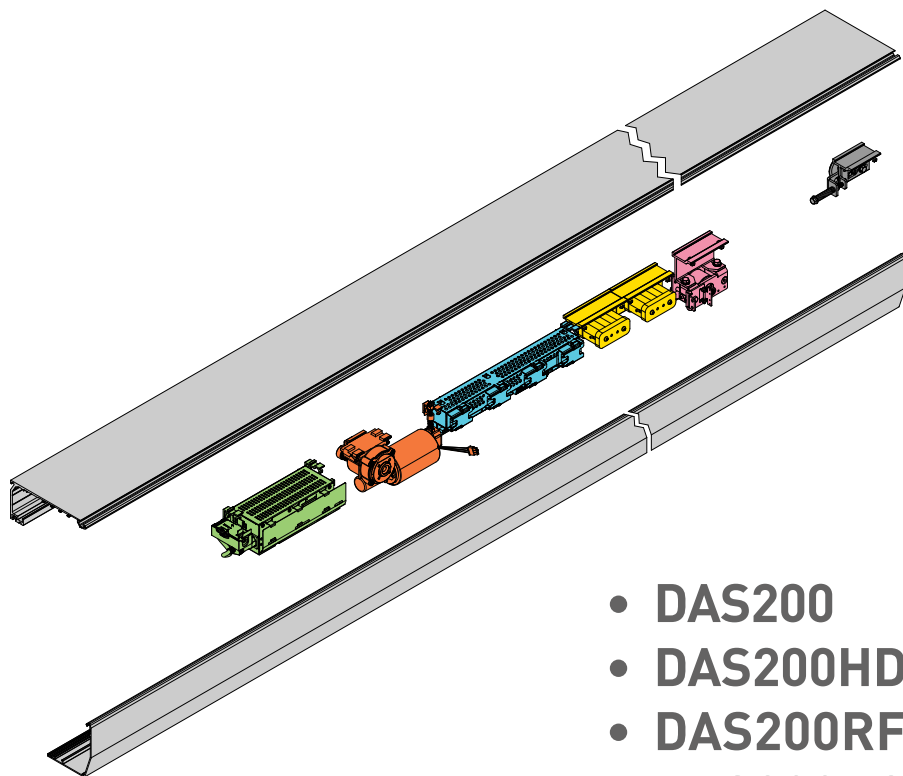




Last version of this manual

IP2266EN • 2025/06/10

Ditec



- DAS200
- DAS200HD
- DAS200RF
- DAS200RG

Ditec DAS200

Technical manual

Sliding doors automation

(translation of the original instructions)

INDEX

EC Declaration of Incorporation	7
1. Technical data	8
1.1 Operating instructions	8
2. Standard installation	9
3. Main components	10
4. Installation of automation	11
4.1 Installation / removal of the cover	11
4.2 Installation / removal of the cover (if installed side presence sensor)	12
5. Examples of installation	13
5.1 Example using supplied wing anchoring brackets	13
5.2 Examples with DAS11M8	14
5.3 Examples with DAS18M8	15
5.4 Examples with DAS35M8	16
5.5 Examples with DAS40M8	17
5.6 Examples with ACV	17
6. Preparation of the glass door wing	18
6.1 Installing and adjusting the door wings	19
6.2 Installing the floor guides	21
6.3 Belt stop installation	21
6.4 Checking and adjusting the belt tension	22
6.5 Sensor positioning on the cover	23
6.6 External sensor cable fixing (2 wings operator)	23
7. Electrical connections	24
7.1 Standard electrical connections	25
8. Software releases with included SW versions	26
9. Control panel commands	27
9.1 Commands	28
10. DAS902MP plus module	30
10.1 DAS902MP commands	31
10.2 Status Relay configuration (use DAS900CT)	33
10.3 Selectable events that activate the relay	34
10.4 Usage example	34
10.4.a ENTRY SIGNALING	34
10.4.b ALARM OR MAINTENANCE SIGNALING	35
11. Adjustment and selection of control functions	35
11.1 Display test	36
11.2 Status indication on the display	36



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.

12.	Start up	37
13.	Parameters	41
13.1	Configuration parameters according to function	41
13.2	Main control board parameters	44
14.	Example of connection	60
14.1	Combined opening and safety sensor + safety sensor on opening	60
14.1.a	Connection to dedicated plugs, ref «H» chapter 7.1	60
14.1.b	Connection to the terminals of the control unit	61
14.2	Example of connection with opening radar and photocell	64
15.	Interconnection of operators	65
15.1	Interconnection cable	65
15.2	Hardware configuration for interconnection	65
15.3	Parameter configuration for interconnection	66
15.4	Operation mode selector (OMS) functionality	66
15.5	Synchronization	67
15.6	Interlock	68
16.	DITEC DOOR CONNECT App	70
17.	Entry-exit traffic control (Function to be used with the Ditec Door Connect App)	70
17.1	Flow	70
17.2	How it works	71
17.3	Installation	71
17.4	Sensors	72
17.5	Optimizing performance	73
18.	Troubleshooting	73
18.1	Activ error indication	75
19.	Routine maintenance plan	80


Revision


Following chapters have been revised:

Ref.	Revision 2024/09/05 → 2025/06/10
3	added DAS802ML0KA
8.	added SW release 8.0
9	added new contact functions 13, 2, 3, 4
12	added parameters 13, 34, 65
13.2	new factory settings for parameters 13, 34, 65
13.2	new settings for parameters 2b, 2C and 45
13.2	new parameter 3A, 66
18.1	added new error E1-30


PAGINA LASCIATA VUOTA INTENZIONALMENTE


GENERAL SAFETY PRECAUTIONS FOR TECHNICAL PERSONNEL


 **WARNING!** Important safety instructions • Follow the instructions carefully • Failure to observe the information given in this manual may lead to serious injury or serious damage to the equipment • Keep these instructions for future reference

 **WARNING!** During installation, 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 the manuals of any accessories can be downloaded from the website: 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.

Machinery Directive

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

- prepare the technical file that must contain the documents indicated in Annex V of the Machinery Directive (The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorised door);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the CE marking on the motorised door or gate, in accordance with point 1.7.3 of Annex I of the Machinery Directive.
- Ensure that the motorised door or gate complies with the safety regulations, installing the necessary safety devices.

EC Declaration of Incorporation

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:

DAS200	sliding door operator (sold in kit form as article DAS200K1)
DAS200HD	sliding door operator (sold in kit form as article DAS200HDK1)
DAS200RG	sliding door operator for escape route (sold in kit form as article DAS200RGK1 + DAS902MP)
DAS200RF	sliding door operator for escape route (sold in kit form as article DAS200HDK1 + DAS200RFKA)

Comply with the following directives and their amendments:

2006/42/CE	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/UE	Electromagnetic Compatibility Directive (EMCD)
2011/65/UE	Restriction of hazardous substances (RoHS 2)
2015/863/UE	Restriction of hazardous substances (RoHS 2 Amendment)

Harmonized European standards that have been applied:

EN60335-1:2012/A15:2021	EN ISO 13849 -1:2015	EN 61000 -6-2:2005
EN 60335-2-103:2015	EN 16005:2012/AC:2015	EN 61000 -6-3:2007+A1:2011

Other standards or technical specifications that have been applied:

AutSchR: 1997	
DIN 18650-1:2010	DIN 18650-2:2010
IEC 60335-1: 2010 +A1:2013/ +A2:2016	IEC 60335-2-103:2015 + A1:2017 + A2:2019 (*)

CE type examination or certificate issued by a notified or competent body concerning the equipment:

- TÜV SÜD B 058029 0052 [Ditec DAS200]
- TÜV SÜD (*)Z2 058029 0058 [Ditec DAS200HD, Ditec DAS200RG]
- TÜV SÜD B 058029 0054 [Ditec DAS200RF]

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/CE.

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

Origgio

Date

2025/06/10

Signature

Matteo Fino





Position

CEO Ditec









© ASSA ABLOY, all rights reserved

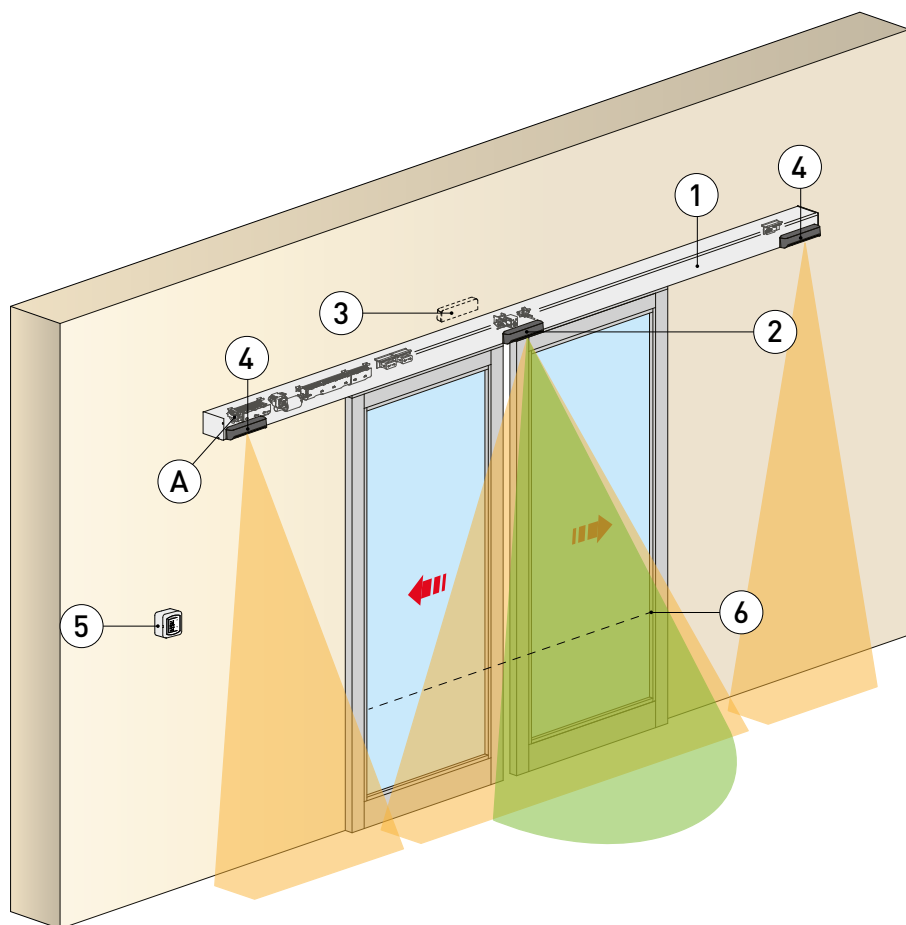
1. Technical data

	Ditec DAS200	Ditec DAS200HD Ditec DAS200RF	Ditec DAS200RG
Power supply	100 /240 V~ [-10% / +10%] 50/60 Hz		
Power consumption	Max 100 W	Max 250 W	
Power supply rated power (PS)	75 W	150 W	
Max Opening speed (2 door wings)	1,6 m/s		
Maximum load	120 kg (1 wing) 200 kg (2 wings=100+100 kg)	150kg (1 wing) DAS200HD 280 kg (2 wings=140+140 kg) DAS200RF 240 kg (2 wings=120+120 kg)	150 kg (1 wing) 280 kg (2 wings=140+140 kg)
Intermittence	S3=100%		
Temperature	<div><div> -20°C</div><div> +50°C</div></div>		
Degree of protection	IP20 (FOR INTERNAL USE ONLY)		
Control panel (MCU/MCU-ER)	1DAS20QE	1DAS20HDQE	1DAS20RGQE
Accessories power supply	24 V  0,64 A	24 V  1 A	
Durability test	1.000.000 cycles		

1.1 Operating instructions

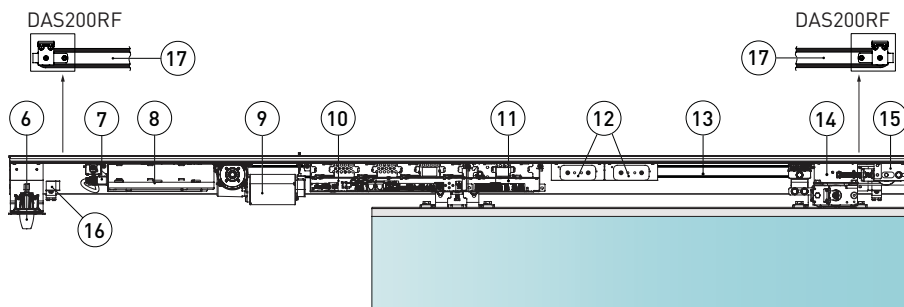
TYPE OF USE	Ditec DAS200	Ditec DAS200HD	Ditec DAS200RF	Ditec DAS200RG
Sliding door automation				
Escape route with break-out system				
Escape route with rubber band opening system				
Escape route with redundant system				

2. Standard installation



Ref.	Description
1	Automation for sliding doors
2	Combined opening and safe closing sensor
3	Combined opening and safe closing sensor
4	Safe opening sensor
5	Program selector
6	Safety photocell
A	<p>Connect the power supply cable to a type-approved omnipolar switch with category III insulation and a contact opening distance of at least 3 mm.</p> <p>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).</p>

3. Main components



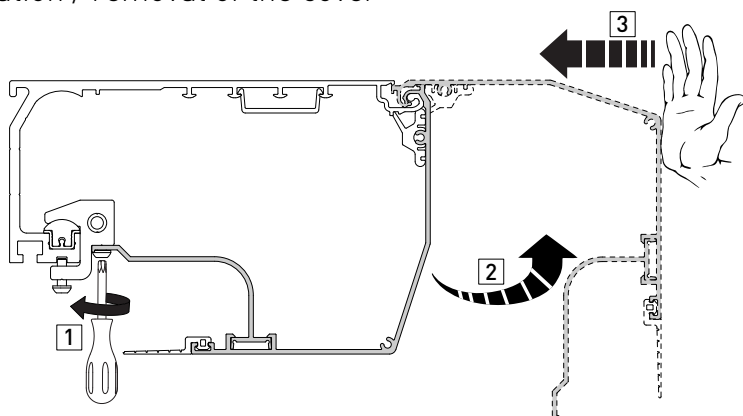
Ref.	Code	Description
6	DASLOKSB	Built-in manual release device (optional)
7	-	Mains power supply
8	1DAS20AL 1DAS20HAL	75W power supply unit (PS) 150W power supply unit (PS)
9	1DAS20MR 1DAS20HMR 1DAS20RGMR	DAS200 gearmotor DAS200HD gearmotor DAS200RG gearmotor
10	1DAS20QE 1DAS20HDQE 1DAS20RGQE	DAS200 control panel (MCU) DAS200HD-DAS200RF control panel (MCU) DAS200RG control panel (MCU-ER)
11	DAS902MP	DAS902MP plus module
12	DAS901BAT1 DAS902BAT2	12V batteries (set parameter 43= 05) 24V batteries (the fuse in the cable harness is T10A)
13	DAS802B50	Drive belt
14	DAS802LOK DAS802LOKA DAS802LOKB DAS802MLOKA	Standard lock. Locked without power - LD Anti-panic lock. Locked with power - LDP Bi-stable lock-LDB Electromagnetic anti-panic lock. Locked with power - LDP
15	-	Belt transmission
16	-	Mechanical stops
17	-	Pulley for rubber band (DAS200RF)



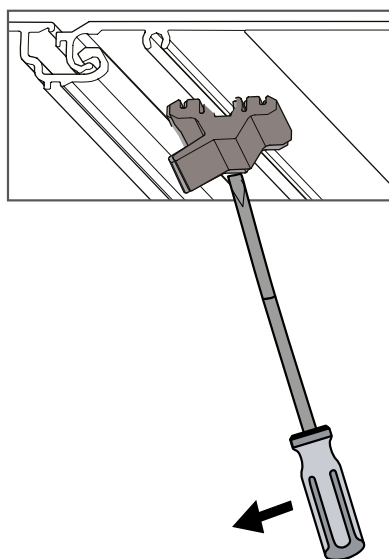
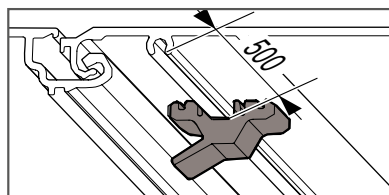
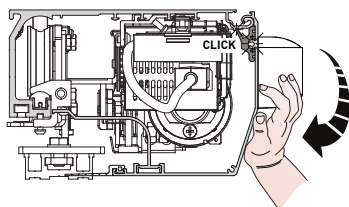
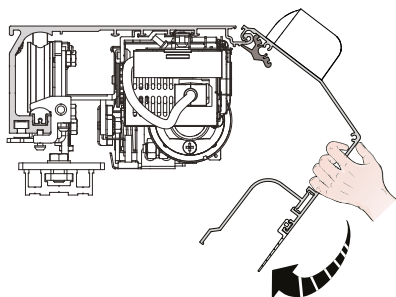
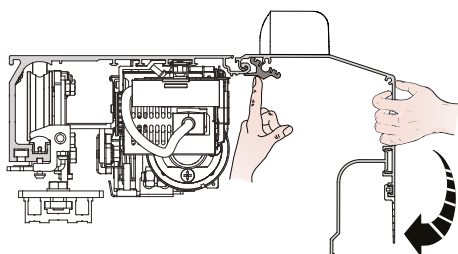
The given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

4. Installation of automation

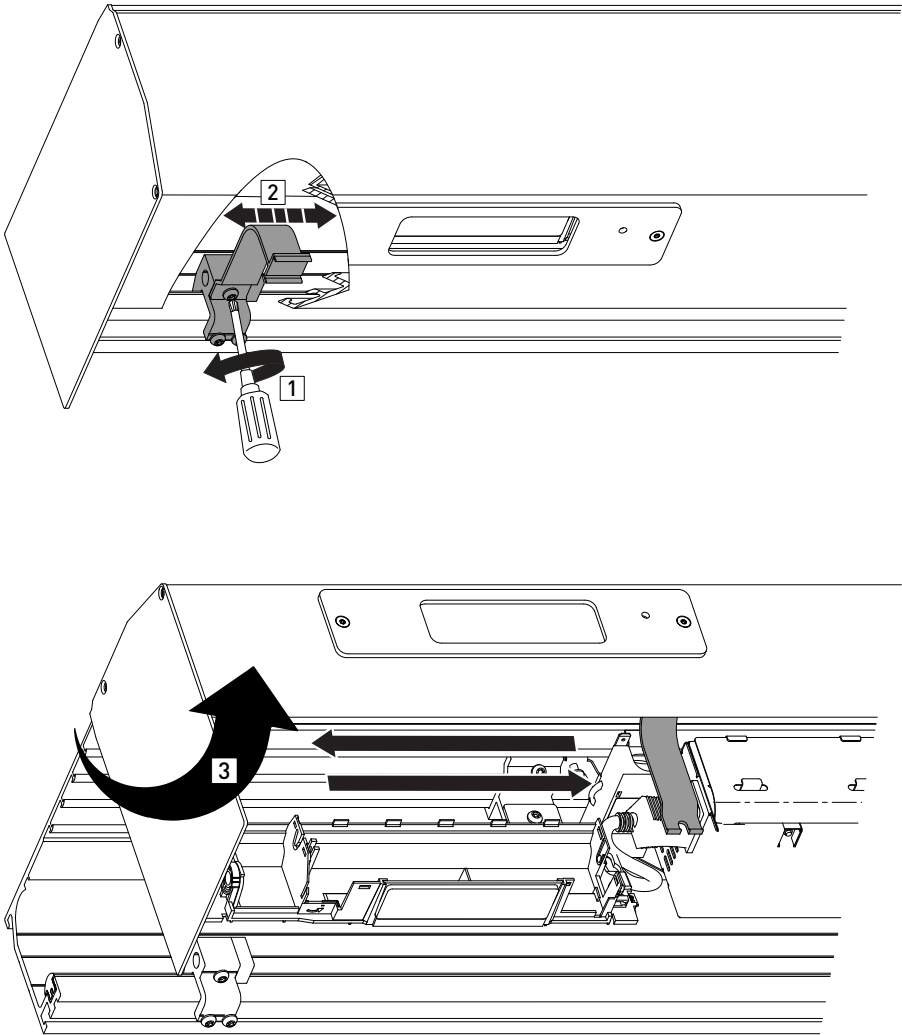
4.1 Installation / removal of the cover



- Secure and unsecure the open cover as shown below.

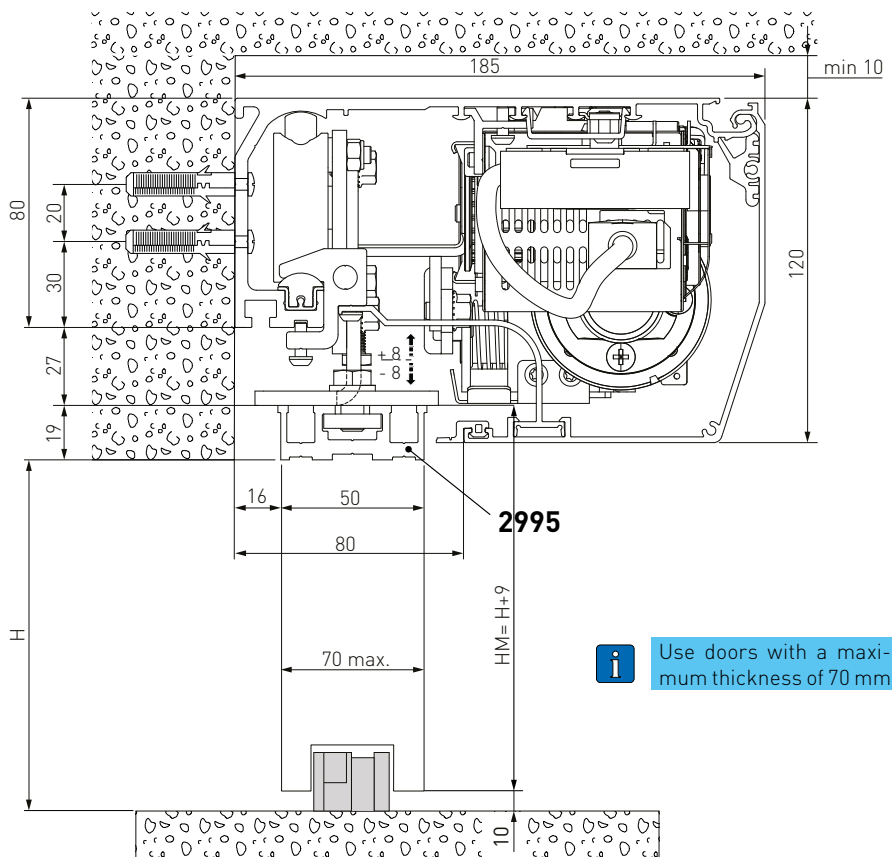


4.2 Installation / removal of the cover
(if installed side presence sensor)



5. Examples of installation

5.1 Example using supplied wing anchoring brackets



Unless otherwise specified, all measurements are expressed in millimetres (mm).

The figure shows the measurements for fastening the automation to the wall, considering that the automation door wings are made using profiles not manufactured by us.

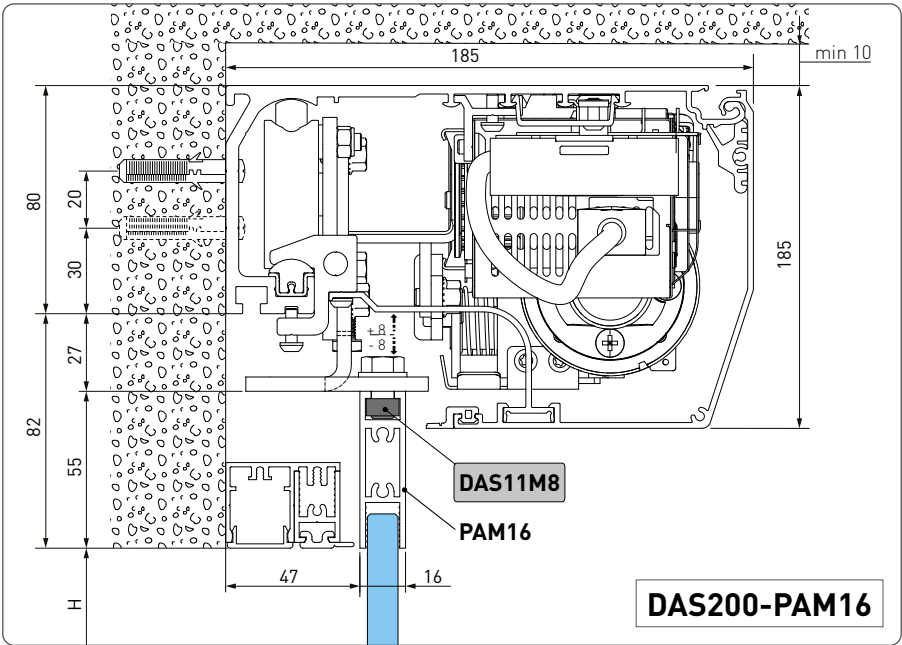
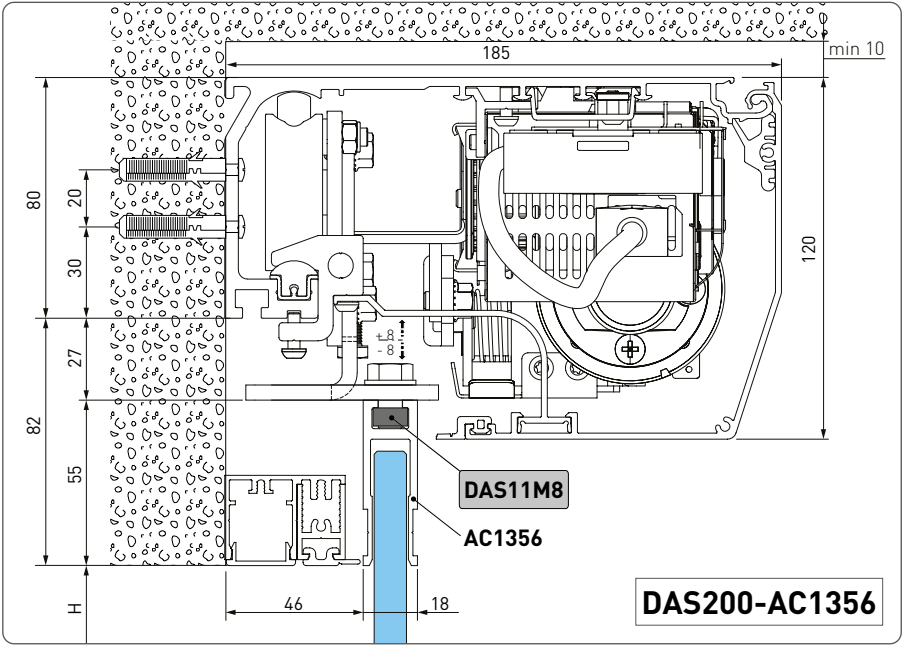
If the door wings are made with DITEC profiles in the ALU/PAM series: refer to the measurements given in the relative manuals.

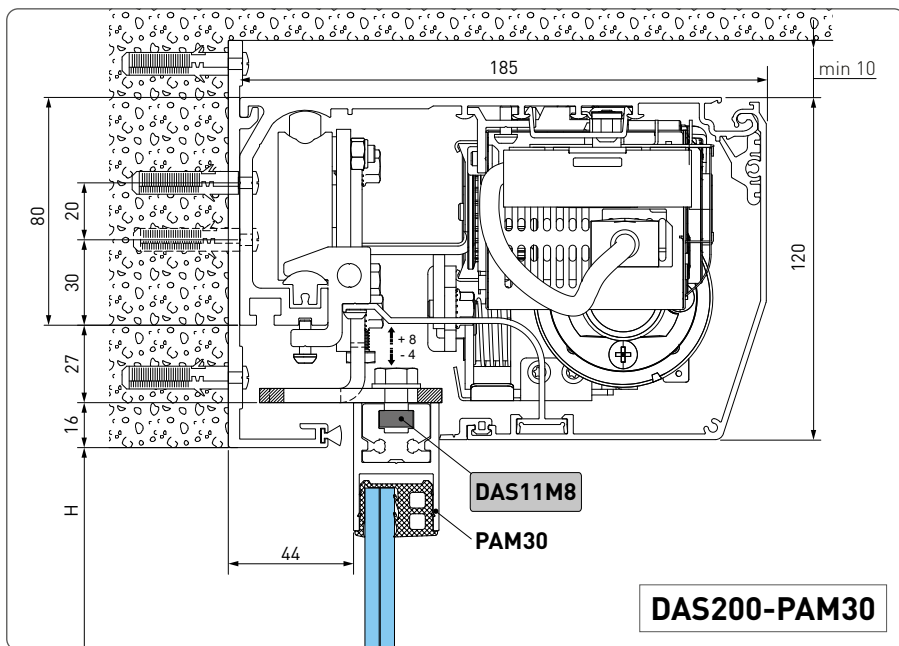
Drill a hole in the box using the reference line on the back and fasten it with M6 Ø12 steel plugs or 6MA screws (not supplied). Distribute the fixing points approx. every 400 mm. Make sure the box is positioned evenly, with its back surface perpendicular to the floor and not deformed lengthwise by the 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.



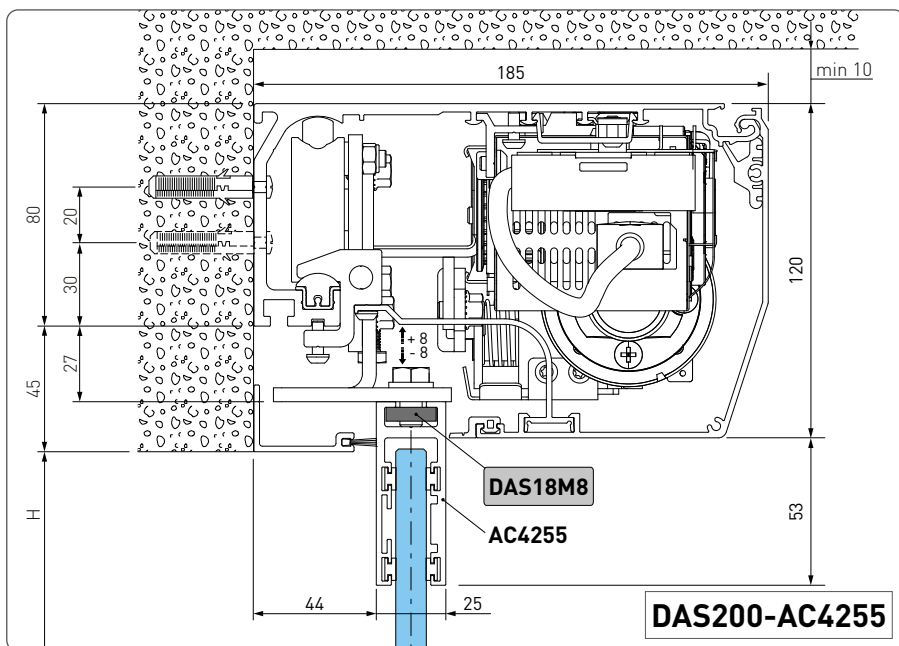
The fastening of the box to the wall must be sufficient to sustain the door wing weight. Do not damage the wheel guide during assembly. Clean the guide thoroughly before installing the wings.

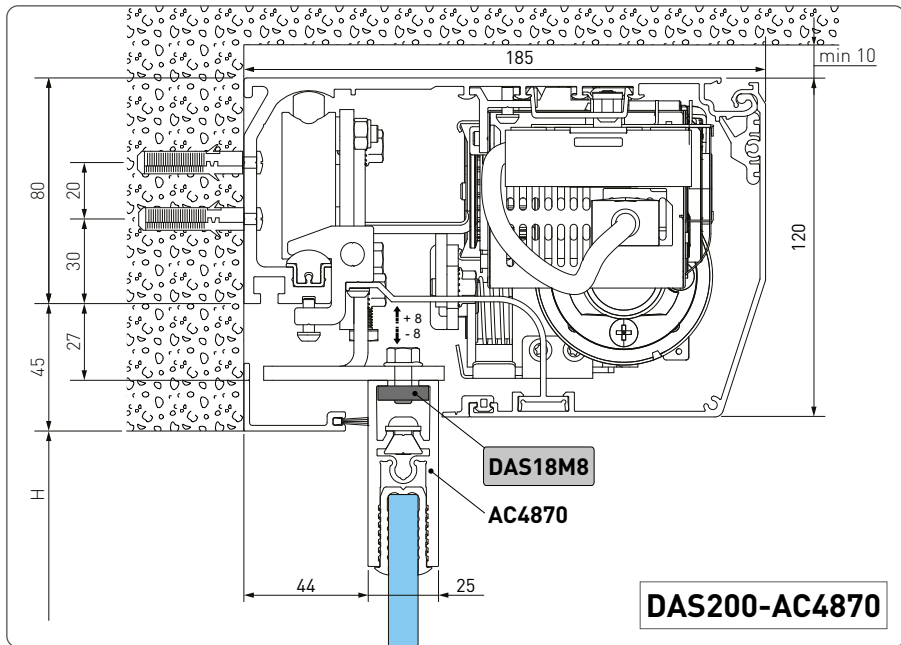
5.2 Examples with DAS11M8



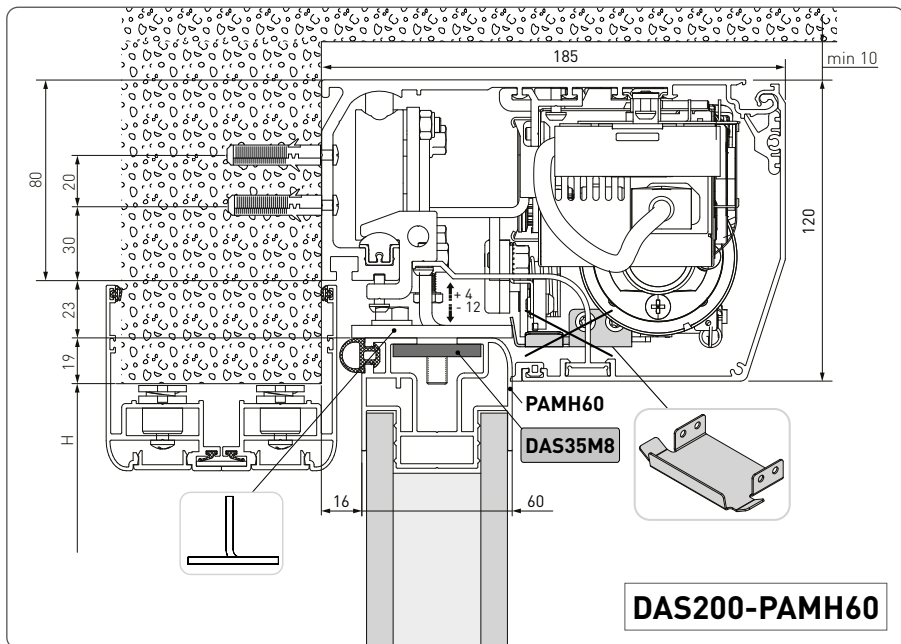


5.3 Examples with DAS18M8

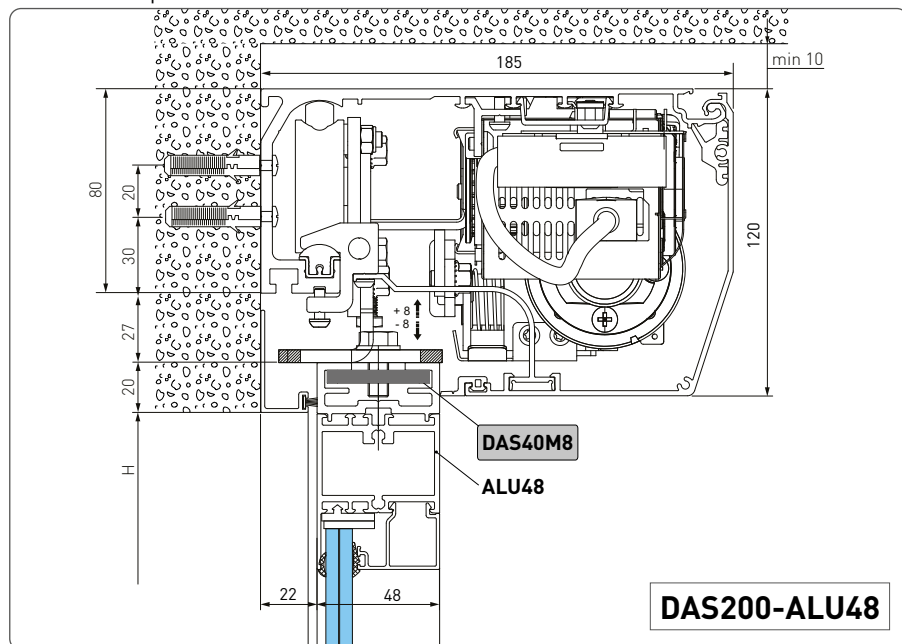




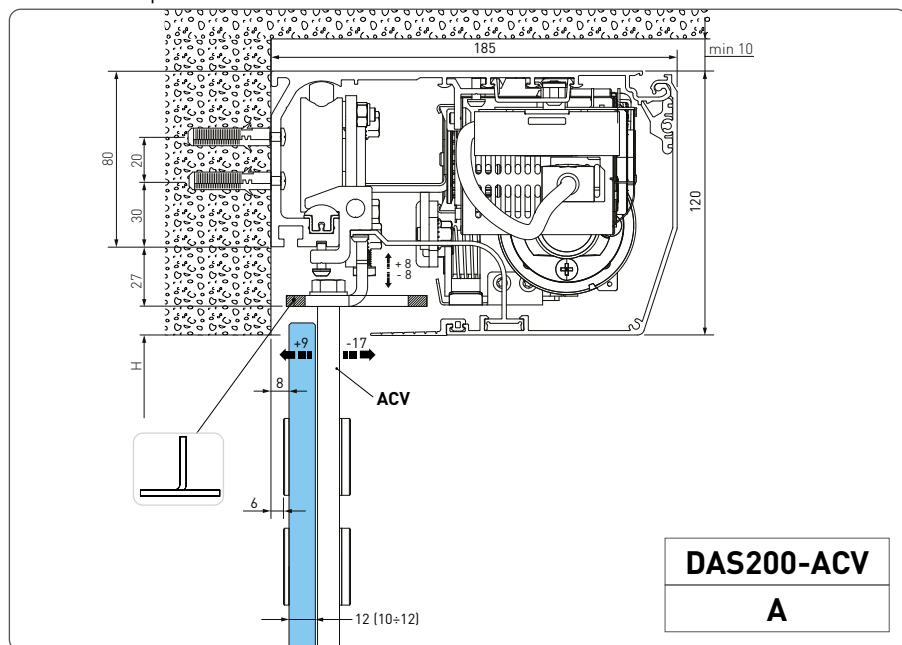
5.4 Examples with DAS35M8

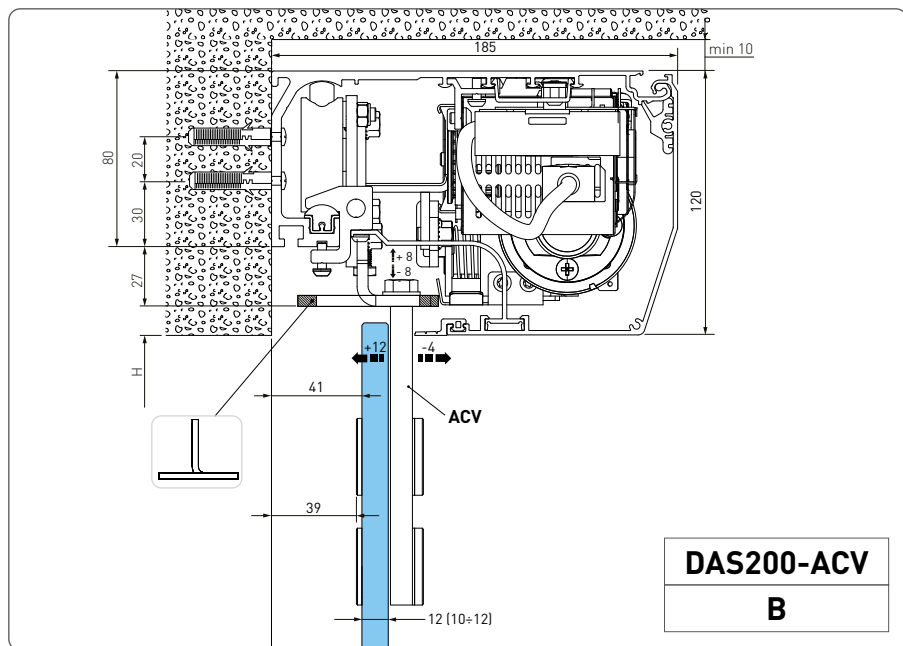


5.5 Examples with DAS40M8



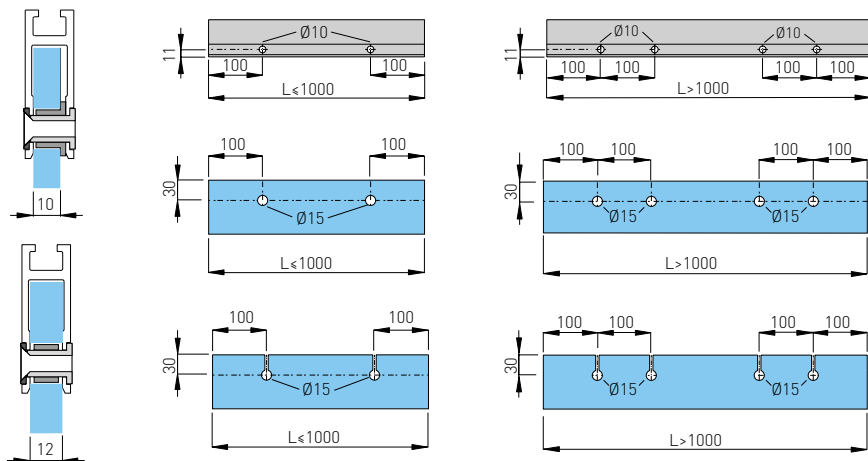
5.6 Examples with ACV





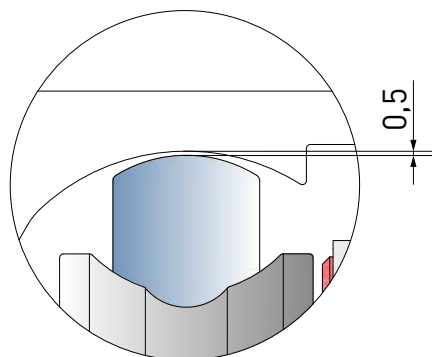
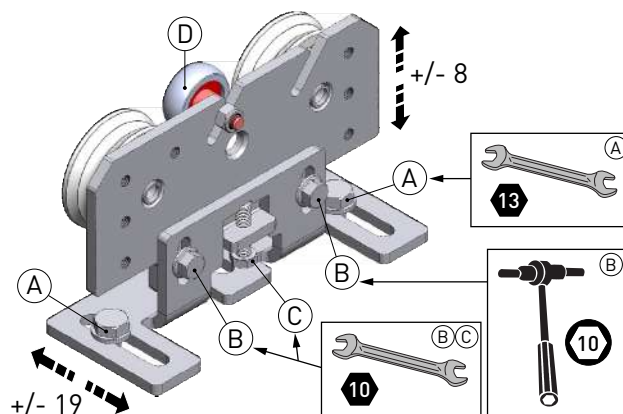
6. Preparation of the glass door wing

The diagram indicates the process measurements of the aluminium profile AC1356 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.

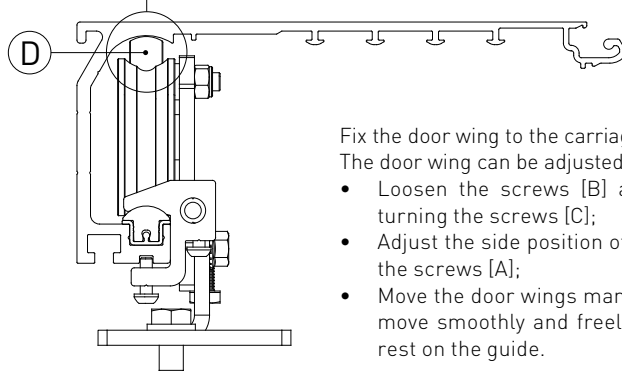


With AC4255 or AC4870 glass wing attachment applications, see the respective manual.

6.1 Installing and adjusting the door wings



Make sure that the central wheel [D] is adjusted as illustrated in the picture.



Fix the door wing to the carriage with screws [A].

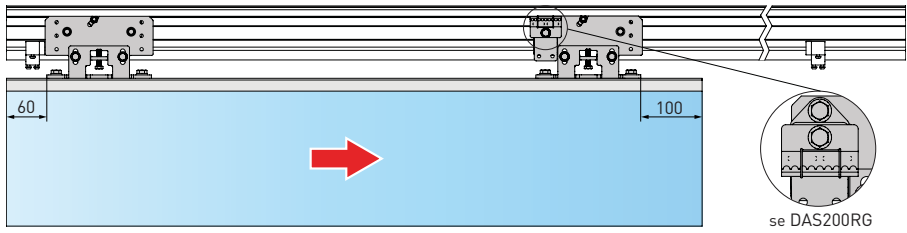
The door wing can be adjusted as shown in the figure:

- Loosen the screws [B] and adjust the height by turning the screws [C];
- Adjust the side position of the door wing by turning the screws [A];
- Move the door wings manually and make sure they move smoothly and freely and that all the wheels rest on the guide.

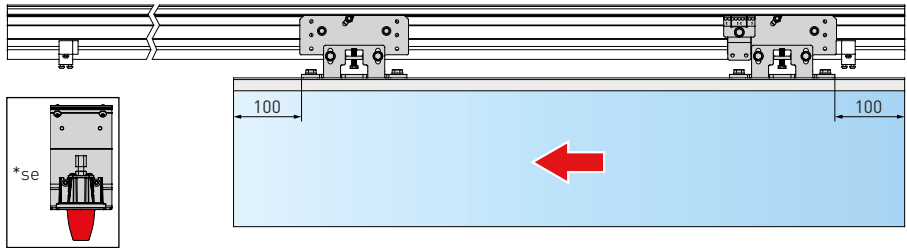


For all-glass door wings without seals, leave a gap of at least 10 mm in the closed position to avoid contact between the glass sheets.

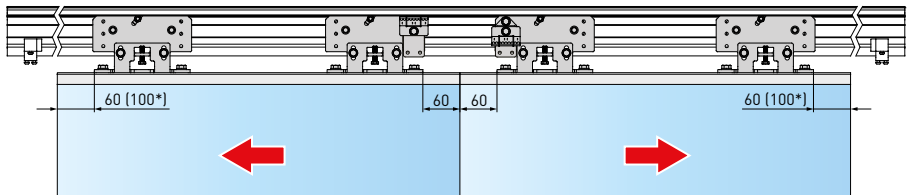
Automation with one door wing with right-hand opening



Automation with one door wing with left-hand opening

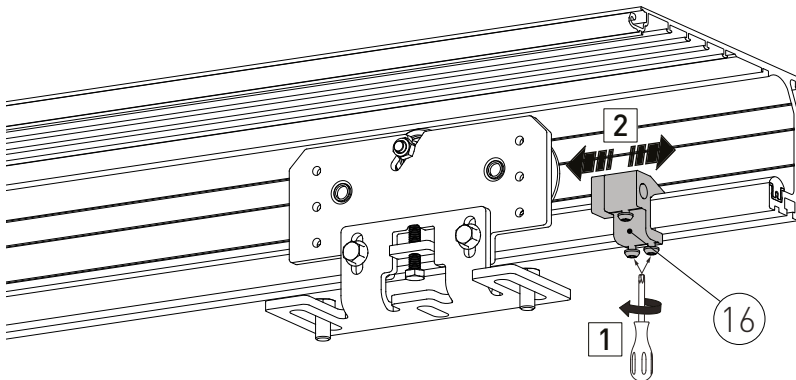


Automation with two door wings



Place the end stops [16] on the opening and closing positions.

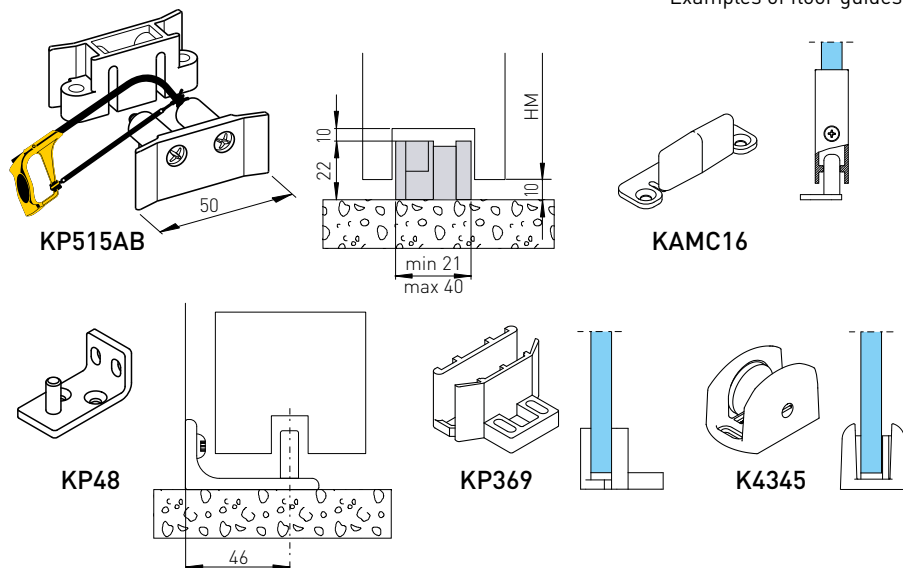
For the 2 wing automations, a third end stop is provided which must be placed near the end of the box which is used as a stop for the cover support.



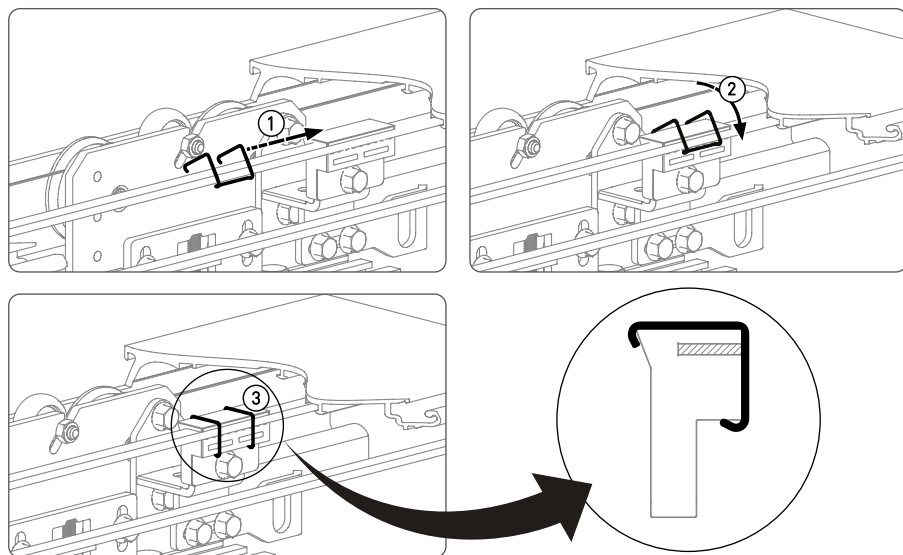
6.2 Installing the floor guides

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.

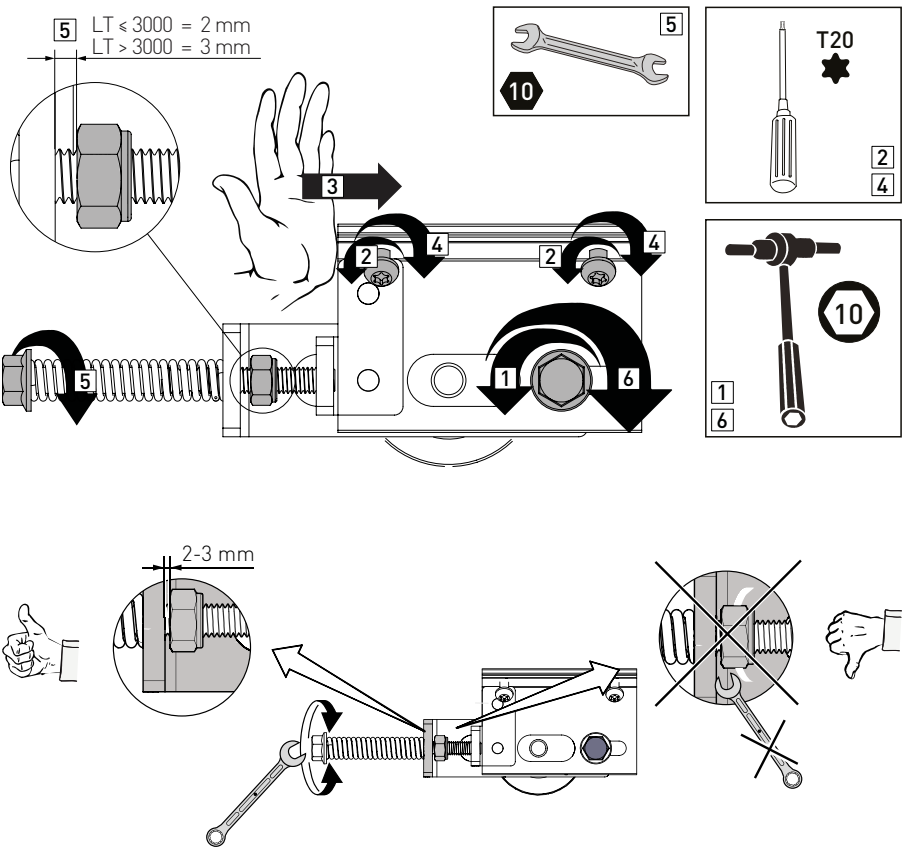
Examples of floor guides:



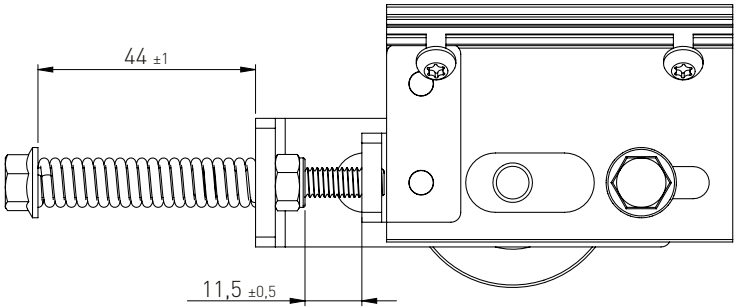
6.3 Belt stop installation



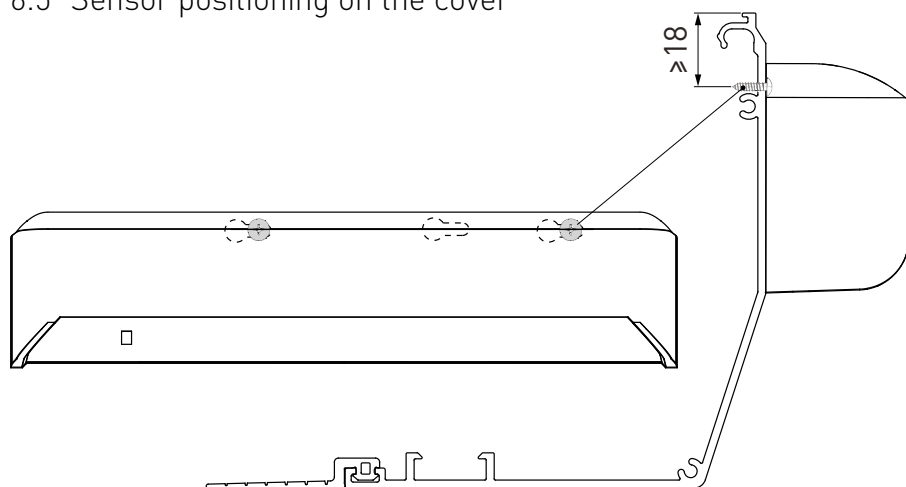
6.4 Checking and adjusting the belt tension



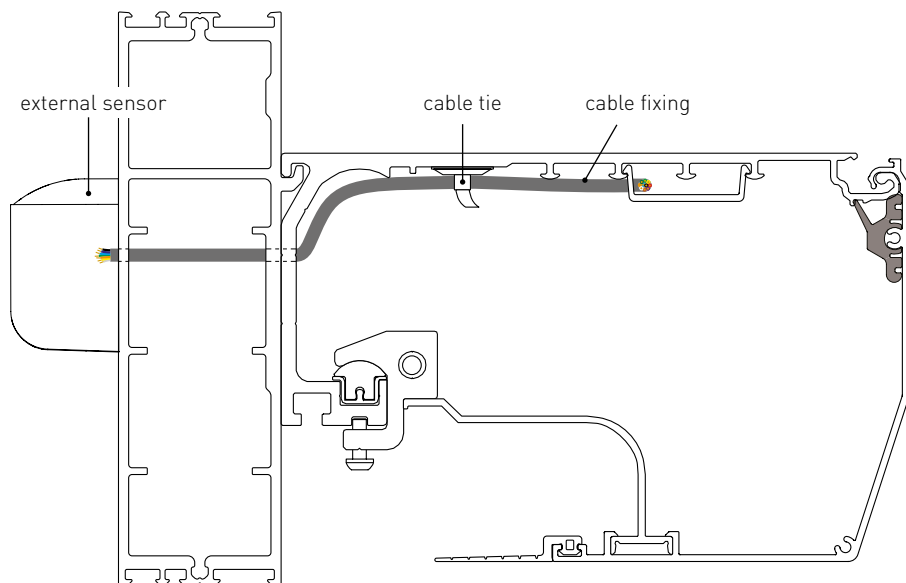
Factory precharge of the spring:



6.5 Sensor positioning on the cover



6.6 External sensor cable fixing (2 wings operator)



7. Electrical connections



Connect the automation to an efficient earthing system that complies with current safety standards.

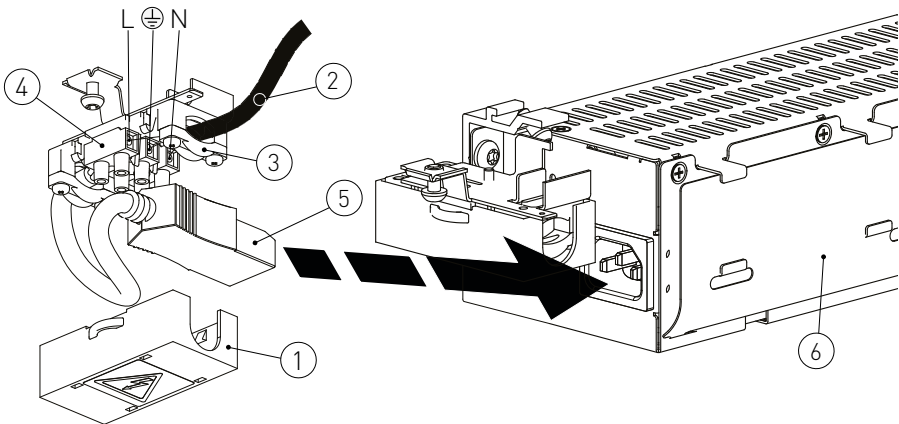
During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.

The automation protection casing must be removed by qualified personnel only.

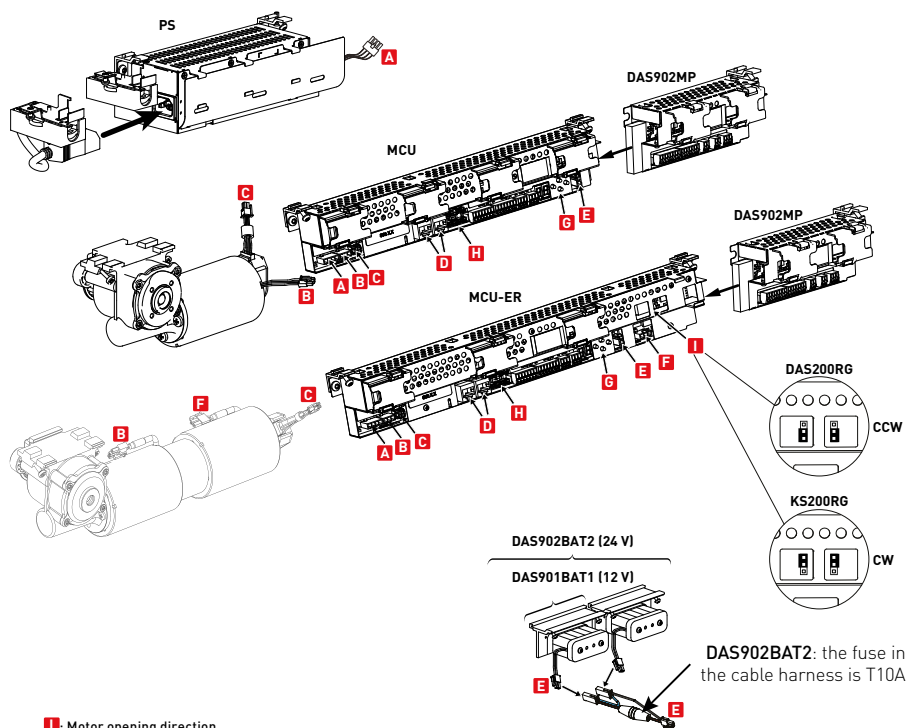
An omnipolar disconnection switch with a contact opening distance of at least 3 mm must be fitted on the mains supply. Check there is an adequate residual current circuit breaker and overcurrent cutout upstream of the electrical system. Install an electric switch next to the automatic system.

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.
- Remove the protective cover [1].
- Connect the power cable [2] to the terminal board [4], locking it with the cable fastener [3].
- Replace the protective cover [1].
- Connect the connection cable [5] to the power supply unit [6].

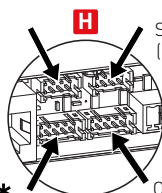


7.1 Standard electrical connections



See example of connection chapter 14.1.a

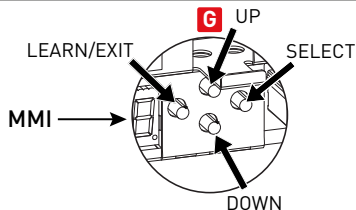
Side presence sensor 1
(ref. contact N.C 1-2) *
use this contact if used
only one sensor.




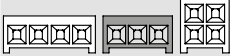

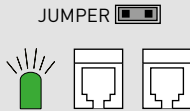



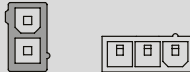



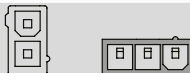
Side presence sensor 2
(ref. contact N.C 1-4) *

Inner combination sensor (ref. contact N.C 8-9) *
use this contact if used only one sensor.

Outer combination sensor
(ref. contact N.C 8-11) *



* if these connections are used, do not jumper the corresponding N.C contacts on the control panel.

Ref.	Output	Description
A		Power supply unit connection
B		Motor connection
C		Encoder connection
D	 <p>JUMPER </p>	<p>Connection for:</p> <ul style="list-style-type: none"> - Program selector (OMS); - Network connection of interconnected operators; - Connector for interface DAS900CTI. <p> Green LED: If this LED is switched off or flashing, it means the control panel is malfunctioning.</p> <p> JUMPER: For interconnecting more than two units (control unit and/or operation mode selector).</p>
E		<p>DAS901BAT1 - DAS902BAT2 battery kit connection (mandatory on DAS200RG-DAS200RF-KS200RG)</p> <p>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 of operation and monitoring.</p> <p> NOTE: Monitoring will be made if parameter 10 is set to Convenience Monitoring [01].</p> <p> 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.</p> <p> NOTE: use battery type 12V, 1,2Ah NiMH. If a different type of battery is used it can damage!</p> <p>DAS902BAT2: the fuse in the cable harness is T10A.</p>
F		DAS200RG/KS200RG motor connection

8. 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	ER 1.1.17.4	IOU 9.5.17.2	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	ER 1.1.17.4	IOU 9.5.17.3	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	ER 1.1.17.5	IOU 10.5.17.2	OMS B* 7.2.17.2	OMS S** 1.4.17.7

MCB + MC = MCU --> 1DAS20QE/1DAS20HDQE / 1KS20HDQE

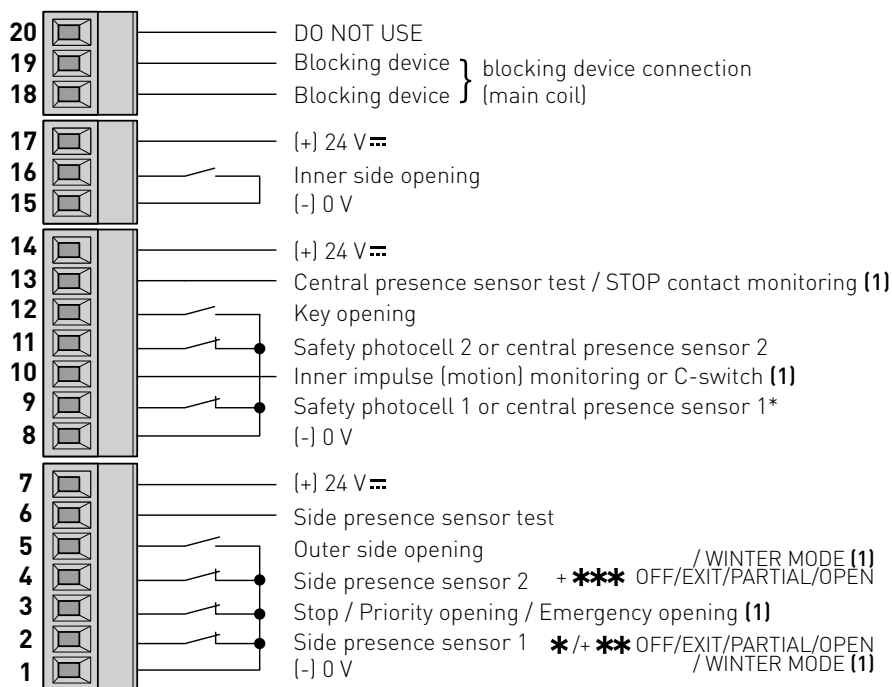
MCB+MC+ER = MCU-ER --> 1DA20RGQE / 1KS20RGQE • IOU = DAS902MP

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

9. Control panel commands



NOTE: Power supply output for external accessories 24V \equiv . The maximum absorption of corresponds to the sum of all terminals power supply output (1-7; 8-14; 15-17)
 -DAS200: 0,64 A -DAS200HD/RF/RG/KS200HD/RG: 1 A




(1) on MCU SW 8.0

* use this contact if used only one sensor.




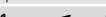
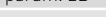


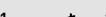



Jumper the unused N.C. contacts


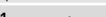

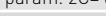
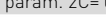
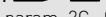
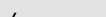
9.1 Commands

Contact	Function	Description
 1 — 2 (ref. parameter 27) (if param. 2B= 00)	N.C. SIDE PRESENCE SENSOR 1	Connect side presence sensor 1 as shown in the example in paragraph 14.

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

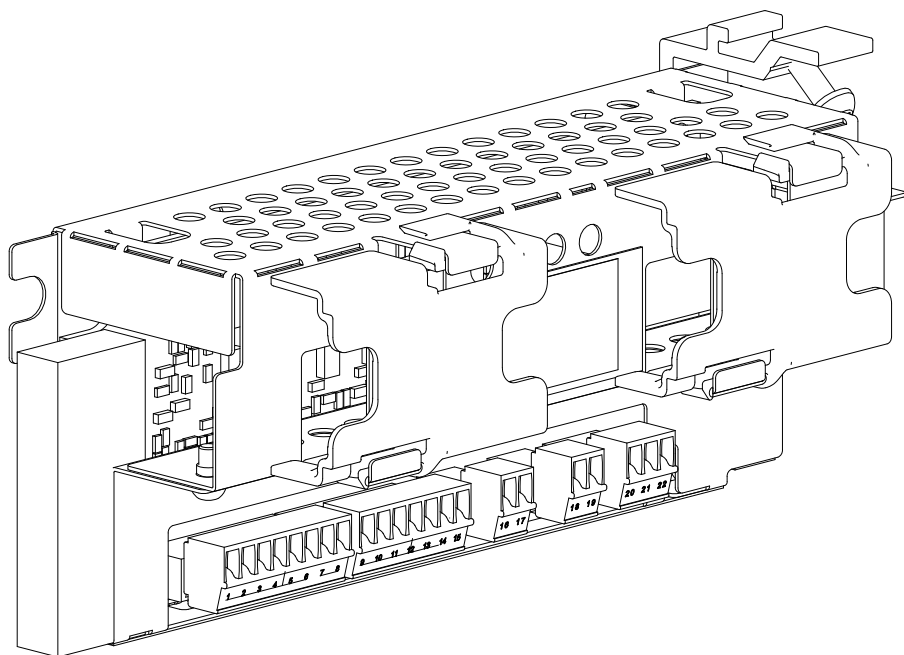
 1 — 2 (if param. 2B= 01)	N.O. OFF	The door closes and remains closed and locked (if lock is present). Not allowed in escape route, according to EN16005 and DIN18650.
 1 — 2 (if param. 2B= 02)	N.O. EXIT	The door opens only with the internal sensor (15-16) or with the key opening command (8-12).
 1 — 2 (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 — 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 12V), is priority (=door opens in case of mains power failure even if STOP contact is open).
 1 — 3 (if param. 45= 02)	N.C. PRIORITY OPENING / EMERGENCY OPEN	DAS200 / DAS200HD / KS200HD: Use for priority opening with any function selector setting, in the presence of mains power or continuity batteries (DAS902BAT2 with P38-01). DAS200RG/DAS200RF/KS200RG: use for emergency opening impulse for escape routes with any function selector setting in the presence of mains power. Can be used as an alternative to contact 5 of the DAS902MP.
 1 — 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 paragraph 14.

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

 1 — 4 (if param. 2C= 01)	N.O. OFF	The door closes and remains closed and locked (if lock is present). Not allowed in escape route, according to EN16005 and DIN18650.
 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 example in paragraph 14. The closure of the contact activates the door opening operation.
 6 — 1 (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 — 9 (ref. param. 07)	N.C. SAFETY PHOTOCELL 1 OR CENTRAL PRESENCE SENSOR 1	Connect central presence sensor 1 as shown in the example in paragraphs 14.
10 — (ref. param. 16)	INNER IMPULSE (MOTION) MONITORING	Connect the test clamp of the escape route central sensor. If the test fails, an alarm message appears on the display. The door will open and remain open until the fault is cleared.
14 — + 24V 10 — - 0V max 100 mA (ref. param. 47-48)	C SWITCH. OPEN COLLECTOR OUTPUT. ELECTRONIC REPORTING OF DOOR STATE	<p>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.</p> <p>i NOTE: When Inner impulse (motion) monitoring is selected, ref.P16=01, C-switch is disabled</p> <p>Application example: connect a relay for air curtain activation</p>
8 — 11 (ref. param. 08)	N.C. SAFETY PHOTOCELL 2 OR CENTRAL PRESENCE SENSOR 2	Connect central presence sensor 2 as shown in the example in paragraph 14.
8 — 12 (ref. param. 04)	N.O. KEY OPENING	<p>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:</p> <ul style="list-style-type: none"> • 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 example in paragraph 14. 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 (main coil)	Output for connecting an electro-mechanical block (optional). The blocking device is automatically selected during the learning phase (except bistable lock).

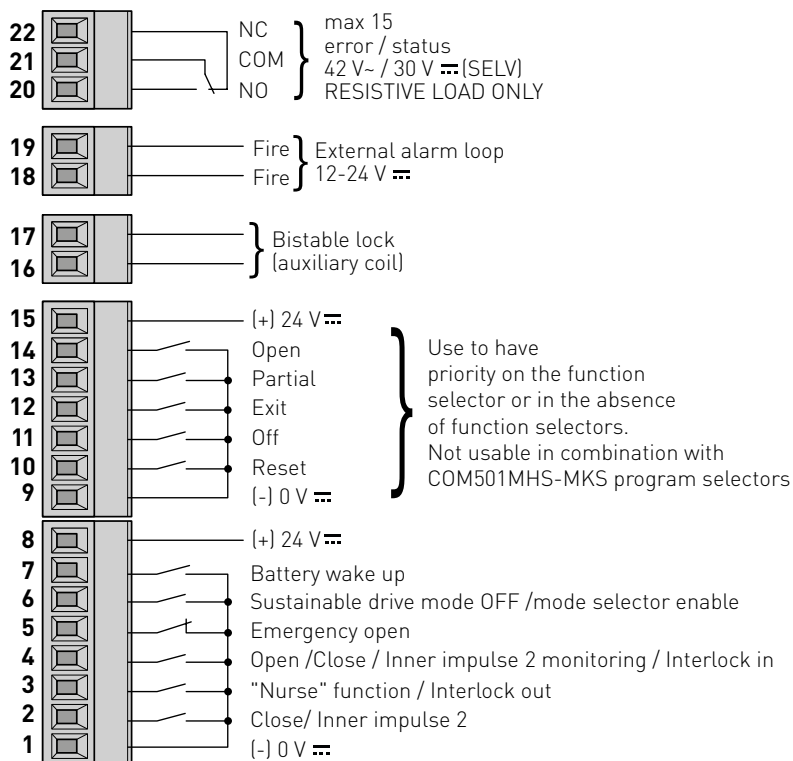
10. DAS902MP plus module

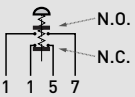


For extra functionality like:

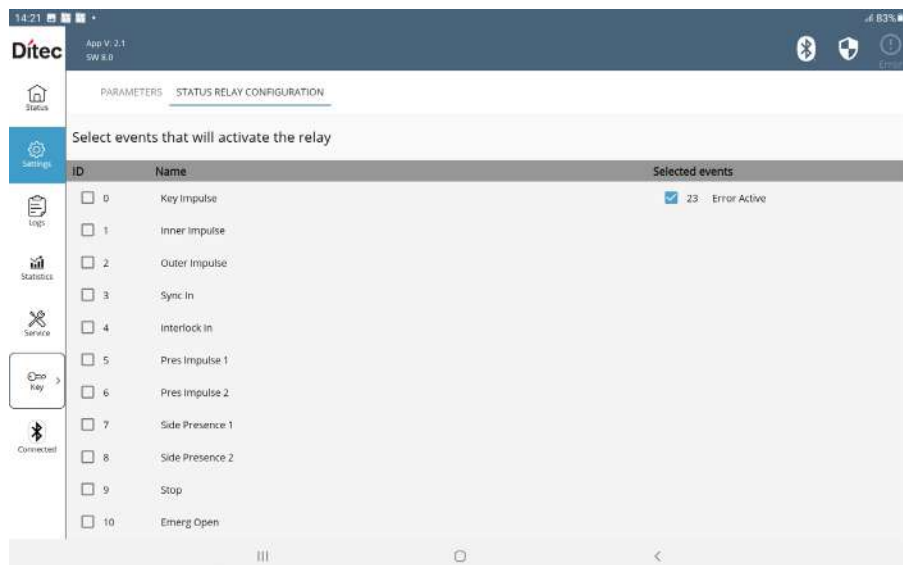
- close impulse;
- nurse impulse;
- open/close impulse;
- emergency open impulse;
- bi-stable lock;
- connection of optional operation mode selector; not usable in combination with COM501MHS-MKS program selectors;
- fire impulse;
- sustainable function off;
- relay out put for external error status indication, maximum 15 W, 42 V~ / 30 V $\overline{\text{DC}}$ (SELV), resistive load only;
- second monitored inner impulse;
- mode selector COM500ER enable impulse.

10.1 DAS902MP commands



Contact		Function	Description
1 — 2 (ref. param. 93)	N.O.	a) CLOSE b) INNER IMPULSE 2	a) Close impulse. b) When two inner impulses are to be used. Sets input to inner impulse 2.
1 — 3 (ref. param. 90)	N.O.	a) "NURSE" FUNCTION b) INTERLOCK OUT	a) The door will open to partial opening in operation mode selections EXIT, AUTO and PARTIAL. b) When configuring for interlock also set parameter 6A = 01.
1 — 4 (ref. param. 91-92)	N.O.	a) OPEN/CLOSE b) INNER IMPULSE 2 MONITORING c) INTERLOCK IN	a) One impulse opens the door the next impulse closes the door. Available in mode EXIT, AUTO, PARTIAL. b) Inner impulse 2 monitoring for the second inner impulse. Set also parameter 93=03. c) When configuring for interlock also set parameter 6A = 01.
1 — 5 (ref. param. 95-96)	N.C.	EMERGENCY OPEN 	Use for emergency opening impulse for escape routes (DAS200RG / DAS200RF / KS200RG) with any function selector setting in the presence of mains power. If it is necessary to open the doors even in the absence of mains power, connect a double push button N.O. /N.C. to contacts 1-5 and 1-7 (not valid for DAS200RF).

10.2 Status Relay configuration (use DAS900CT)



10.3 Selectable events that activate the relay

Selectable events:

ID	Event name	ID	Event name
0	Key Impulse	*35	Stopped
1	Inner impulse	36	Closing
2	Outer impulse	37	Opening
3	Sync In	*38	Start Up
4	Interlock In	39	Mode Off
5	Pres Impulse 1	40	Mode Exit
6	Pres Impulse 2	41	Mode Auto
7	Side Presence 1	42	Mode Partial
8	Side Presence 2	43	Mode Open
9	Stop	44	Close Kick
10	Emerg Open	45	Lock Release
11	Sync Out	46	Sustain Dis
12	Interlock Out	*47	Interlock Dis
13	Close Cmd	*48	Espagn up
14	Nurse Impulse	*49	Espagn down
*15	Intrusion Att.	*50	Sensor Monitor IOU
16	Lock output	*51	Interlock in IOU
*17	Learn Conf Pos	*52	Inner Imp IOU
*18	Output Enable	*53	Lock output IOU
*19	Safe Position	54	Modeselector Disable
*20	Safe Speed	*55	Pharmacy Imp 1
21	C-Switch	*56	Pharmacy Imp 2
*22	Presence Mon	57	Reduntant output Enable
23	Error Active	*58	Battery wakeup
24	Push And Go	59	Jamduring opening
25	Open/Close Imp	60	Jamduring closing
*26	Inner Imp Mon	61	Power fail
*27	Side Pres Mon	*62	Pharmacy open pos 1
28	Fire Impulse	*63	Pharmacy open pos 2
29	Service Needed	*64	Outer Imp Mon
*30	Stop Mon	65	Flow limit
31	Self Service	66	Push And Close
32	Closed	*67	Fire alarm reset
33	Part Open	*68	Remote configured
34	Open	69	Winter mode

* DO NOT USE

10.4 Usage example

10.4.a ENTRY SIGNALING

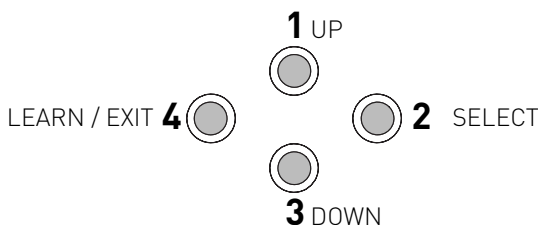
Select ID 5, presence pulse 1. Each time the internal sensor detects the passage of a person, the relay changes state. You can use this to visually/audibly signal a person entering/exiting.

10.4.b ALARM OR MAINTENANCE SIGNALING

Select ID23 (active error) and ID29 (service needed) to signal a generic alarm or maintenance request (ref Parameters 54 - 55)

11. 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:

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



NOTE: make sure all seven segments of the two displays light up correctly to avoid incorrect reading.

- **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 LEARN/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 . 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 12.
 3. Restore factory settings. If pressed for longer than 10 seconds, the control panel restores the factory settings .
 - **EXIT** quits the parameter menu or value without saving the changes. If **EXIT** is not pressed, the control panel returns to the default display 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.

11.1 Display test

- When the display shows , push the SELECT button and each of the two display windows make a rotating test pattern.
- 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.
- When the display test is finalized the display shows two steady digits indicating the first parameter.

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

11.2 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
- 03= Synchronisation
- 04= Interlock in 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 / emergency open impulse
- 13= Close command
- 14= Nurse impulse
- 24= Push and Go impulse
- 25= Open-Close impulse
- 28= Fire impulse

12. Start up



NOTE: for DAS200RF follow the start up procedure indicated in the DAS200RFKA kit manual.



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 and 1-5 on plus module DAS902MP, if not used by sensors.

NOTE: Refer also to "H" in chapter 7.1.

3. Connect the mains power supply to the automation.
4. Set the following parameters:

Parameter	Description	Settings
05	Lock configuration (main control)	KS200HD/RG. The lock is not automatically learned, set manually the lock type: 00 = no lock. 01 = antipanic belt lock (KS802BLOKA) and bistable belt lock (KS802BLOKB). 02 = standard belt lock (KS802BLOK). DAS200/HD/RF/RG. The bistable lock DAS802LOKB is not automatically learned, set the lock type 12 * : 10 = no lock, automatic setting. 11 = antipanic lock (DAS802LOKA /DAS802MLOKA), automatic setting. 12 = standard lock (DAS802LOK), automatic setting and bistable lock (DAS802LOKB), manual setting.
06	Lock release	00 = Off. 01 = On. On DAS200RF set 01 * . If lock type is set manually (parameter 5), set 01 * (except DAS802MLOKA, set 00).
09	Central 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).
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). <div> NOTE: on DAS200RG and KS200HD/RG this parameter cannot be set, the opening direction is defined with the position of the belt attachment bracket. </div>
13	Hold force [00÷60 N]	Adjustment of the force used to keep the door in closed position. The factory setting from SW version 8.0 is 00. <div> NOTE: If you want the motor to maintain a thrust in the closed position, set a value other than 00 (recommended 20) </div>
16	Inner Impulse (motion) Monitoring	According to EN16005 or DIN18650 it is a demand to have Inner impulse monitoring= On in escape routes. 00 = Disables monitoring. 01 = Enables monitoring. <div> NOTE: on DAS200RF set to 01 *. On DAS200RG and KS-200RG this parameter is set to 01 *. </div>

29	Side presence sensor test	<p>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).</p>
34	Hold force in EXIT and OFF mode selection.	<p>00= Off 01= On With an electromechanical lock this hold force can be unnecessary. The factory setting from SW version 8.0 is 00.</p> <p>i NOTE: if you want the engine to maintain a holding thrust set to 01</p>
41	Battery Type	<p>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.</p>
65	Sustainable Drive Mode	<p>00= Off 01= On For DAS200/DAS200HD/KS200HD: The factory setting, from SW version 8.0 is 01 = Enabled For DAS200RG/KS200RG: the factory setting from SW version 8.0 is 00 = Disabled 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). The motor power is limited to 75W even if parameter 71 is set to a higher value. 02= Extended. DO NOT USE. FUTURE USE.</p> <p>i 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</p>
67	Selection of the type of automation	<p>00= Automation with one door wing *. 01= Automation with two door wings *.</p>
98	Lock Configuration, terminal 16-17 DAS902MP	<p>i NOTE: Set ONLY if installed bistable lock DAS802LOKB / KS802BLOKB. 01= bistable lock KS802BLOKB 11= Bistable lock DAS802LOKB.</p>
99	Function Select, terminal 6 DAS902MP	<p>00= No function. 01= Disables Sustainable drive mode. 02= Enable the Mode Selector with a key (only COM500ER).</p>
B1	Operation mode selector key lock (for COM500ES, COM501ES/ER, COM502ES/ER)	<p>00= No access code (do not use for escape route). 01= Hold for two sec.possible use with COM500ES, COM501ES, COM502ES (do not use for escape route). 02= Passcode, possible use with COM500ES (do not use for escape route), COM501ES, COM502ES. 03= Key (to use with COM501ER/COM502ER).</p>

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

☒ MMI Write access
☒ MMI Read access
☐ Learn Access





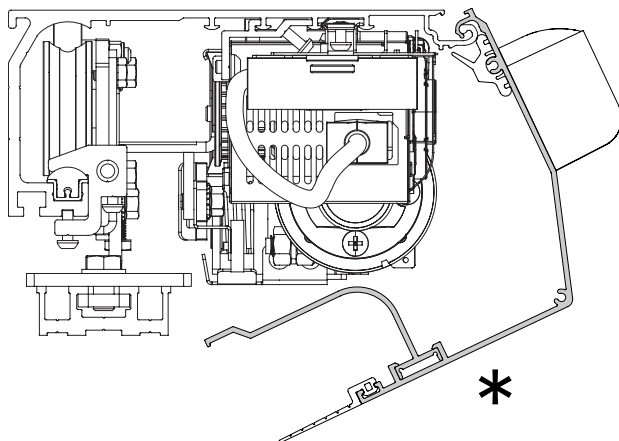
NOTE: Parameter 10 Emergency Unit Monitoring] on DAS00RG and KS200RG is set up on 02= redundant monitoring. If the 12 V battery is used set parameter 43= 05.

5. Press the LEARN button for 2 seconds, the display flashes



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 and, if there are safety sensors, check that they are in standby mode and that there are no people or objects moving in the sensors detection area.



7. Free the area of action of the sensors so that they are detected and monitored during the learning cycle.
8. 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
High Speed Closing	02
Presence of block and type, except bistable lock / KS200HD/RG	05, 06
Whether the sensors are monitored or not	9, 16, 29, 31, 91
Presence of battery and type	41
Measurement of width of passage opening	59
Power supply type	64
Door type	67
Calculation of weight of door wing[s] - (except DAS200RF)	68
Calculation of friction in the system	69


At the end of the learning cycle, the door remains closed and the display indicates . If some parameters have not been automatically configured during the learning cycle, the door opens. The display first indicates 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 300 mm. 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 "A" chap. 6.1) and position the carriage parallel to the leaf.
- Check that the eccentric wheel is correctly adjusted (ref. "D" chap. 6.1).

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 , after 2 seconds, the door closes and is ready for operating.

If necessary, you can adjust the following main parameters:

Parameter	Description	Settings
00	High Speed Opening (cm/s)	10÷80cm/s
02	High Speed Closing (cm/s)	10÷80cm/s
03	Hold Open Time (00÷60s)	(00÷60s)
11	Partial opening (00-99%)	(00-99%)
15	Run Program (01÷05)	Performance adjustment. Sets how fast or slow the door shall accelerate or break. 01 = Smooth, for light doors. 05 = Max Performance. For heavy doors.
38	Convenience battery 24V, DAS902BAT2 (00÷01)	00 = Off 01 = On NOTE: on DAS200RG /KS200RG this display is not visible and is set to 00.
 49	Opening Max Force (02÷23N x 10)	If the reopening maneuver occurs too abruptly, set parameter 49 with a value lower than the factory value (10), 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 4.1.

13. Parameters

13.1 Configuration parameters according to function

For more information on the parameters, see paragraph 13.2.

SPEED parameters		
Parameter	Description	Range
00	High speed opening	10÷80cm/s
01	Low speed	05÷80cm/s
02	High speed closing	10÷80cm/s

TIME parameters		
Parameter	Description	Range
03	Hold open time	00÷60s
04	Key hold open time	00÷60s
20	Partial hold open time	00÷60s
21	Push & Go hold open time	00÷60s
22	Auto width activation time	00÷60s
23	Auto width resume time	00÷60s
24	Jam hold time	00÷10s
25	Interlock disable time	00÷60s
26	Presence hold open time	00÷60s
92	Open/Close timeout ref. terminal 4	00÷60 min.

FUNCTION parameters		
Parameter	Description	Range
5E	Status indication. Off [00] / On [01]	00÷01
5F	Default programming. Off [00] / On [01]	00÷01
12	Opening direction. 1 wing Right [00] / 1 wing Left or 2 wings [01]. On DAS200RG and KS200HD/RG not selectable	00÷01
13	Hold force	00÷60 N
2A	Side presence function. Safe speed [00] / Stop door [01]	00÷01
2B	Function terminal 2 (MCU/MCU-ER). Side presence sensor 1 [00] / OFF[01] / EXIT[02] / PARTIAL [03] / OPEN [04] / WINTER MODE [05]	00÷05
2C	Function terminal 4 (MCU/MCU-ER). Side presence sensor 2 [00] / OFF[01] / EXIT[02] / PARTIAL [03] / OPEN [04] / WINTER MODE [05]	00÷05
32	Active brake on stop. Off [00] / On [01]	00÷01
33	Push & Go in EXIT mode selection. Off [00] / On [01]	00÷01
34	Hold force in EXIT and OFF mode selection. Off [00] / On [01]	00÷01
35	Toggle operation mode selector after stop. 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
53	Operator type. Slider [00] / mechanical emergency unit DAS200RF [04]	00÷04
54	Service Needed Operating Hours	00÷60h x 1000
55	Service needed opening cycles	00÷50 x 100.000
60	Learn. Off [00] / On [01]	00÷01
61	Auto width. Off [00] / On [01]	00÷01
65	Sustainable Drive Mode. Off[00] / On[01] / Extended [02]	00÷02

[DAS902MP]

IP2266EN

[DAS902MP]

FUNCTION parameters		
Parameter	Description	Range
6A	Interlock function. Off [00] / On [01]	00÷01
6B	Synchronizing Function. Off[00] / On[01]	00÷01
6C	External bus device ID	00÷99
6D	Extended hold open time function. Off [00] / On [01]	00÷01
67	Door type. Single sliding [00] / Biparting [01]	00÷01
90	Function select terminal 3. No function [00] / Nurse function [01] / Interlock out [03] / DO NOT USE [04]	00÷04
91	Function select terminal 4. No function [00] / Open/Close function [01] / No function [02] / inner impulse 2 monitoring [03] / Interlock in [04]	00÷04
93	Function select terminal 2. No function [00] / Close function [01] / Inner impulse 2 [03] / DO NOT USE [04]	00÷04
99	Function select terminal 6. No function[00] / Sustainable Disable [01]/ Enable the Mode Selector with a key (only COM500ER) [02]	00÷02

POSITION parameters		
Parameter	Description	Range
11	Partial open position	00-99 %
48	C-Switch Activation Distance	00-99 dm
57	Low speed distance, opening	00-99 cm
58	Low speed distance, closing	00-99 cm
59	Open Position	00-99 dm

DRIVE parameters		
Parameter	Description	Range
15	Run program. Smooth [01] to max performance [05]	01÷05
49	Opening max force	02÷23 N x10
4A	End checking closing thrust	00÷23 N x10
50	Closing max force	02÷23 N x10
64	Power supply type.150W [01] / 75W [02]	00÷02
68	Door weight	00÷40kg x10
69	Friction	00÷99 N
70	Motor type. KS200HD/RG [01] / DAS200 [15] / DAS200HD-RF [16] / DAS200RG [17]	-
71	Max motor power	03÷15 W x10

[DAS902MP]

EMERGENCY parameters		
Parameter	Description	Range
10	Emergency unit monitoring. Off [00] / Convenience monitoring [01] / Redundant monitoring [02]	00÷02
36	Emergency action. Closing [00] / opening [01]	00÷01
37	Emergency Action in OFF Mode. Off [00] / On [01]	00÷01
38	Convenience battery. Off [00] / On [01]	00÷01
3A	Lock Door After Fire Closing. Follow Mode Selector [00] / Always Unlock [01] / Always Lock [02]	00÷02
40	Emergency unit test interval	04÷23h
41	Battery type. No battery [00] / 12V [01] / 24V [02]	00÷02
94	Fire impulse function terminal 18/19. Off [00] / On [01]	00÷01
95	Emergency open impulse function 5. Off [00] / On [01]	00÷01
96	Emergency button configuration 5. N.O. [00] / N.C. [01]	00÷01

IP2266EN


LOCK parameters		
Parameter	Description	Range
05	Lock configuration (main control). No lock [00 and 10] / antipanic belt lock and bistable belt lock [01] / standard belt lock [02] / antipanic [11] / standard and bistable [12]	-
06	Lock release. Off [00] / On [01]	00÷01
43	Opening delay for lock	00÷99s x 0,1
44	EXIT lock. Off [00] / On [01]	00÷01
51	Push & Close. Off[00] / On [01]	00÷01
52	Push & Close Timeout	00÷99s x 10
98	Lock configuration terminal 16/17. No lock [10] / bistable [11]	10÷11

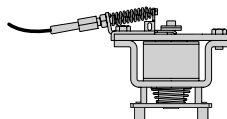
SENSOR parameters		
Parameter	Description	Range
07	Presence impulse 1 configuration. N.O. [00] / N.C. [01]	00÷01
08	Presence impulse 2 configuration. N.O. [00] / N.C. [01]	00÷01
09	Presence impulse monitoring. None[00]/sensor 1[01]/sensor 1 and 2[02]	00÷02 unità
16	Inner impulse [motion] monitoring. Off [00] / On [01]	00÷01
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 unità
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-emergency opening [2]	00÷02
46	STOP configuration. N.O. [00] / N.C. [01]	00÷01
66	STOP function monitoring. Off [00] / On [01]	00÷01
91	Function select terminal 4. No function [00] / Open / Close function [01] / No function [02] / Inner impulse 2 monitoring [03]	00÷03
93	Function select terminal 2. No function [00] / Close function [01] / Inner impulse 2 [03]	00÷03

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] / key [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	Choose terminal mode of the operation mode selector. The buttons are disabled [00] / adapts to system mode [01] / it si setting the operation mode [02]	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
6F	Function not available, do not modify factory setting. FUTURE USE.	01
97	Operation Mode Selector Function (unit DAS902MP). Off[00] / On[01]. Not usable in combination with COM501MHS-MKS program selectors.	00÷01
9A	Function not available, do not modify factory setting. FUTURE USE.	30
9B	Function not available, do not modify factory setting. FUTURE USE.	01

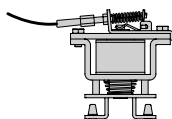
13.2 Main control board parameters

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

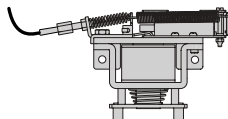
Parameter	Description	Factory setting	Installation setting
00	High Speed Opening (10÷80cm/s) Sets the maximum opening speed. (10= 10cm/s; 70= 80cm/s)	40	
01	Low speed (05÷69= 05÷80cm/s; 70= automatic) The low speed is self adjusting to optimal operation if this parameter is set to max. Depending on authority or installation requirements the low speed, distance opening and/or closing can be further reduced. See parameters 57 and 58.	70	
02	High Speed Closing (10÷80cm/s) Sets the maximum closing speed. (10= 10cm/s; 70= 80 cm/s)	AUTOMATIC	
03	Hold Open Time (00÷60s) The general hold open time for inner and outer impulses.	00	
04	Key Hold Open Time (00÷60s) Hold open time for key impulse (ref. terminal 8-12 on main control board. Ref. parameter B8).	07	
05	Lock Configuration (main control) a) Settings for belt locks (KS200HD/RG): 00= No lock. 01= antipanic belt lock KS802BLOKA and bistable belt lock KS802BLOKB 02= belt lock standard KS802BLOK i * NOTE: The belt locks are not automatically learned. 03->06 DO NOT USE b) Settings for carriages lock (DAS200/HD/RF/RG): 10= no lock 11= antipanic lock DAS802LOKA and DAS802MLOKA (except DAS200RF) (locked with power - LDP). 12= standard lock DAS802LOK (locked without power - LD). Bistable lock DAS802LOKB (LDB). i * NOTE: The belt locks are not automatically learned. If the Configuration Tool CT is used, disable the "learn access": <div> <input checked="" type="checkbox"/> MMI Write access <input checked="" type="checkbox"/> MMI Read access <input type="checkbox"/> Learn Access </div> 	AUTOMATIC *	



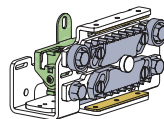
DAS802LOK



DAS802LOKA



DAS802LOKB



KS802BLOK
KS802BLOKA
KS802BLOKB

06	<p>Lock release (00÷01) 00= Off 01= On If "LockRelease" is On the door will apply force in the closing direction when the lock is un locking. This is made to prevent a lock from being stuck in locked position when opening.</p> <p>* NOTE: If you manually select the block type (parameter 5) set 01.</p> <p>If the Configuration Tool CT is used, disable the "learn access":</p> <div> <input checked="" type="checkbox"/> MMI Write access <input checked="" type="checkbox"/> MMI Read access <input type="checkbox"/> Learn Access </div>	<p>AUTOMATIC *</p>	
07	<p>Presence Impulse 1 Configuration (00÷01) 00= N.O. 01= N.C.</p>	01	
08	<p>Presence Impulse 2 Configuration (00÷01) 00= N.O. 01= N.C.</p>	01	
09	<p>Presence Impulse Monitoring (00÷02) 00= No monitoring of precense impulse. 01= Set to "01" if one Presence impulse sensor shall be monitored (if only one sensor is used this sensor has to be connected to terminal 9, Presence impulse 1). 02= Set to "02" if two Presence impulse sensors shall be monitored.</p>	<p>TO BE SET</p>	
10	<p>Emergency Unit Monitoring (00÷02) 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, unless parameter 37 "Emergency Action In OFF Mode" is set to On, see below. Authorities can demand that the emergency unit is monitored 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 within 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.</p> <p>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. 02= Redundant monitoring. Is a redundant two-channel monitoring that is a demand for escape route according to: EN16005 or DIN18650.</p> <p>* NOTE: on DAS200RF set to 02.</p>	<p>00*</p> <p>02 (DAS200RG/ KS200RG)</p>	

11	Partial Open Position (00÷99%) Sets the "winter opening" size. NOTE: A building is certified for a certain COW. Depending on how many people that is allowed to be in the specific area there also has to be a certain opening width. Partial open position must be set to 80% of the certified distance in escape routes.	50 (DAS200/ KS200HD)	
		80 (DAS200HD/ RF)	
		99 (DAS200RG/ KS200RG)	
12	Opening direction (00÷01) 00= 1 wing Right. 01= 1 wing Left or 2 wings. NOTE: on DAS200RG/KS200HD/RG this parameter cannot be selected, the opening direction is defined with the position of the belt attachment bracket.	01	
13	Hold force (00÷60 N) Adjustment of the force used to keep the door in closed position. NOTE: on DAS200RF do not change this parameter, leave the factory value set	20 00 ^③	
15	Run Program (01÷05) Performance adjustment. Sets how fast or slow the door shall accelerate or break. 01= Smooth, for light doors. 05= Max Performance. For heavy doors. NOTE: on DAS200RF do not set value 05.	03	
16	Inner Impulse (motion) Monitoring, terminal 10 (00÷01) According to EN 16005 or DIN18650 it is a demand to have Inner impulse monitoring = On in escape routes. 00= Disables monitoring. 01= Enables monitoring. * NOTE: on DAS200RF set to 01. If the Configuration Tool CT is used, disable the "learn access": <input checked="" type="checkbox"/> MMI Write access <input checked="" type="checkbox"/> MMI Read access <input type="checkbox"/> Learn Access 	AUTOMATIC * 01 (DAS200RG/ KS200RG)	
20	Partial Hold Open Time (00÷60s) Hold open time for Inner & Outer impulses with operation mode selection PARTIAL and for the Nurse impulse.	00	
21	Push & Go Hold Open Time (00÷60s) Hold open time after a Push&Go.	02	
22	Auto Width Activation Time (00÷60s) Auto width activation time is available if parameter 61=01 "Auto Width" is selected. If the door has not closed during the auto width activation time and the door is open or opening the door will open to full open door.	10	

③ factory setting from SW 8.0 version

23	Auto Width Resume Time (00÷60s) When the door have been closed during the auto width resume time, the next opening impulse will open the door to partial open position. Only available if parameter "AutoWidth" 61=01	10	
24	Jam Hold Time (00÷10s) Sets how long time the door shall be stopped when a jam is detected during opening.	05	
25	Interlock Disable Time (00÷60s) The parameter controls the time that interlock is valid. Only active if "Interlock Function" parameter 6A= 01. See how interlock works in chapter 12.5. 00= If the time is set to 00, interlock is always active. 01-60= The "Interlock Disable Time" starts to count down the moment a valid opening impulse is made on the first door. If the first door does not close during the "Interlock Disable Time" the second door is not interlocked any more and will also open. When both doors are closed Interlock Disable Time will be reset.	30	
26	Presence Hold Open Time (00÷60s) Hold open time for central Presence impulses 1&2.	00	
27	Side Presence Input 1 Configuration (00÷01) Setting valid if parameter 2b= 00. 00= N.O. 01= N.C.	01	
28	Side Presence Input 2 Configuration (00÷01) Setting valid if parameter 2c= 00. 00= N.O. 01= N.C.	01	
29	Side Presence Impulse monitoring (00÷02) Side presence impulse monitoring is a demand to be activated according to EN16005 or DIN18650 00= No monitoring of Side Precense impulse. Set to "00" if no monitoring of Side Presence impulse sensors is required or if no Side Presence impulse sensors are installed. 01= Side Presence impulse 1. Set to "01" if one Side Presence impulse sensor shall be monitored (if only one sensor, it has to be connected to terminal 2, Side Presence impulse 1). 02= Side Presence impulse 1 and 2. Set to "02" if two Side Presence impulse sensors shall be monitored.	TO BE SET	
2A	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	

<div>26^①</div>	<p>Function Select, terminal 2 - MCU/MCU-ER (00÷05)</p> <p>a) Side sensor safety mode 00= Side Presence Impulse 1 (N.C. contact)</p> <p>b) Function selector mode 01= OFF * The closure of contact 1-2 activates the door closed and locked mode (if the lock is present). Not allowed in escape route, according to EN16005 and DIN18650. 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 bi-directional opening. 04= OPEN * When contact 1-2 closes, the door opens and remains open. 05= WINTER MODE *^③ 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)</p> <p>* 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 combination with all types of selector. * N.O. contact</p>	<div>00</div>	
---------------------------	--	---------------	--



NOTE: after the adjustment of this parameter, if a learning cycle is not carried out (by pressing LEARN for more than 2s.), dis-reconnect the main power supply and batteries.


<div>2C^①</div>	<p>Function Select, terminal 4 - MCU/MCU-ER (00÷05)</p> <p>a) Side sensor safety mode 00= Side Presence Impulse 2 (N.C. contact)</p> <p>b) Function selector mode 01= OFF * The closure of contact 1-4 activates the door closed and locked mode (if the lock is present). Not allowed in escape route, according to EN16005 and DIN18650. 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 bi-directional opening. 04= OPEN * When contact 1-4 closes, the door opens and remains open. 05= WINTER MODE *^③ 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)</p> <p>* 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 2 (see parameter 2B). In this case the function of terminal 2 will override the function of terminal 4. * Can be used in combination with all types of selector. * N.O. contact</p>	<div>00</div>	
---------------------------	--	---------------	--



NOTE: after the adjustment of this parameter, if a learning cycle is not carried out (by pressing LEARN for more than 2s.), dis-reconnect the main power supply and batteries.

① Parameter present from SW 7.0 version




③ Feature available from SW 8.0 version

30	Side Presence Activation Distance (00÷99dm) This is an inhibit signal for side presence. The door will act according to the value entered in parameter 2A. The value has to be according to local legislation. In an escape route the door has to open to 80% of the certified distance (see parameter 11) within 3 sec. after an inner impulse. 00= If value 00 is selected side presence impulse is valid from fully closed to fully open position. 01-99= The distance is counted from open position. During opening, the side presence impulse is inhibited until the door reaches the entered value in the parameter.	00	
31	Sensor Type (00÷01) Select type of monitoring for the combined sensors. Choose between 1-wire (00) or 2-wire (01) monitoring. 00= 1-wire monitoring. 1-wire monitoring is used when combined sensors have only one monitoring input for both presence and impulse field. 01= 2-wire monitoring. 2-wire monitoring is used when a sensor has separate monitoring inputs for both presence and impulse field.	01	
32	Active Brake on Stop (00÷01) 00= Off. The door will freewheel until it stops. 01= On. The operator will brake the doors actively during 1s on a Stop impulse.	01	
33	Push & Go in EXIT Mode Selection (00÷01) 00= Off. 01= On.	00	
34	Hold Force in EXIT and OFF Mode Selection (00÷01) 00= Off. 01= On. With an electromechanical lock this hold force can be unnecessary. The force set with parameter 13 is applied.	01	
		00 ^③	
35	Toggle Operation Mode Selector after Stop (00÷01) In operation mode selection OFF the mode must be changed before normal operation after a Stop impulse. 00= Off. 01= On.	00	
36	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 c) Fire operation (ref. parameter 94, terminals 18-19 DAS902MP) 00= Closing. The door closes: - with a fire impulse (terminals 18-19 DAS902MP), or - 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: - with a fire impulse (terminals 18-19 DAS902MP), or - 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	
	 NOTE: on DAS200RG and KS200RG this display is not visible and is set to 01.		

37	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) (not 36 point c) even if the OFF mode is selected on the program selector 00= Disabled. 01= Enabled.* <div> <i>* NOTE:</i> the door monitors the batteries (if parameter 10 = 01 or 02) even with the OFF mode selected and will perform an opening maneuver with the time interval set on parameter 40 </div> <div> <i>* NOTE:</i> if parameter 36 = 01, the door could also open during the night. </div>	00	
38	Convenience battery 24V, DAS902BAT2 (00÷01) When this parameter is set to On (01), with a 24 V (UPS) battery the operator will continue its normal operation in case of mains power failure (flat batteries: last operation= opening/closing, see parameter 36). Monitoring will be made if parameter 10 is set to Convenience Monitoring (01). Not approved in escape routes! 00 = Off. 01= On. <div> <i>* NOTE:</i> on DAS200RG and KS200RG this display is not visible and is set to 00. </div> <div> <i>* NOTE:</i> on DAS200RF it is set to 00. </div>	00*	
3A ^③	Lock Door After Fire Closing (00÷02) Parameter present only on DAS200 / DAS200HD/ KS200HD 00= Follow Mode Selector 01= Always Unlock 02= Always Lock	00	
3C ^①	Ditec Door Connect confirmation choice (Smartphone App) (00 ÷02) 00= No code. No code needed to set changes. (Not allowed in escape route, according to EN16005 and DIN18650). 01= Confirm Button. Need to press Confirm Button to set changes (Not allowed in escape route, according to EN16005 and DIN18650). 02= User Pin Code. Need to enter User Pin Code to set changes.	02	
3d ^①	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. <div> <i>NOTE:</i> do not use if Parameter 65= 01 </div>	00	

① Parameter available from SW 7.0 version (See examples of use at chapter 16).

③ Parameter present from SW 8.0 version

3E ^①	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 ^①	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.	00	
40	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	Battery Type (00÷02) What type of battery that is mounted in the operator is identified during the Learn. 00= No battery. 01= 12V (set parameter 43= 05). 02= 24V.	AUTOMATIC	
43	Opening Delay For Lock (00÷99s x0,1) The time the opening is delayed (0.0-9.9 sec) after an opening impulse is given in operation mode selections OFF and EXIT. If the DAS901BAT1 battery is used set parameter 43= 05.	00	
44	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, except bistable lock. (Not allowed in escape route, according to EN16005 and DIN18650).  NOTE: on DAS200RG / DAS200RF / KS200RG set to 00. If the Configuration Tool CT is used, disable the "learn access": <div> <input checked="" type="checkbox"/> MMI Write access <input checked="" type="checkbox"/> MMI Read access <input type="checkbox"/> Learn Access  </div>	00 (DAS200RG/ KS200RG/ DAS200RF)	01
45	STOP/ PRIORITY OPENING/ EMERGENCY OPEN function (00÷02) When this parameter is set to On (01) the Stop impulse is enabled, otherwise it is disabled. 00= Off. 01= On. 02 ③ = DAS200 / DAS200HD / KS200HD: use for priority opening with any function selector setting, in the presence of mains power or continuity batteries (DAS902BAT2 with P38=01) DAS200RG/DAS200RF/KS200RG: use for emergency opening impulse for escape routes with any function selector setting in the presence of mains power. Can be used as an alternative to contact 5 of the DA902MP.	01	
46	Stop Configuration (00÷01) 00 = N.O. 01 = N.C.	01	

① Parameter available from SW 7.0 version
 (See examples of use at chapter 16).

③ Feature available from SW 8.0 version


47 ^②	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 ^②	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. <i>If using the CT Configuration Tool, millimeter adjustment is possible.</i>	01	
49	Opening Max Force (02÷23N 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 (10), example 04 - 05.	10	
4A	Close Kick Force (00÷23N x10) The force applied from the operator to the door leaf during the close kick.	05	
4b ^③	Function not available, do not modify factory setting. FUTURE USE.	99	
4d ^③	Function not available, do not modify factory setting. FUTURE USE.	13	
4E ^③	Function not available, do not modify factory setting. FUTURE USE.	40	
50	Closing Max Force (02÷23N x10) The force applied from the operator to the door leaf during closing.	15	
51	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	Push & Close Timeout(00÷99s 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	
53	Operator Type (00÷04) 00= Slider. 01= DO NOT USE. 02= DO NOT USE 03= DO NOT USE 04= Mechanical Emergency Unit Slider (Sets for DAS200RF).  NOTE: on DAS00/DAS200RG and KS200RG this display is not visible and is set to 00.	00	

② Parameter present from configuration version:


CF: 1018579-VX.X

③ Parameter present from SW 8.0 version

CF 1018579-V 10.0 → DAS200 (1DAS20QE)
 CF 1018578-V 10.0 → DAS200HD (1DAS20HDQE)
 CF 1018576-V 10.0 → DAS200RG (1DAS20RGQE)
 CF 1019682-V 6.0 → KS200HD (1KS20HDQE)
 CF 1019683-V 6.0 → KS200RG (1KS20RGQE)

54	Service needed Operating Hours (00÷60hours x 1.000) Set time before yellow LED in operation mode selector will start flashing (only on electronic operation mode selector). To clear the service needed indication you have to push:  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" press:  and the Counters Operating hours will be set to zero.	00	
55	Service Needed Opening Cycles (00÷50 x 100.000) Set number of openings before yellow LED in operation mode selector will start flashing (only on electronic operation mode selector). To clear the service needed indication you have to push:  on the MMI at the same time for 5 seconds when the display shows on. After 5 s the display will show "SE" during another 5s., release the UP and DOWN buttons. While the display shows "SE" press  and the Counters Operating cycles will be set to zero.	00	
57	Low Speed Distance, Opening (00÷99cm) "Creep speed" distance during opening. The parameter is active only if parameter 01 < 70 and also interacts with parameter 00.	40	
58	Low Speed Distance, Closing (00÷99cm) "Creep speed" distance during closing. The parameter is active only if parameter 01 < 70 and also interacts with parameter 02.	40	
59 ^②	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	Status indication (00÷01) The operator shows the status indication on the LED display of the control panel. See paragraph 11.2 for more information. 00= Off. 01= On.	01	
5F	Default programming (00÷01) Default programming sets the parameters to the factory default values. 00= Off (It is not possible to perform a default programming from the MMI). 01= On (It is possible to perform a default programming from the MMI).	01	
60	Learn (00÷01) Sets the possibility to perform a 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	

② Parameter present from configuration version:

CF: 1018579-

CF 1018579-V 10.0 → DAS200 (1DAS20QE)
CF 1018578-V 10.0 → DAS200HD (1DAS20HDQE)
CF 1018576-V 10.0 → DAS200RG (1DAS20RGQE)
CF 1019682-V 6.0 → KS200HD (1KS20HDQE)
CF 1019683-V 6.0 → KS200RG (1KS20RGQE)

61	AutoWidth (00÷01) If this function is selected (01) and the operation mode selection is PARTIAL. The door will open from partial open width to full open width, if an opening impulse is given and the door has not closed during the time selected in parameter 22 "Auto Width Activation Time". 00= Off. 01= On.	00	
64	Power Supply Type (00÷02) 00= DO NOT USE. 01= 150W. 02= 75W.	AUTOMATIC	
65	Sustainable Drive Mode (00÷02) 00= Off 01= On For DAS200/DAS200HD/KS200HD: The factory setting, from SW version 8.0 is 01 = Enabled For DAS200RG/KS200RG: the factory setting from SW version 8.0 is 00 = Disabled 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). The motor power is limited to 75W even if parameter 71 is set to a higher value. 02= Extended. DO NOT USE. FUTURE USE. <div style="background-color: #00FFFF; padding: 5px; margin-top: 10px;"> 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 </div>	00 (DAS200RG/ KS200RG) 01 (DAS200/ DAS200HD/ KS200HD)	
66	STOP function monitoring (00÷01) (ref Parameter 46) 00= monitoring enabled 01= monitoring enabled	00	
67	Door Type (00÷01) 00= Single sliding. 01= Biparting. If the Configuration Tool CT is used, disable the "learn access": <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <input checked="" type="checkbox"/> MMI Write access <input checked="" type="checkbox"/> MMI Read access <input type="checkbox"/> Learn Access </div>	TO BE SET	
68	Door weight (00÷60kg x10) Will be estimated during the Learn but can also be altered manually. <div style="background-color: #00FFFF; padding: 5px; margin-top: 10px;"> NOTE: The weight of the door is not automatically learned on the DAS200RF, it must be set manually. </div> If the Configuration Tool CT is used, disable the "learn access": <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <input checked="" type="checkbox"/> MMI Write access <input checked="" type="checkbox"/> MMI Read access <input type="checkbox"/> Learn Access </div>	AUTOMATIC (not on DAS200RF)	
69	Friction (00÷99N) The friction when moving the door is automatically measured during a Learn. <div style="background-color: #00FFFF; padding: 5px; margin-top: 10px;"> NOTE: DAS200 not more than 50N. DAS200HD/RF/RG not more than 70N. </div>	AUTOMATIC	


③ Factory setting from SW 8.0 version / Factory setting from SW 8.0 version


6A	Interlock Function (00÷01) It is necessary plus module DAS902MP 00= Off 01= On See example of connection at chapter 15.6.	00	
6b	Synchronizing Function (00÷01) Interconnection cable needed. 00= Off 01= On See example of connection at chapter 15.5.	00	
6c	External Bus Device ID (00÷99) In a chain of interconnected operators one of them has to be the main operator. This operator shall have the value 01. All other interconnected operators shall have different values in this parameter. This to make every operator unique. See example of connection at chapter 15.	01	
6d	Extended Hold Open Time Function (00÷01) + 5s hold open time on doors often reopening during closing. 00= Off. 01= On.	00	
6F	Function not available, do not modify factory setting. FUTURE USE.	01	

MOTOR CONTROL PARAMETERS			
Parameter	Description	Factory setting	Installation setting
70	Motor Type a) settings for KS200HD/ KS200RG 00= DO NOT USE 01= KS200HD (rif 1KSHDMR) / KS200RG (rif 1KSDDMR) 02= DO NOT USE 03= DO NOT USE 04= DO NOT USE b) settings for DAS200 15= DAS200 (rif 1DAS20MR) 16= DAS200HD/DAS200RF (rif 1DAS20HMR) 17= DAS200RG (rif 1DAS20RGMR)	FACTORY SET	
71	Max Motor Power (03÷15 W x 10) The max amount of power the motor can be supplied with.	15	

DAS902MP PLUS MODULE PARAMETERS

Parameter	Description	Factory setting	Installation setting
90	Function Select terminal 3 - DAS902MP (00÷04) 00 = NO FUNCTION. 01 = Nurse function. The door will open to partial opening in operation mode selections EXIT, AUTO and PARTIAL. 02 = DO NOT USE. 03 = Interlock out. When configuring for interlock also set parameter 6A= 01. 04 = DO NOT USE.	01	
91	Function Select terminal 4 - DAS902MP (00÷04) 00 = NO FUNCTION. 01 = Open/Close Function. One impulse opens the door the next impulse closes the door. Available in operation mode selections EXIT, AUTO, PARTIAL. 02 = NO FUNCTION. 03 = Inner impulse 2 monitoring. Sets inner impulse 2 monitoring for the second inner impulse on the DAS902MP unit. Set also parameter 93= 03. 04 = Interlock in. When configuring for interlock also set parameter 6A= 01.	01	
92	Open/Close Timeout, terminal 4 - DAS902MP (00÷60 minutes) The time set in this parameter controls when a door shall start closing automatically if left open by an Open/Close impulse. 00 min = no automatic closing.	15	
93	Function Select terminal 2 - DAS902MP (00÷04) 00 = No function. 01 = Close function. This impulse will immediately close the door, even during opening, and remain closed as long as the Close impulse is active. The electro-mechanical lock will lock the closed door. May not be used on an escape route door. 02 = DO NOT USE. 03 = Inner impulse 2. When two inner impulses are to be used. Sets input to inner impulse 2. 04 = DO NOT USE.	01	
94	Fire Impulse Function, terminal 18-19 - DAS902MP (00÷01) Depending on configuration in Emergency Action (36), the door will open or close on fire impulse, with any function operation mode selector setting. Fire impulse override presence impulse. At closing, the door will not reopen on jam. 00 = Off. 01 = On.	00	
95	Emergency Open Impulse Function, terminal 5 - DAS902MP (00÷01) Emergency opening impulse for escape routes (DAS200RG / DAS200RF), with any function operation mode selector setting. 00 = Off. 01 = On.	01	
96	Emergency Open Impulse Configuration, terminal 5 - DAS902MP (00÷01) Configures the button used for Emergency opening impulse (ref. Parameter 95). 00 = N.O. 01 = N.C.	01	













97	Operation Mode Selector Functio, terminal 9÷14 - DAS902MP (00÷01) To have priority on the function selector or in the absence of function selectors (e.g use of switch / timer / relay) 00= Off. 01= On.(Not allowed in escape route, according to EN16005 and DIN18650).  NOTE: Not usable in combination with COM501MHS -MKS program selectors.	00	
98	Lock Configuration, terminal 16-17 - DAS902MP (10÷11) Auxiliary coil Bi-stable lock, used as night lock of escape routes. a) Settings for belt locks (KS200HD/RG): 00= No lock. 01= Auxiliary coil Bi-stable belt lock KS802BL0KB b) 02-->09 DO NOT USE c) Settings for carriages lock: 10= No lock. 11= Auxiliary coil Bi-stable lock DAS802LOKB (LDB)	00 (KS200HD/RG)	
		10	
99	Function Select, terminal 6 - DAS902MP (00÷02) 00= No function. 01= Disables Sustainable drive mode (ref. parameter 65). It is possible to disable sustainable drive mode. As long as contact is active the operator will run with full power. 02= Enable the Mode Selector with a key (only COM500ER). DAS909MP mode selector and all other Mode Selectors are not affected by this parameter. When parameter is set to value 02 the OMS is locked. If an impulse is given on IOU TB:6 the indication LED on OMS will be steady red during 15 seconds and it is possible to change mode selection (set parameter B1= 00).	00	

 **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.

9A	Function not available, do not modify factory setting. FUTURE USE.	30	
9b	Function not available, do not modify factory setting. FUTURE USE.	01	

ELECTRONIC OPERATION MODE SELECTOR PARAMETERS

Not use in combination with COM501MHS-MKS program selectors

Parameter	Description	Factory setting	Installation setting
60	<p>Operation mode selector variant (01÷04)</p> <p>01= DO NOT USE. 02= DO NOT USE. 03= DO NOT USE. 04= 5-function selector.</p>	AUTOMATIC	
61	<p>Operation mode selector key lock (00÷03)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>COM501ES/ER</p>  </div> <div style="text-align: center;"> <p>COM502ES/ER</p>  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>There are four different levels of access code choices for the operation mode selector.</p> <hr/> <div style="text-align: center;"> <p>COM500ES/ER</p>   </div> <p>There are three different levels of access code choices for the operation mode selector.</p> <hr/> <p>00= No access code (Not allowed in escape route, according to EN16005 and DIN18650). 01= Hold for two sec (Not allowed in escape route, according to EN16005 and DIN18650). 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 (Not allowed in escape route, according to EN16005 and DIN18650). 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:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>OPEN</p> </div> <div style="text-align: center;">  <p>CLOSE</p> </div> <div style="text-align: center;">  <p>PARTIAL</p> </div> <div style="text-align: center;">  <p>EXIT</p> </div> <div style="text-align: center;">  <p>AUTO</p> </div> </div> <p>03= Key. COM501ER, COM502ER To enable the use of the selector, rotate the key clockwise towards the symbol  COM500ER mode selector is not affected by this parameter. See parameter 99.</p>	00	

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 parameters 54 and 55. 00= Off 01= On	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 (00÷01) In Show local mode the OMS shows the last setting made on the OMS. In Show system mode the OMS shows the setting that the operator is put to. It is shown with one flash every 5s. When the OMS is flashing every 5s it is not possible to change the mode on the OMS. 00= Show system mode. 01= Show local mode.	AUTOMATIC 00 (COM501ES/ER COM502ES/ER) 01 (COM500ES/ER)	
b6	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 (COM501ES/ER COM502ES/ER) 02 (COM500ES/ER)	
b7	Mode selector, "self service" indication 00÷01] COM500ES/ER. Orange flashing service LED. COM501ES/ER, COM502ES/ER. 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	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/ER. ▼ COM501ES/ER, COM502ES/ER 	00	
b9	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.	02	

14. Example of connection

14.1 Combined opening and safety sensor + safety sensor on opening

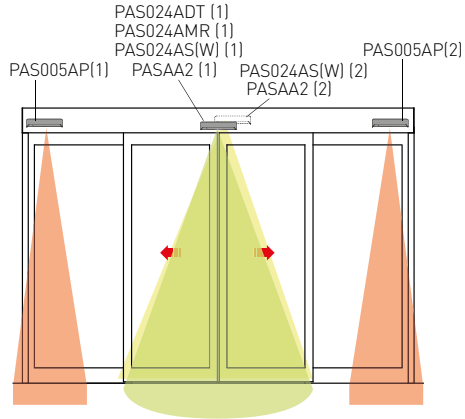


WARNING: The electrical connections must be made when the mains power supply is switched off.

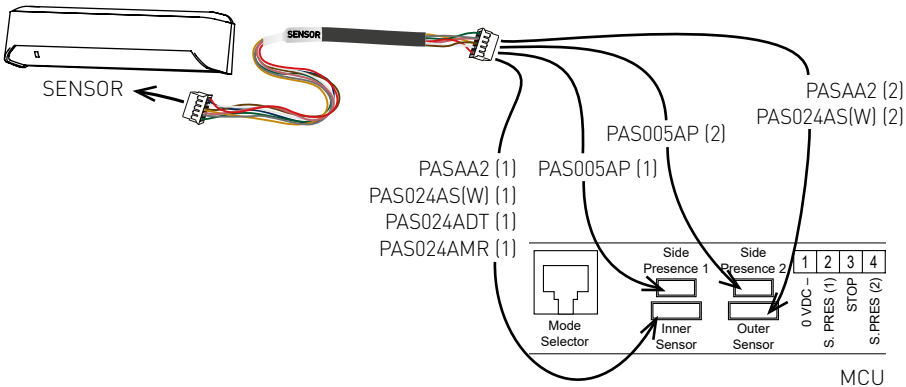
With these connections, the automation opens and makes a reversal safety contact on the passage opening with a command from the internal and/or external sensor.
Opening safety is guaranteed by the auto-control side sensors.



NOTE: If only one sensor is connected, refer to the sensor connections [1].



14.1.a Connection to dedicated plugs, ref «H» chapter 7.1



NOTE: for any particular dip switch selections, refer to chapter 14.1b.

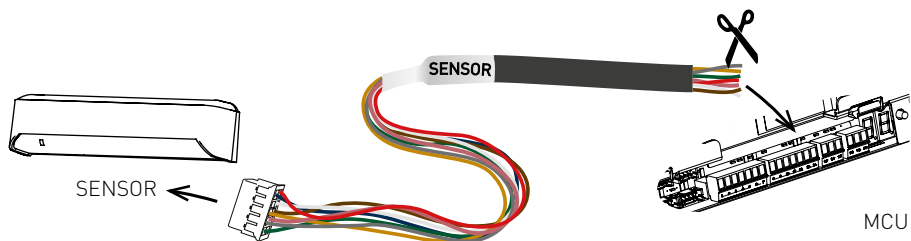


NOTE: if DAS900PH1A safety photocells are also installed (ref. 14.2) they must be connected in series to the safety contact of a radar which cannot be connected to the dedicated plug but must be connected to the control panel terminals (ref 14.1b).

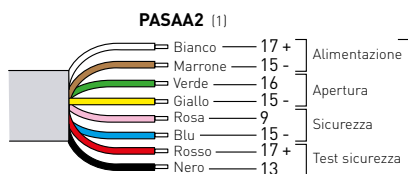
14.1.b Connection to the terminals of the control unit



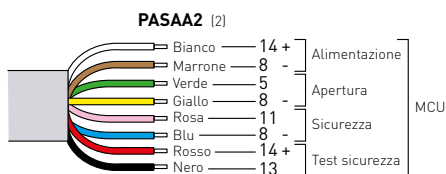
WARNING: if the sensor is connected to the terminals of the control unit as shown below and not to the dedicated plugs, as indicated in example 11.1.a.
DO NOT cut this cable side that must be connected to the SENSOR



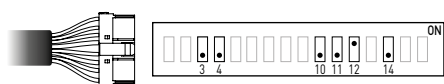
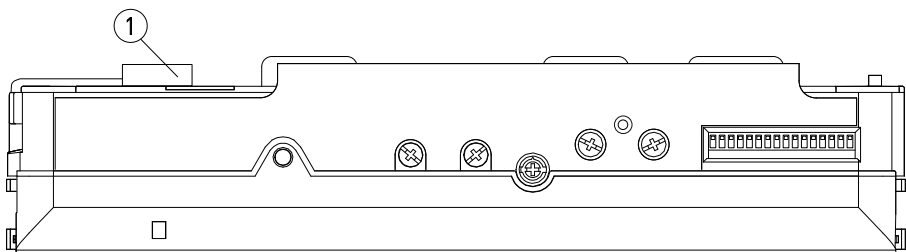
INNER SENSOR



OUTER SENSOR



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



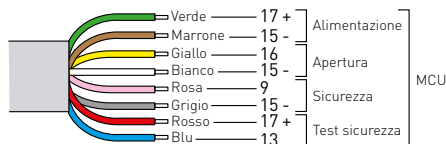
① 8 pin connector



① 10 pin connector

INNER SENSOR

PAS024AS(W) (1)



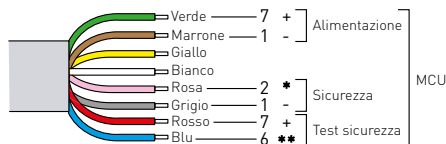
OUTER SENSOR

PAS024AS(W) (2)



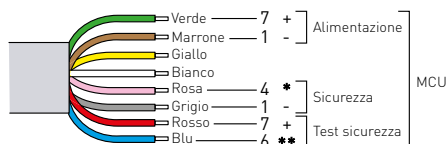
SIDE SENSOR

PAS005AP (1)



SIDE SENSOR

PAS005AP (2)



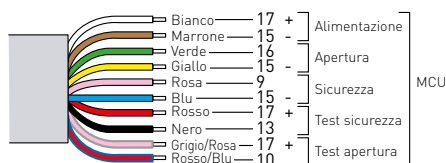
NOTE: * if installed on the passage compartment, connect to 9 or 11.



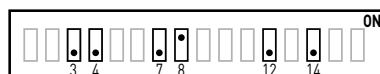
NOTE: ** if installed on the passage compartment, connect to 13.

INNER SENSOR (for use on escape routes)

PAS024ADT (1)



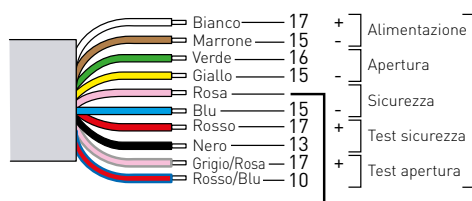
Set the selection DIP switches on PAS024ADT sensor as shown below:



CONNECTING TWO INNER SENSORS

INNER SENSOR 1

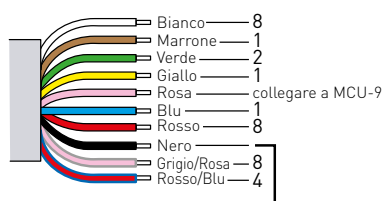
PAS024ADT



INNER SENSOR 2

connect to module plus DAS902MP

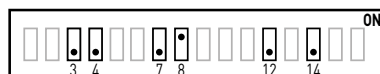
PAS024ADT



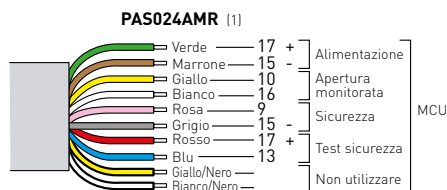
MCU Config parameters to be set:

- parameter **91**= 3
- parameter **93**= 3.

Set the selection DIP switches on PAS024ADT sensor as shown below:

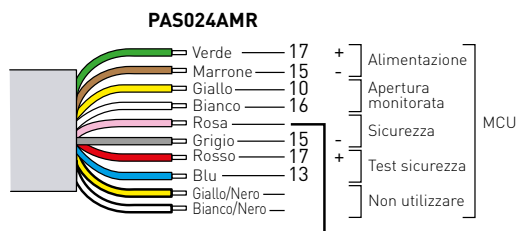


INNER SENSOR (for use on escape routes)



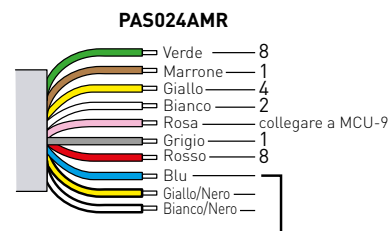
CONNECTING TWO INNER SENSORS

INNER SENSOR 1



INNER SENSOR 2

connect to module plus DAS902MP



MCU Config parameters to be set:

- parameter **91**= 3
- parameter **93**= 3.

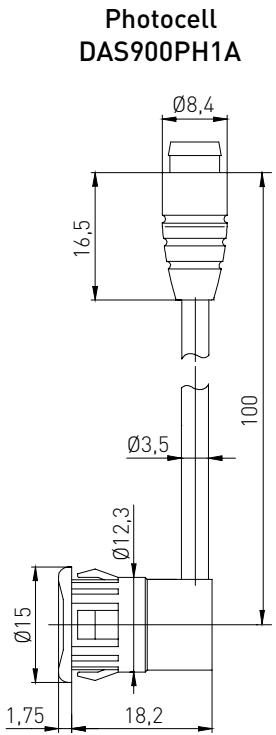
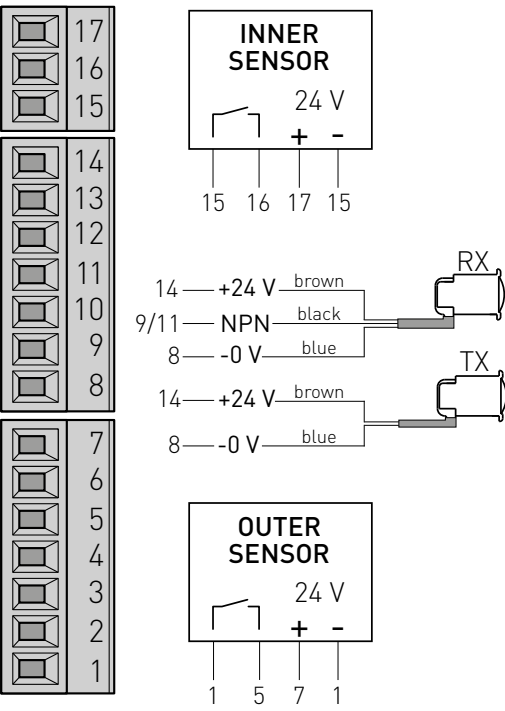
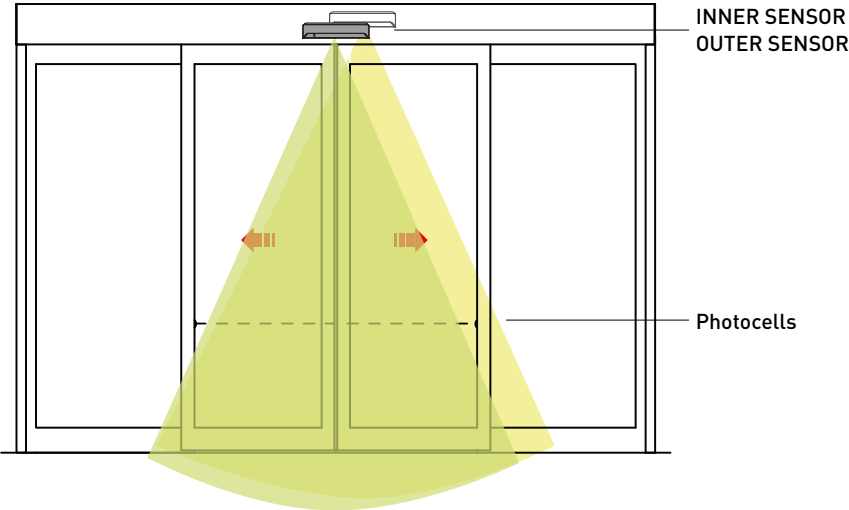


NOTE: For more information on sensors, refer to the relevant installation manuals.

If used also photocell in combination with sensors (ref. paragraph 14.2):

- not connect the blue wire of sensor PASAA2(1), PAS024ADT(1) or grey of sensor PAS024AS(W)(1); PAS024AMR(1) to terminal15;
- not connect the NPN wire of photocell receiver (RX) to terminal 9;
- connect the blue wire of sensor PASAA2(1), PAS024ADT(1) or grey of sensor PAS024AS(W)(1), PAS024AMR(1) and the NPN wire of receiver together.

14.2 Example of connection with opening radar and photocell

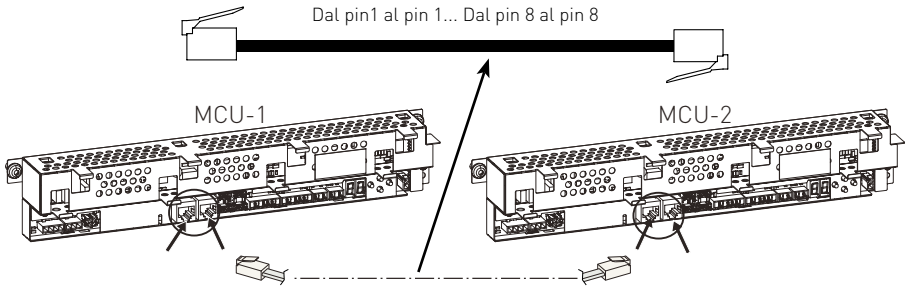


IP2266EN

15 Interconnection of operators

15.1 Interconnection cable

Interconnection cable is used for controlling several operators with one operation mode selectors (OMS) and for synchronization. Not usable in combination with COM501MHS-MKS program selectors. Operators can communicate with each other by connecting an interconnection cable between the operators. Cable connection:

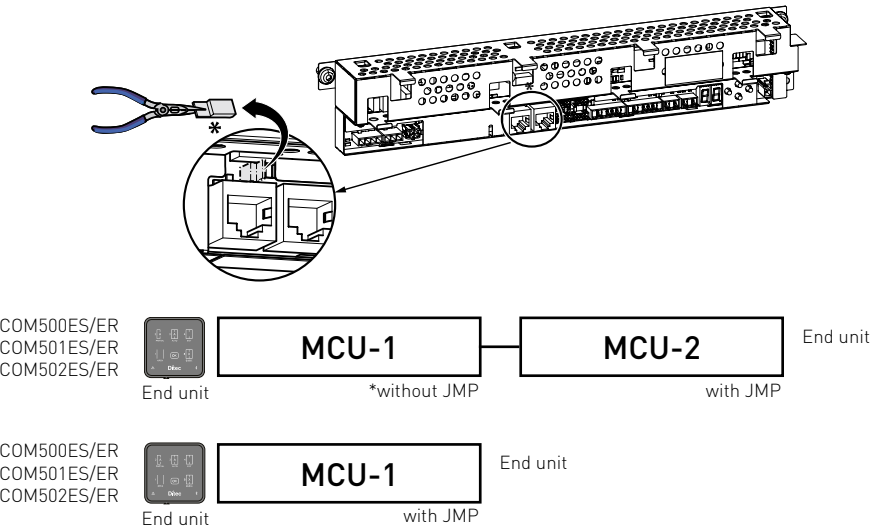


15.2 Hardware configuration for interconnection

When interconnecting more than two units (MCU and operation mode selector (OMS)) to the external bus, only the two end units must be terminated. To make this, the jumper JMP shall be removed from the middle MCU. When the jumper is removed the termination is removed.

Maximum 2 MCU can be interconnected together with 1 OMS.

i NOTE: Not usable in combination with COM501MHS-MKS program selectors.



Total maximum cable length is 500m. Use a straight-through shielded twisted pair (STP/FTP) CAT5/ CAT5e cable if the length exceeds 30m or is in electrically disturbing environment.

15.3 Parameter configuration for interconnection


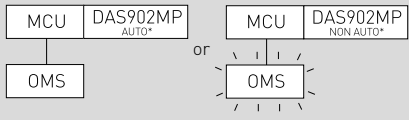
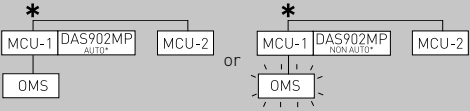
i **NOTE:** Do not connect the operation mode selector (OMS) before the configuration of 6C is done on both MCUs.

One of the operators has to be the main MCU (MCU-1). The main MCU shall have the value 01 in parameter 6C. The other interconnected operator shall have ascending values in parameter 6C. When the configuration is done break the power on the interconnected operators. Connect the OMS, turn on the power. The main MCU is the control unit that holds the parameters to the operation mode selector (OMS).

15.4 Operation mode selector (OMS) functionality

i **NOTE:** Not usable in combination with COM501MHS-MKS program selectors.

Check how to install interconnected units before configuring the operation mode selector (OMS). See section 15.2. All functionality regarding the operation mode selector (OMS) is programmed through the MMI on the main MCU-1 (has parameter 6C= 01). There are three (3) different types of configurations for MCU and OMS. The “configure parameter” shows which parameter to change from the default setting to obtain the function described, the parameters in the parenthesis shall represent the default values.

1	<p>Single control</p> 	<p>One MCU and one OMS. MCU is controlled by the OMS Configure parameter MCU, b5=0, b6=1 (6F=01, b3=40, b4=01).</p>
2	<p>Single control with DAS902MP unit override</p> 	<p>One MCU with DAS902MP and one OMS. OMS controls MCU when DAS902MP is in AUTO. When DAS902MP is not in AUTO, DAS902MP controls MCU and OMS shows active mode selection. OMS is flashing once every 5 second to show that it is remotely overridden. When the OMS is remotely overridden it is not possible to change its mode. Configure parameter MCU, 97=01, b5=0, b6=1, 6F=01, 9A=30, 9b= 01, b3=40, b4=01).</p>
3	<p>Local paired, single control with DAS902MP unit override</p>  <p>* without JMP, ref chap.15.2</p>	<p>Two MCU, one OMS and one DAS902MP connected to MCU-1. OMS controls MCU-1 and MCU-2 when DAS902MP is in AUTO. When DAS902MP is not in AUTO, DAS902MP controls both MCU-1 and MCU-2. OMS is flashing once every 5 second to show that it is remotely overridden. When the OMS is remotely overridden it is not possible to change its mode. Configure parameter MCU-1, 97=01, b5=0, b6=1, 6C=1, 6F=01, 9A=30, 9b=1, b3=40, b4=01. Configure parameter MCU-2 6C=2, 6F=1).</p>

- **AUTO**= no use of terminals 9 ÷ 15 of plus module DAS902MP;
- **Not in AUTO**= use of terminals.

15.5 Synchronization

Synchronization is when two operators work together. The doors opens and closes at the same time. A typical use is when two big single sliders are put together to get one big clear opening width. Synchronized can only be done between two operators, not more.

See chapter 15.1, 15.2 and 15.3 on how to connect the operators together, interconnection of operators, and follow the instruction.



NOTE: Do not connect the operation mode selector [OMS] before the configuration of 6C is done on all MCUs.

For synchronization:

- set parameter **6b**= 01 on all MCUs;
- set parameter **6c**= 01 on MCU-1 (main MCU);
- set parameter **6c**= 02 on MCU-2.



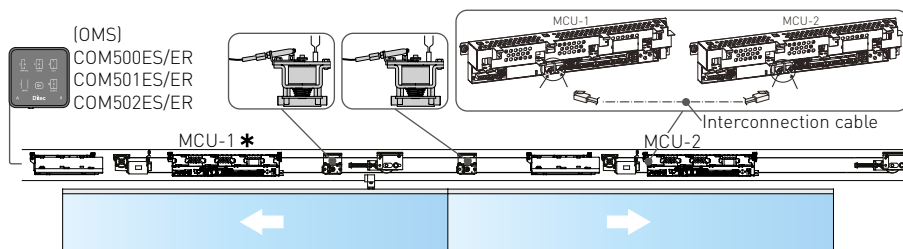
NOTE: If two IOUs (DAS902MP) are used, one on each operator, parameter 97 must be set to 00 on one of the operators.



NOTE: Not usable in combination with COM501MHS-MKS program selectors.

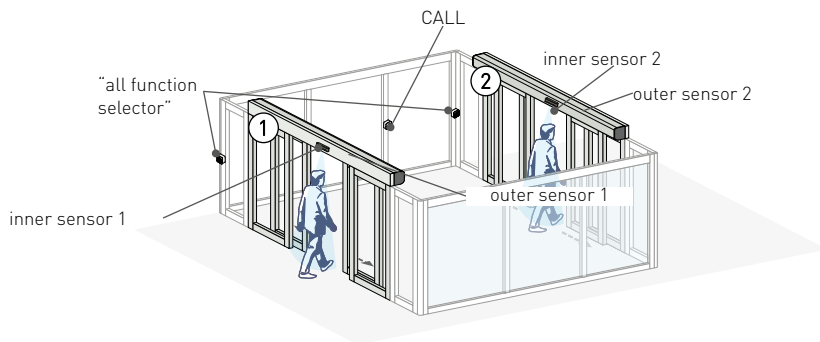
When the configuration is done break the power on all the interconnected operators. Connect the OMS, turn on the power. The main MCU is the control unit that holds the parameters to the operation mode selector [OMS]. Make a reset after adjustment.

Set all other parameters with the same value on both MCUs (e.g. performance, position, speed, etc.). Connect the opening sensors to MCU 1 or MCU 2.



* without JMP, ref chap.15.2

15.6 Interlock



When operators are interlocked only one door can open at the time. The open door must close before the other door can open. For instance from the start: both doors are closed. If door 1 gets an impulse this door opens. If door 2 also gets an impulse before door 1 has closed, door 2 will stay closed. When door 1 has closed door 2 will open. It is not necessary for door 2 to get another impulse for the door to open, the first impulse is remembered and will open the door. A typical use of this function is an air lock to reduce draft and energy loss in an entrances.

EXAMPLE OF USE

if door 1 is selected on DOOR OPEN mode and door 2 in AUTO mode, door 1 will remain open and door 2 will operate normally (not interlocked) after the time set with parameter 25



NOTE: it cannot be used as a security interlock.

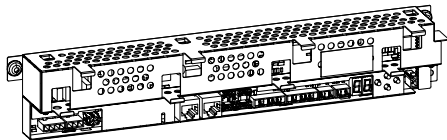


NOTE: the best solution is to install an intercommunication system or an emergency call button [CALL] on the inside, between the two doors.



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

MCU

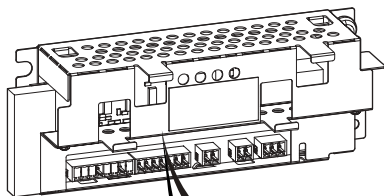
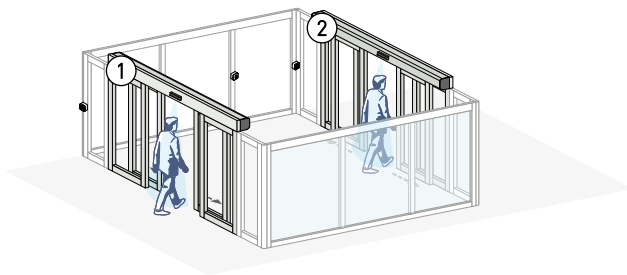


Set the following parameters in all MCUs:

- 6A= 01 Interlock function;
- 90= 03 Interlock out;
- 91= 04 Interlock in.

After adjustment press the LEARN button for 2 seconds, the display flashes **L**.

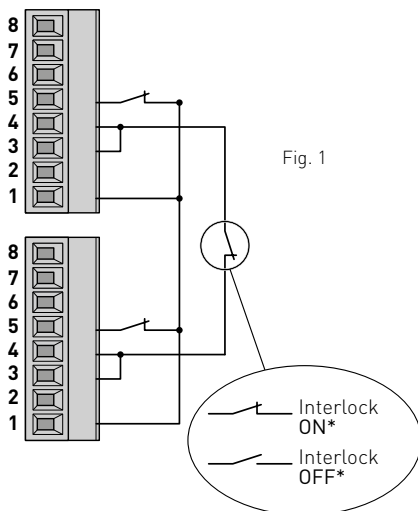
See parameter 25 for Interlock disable time



DAS902MP
operator 1

DAS902MP
operator 1

Connection between the two DAS902MP modules



NOTE: * a function selector must be connected to each MCU to manage the status of each operator individually which overrides / disables the interlock operation.



NOTE: * can be used in combination with all types of selector.

16. DITEC DOOR CONNECT App

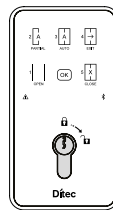
If the operator is equipped with an OMS Bluetooth®, (type COM501ES, COM501ER, COM502ES, COM-502ER) it is possible to change the mode selections with the smartphone app DITEC DOOR CONNECT.



COM501ES/ER



COM502ES/ER



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.

i **NOTE:** to be able to pair, you have to be in the range of 10 meters from the door. See also parameter 3C to set changes



VALUE DOCUMENT

Follow these steps in the app, when the Door setup wizard prompts to enter the Initialization PIN:

a) Press and hold the OK button until the Bluetooth® symbol starts flashing

b) Enter the init PIN on the selector and press the OK button on the selector itself after each digit.

Door name:

Serial:

Init PIN:

2 3 4

1 OK 5

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

17.1 Flow

i **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®.

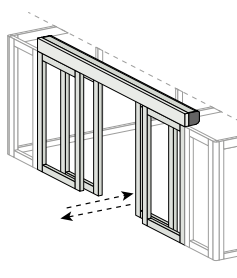
17.2 How it works

The system uses 3 impulses to count people. Inner impulse, Outer impulse and Presence impulse 1 (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.

17.3 Installation

Two-way system



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

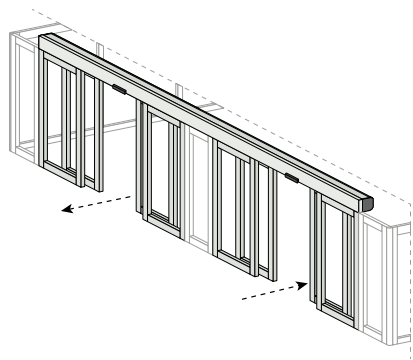
Parameter settings

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-1
Flow	3D = 01
Flow exit only	3E = 01
Flow restriction	3F= max number of people in the building

One way system



In a one way system there is one Entry door and one Exit door. The two operators shall be interconnected, see Interconnection of operators at chapter 15.2. The Entry door shall be the main MCU-1, with parameter 6C= 01. The Exit door shall be MCU-2, with parameter 6C= 02. The electronic functions selector switch with Bluetooth® (OMS BLE type COM501ES/ER, COM502ES/ER) shall be connected to the main MCU-1. There can only be one OMS connected.

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-1	MCU-2
Flow	3D =01	3D= 01
Flow exit only	3E = 01	3E = 01
Flow restriction	3F= max number of people in the building	-
External Bus Device ID	6c = 01	6c = 02

17.4 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).

i **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.

i **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.

17.5 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.

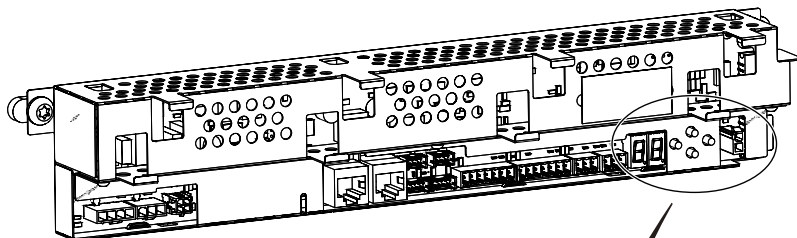
If two persons meet (one heading in and the other heading out) in the doorway it is likely that they will be counted as either both in or both out.

18. Troubleshooting

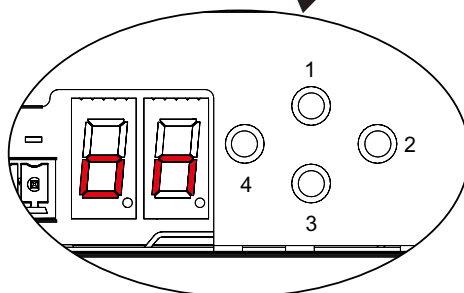
Problem	Solution
The automation doesn't open and the motor doesn't start up	Check and change the functions selector switch settings.
	Make sure there are no objects on the sensor's detection path.
	Check the power supply switch inside the building.
The motor starts up but the automation doesn't open	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

Before starting the troubleshooting, check that the operation mode is correctly selected. Start the troubleshooting by checking the mechanical and electrical parts of the operator in the order listed below. The electromechanical parts are fixed in the support beam. To replace these components, the complete unit has to be loosened and replaced.

- a. The main control unit is equipped with a two digit display for error indication.
- During normal operation the display shows "00".
 - If all segments are off in the display check the mains power, power supply cable or perform a RESET. If the problem remains replace the main control unit or the power supply.
 - When an error is active the display is alternating between an error type e.g. E4 (Motor / En-coder Error) and a second two digit number specifying the error more in detail e.g. 03 (en-coder error). If several errors are active they will be displayed in sequence. On each electronic unit there is also a green light emitting diode (LED). If the LED is off or flashing it is indicating that this unit is failing.



1. **(UP)**: to step up in parameter or value menu.
2. **(SELECT)**: enters into parameter or value menu and program a value into memory.
3. **(DOWN)**: to step down in parameter or value menu.
4. **(LEARN/EXIT)** (LEARN) has 3 functions:
 - 1 quick learn,
 - 2 Normal learn,
 - 3 default setting; EXIT jumps out from value menu without saving or parameter menu.



- b. Disconnect the mains power and batteries, if fitted. Unlock all mechanical locks. Pull the door leaf manually and check that the door can be easily moved over the complete sliding track/floor guide. If the door leaf stops or is hard to move, the reason may be sand, stones, rubbish etc. in the floor guide. The door leaf may also be jamming on the floor or on the weather proofing brush strips. Clean the floor guide, adjust the door leaf height/depth or take other necessary measures e.g. replacement of worn parts until the door leaf is running smoothly when manually operated.
- c. Check that there is the right belt tension (ref. paragraph 6.4).

18.1 Activ error indication

E1 - E8= flashing letter E followed by a digit displays an active error (1-8). The digit shows the main type of error.

The display switches between this main error and a two digit number to specify the error.

When there is an active error, the 20-21-22 relay on the DAS902MP plus module also changes state.

If several errors are active they are displayed in a sequence. Errors are cleared by a RESET from the operation mode elector (OMS) or by turning off and on the mains power.

DEFINITIONS:

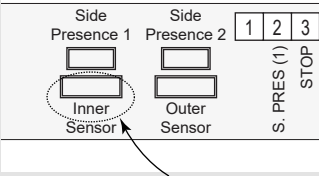
OMS= operation mode selector.

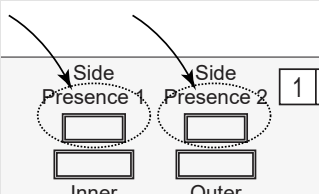
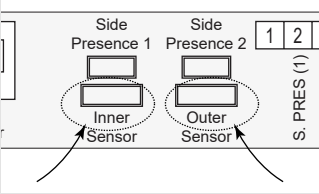
IOU= plus module DAS902MP.

MCU= control panel.

PSU= power supply unit.

Main error: Power Supply		
Detailed error	Reason	Remedy
- - Not enough power	There is not enough power to the MCU.	Check that the power does not drop from the PSU, check cables. Replace the PSU.

Main error: E1 Sensor Error		
Detailed error	Reason	Remedy
19 Internal escape route sensor error	The control unit does not get a test answer from the activation unit.	<p>Check that the monitoring output is connected to terminal 10 and the correct connections, or that the sensor is connected to the correct plug & play connector.</p>  <p>See also parameter 16</p> <p>Replace the monitored inner activation unit.</p>
20 Fire Impulse Error Ref. terminal 18-19 (IOU)	The control unit does not get a test answer from the fire alarm.	Make sure that the fire alarm connections are OK.
28 2nd Internal escape route sensor error (IOU)	The control unit does not get a test answer from the activation unit.	<p>Check that the monitoring output is connected to terminal 4 of plus module, and the correct connections. See also parameters 91 and 93.</p> <p>Replace the second monitored inner activation unit.</p>
30 STOP Impulse Error	The control unit does not get a test answer from the STOP impulse.	Make sure the STOP contact is connected to terminal 13. See also description of terminal 3 and parameter 66.

31 Side Presence Impulse Error	The control unit does not get a test answer from the activation unit.	<p>Check that the monitoring output is connected to terminal 6 and the correct connections, or that the sensor is connected to the correct plug & play connector.</p>  <p>See also parameter 29. Replace the side presence activation unit.</p>
32 Central presence Impulse Error	The control unit does not get a test answer from the activation unit.	<p>Check that the monitoring output is connected to terminal 13 and the correct connections, or that the sensor is connected to the correct plug & play connector.</p>  <p>See also parameter 9. Replace the central presence activation unit.</p>

Main error: E2 Emergency Unit Error

Detailed error	Reason	Remedy
21 Emergency Unit Error	The battery voltage drops due to low capacity during test.	Charge or replace the battery.
	The battery voltage measurement is wrong.	Replace the escape route unit (if present), otherwise replace the main control unit.
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. Ref DAS200RG/KS200RG: motor opening direction setting jumpers, inside the electrical panel, are not set in the correct position.	Make sure that the door can open to the fully open position.
		Check that the jumpers are both positioned in the correct position. See chapter 7.1 ref. "I".

Main error: E3 Electronic Unit Error

Detailed error	Reason	Remedy
00 RAM Error	Internal RAM memory error.	RESET, and if the problem remains, replace the electronic unit having a flashing or extinguished LED.
01 ROM Error	Internal ROM memory error.	RESET, and if the problem remains, replace the electronic unit having a flashing or extinguished LED.

02 EEPROM Error	Serious internal EEPROM memory error.	RESET If the problem remains, replace the main control unit
05 Ambient Temperature Error	Ambient temperature measurement is wrong.	RESET, and if the problem remains, replace the main control unit.
06 Brake Chopper Error	Not possible to activate brake chopper.	RESET, and if the problem remains, replace the main control unit.
08 A/D Converter Error	The internal A/D converter is broken.	RESET, and if the problem remains, replace the electronic unit having a flashing or extinguished LED.
10 Register Error	Internal register error..	RESET, and if the problem remains, replace the electronic unit having a flashing or extinguished LED.
11 OS Error	Internal program error.	RESET, and if the problem remains, replace the electronic unit having a flashing or extinguished LED.
14 Lock Current Error	The lock is defective.	Check that the right lock is installed, and if the problem remains, replace the lock. RESET, and if the problem remains, replace the main control unit.
17 Hardware Watch-dog Error	It is not possible to disable the motor bridge.	RESET, and if the problem remains, replace the main control unit.
18 EEPROM Critical Write Error	Internal write EEPROM memory error. This error mainly occurs when it is impossible to change a configuration parameter.	RESET, and if the problem remains, replace the main control unit.
22 24 V Over Current Error	The auxiliary 24 V output is overloaded.	RESET, and if the problem remains, check the connected sensors and other 24 V accessories. RESET, and if the problem remains, replace the electronic unit having a flashing or extinguished LED.
23 Lock Circuit Error	Unable to manage the lock.	Check the connection of the lock, that it is not interrupted or grounded. RESET, and if the problem remains, replace the main control unit.
24 Learn Error	The Learn cycle has timed out.	Make sure that the door can make a full open/close cycle. Check for high friction or jammed door and then make a new Learn.
27 bistable (LDB) lock error	The LDB lock is defective. P98 = 11 has been selected but no bistable block is connected.	Check that the auxiliary coil of the lock is correctly connected; if the problem persists, replace it Select P98 = 10 or 00.
33 Flash Code Error	Serious internal programming error.	RESET, and if the problem remains, replace the main control unit.
34 Output Enable Error	Test of safety related circuits failing.	RESET, and if the problem remains, replace the main control unit.
35 Link Voltage Error	The internal link voltage measurement is wrong.	RESET, and if the problem remains, replace the main control unit.
46 OMS Internal Error	Internal error in the OMS.	RESET, and if the problem remains, replace the OMS.

Main error: E4 Motor / Encoder Error

Detailed error	Reason	Remedy
03 Encoder Error	The encoder, encoder cable, or motor cable is damaged.	Make sure that the encoder cable and the motor cable are connected.
	Wrong motor type is selected.	Check Motor Type configuration.
04 Motor Current Error	The motor cable or the encoder cable is damaged.	Make sure that the encoder cable and the motor cable are connected.
	Wrong motor type is selected.	Check Motor Type configuration.
09 Encoder Cable Error	The encoder cable is damaged.	Make sure that the encoder cable is connected, otherwise replace the encoder cable.

Main error: E5 Lock Error

Detailed error	Reason	Remedy
07 Lock Failure	The lock or something else was preventing the door from opening the first 14 mm from closed position.	Make sure that the lock is operating without friction. Make sure that Hold Force (P13) and Lock Release (P06) parameters are set correctly.

Main error: E6 Communication Error

Detailed error	Reason	Remedy
12 Motor Control Communication Error	Motor control processor disconnected from the internal bus.	RESET, and if the problem remains, replace the main control unit.
13 Door Control Communication Error	Door control processor disconnected from the internal bus.	RESET, and if the problem remains, replace the main control unit.
36 Escape Route Communication Error	Escape route unit processor disconnected from the internal bus.	RESET, and if the problem remains, replace the escape route control unit.
37 IOU Communication Error	IOU control unit disconnected from the internal bus.	RESET, and if the problem remains, replace the IOU control unit.
38 IOU Brand Mismatch Error	The IOU control unit is not of the brand Ditec.	Replace the IOU control unit with a IOU control unit of the brand Ditec
39 OMS Brand Mismatch Error	The Operation mode selector (OMS) is not of the brand Ditec.	Replace the Operation mode selector (OMS) with a OMS of the brand Ditec.
47 OMS Communication Error	Corrupted communication with the OMS when selecting operation mode.	RESET, and if the problems remains change the OMS. If the problem still remains after changing the OMS change the main control unit.
53 Operation Mode Selector Communication Error	Operation mode selector (OMS) disconnected from the external bus.	RESET, check connections, and if the problem remains, replace the operation mode selector (OMS).
54 External Communication Error	The external bus is malfunctioning.	RESET, and if the problem remains, replace the main control unit.
55 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 an Ditec operator component with a component from a different brand.

Main error: E7 Motor Temperature High		
Detailed error	Reason	Remedy
16 Motor Temperature High	The duty cycle of the door is too high for the current Speed settings and Hold Open Time.	If the motor is warm, put the door in operation mode OPEN and wait for at least 1 minute. Reduce Speeds and increase Hold Open Time parameters.

Main error: E8 Non-critical Error		
Detailed error	Reason	Remedy
49 EEPROM Non-critical Write Error	The main control unit cannot write error log or event log information to the EEPROM memory.	RESET, and if the problem remains, replace the main control unit if it is important to read logged information.
50 EEPROM Access Error	The EEPROM queue is full.	Too many Events to log. Reduce the number of events to log in the Event Log configuration.

OMS Error Codes		
Detailed error	Reason	Remedy
Red light every second	Error in door operator MCU.	RESET, and if the problem remains a service visit is required.
	Defective batteries (with P10 = 01 or 02)	
Red light 4 times per second	Internal error in the OMS.	Replace the OMS.

After remedy or replacement the operator has to be checked as follows:

- Study the door movement and adjust the functions to the values required for a smooth door operation and make sure to complete with local regulations.
- Check that correct functions and values have been selected for the installed accessories and that the installation complies with valid regulations and requirements from the authorities.
- Clean the cover and the doors.

19. 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 wheels, the carriage slide guides and the floor guides).
- Check the belt, the rubber band (DAS200RF) and its tension.
- Check the wear of the belt, trolley wheels and rubber band (replace them if necessary).
- Clean sensors.
- 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 present, and of the redundant and rubber band opening system.



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.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by ASSA ABLOY is under license.

Ditec brand is owned by ASSA ABLOY. All the rights concerning this material are the exclusive property of ASSA ABLOY Entrance Systems AB. Although the contents of this publication have been drawn up with the greatest care, ASSA ABLOY Entrance Systems AB cannot be held responsible in any way for any damage caused by mistakes or omissions. We reserve the right to make changes without prior notice. Copying, scanning or changing in any way is expressly forbidden unless authorised in writing by ASSA ABLOY Entrance Systems AB.



The crossed-out wheeled bin symbol indicates that the product should be disposed of separately from household waste. The product should be handed in for recycling in accordance with local environmental regulations for waste disposal. By separating a marked item from household waste, you will help reduce the volume of waste sent to incinerators or landfill and minimize any potential negative impact on human health and the environment.



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