle, the door remains closed and the display indicates [on]. If some parameters have not been automatically configured during the learning cycle, the door opens. The display first indicates [P], and then the parameter that has not been acquired automatically, for example, if the door is a 2-wing or 1-wing door (parameter 67), or the parameters P05, P06. These parameters can be configured by the installer. If the display shows P59, P68, P69, check that there are no obstacles and friction such as to prevent the correct learning of the run and leaf weight. Check that the stroke of the leaf is not less than 300mm. Remove the obstacles and repeat the learning.

NOTE: Check if the value of parameter 68, door leaf weight, roughly corresponds to the real weight of the leaves. If this is not the case, it is necessary to check that there is no friction near the opening area such as:

- door that touches the floor. Adjust the door in height.
- floor guide that touches under the door. Adjust the door in height.
- if there are seals on the door, that these do not generate friction against the fixed door or on the floor. Adjust the door properly.
- check that the carriages are fixed in line with the leaf. If necessary, loosen the fixing screws (ref. screws "J" chap. 4.8) and position the carriage parallel to the leaf.

1. Press the **SELECT** button to start to modify the parameters.
2. Press **SELECT** again to display the parameter value in flashing mode.
3. Select the correct value using the **UP** and **DOWN** buttons.
4. Press **SELECT** to confirm and program the selected value.
5. Continue to configure the other parameters that have not been acquired
6. Press **LEARN/EXIT** for more than 2 seconds and the display will indicate [on], after 2 seconds, the door closes and is ready for operating.

If necessary, you can adjust the following main parameters:

Parameter	Description	Settings
00	Selection of opening speed (cm/s)	(10÷70, 10=10 cm/s; 70=50 cm/s)
02	High Speed Closing (cm/s)	(10÷70, 10=10 cm/s; 70=50 cm/s)
03	Selection of automatic closing time	(00÷60s)
11	Partial opening selection	(00-99%)
15	Race program (**01÷05**)	Acceleration and braking performance adjustment **01**= minimum performance, for light door wings **05**= maximum performance, for heavy door wings
⚠ 49	Adjustment of the maximum opening force (02÷19N x 10)	If the reopening maneuver occurs too abruptly, set parameter 49 with a value lower than the factory value (08), example 04 - 05.

- For other parameter variations, see the "Parameters" chapter.
- Make sure the installation complies with the current regulations and the essential requisites laid down by the relevant authorities.
- At the end of the start-up close the cover and fix it with the appropriate screws, see chapter 2.2.

10. Parameters

10.1 Configuration parameters according to function

For more information on the parameters, see paragraph 10.2

SPEED parameters		
Parameter	**Description**	**Range**
00	High Speed Opening (10= 10 cm/s; 70= 50 cm/s)	10÷50 cm/s
02	High Speed Closing (10= 10 cm/s; 70= 50 cm/s)	10÷50 cm/s

TIME parameters		
Parameter	**Description**	**Range**
03	Hold Open Time	00÷60 s
04	Key Hold Open Time	00÷60 s
20	Partial hold open time	00÷60 s
26	Presence hold open time	00÷60 s

FUNCTION parameters		
Parameter	**Description**	**Range**
12	Opening direction. 1 wing open right (00) / 1 wing open left and 2 wings (01)	00÷01
13	Hold force	00÷60 N
2A	Side presence function. Safe speed (00) / Stop door (01)	00÷01
2B	Function terminal 2. Side presence sensor 1 (00) / OFF (01) / EXIT (02) / PARTIAL (03) / OPEN (04) / WINTER MODE (05)	00÷05
2C	Function terminal 4. Side presence sensor 2 (00) / OFF(01) / EXIT (02) / PARTIAL (03) / OPEN (04) / WINTER MODE (05)	00÷05
34	Hold force in EXIT and OFF mode selection. Off (00) / On (01)	00÷01
3C	Ditec Door Connect confirmation choice (Smartphone App). No code (00) /Confirm button (01) / User PIN code (02)	00÷02
3D	Flow. Off(00) / On (01)	00÷01
3E	Flow exit only. Off (00) / On (01)	00÷01
3F	Flow Restriction	00÷1000
47	C-Switch Configuration. (00) / (01)	00÷01
55	Service needed opening cycles	00÷50 x 100.000
5E	Status indication. Off (00) / On (01)	00÷01
60	Learn. Off (00) / On (01)	00÷01
65	Sustainable Drive Mode. Off (00) / On (01) / extended (02)	00÷02
67	Door type. 00 (1 wing) - 01 (2 wings)	00÷01

POSITION parameters		
Parameter	**Description**	**Range**
11	Partial open position	00÷99 %
48	C-Switch Activation Distance	00÷99 dm
59	Opening Position	00÷99 dm

DRIVE parameters		
Parameter	**Description**	**Range**
15	Acceleration and braking performance. Minimum(01)/maximum(05)	01÷05
49	Opening max. force	02÷19 N x10
4A	End checking closing thrust	00÷19 N x10
50	Closing max. force	02÷19 N x10
68	Door weight	00÷60 kg x 10
69	Friction	00÷99 N

EMERGENCY parameters		
Parameter	Description	Range
10	Emergency unit monitoring. Off (00) / Convenience monitoring (01)	00÷01
36	Emergency action. Closing (00) / opening (01)	00÷01
37	Emergency Action in OFF Mode. Off (00) / On (01)	00÷01
38	Continuity with battery. OFF (00) / ON (01)	00÷01
40	Emergency unit test interval	04÷23h
41	Battery type. No battery (00) / 12 V (01) / 24 V (02)	00÷02

LOCK parameters		
Parameter	Description	Range
05	Lock type. No lock (00) / DO NOT USE (01, 02) / antipanic lock (03) / standard lock (04) / DO NOT USE (05)	00÷04
06	Closing thrust before opening. OFF (00) / ON (01)	00÷01
43	Opening delay for lock	00÷99 s x 10
44	EXIT lock. Off (00) / On (01)	00÷01
51	Push & Close. Off (00) / On (01)	00÷01
52	Timeout Push & Close	00÷99 s x 10

SENSOR parameters		
Parameter	Description	Range
07	Presence impulse 1 configuration. N.O. (00) / N.C. (01)	00÷01
08	Presence impulse 2 configuration. N.O. (00) / N.C. (01)	00÷01
09	Central presence sensor test. None (00) / sensor 1 (01) / sensor 1 and 2 (02)	00÷02
27	Side presence input 1 configuration. N.O. (00) / N.C. (01)	00÷01
28	Side presence input 2 configuration. N.O. (00) / N.C. (01)	00÷01
29	Side presence impulse monitoring. None (00) / sensor 1 (01) / sensor 1 and 2 (02)	00÷02
30	Side presence activation distance	00÷99dm
31	Sensor type.1-wire (00) / 2-wire (01) monitoring	00÷01
45	STOP function. Off (00) / On (01)/Priority opening (02)	00÷02
46	STOP configuration. N.O. (00) / N.C. (01)	00÷01
66	STOP function monitoring Off(00) / On(01)	00÷01

OPERATION MODE SELECTOR parameters		
Parameter	Description	Range
B0	Operation mode selector variant. Electronic program selector (04)	00÷04
B1	Operation mode selector key lock. Off (00) / Hold for 2 s.(01) /Passcode (02) / DO NOT USE (03)	00÷03
B2	Operator mode selector service indication. Off (00) / On (01)	00÷01
B3	Function not available, do not modify factory setting. FUTURE USE.	40
B4	Function not available, do not modify factory setting. FUTURE USE.	01
B5	Choose display mode of the operation mode selector. Show system mode (00) / Show local mode (01)	00÷01
B6	Function not available, do not modify factory setting. FUTURE USE.	00÷02
B7	Mode selector, "self service" indication. Off (00) / On (01)	00÷01
B8	Mode selector, open impulse. Disabled (00) / Login required (01) / Enabled (02)	00÷02
B9	Bluetooth® wireless technology Power Mode. Always disabled (00), Disabled in OFF mode (01), Always enabled (02)	00÷02

10.2 Description of the parameters

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

Parameter	Description	Factory setting	Installation setting
00	**Selection of opening speed (10÷70, 10= 10 cm/s; 70= 50 cm/s for single door wing)** Sets the maximum opening speed.	40	
02	**Selection of closing speed (10÷70, 10= 10 cm/s; 70= 50 cm/s for single door wing)** Sets the maximum closure speed.	**AUTOMATIC**	
03	**Selection of automatic closing time (00÷60 s)** Adjusts the time during which the automation remains open following an internal or external opening command.	00	
04	**Selection of automatic closing time after a key command "KEY" (00÷60 s)** Adjusts the time during which the automation remains open following a key opening command "KEY" (ref. terminal 8-12 on main control board. Ref. parameter B8).	07	
05	**Selection of lock type (00÷05)** **00**= no lock. **01**= DO NOT USE. **02**= DO NOT USE. **03**= anti-panic lock. **04**= standard lock.	**TO BE SET**	
06	**Closure thrust before the opening operation (00÷01)** **00**= Disabled. **01**= Enabled. If enabled (01), the automation applies a closure thrust to guarantee a correct release when the electric lock opens.	**TO BE SET**	
07	**Photocell contact 1 or central presence sensor 1 (00÷01)** **00**= N.O. **01**= N.C.	01	
08	**Photocell contact 2 or central presence sensor 2 (00÷01)** **00**= N.O. **01**= N.C.	01	
09	**Central presence sensor test (00÷02)** **00**= None **01**= Presence sensor 1 (if a presence sensor with monitoring is installed). **02**= Presence sensor 1 and 2 (if 2 presence sensors with monitoring are installed).	**TO BE SET**	
10 ③	**Emergency Unit Monitoring (00÷01)** The emergency unit will be tested by shutting of the power to the control panel and open the door with the emergency unit. The test is never done in operation mode selection OPEN and normally not in OFF. Authorities can demand that the emergency unit is moni-tored on a regular basis, see parameter 40 "Emergency Unit Test Interval" below. Half an hour before this time has elapsed the following outer impulse generates an emergency opening test . If there is no outer impulse with-in the next half hour, the operator control unit generates the opening impulse by it self (ghost impulse). The test is also always performed after a Reset and after changing operation mode selection from a position where a test is not done to a position where the test is made. **00**= Off. **01**= Convenience monitoring. Is a simpler one-channel monitoring. Convenience monitoring can be used for monitoring battery. If the DAS901BAT1 battery is used, see parameter 43.	00	

③ Parameter present from configuration: **CF: 1016394-V6.0**

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11	**Partial opening selection (00÷99 %)**	50	
12	**Selection of opening direction (00÷01)** **00**= right hand opening for single door wing automation; **01**= left hand opening for single door wing automation and for double door automation.	01	
13	**Hold force (00÷60 N)** (Factory setting may vary depending on the SW version/configuration) Adjustment of the force used to keep the door in closed position. Also refer to parameter 34 (Hold force in mode selection EXIT and OFF)	20 (6) (8) 00 (7)	
15	**Acceleration and braking performance adjustment (01÷05)** **01**= Minimum performance, for light door wings; **05**= maximum performance, for heavy door wings.	03	
20 (6)	**Partial Hold Open Time (00÷60s)** Hold open time for Inner & Outer impulses with operation mode selection PARTIAL.	00	
26 (5)	**Presence Hold Open Time (00÷60s)** Hold open time for central Presence impulses 1&2.	00	
27	**Selection of the contact on side presence sensor 1 (00÷01)** **Setting valid if parameter 2b= 00.** **00**= N.O. **01**= N.C.	01	
28	**Selection of the contact on side presence sensor 2 (00÷01)** **Setting valid if parameter 2c= 00.** **00**= N.O. **01**= N.C.	01	
29	**Side presence sensor test (00÷02)** **00**= None. **01**= Presence sensor 1 (set if a presence sensor with monitoring is installed). **02**= Presence sensor 1 and 2 (set if two presence sensors with monitoring are installed).	**TO BE SET**	
2A (6)	**Side Presence Function (00÷01)** **00**= Safe Speed. If a Side Presence Impulse is activated during opening, the door shall continue to open with a safe speed (0,1 m/s). **01**= Stop Door. If a Side Presence Impulse is activated during opening, the door shall stop and be stopped during the set Presence Hold Open Time (see parameter 26).	00	

(5) Parameter present from configuration: **CF: 1016394-V8.0**

(6) Parameter present from configuration: **CF: 1016394-V9.0**

(7) Factory setting from SW 8.0 version

(8) Factory setting for SW 7.0 and earlier, and for SW version 8.0 and later with CF version: **CF: 1016394-V12**

2b ④	**Function Select, terminal 2 (00÷05)** **00**= Side Presence Impulse 1 **01**= OFF ✱. The closure of contact 1-2 activates the door closed and locked mode (if the lock is present). **02**= EXIT ✱. The closure of contact 1-2 activates the one-way operating mode from the inside. **03**= PARTIAL ✱. The closure of contact 1-2 allows partial bidirectional opening. **04**= OPEN ✱. When contact 1-2 closes, the door opens and remains open. **05**= WINTER MODE ✱ ⑦. It is used in combination with the mode selector. Closing contact 1-2 activates the partial opening operation (ref. parameter 11) in all selected operating modes (except OFF) ✱ The command has priority over the selector selection. If an electronic selector is present, this mode is displayed on the selector with a flash every 5 s, except selection 05 (set parameter B5= 00). ✱ It is possible to use the functions in combination with the functions of terminal 4 (see parameter 2C). In this case the function of terminal 2 will override the function of terminal 4. ✱ Can be used in conjunction with all types of selector switch ✱ N.O. Contact **NOTE:** After the adjustment of this parameter, if a learning cycle is not carried out (by pressing LEARN for more than 2s.), disconnect and reconnect the main power supply and batteries.	00	
2C ④	**Function Select, terminal 4 (00÷05)** **00**= Side Presence Impulse 2 **01**= OFF ✱. The closure of contact 1-4 activates the door closed and locked mode (if the lock is present). **02**= EXIT ✱. The closure of contact 1-4 activates the one-way operating mode from the inside. **03**= PARTIAL ✱. The closure of contact 1-4 allows partial bidirectional opening. **04**= OPEN ✱. When contact 1-4 closes, the door opens and remains open. **05**= WINTER MODE ✱ ⑦. It is used in combination with the mode selector. Closing contact 1-4 activates the partial opening operation (ref. parameter 11) in all selected operating modes (except OFF). ✱ The command has priority over the selector selection. If an electronic selector is present, this mode is displayed on the selector with a flash every 5 s, except selection 05 (set parameter B5= 00). ✱ t is possible to use the functions in combination with the functions of terminal 2 (see parameter 2B). In this case the function of terminal 2 will override the function of terminal 4. ✱ Can be used in conjunction with all types of selector switch ✱ N.O. Contact **NOTE:** After the adjustment of this parameter, if a learning cycle is not carried out (by pressing LEARN for more than 2s.), disconnect and reconnect the main power supply and batteries.	00	
30	**Adjustment of activation distance for side presence sensor (00÷99dm)** Adjusts the distance within which the side presence sensor intervenes. **00**= minimum. During the automation opening phase, the entire stroke is performed at reduced speed. **01-99**= the sensor is activated only in the last selected opening decimetres.	00	
31	**Selection of the type of sensor (00÷01)** Selects the type of monitoring for the combined sensors. **00**= Sensor with monitoring (1 wire): the combined sensors have only one test input for both the detection range and the control range. **01**= Sensor with monitoring (2 wires): the sensors have separate test inputs both for detection and control.	01	

④ Parameter present from SW 7.0

⑦ Performance present from SW 8.0

34 (6)	**Hold Force in EXIT and OFF Mode Selection (00÷01)** (Factory setting may vary depending on the SW version/configuration) **00**= Off. **01**= On. With an electromechanical lock this hold force can be unnecessary. The force set with parameter 13 is applied	01 (8) 00 (7)
36 (6)	**Emergency Action (00÷01)** **a) Last maneuver with flat batteries in convenience mode, if parameter 38= 01** **b) Emergency operation in battery in case of power failure, if parameter 38=00** **00**= Closing. The door closes: - in the event of a power failure if parameter 38= 00, or - as a last maneuver when the battery is flat if parameter 38 = 01. **01**= Opening. The door opens: - in the event of a power failure if parameter 38= 00, or; - as a last maneuver when the battery is flat if parameter 38 = 01.	01
37 (6)	**Enabling emergency action in OFF mode (00÷01)** Decides whether to carry out the emergency functions with batteries indicated in parameter 36 points a) and b) even if the OFF mode is selected on the program selector: **00**= Disabled. **01**= Enabled*. *NOTE: The door monitors the batteries (if parameter 10 = 01) even with the OFF mode selected and will perform an opening maneuver with the time interval set on parameter 40. If parameter 36 = 01, the door could also open during the night.	00
38	**Selection of continuous operation with 24 V DAS902BAT2 battery (00÷01)** **00**= Disabled. **01**= Enabled. If the 24 V battery kit is used, the automation continues working even if there is a power failure (flat batteries: last operation= opening /closing, see parameter 36). Monitoring will be made if parameter 10 is set to Convenience Monitoring (01).	00
3C (6)	**Ditec Door Connect confirmation choice (Smartphone App) (00 ÷02)** **00**= No code. No code needed to set changes. **01**= Confirm Button. Need to press Confirm Button to set changes. **02**= User Pin Code. Need to enter User Pin Code to set changes	02
3d (6)	**Flow (00 ÷01)** Flow will keep track of how many people that passes in and out through the door. The Flow counter represent the number of people that is inside the building. The Flow counter is updated in all operation mode selections except OFF. **00**= OFF. Flow is deactivated. Counter set to 0. **01**= ON. Flow is activated. NOTE: Do not use if Parameter 65= 01.	00

(6) Parameter present from configuration: **CF: 1016394-V9.0**

(7) Factory setting from **SW 8.0** version

(8) Factory setting for SW 7.0 and earlier, and for SW version 8.0 and later with CF version: **CF: 1016394-V12**

3E ⑥	**Flow Exit Only (00 ÷01)** When the Flow (3D) counter is equal to or greater than the Flow Restriction (3F) an action is performed depending on the setting of Flow Exit Only (3E). This function will work in operation mode selection EXIT, AUTO and PARTIAL. **00**= OFF. Flow Exit Only is deactivated. The Ditec Door Connect App will notify when the Flow Restriction is reached. **01**= ON. Flow Exit Only is activated.When the Flow Restriction is reached the door will not open when there is an active outer impulse. The Ditec Door Connect App will notify when the Flow Restriction is reached. NOTE: Do not use if Parameter 65= 01.	00	
3F ⑥	**Flow Restriction (00 ÷1000. Unit number of people)** Set restriction limit of people inside the building. The limit is used in parameter 3D and 3E. It is recommended to set this parameter via the Ditec Door Connect app from a smartphone.	00	
40 ③	**Emergency Unit Test Interval (04÷23hours)** The time set in this parameter controls the maximum time until the next automatic test of the emergency unit is performed.	23	
41	**Selection of the type of battery (00÷02)** **00**= No battery. **01**= 12 V (only emergency open). **02**= 24 V (continuous operation).	**AUTOMATIC**	
43	**Adjustment of the opening delay with blocking device (00÷99 s x 0.1)** Adjusts the opening delay time when a blocking device is installed, if the selector is set on CLOSED DOOR or ONE-WAY. If the DAS901BAT1 battery is used set parameter **43**= 05.	00	
44 ⑤	**Lock in EXIT mode (00÷01)** This parameter controls the electromechanical lock in the operation mode selector setting EXIT. **00**= Off. The electromechanical lock is not locked in EXIT. **01**= On. The electromechanical lock is locked in EXIT. If the Configuration Tool CT is used, disable the "learn access": ☑ MMI Write access ☑ MMI Read access ☐ Learn Access	01	
45 ⑦	**STOP/PRIORITY OPENING Function (00÷02)** (terminal 3) When this parameter is set to On (01) the Stop impulse is enabled, otherwise it is disabled. **00**= STOP Off **01**= STOP On **02**= priority opening with any function selector setting in the presence of mains power or backup batteries (DAS902BAT2 with P38=01)	01	
46	**Selection of the STOP contact (00÷01)** **00**= N.O. **01**= N.C.	01	
47 ⑤	**C-Switch Configuration** C-switch output configuration, terminal 10 **00**= On terminals 10 - 14 there are not 24V when the door is closed **01**= On terminals 10 - 14 there are 24V when the door is closed	01	
48 ⑤	**C-Switch Activation Distance (00-99 dm)** The C-Switch is an open collector output. The value in the parameter decides how far one door leaf shall travel from closed position before the C-switch change state. If using the CT Configuration Tool, millimeter adjustment is possible.	01	

③ Parameter present from configuration: **CF: 1016394-V6.0**

⑤ Parameter present from configuration: **CF: 1016394-V8.0**

⑥ Parameter present from configuration: **CF: 1016394-V9.0**

⑦ Parameter present from SW 8.0 version

49 ①	**Adjustment of the maximum opening force (02÷19 N x10)** The force applied from the operator to the door leaf during opening. If the reopening maneuver occurs too abruptly, set parameter 49 with a value lower than the factory value (08), example 04 - 05.	08
4A	**Adjustment of the thrust to verify the closure end stop (00÷19 N x10)** The force applied from the operator to the door leaf during the close kick.	05
4b ⑦	**Function not available, do not modify factory setting.** FUTURE USE	99
4d ⑦	**Function not available, do not modify factory setting.** FUTURE USE	13
4E ⑦	**Function not available, do not modify factory setting.** FUTURE USE	40
50	**Adjustment of maximum force during closure (02÷19 N x10)** The force applied from the operator to the door leaf during closing.	15
51 ②	**Push&Close (00÷01)** When this parameter is set to On (01) the motor will in operation mode selections OFF or EXIT try to close the door with the force selected by parameter 50 "Closing Max Force", if someone tries to open it manually. Push & Close is also known as "poor man's lock". **00**= Off. **01**= On.	00
52 ②	**Push & Close Timeout(00÷99 s x10)** Adjustable time for how long time the door will continue to "fight back" when someone is trying to force it open. **00**= infinite time.	00
55 ③	**Service needed Operating Cycles (00÷50 x 100.000)** Set number of openings before LED in operation mode selector will start flashing. To clear the service needed indication you have to hold  on the MMI at the same time for 5 seconds when the display shows on. After 5s the display will show "SE" during another 5s, release the UP and DOWN buttons. While the display shows "SE" pres  and the counters Opening cycles will be set to zero.	00
59	**Open Position (dm)** Opening width of one door leaf. The parameter shall be set automatically by performing a Learn cycle. If this parameter is shown after the learning phase it means that it was not possible to acquire it automatically, check that there are no obstacles and follow what is indicated in the manual in the Start-up chapter.	**AUTOMATIC**
5E ②	**Status indication (00÷01)** The operator shows the status indication on the LED display of the control panel. See paragraph 5.2 for more information. **00**= Off. **01**= On.	01

① Parameter present from configuration: **CF: 1016394-V3.0**

② Parameter present from configuration: **CF: 1016394-V4.0**

③ Parameter present from configuration: **CF: 1016394-V6.0**

⑦ Parameter present from **SW 8.0** version

60 ⑥	**Learn (00÷01)** Sets the possibility to performa learn cycle. **00**= Off (It is not possible to perform a learn cycle from MMI). **01**= On (It is possible to perform a learn cycle from MMI).	01	
65 ⑦	**Sustainable Drive Mode (00÷02)** (Factory setting may vary depending on the SW version/configuration) **00**= Off. **01**= On. The (+) 24 V DC to accessories like sensors is turned off when: - the mode selector is in OFF and the door is closed. - the mode selector is in DOOR OPEN and the door is open. - the power to the motor is turned off when the door is closed (only if parameter 13=00). Moreover if SW 8.0: the motor power is limited to 75W NOTE: If you want to get full power performance set parameter 65 to 00. See also parameters 13 and 34 for holding force. In RBO and SBO type escape route systems, which use photocells, set parameter 65= 00 because the photocells must remain powered. **02**= Extended: DO NOT USE	00 ⑧ 01	
66 ⑦	**STOP function monitoring (00÷01) (ref Parameter 46)** **00**= Monitoring disabled **01**= Monitoring enabled	00	
67	**Selection of the type of automation (00÷01)** **00**= Automation with one door wing. **01**= Automation with two door wings. MMI Write access ☑ MMI Read access ☑ Learn Access ☐	**TO BE SET**	
68 ③	**Door weight (00÷60 kg x10)** Will be estimated during the Learn but can also be altered manually. MMI Write access ☑ MMI Read access ☑ Learn Access ☐	**AUTOMATIC**	
69 ③	**Friction (00÷99 N)** The friction when moving the door is automatically measured during a Learn. NOTE: max friction not more than di 50 N.	**AUTOMATIC**	

③ Parameter present from configuration:
CF: 1016394-V6.0

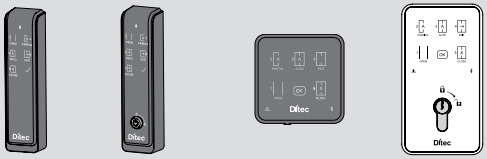
⑥ Parameter present from configuration:
CF: 1016394-V9.0

⑦ Parameter present from SW 8.0 version

⑧ Factory setting for SW 7.0 and earlier, and for SW version 8.0 and later with CF version:
CF: 1016394-V12

ELECTRONIC OPERATION MODE SELECTOR PARAMETERS

Not use in combination with COM501MHS-MKS program selectors

Parameter	Description	Factory setting	Installation setting
(3) b0	**Operation mode selector variant (01÷04)** **01**= DO NOT USE **02**= DO NOT USE **03**= DO NOT USE **04**= ELECTRONIC SELECTOR	**AUTOMATIC**	
(3) b1	**Operation mode selector key lock (00÷03)** **COM501ES/ER** (6) **COM502ES/ER** (6)  There are 4 different levels of access code choices for the operation mode selector. **COM500ES**  There are 3 different levels of access code choices for the operation mode selector. **00**= No access code. **01**= Hold for two sec. **COM500ES**: access is obtained by holding ▲ or ▼ for 2 seconds **COM501ES**, **COM502ES:** access is obtained by holding any mode selection button for 2 seconds. **02=** Passcode. **COM500ES**: passcode can be selected where the access is obtained by briefly pushing in turn ▲▼▼▲. The entire passcode must be entered within 3 seconds. **COM501ES**, **COM502ES:** passcode can be selected where the access is obtained by briefly pushing the buttons in correct order. The entire passcode must be entered within 10 seconds. The passcode can be changed through the DAS900CT. Default passcode is :  (6) **03** = Key. **COM501ER, COM502ER** To enable the use of the selector, rotate the key clockwise towards the symbol	00	
(3) b2	**Operator mode selector service indication (00÷01)** Yellow flashing service LED. Service indication on operation mode selector. No service indication (00). Indicate service (01). See also parameter 55. **00**= Off; **01**= On.	01	

(3) Parameter present from configuration:
CF: 1016394-V6.0

(6) Performance present from configuration:
CF: 1016394-V9.0

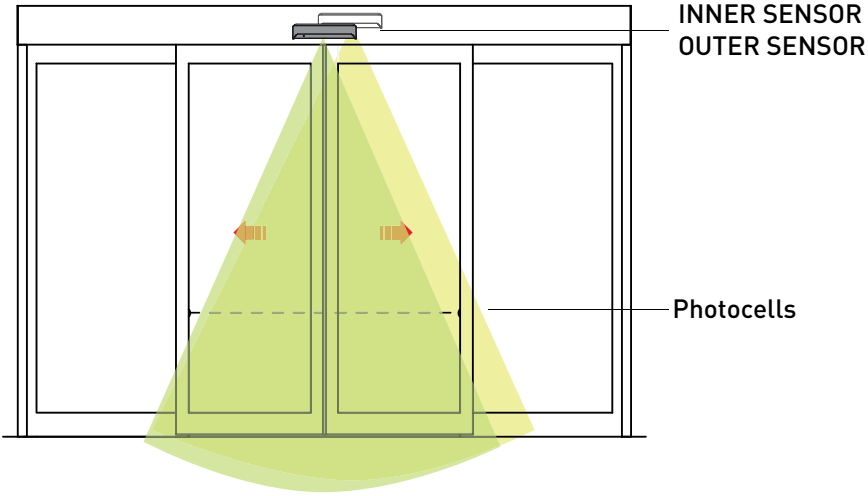
b3 ③	**Function not available, do not modify factory setting.** FUTURE USE.	40	
b4 ③	**Function not available, do not modify factory setting.** FUTURE USE.	01	
b5 ③	**Choose display mode of the operation mode selector (00÷01)** In Show local mode the program selector shows the last setting made on the program selector. In Show system mode the program selector shows the setting that the operator is put to. It is shown with one flach every 5s. When the program selector is flashing every 5s it is not possible to change the mode on the program selector. **00**= Show system mode. **01**= Show local mode.	**AUTOMATIC** 00 ⑥ **(COM501ES/ER COM502ES/ER)** 01 **(COM500ES)**	
b6 ③	**Choose terminal mode of the operation mode selector (00÷02)** **00**=The buttons on OMS are disabled. **01**= The OMS adapts to system mode. **02**= The OMS keeps its selected mode.	**AUTOMATIC** 01 ⑥ **(COM501ES/ER COM502ES/ER)** 02 **(COM500ES)**	
b7 ③	**Mode selector, "self service" indication 00÷01)** **COM500ES**, Orange flashing service LED. **COM501ES/ER**, **COM502ES/ER** ⑥ Magenta flashing service LED. **00**= Off. No "self service" indication. **01**= On. Indicate that STOP contact 1-3 is active. It can be cleared by the owner, e.g. a break-out door is standing open.	01	
b8 ③	**Mode selector, open impulse (00÷02)** If the selector is set on OFF, open impulse to the operator can be made in the following ways by pushing the symbol below for more than 2 s: ▼ **COM500ES**  **COM501ES/ER, COM502ES/ER** The automation closes after the time set on parameter 04. **00**= Disabled. Disables the possibility to give open impulse. **01**= Login Required. Login required on the OMS to enable the possibility to give open impulse. The login is configured through parameter B1. **02**= Enabled. Enables the possibility to always give open impulse.	00	
b9 ⑥	**Bluetooth® wireless technology Power Mode (00÷02)** **COM501ES/ER, COM502ES/ER** **00**= Always disabled. The Bluetooth® Power Mode is fully disabled until other mode is set. **01**= Disabled in OFF mode. The Bluetooth® Power Mode is disabled in OFF mode. **02**= Always enabled. The Bluetooth® Power Mode is always enabled	02	

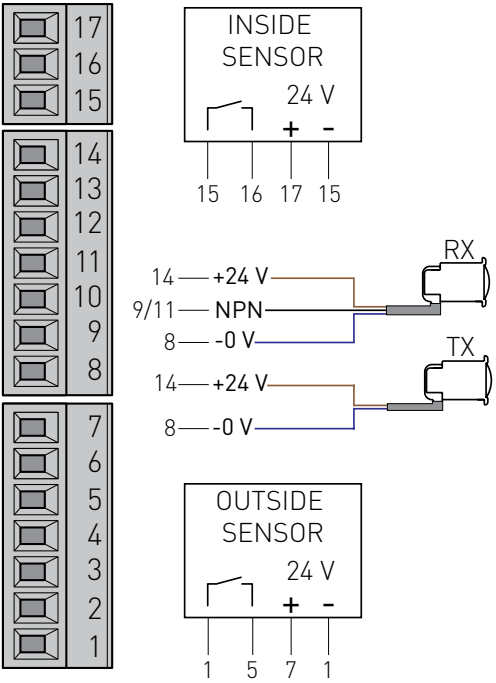
③ Parameter present from configuration:
CF: 1016394-V6.0

⑥ Performance present from configuration:
CF: 1016394-V9.0

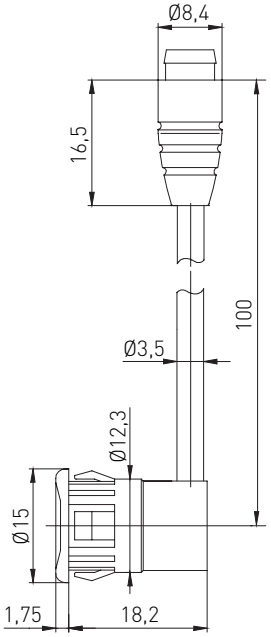
11. Example of connection

11.1 Example of connection with opening radar and photocell





Photocell
DAS900PH1A



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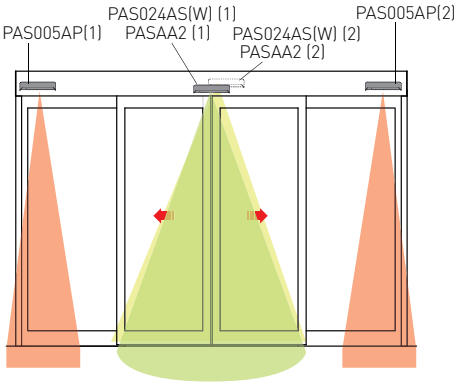
11.2 Combined opening / safety sensor + safety sensor on opening

WARNING: The electrical connections must be made when the mains power supply is switched off.

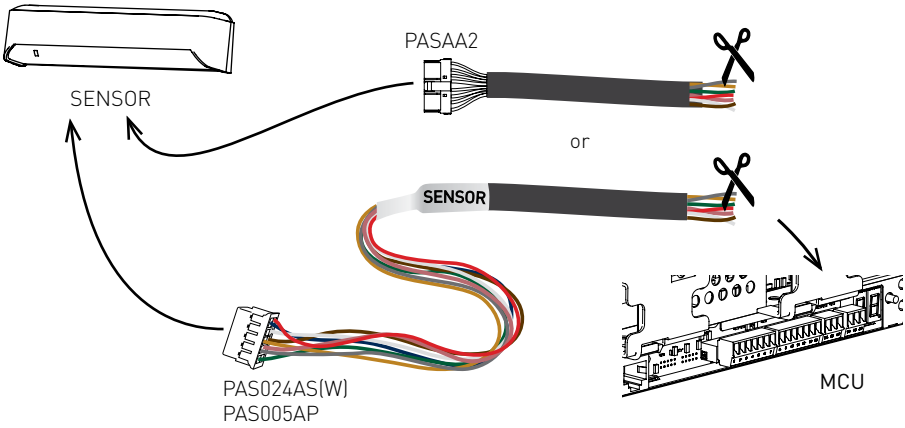
With these connections, the automation opens and makes a reversal safety contact on the passage opening with a command from the internal and/or external sensor.

Opening safety is guaranteed by the auto-control side sensors.

NOTE: If only one sensor is connected, refer to the sensor connections (1).



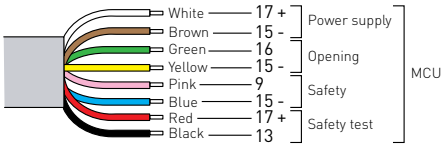
There are 2 different wiring types:



WARNING: DO NOT cut this cable side that muts be connected to the SENSOR

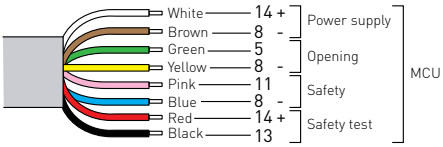
INNER SENSOR

PASAA2 (1)

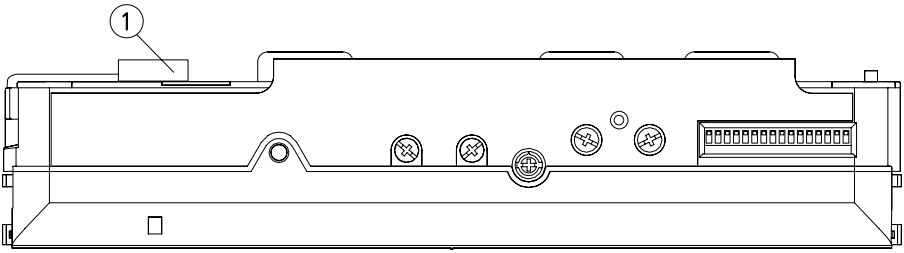


OUTER SENSOR

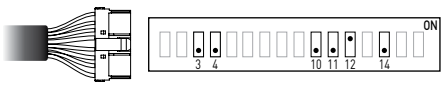
PASAA2 (2)



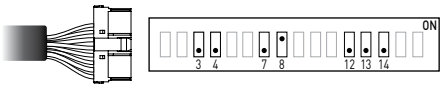
IP2282EN



Set the selection DIP switches on sensor PASAA2 as shown below, for other adjustments refer to the sensor manual.



(1) 8 pin connector

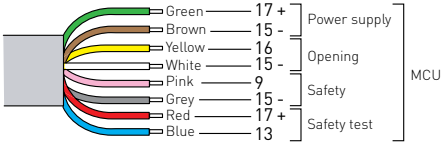


(1) 10 pin connector

from production: **LOT 2405xxxx** 2024

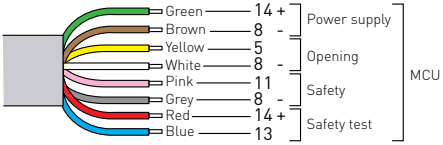
INNER SENSOR

PAS024AS(W) (1)



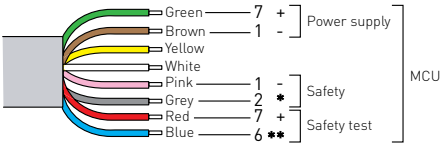
OUTER SENSOR

PAS024AS(W) (2)



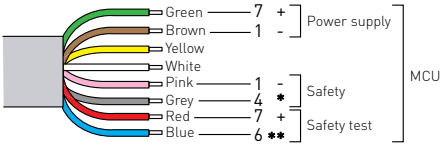
LATERAL SENSOR

PAS005AP (1)



LATERAL SENSOR

PAS005AP (2)



NOTE: * if installed on the passage compartment, connect to 9 or 11.
** if installed on the passage compartment, connect to 13.

If used also photocell in combination with sensors (ref. paragraph 8.1):

- not connect the blue wire of sensor PASAA2(1), or grey of sensor PAS024AS(W) (1) to terminal 15;
- not connect the NPN wire of photocell receiver (RX) to terminal 9;
- connect the blue wire of sensor PASAA2(1), or grey of sensor PAS024AS(W)(1) and the NPN wire of receiver togheter

NOTE: for more information on how the sensors switches work, refer to the relevant installation manuals.

12. DITEC DOOR CONNECT App ⑥

If the operator is equipped with an OMS Bluetooth®, (type COM501ES, COM501ER, COM502ES, COM502ER) it is possible to change the mode selections with the smartphone app DITEC DOOR CONNECT.

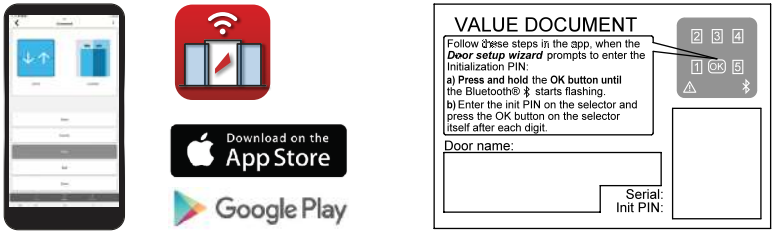


⑥ Function present from configuration: **CF: 1016394-V9.0**

INSTALLATION OF THE APP

- Download the app DITEC DOOR CONNECT, at App Store or Google Play. Make sure to have your "VALUE DOCUMENT" ready.
- Before starting the setup wizard, make sure that your door's operating mode selector is set to AUTO.
- Tap the button "+ Add Door " in the app, and follow the door setup wizard. The setup wizard will guide you how to pair the smartphone with the door.

NOTE: see also parameter **3C** to set changes



NOTE: to be able to pair, you have to be in the range of 10 meters from the door.

13. Entry-exit traffic control (Function to be used with the Ditec Door Connect App)

13.1 Flow

NOTE: the Flow function works correctly only if parameter 65 = 00 (sustainable drive mode disabled)

The Flow function (ref parameter 3d) enables the operator to count how many people that pass through the door, in and out. The value can be presented in the Ditec Door Connect app. The Flow function aids in controlling the amount of people that can enter the building. The max restriction limit is 1000 persons. Flow will work in all operation mode selections (except OFF which will reset the counter). Flow Exit Only - a function that will prevent the door from opening for incoming people when the user defined restriction limit has been reached - will work in EXIT, AUTO and PARTIAL. For the end user to be able to change the Flow parameters, they have to use the Ditec Door Connect app. Therefore it is needed that the operator is equipped with an OMS Bluetooth® (type COM501ES, COM501ER, COM502ES, COM502ER). In the app it is possible to set a restriction limit for Flow Exit Only. It is also possible to set value(s) for when to receive notifications when i.e. 50% or 75% of the restriction limit is reached. Notifications are only received when connected to the operator through Bluetooth®.

13.2 How it works

The system uses 3 impulses to count people. Inner impulse, Outer impulse and Presence impulse1 (of inner sensor). Every time the operator gets an Outer impulse followed by Presence impulse 1 the Flow counter adds one to the counter. Every time the operator gets an Inner impulse followed by Presence impulse 1 the Flow counter deducts one to the counter. Operation mode selection OFF will reset the counter.

13.3 Installation

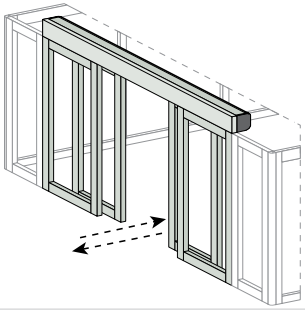
TWO - WAY SYSTEM

In a two-way system Entry and Exit is done through one door.

Parameter settings

Set the three parameters Flow (3D), Flow Exit Only (3E) and Flow Restriction (3F) functions.

Use the following parameter setting if the door shall remain closed when the Flow Limit is reached:



Parameter name	MCU
Flow	**3D** = 01
Flow exit only	**3E** = 01
Flow resctriction	**3F**= max number of people in the building

13.4 Sensors

The impulse sensors that shall be used have to be uni-directional (meaning that the outer/inner impulse is only activated when approaching the door).

NOTE: It is important to set Presence 1 sensitivity as high as possible, without triggering when no person is activating the sensor (ghosting). If the sensitivity is set too low then the presence sensor will miss fast moving targets and people counting accuracy drops.

NOTE: If a door is installed as Entry only and therefore does not have inner sensor, then the outer sensor's presence signal shall be connected to Presence 1.

13.5 Optimizing performance

To optimize performance (counting accuracy) only one person should go through the door at a time, while no one else is in the Inner, Outer or Presence detection zones. The recommendation is to use barriers and signs to guide people to walk with 2 meter distance between each other and to keep clear of sensor detection areas when for example queuing.In a combined Entry/Exit door it is even more important to use signs and barriers to keep people from meeting in the doorway for counting accuracy. Floors that are shiny makes it more difficult for the presence sensor to detect people. Consider using a dark floor mat.
Always try to have Entry and Exit door setup as identical as possible:

- Identical sensor models, configuration and installation height
- Identical floor reflection
- Identical flow of people (avoid clusters of people). Clustering often occurs when entering a building but is reduced in exits by the cashiers which creates a more even flow of people. Barriers and signs can mitigate people clustering.

NOTE: If two or more persons walk close to each other through the door they will be counted as one person. Our sensors cannot determine individual persons.

NOTE: If two persons meet (one heading in and the other heading out) in the doorway it is likely that they will be counted as either both in or both out.

14. Troubleshooting / alarms

Problem	Solution
The automation doesn't open and the motor doesn't start up	Check and change the functions selector switch settings.
	Make sure there are no objects on the sensor's detection path.
	Check the power supply switch inside the building.
The motor starts up but the automation doesn't open	Check any locks, releasing them if necessary.
	Make sure there are no objects hindering the opening of the automation.
The automation doesn't close	Check and change the functions selector switch settings.
	Make sure there are no objects on the sensor's detection path.
The automation opens and closes by itself.	Make sure there are no moving elements on the sensor's detection area.
The reopening maneuver occurs too abruptly	Set parameter 49 with a lower value , example 04-05

14.1 Alarms

- The control panel display shows error signals.
- During normal operation, the display shows ⊓ ⊓ .
- If the display is off, check the mains power supply, the power cable and perform a RESET using the function selector or remove and re-apply power; if the problem persists, replace the control panel or the power supply.

- When there is an alarm, the display alternates the error type (e.g. E4 - Motor error) with a 2-figure number indicating the specific error (e.g. 03 - Encoder error).
- If there are several errors, they will be visualised in alphabetic order and in sequence.
- It is possible to give a RESET to the control unit by the function selector switch.
- Alternatively, disconnect the power supply and battery, if present ,and then reconnect them.
- If the problem persist check below error list.
- On each control panel there is a green LED.
- If this LED is switched off or flashing, this means the control panel is malfunctioning.

Main error: Power Supply		
Error	**Cause**	**Solution**
– –	There is not enough power to the control unit	Check that the power does not drop from the Power supply unit, check cables.
		Replace the Power supply unit

E1 - Sensor error		
Error	**Cause**	**Solution**
30	Stop Impulse Error The control unit does not get a test answer from the stop impulse.	Make sure that the monitoring output is connected and the connections are OK.
31	Side presence command error. The control panel hasn't received a check response from the side presence sensor.	Check that the test output is connected to terminal 6 and all connections are correct. See also parameter 29.
		Replace the side presence sensor.
32	Central presence command error. The control panel hasn't received a check response from the central presence sensor.	Check that the test output is connected to terminal 13 and all connections are correct. See also parameter 9.
		Replace the central presence sensor.

E2 - Emergency Unit Error		
Error	**Cause**	**Solution**
21	Emergency Unit Error. The battery voltage drops due to low capacity during test.	Charge or replace the battery.
25	Battery Error. The battery is disconnected, short circuited or the internal thermal fuse in the battery is defective. The charging current is out of specification.	Make sure that the cables are OK and connected.
		Charge or replace the battery.
		Replace the main control unit.
26	Emergency Action Timeout. The door is prevented its emergency unit test within a stated time, due to high friction or jammed door.	Make sure that the door can open to the fully open position.

E3 - Control panel error		
Error	**Cause**	**Solution**
00	Internal RAM memory error	The green LED flashes or is switched off. Make a RESET. If the problem persists, replace the control panel
01	Internal ROM memory error	The green LED flashes or is switched off. Make a RESET. If the problem persists, replace the control panel
02	Serious internal EEPROM memory error	Make a RESET. If the problem persists, replace the control panel.
05	Ambient temperature measuring error	Make a RESET. If the problem persists, replace the control panel.
06	Motor pilot fault (break chopper)	Make a RESET. If the problem persists, replace the control panel.

08	A/D converter error	The green LED flashes or is switched off. Make a RESET. If the problem persists, replace the control panel.
10	Registration error within the program	The green LED flashes or is switched off. Make a RESET. If the problem persists, replace the control panel.
11	Error within the program	The green LED flashes or is switched off. Make a RESET. If the problem persists, replace the control panel
14	Blocking device current error	Check the blocking device is correctly installed. If the problem persists, replace it. Make a RESET. If the problem persists, replace the control panel.
17	Watchdog hardware error. The connection to the motor cannot be disabled	Make a RESET. If the problem persists, replace the control panel.
18	Serious EEPROM writing error. Cannot change the configuration parameter.	Make a RESET. If the problem persists, replace the control panel.
22	24 V output overcurrent error.	Make a RESET. If the problem persists, check the sensors and accessories connected to the 24 V output. The green LED flashes or is switched off. Make a RESET. If the problem persists, replace the control panel.
23	Blocking device error. Cannot release the blocking device with the relative relay.	Make a RESET. If the problem persists, replace the control panel
24	Learning error. The learning cycle has been suspended.	Check the automation performs a complete opening and closure cycle. Check the friction. Launch a new learning cycle.
33	Serious programming error	Make a RESET. If the problem persists, replace the control panel.
34	Output activation error. Fault test on safety circuits.	Make a RESET. If the problem persists, replace the control panel.
35	Connection voltage error.	Make a RESET. If the problem persists, replace the control panel.
46	Program selector internal Error.	RESET, and if the problem remains, replace the program selector.

E4 - Motor/encoder error

Error	Cause	Solution
03	Encoder error. The encoder, encoder cable or motor cable is damaged.	Check the encoder and motor connections.
04	Motor current error The motor cable or encoder cable is damaged.	Make sure the connection is correct.
09	Encoder cable error The encoder cable is damaged	Check the encoder cable, and replace it if necessary.

E5 - Blocking device error

Error	Cause	Solution
07	Faulty blocking device The blocking device or an obstacle more than 14mm from the closing stop is preventing the automation from opening.	Check the blocking device and make sure there are no obstacles or mechanical jamming. Make sure the parameter closure thrust before the opening operation 06 is correctly set.

E6 - Communication error		
Error	**Cause**	**Solution**
	Motor control communication error. Motor control processor disconnected from the circuit.	Make a RESET. If the problem persists, replace the control panel.
	Automation control communication error. Automation control processor disconnected from the circuit	Make a RESET. If the problem persists, replace the control panel.
	Program selector Brand Mismatch Error. The Operation mode selector is not of the brand Ditec.	Replace the Operation mode selector with a Program selector of Ditec brand.
	Program selector Communication Error. Corrupted communication with the Program selector when selecting operation mode.	RESET, and if the problems remains change the Program selector. If the problem still remains after changing the Program selector change the control unit.
	Operation Mode Selector Communication Error. Operation mode selector disconnected from the external bus.	RESET, check connections, and if the problem remains, replace the operation mode selector.
	External Communication Error The external bus is malfunctioning.	RESET, and if the problem remains, replace the control unit.
	CTI Brand Mismatch Error The Configuration Tool Interface (CTI) or the MCU is not of the Ditec.	Check that the operator is a Ditec operator.

WARNING: It is not possible to replace a Ditec operator component with a component from a different brand.

E7 - Motor temperature error		
Error	**Cause**	**Solution**
	The automation work cycle is too high for the speed and open automation time settings.	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 automation time.

E8 - Non-critical error		
Error	**Cause**	**Solution**
	Non-critical EEPROM writing error	Make a RESET. If the problem persists, replace the control panel.
	EEPROM full	There are too many data to be recorded. Reduce the amount of data in the register configuration.

Program selector error Codes		
Detailed error	**Reason**	**Remedy**
Red light every second	Error in door operator control unit.	RESET, and if the problem remains a service visit is required.
	Defective batteries (with P10 =01)	
Red light 4 times per second	Internal error in the Program selector.	Replace the Program selector.

IMPORTANT

After removing the fault or replacing the automation components, check the following:

1. the movement of the door (adjust the necessary parameters so that the door works correctly);
2. the parameters relating to accessories have been correctly set;
3. the installation complies with local laws and the minimum requisites of the relevant authorities.

15. Routine maintenance plan

Perform the following operations and checks every 6 months, according to the intensity of use of the automation.
With power supply and batteries disconnected:

- Clean the mobile parts (the whells, the carriage slide guides and the floor guides). DO NOT lubricate/grease any of these parts.
- Check the belt and its tension.
- Check the wear of the belt and the wheels of the carriages (if necessary, replace them).
- Clean sensors and photocells.
- Check the stability of the automatic system and make sure that all screws are correctly tightened.
- Check the alignment of the door wings, the position of the end stops, and the correct introduction of the blocking device.

With power supply and batteries connected:

- Check the blocking system is working correctly.
- 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.
- Make sure the forces developed by the automation meet the requisites of the applicable regulations.
- Check the correct functioning of the batteries, if any.

NOTE: for spare parts, see the spares price list. Only use original spare parts for repairing or replacing products.

NOTE: The installer must supply all information concerning the automatic, manual and emergency operation of the motorised automation or gate, and must provide the user with the operating instructions. The installer must prepare and keep a maintenance record showing all the routine and extraordinary maintenance work carried out.

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ASSA ABLOY Entrance Systems AB
Lodjursgatan 10
SE-261 44, Landskrona
Sweden
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