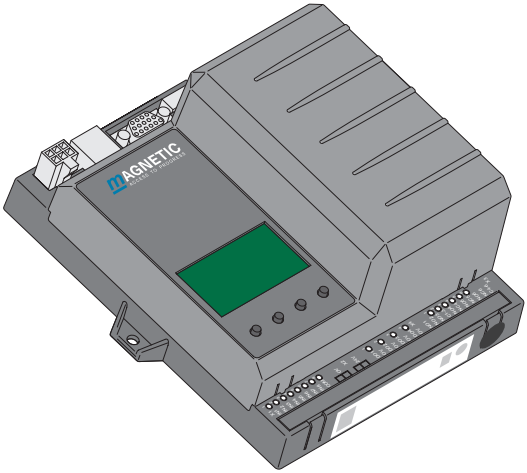
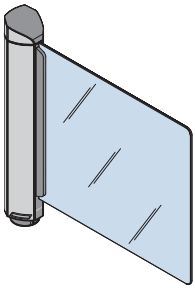
Description

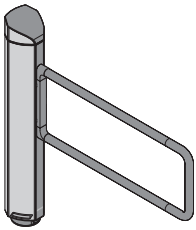
Swing door mSwing

MHTM™ FlowMotion®

Control unit MGC mSwing







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Original description

This document is available as PDF in the Magnetic Autocontrol download area (www.magnetic-access.com). Authorisation is required for download.

MAGNETIC AUTOCONTROL GMBH
Grienmatt 20
D-79650 Schopfheim
Germany

Phone +49 7622 695 5
Fax +49 7622 695 802
info@magnetic-germany.com
www.magnetic-access.com

Contents

1 Notices on the document

1.1 Purpose and contents of this description

This document describes the control unit MGC from the programme versions listed below.

Software number (Software #) and software version (SW version) are displayed in the menu "Module info".

Designation	Software #	SW version
Gate Controller	4915.1006	2.2
MHP2 motor	4915.4003	1.5
Safety Controller	4915.3014	1.5
MGC.Connect	4910.5052	1.5

Table 1: Programme versions control unit MGC

IMPORTANT!

For information on design and function, for technical data, installation and mounting, electrical connection, commissioning and cleaning and maintenance, see the separate operating instructions "Swing door mSwing MHTM™ FlowMotion® (Doc.ID: 5817,0032)".

1.2 Symbols and illustrations used in this document

1.2.1 Warning notes and notes

Warning notes are characterised by pictograms in these instructions. A warning note starts with a signal word that expresses the extent of the hazard.

It is absolutely essential to observe the warning notes and to proceed with caution in order to prevent accidents as well as personal injuries and property damage.

Warning notes

⚠ DANGER	
	The signal word DANGER indicates an immediately dangerous situation, which leads to death or severe injuries if not avoided.

⚠ WARNING	
	The signal word WARNING indicates a potentially dangerous situation, which can lead to death or severe injuries if not avoided.

⚠ CAUTION	
	The signal word CAUTION indicates a potentially dangerous situation, which can lead to minor injuries if not avoided.

NOTICE	
	The signal word NOTICE indicates a potentially harmful situation, which leads to property damage if not avoided.

Notes and recommendations

IMPORTANT!
The signal word IMPORTANT highlights useful notes and recommendations as well as information for an efficient and trouble-free operation.

1.3 Target group

1.3.1 Personnel – activities and qualifications

All work on the control unit may only be carried out by technicians and Magnetic MHTM™ FlowMotion® service experts with the following qualifications.

Designation	Qualification
Technician	› Has completed training as a systems mechanic, machinery technician, installation mechanic, installation technician or has comparable technical training. › Has completed training as an electrical safety expert. › Has additional knowledge and experience. › Knows the relevant technical terms and regulations. › Can evaluate the work assigned to him, recognise possible dangers and take appropriate safety measures.
Magnetic MHTM™ FlowMotion® service expert	› Meets all the requirements of the technician. › Trained and authorised by Magnetic.

Table 2: Qualification of the personnel – control unit MGC

2 Digital inputs, digital outputs and relay outputs

⚠ WARNING

Improper wiring and parameterisation of the control unit!

Improper wiring and parameterisation of the control unit can lead to undesired functions and thus to injuries.

- Only MHTM™ FlowMotion® service experts or skilled technicians or electrical safety experts may wire up and parameterise the control unit.
- The electrical connection of the signal transmitters to the IN1 to IN8 inputs must fit the parameterisation.

Parameterisation: ↗ Page 18, chapter 2.4.1.

2.1 Digital inputs

Definition of "Left" and "Right": ↗ Page 69, chapter 6.1.

By parameterising the inputs, you assign certain functions to the inputs. For example, if you parameterise the "Illumination off" function for input IN7, switch the illumination on and off via this input.

If the function is marked with "|", the input is inverted (closed-circuit principle). ↗ Page 61, chapter 5.3.3.

The following functions are assigned to the inputs as default settings:

Clamp	Description	Input function
IN1	Digital input 1	| Emergency open
IN2	Digital input 2	Open from left
IN3	Digital input 3	Open from right
IN4	Digital input 4	–
IN5	Digital input 5	Confirm warnings
IN6	Digital input 6	Close (Inhibit opening)
IN7	Digital input 7	Illumination off
IN8	Digital input 8	–

Table 3: Factory settings "Digital inputs"

Input function	Descriptions
–	Inputs that you assign this function "–" to are being deactivated.
| Emergency open	Emergency situation (closed-circuit principle) Connect fire brigade switches, emergency opening contacts, etc. to this input. This input has the highest priority. As soon as +24 V DC are applied to this input, the pedestrian gate is in operation. If the signal drops, the pedestrian gate is opened and released for passage. The opening direction for emergency open is set via the "Emergency behaviour" parameter. "Emergency behaviour" parameter: ↗ Page 56. This input function is high priority to all other input functions.
Confirm warnings	Confirm warnings A pulse at this input confirms the "Warning" output function. The output is reactivated the next time a warning occurs. The number of the warning message remains stored in the event list until the control unit is rebooted.
Open from left	Validation for passage from left If the signal is present for longer than 3 seconds, permanent open is activated. "Permanent open" parameter: ↗ Page 54. If several validations are pending, they are counted and stored, and the hold-open time is added up. If the pedestrian gate is already opened for passage from right, there is no motor movement. Only the hold-open time is extended.
Open from right	Validation for passage from the right If the signal is present for longer than 3 seconds, permanent open is activated. "Permanent open" parameter: ↗ Page 54. If several validations are pending, they are counted and stored, and the hold-open time is added up. If the pedestrian gate is already opened for passage from left, there is no motor movement. Only the hold-open time is extended.
Close (Inhibit opening)	Close the pedestrian gate Use this input to close the pedestrian gate in both passage directions. In case of a permanent signal, no more validations are accepted. Input IN1 "| Emergency open" remains superordinated. This means that the pedestrian gate can also be opened via input IN1 when the pedestrian gate is closed.
Sensor left	This input function is required if you use a customer-side sensor to detect people. ↗ Page 79, "Sensor left" and ↗ Page 76, chapter 8.
Sensor right	This input function is required if you use a customer-side sensor to detect people. ↗ Page 80, "Sensor right" and ↗ Page 76, chapter 8.

Input function	Descriptions
Multi valid left	Multi validation for a passage from left Function when multiple signals are required to trigger a validation for a passage from left. A validation is triggered when a pulse is pending at all inputs with the function "Multi valid left". Pulses are deleted after 10 seconds. Example: Passage will not be granted until a face mask has been identified and the hands have been disinfected. In the example, you must parameterise two inputs with the function "Multi valid left".
Multi valid right	Multi validation for a passage from right Function when multiple signals are required to trigger a validation for a passage from right. A validation is triggered when a pulse is pending at all inputs with the function "Multi valid right". Pulses are deleted after 10 seconds. Example: Passage will not be granted until a face mask has been identified and the hands have been disinfected. In the example, you must parameterise two inputs with the function "Multi valid right".
Illumination off	Switching the illumination off and on As soon as +24 V DC are applied to this input, the outputs with the following functions are switched off. "Floor illumination", "LED strip red" and "LED strip green". Example: The floor illumination of the pedestrian gate is connected to the "Floor illumination" output. If +24 V DC are pending at the "Illumination off" input, the floor illumination is switched off. As soon as there is no signal at this input, the illumination is switched on.

Table 4: Function digital inputs

2.2 Digital outputs and relay outputs

Definition of "Left" and "Right": ↗ Page 69, chapter 6.1.

By parameterising the outputs, you assign certain functions to the outputs. For example, if you parameterise the "Buzzer/Siren (alarm)" function for output DO2, you must connect an acoustic signal transmitter to this output.

If the function is marked with "|", the output is inverted (closed-circuit principle). ↗ Page 61, chapter 5.3.3.

The following functions are assigned to the outputs as default settings:

Clamp	Description	Output function
DO1	Digital output 1	Floor illumination
DO2	Digital output 2	Buzzer/Siren (alarm)
DO3	Digital output 3	Locking
DO4	Digital output 4	–
NO1	Relay output 1	LED strip red
NO2	Relay output 2	LED strip green
NO3	Relay output 3	–
NO4/NC4	Relay output 4	Passage clear Left
NO5/NC5	Relay output 5	Passage clear Right
NO6/NC6	Relay output 6	Closed

Table 5: Factory setting digital outputs and relay outputs

NOTICE

Changing the assignment of the terminals DO1, DO2, DO3, NO1 and NO3 and the factory default functions!

By default, the terminals are wired for the listed factory settings. A change will cause the pedestrian gate to malfunction.

› Do not change the assignment of the listed terminals.

NOTICE

Malfunction due to excessive output current at terminal X2!

The maximum output current at terminal X2 is limited to 300 mA by a self-resetting fuse.

› Make sure that the maximum output current is not exceeded.

› If necessary, supply components such as other illumination with an additional power supply unit. The additional power supply unit must be installed outside the pedestrian gate.

Output function	Description
–	Outputs that you assign this function "–" to are deactivated.
| Error	When the control unit recognises any safety-relevant error or error, the output with this function is deactivated (closed-circuit principle). ↗ Page 90, chapter 9.6.
| Warning	When the control unit recognises any "Warning", the output with this function is deactivated (closed-circuit principle). ↗ Page 90, chapter 9.6.
Gate ready	Pedestrian gate is ready for operation This output is activated as soon and as long as the pedestrian gate is ready for operation.
Passage clear Left	Display for the free passage from left When the passage from left is cleared, a permanent signal is output from this output. You can also use this output to lock a pulse encoder, e.g. a card reader, for passage from right if passage from left is cleared.
Passage clear Right	Display for the free passage from right When the passage from right is cleared, a permanent signal is output from this output. You can also use this output to lock a pulse encoder, e.g. a card reader, for passage from left if passage from right is cleared.
Closed	Blocking element in position "Closed" As long as the blocking element is in the position "Closed", this output is activated.
Opening	Blocking element in opening movement As long as the blocking element is making an opening movement, this output is activated.
Closing	Blocking element in closing movement As long as the blocking element is making a closing movement, this output is activated.
Stopped by sensor	This output function is required if you use a customer-side sensor to detect people. The function serves as feedback when the function sequence is controlled by the connected sensor. Operation with sensor: ↗ Page 76, chapter 8.
Vandalism	Vandalism / fraud feedback The output is activated in the following cases: › The blocking element is moved from the "Closed" position without validation. › The blocking element is stopped and moved back during the closing movement. The output remains activated until the pedestrian gate automatically switches back to normal operation.

Output function	Description
Buzzer/Siren (alarm)	Acoustic signal transmitter connection An acoustic signal transmitter is connected to this output. You can parameterise the events for which an acoustic signal is to be triggered via the "Buzzer/Siren" parameter in the "Signalling" menu.
Obstacle detection	Obstacle detection during the movement As soon as an obstacle is detected during movement, this output is activated. An obstacle could be, for example, a stopping user or a trapped piece of luggage.
Service mode active	Pedestrian gate in service mode As soon as the service mode is activated via the service switch on the MGC control unit, this output is activated. ↗ Page 51, chapter 4.9.
Floor illumination	Connection for floor illumination Connect the floor illumination to this output. You can switch the floor illumination on and off via the "Illumination off" input.
GED red left	Gate End Display connection Connect the GED red left to this output. The GED must be mounted outside the pedestrian gate mSwing such as in the Magnetic mPost ES card reader column.
GED green left	Gate End Display connection Connect the GED green left to this output. The GED must be mounted outside the pedestrian gate mSwing such as in the Magnetic mPost ES card reader column.
GED red right	Gate End Display connection Connect the GED red right to this output. The GED must be mounted outside the pedestrian gate mSwing such as in the Magnetic mPost ES card reader column.
GED green right	Gate End Display connection Connect the GED green right to this output. The GED must be mounted outside the pedestrian gate mSwing such as in the Magnetic mPost ES card reader column.
LED strip red	Connection for LED illumination strip red Connect the LED illumination strip red to this output. You can switch the LED illumination strip on and off via the "Illumination off" input. For pedestrian gates with optional cover illumination, the cover illumination is connected to this output by default. For the possible displays with this connection variant: ↗ Page 18, chapter 2.4.1.

Output function	Description
LED strip green	Connection for LED illumination strip green Connect the LED illumination strip green to this output. You can switch the LED illumination strip on and off via the "Illumination off" input. For pedestrian gates with optional cover illumination, the cover illumination is connected to this output by default. For the possible displays with this connection variant: ↗ Page 18, chapter 2.4.1.
Locking (internal use)	Connection of the locking via the brake booster The locking via the brake booster is connected to this output in the factory.

Table 6: Function digital outputs and relay outputs

2.3 Illumination

You can order the mSwing swing door with the following optional illuminations:

› Floor illumination
› Cover illumination

2.3.1 Floor illumination

For pedestrian gates with optional floor illumination, the floor illumination is connected to the "Floor illumination" output by default.

You can switch the floor illumination on and off via the "Illumination off" input function.

2.4 Cover illumination

For pedestrian gates with optional cover illumination, the cover illumination is connected to the outputs "LED strip red" and "LED strip green" by default.

You can switch the cover illumination on and off via the "Illumination off" input.

The following conditions are signalled via the cover illumination:

Exit **LED strip red** **LED strip green**	**Description**
Red	› Pedestrian gate closing.
Flashing red	› An obstacle has been detected. › Vandalism or fraud detected. › An error is present. › A customer-side sensor for the detection of pedestrians is installed: The sensor is occupied either during opening or closing. The movement is stopped by the sensor.
Green	› The pedestrian gate is closed. › The pedestrian gate is open. › The pedestrian gate opens.
Flashing yellow	› The pedestrian gate performs homing. › The target positions "Closed", "Left" and "Right" are aligned.
Yellow	› A customer-side sensor for the detection of pedestrians is installed. The sensor is occupied and the opening of the blocking element is thus delayed.

Table 7: Cover illumination signalling

2.4.1 Parameterising mSwing

The mSwing swing door is parameterised at the factory for applications with an opening angle of 2 x 90°.

You have the following possibilities to parameterise the control unit MGC:

› Directly at the control unit MGC

› Via the "MGC.Connect" programme.

The "MGC.Connect" programme also allows you to test the function of the pedestrian gate mSwing.

2.5 Parameterisation directly at the control unit

The control unit is only accessible when the blocking element, the hood and the outer tube have been removed.

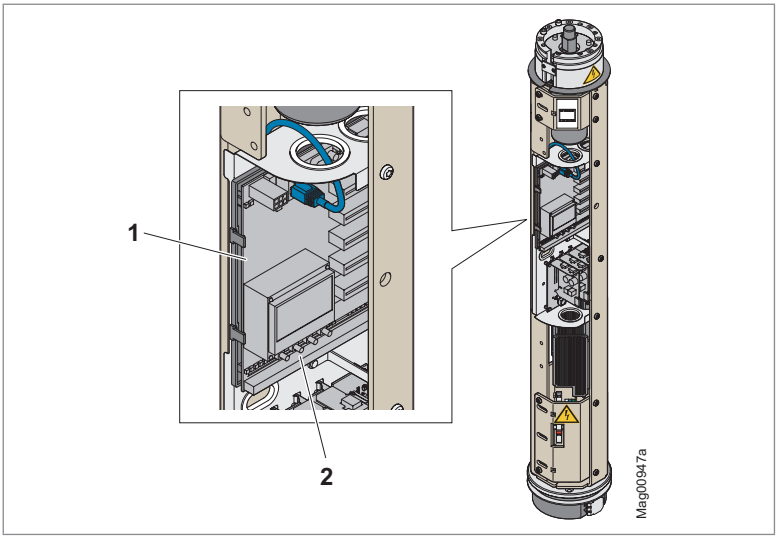


Fig. 1: Position of control unit MGC

1 Control unit MGC

2 Control unit operating keys (4 pieces)

IMPORTANT!

For access to the control unit, see separate operating instructions "Swing door mSwing MHTM™ FlowMotion® (Doc.ID: 5817,0032)".

2.6 Parameterisation via the "MGC.Connect" programme

The programme "MGC.Connect" is available on the Magnetic website in the download center. You can also download the programme with the programme for the Service Module SM01 "SM-Downloader".

Additionally required components:

- Laptop
- Magnetic Service Module "Service Module SM01"
- USB cable A plug to B plug
- RJ-45 patch cable, with a maximum length of 3 meters.

Additional options:

- Ethernet module EM01 for connection via Ethernet
  For a connection via Ethernet you need the installation set MEB103. The installation set contains an extension board and the EM01 Ethernet module.

System requirements laptop:

- Windows 10 or higher
- .NET Framework 4.5 or higher
- USB connection

2.6.1 Establishing the connection via service module SM01

1. Open the cover of the RJ-45 socket.

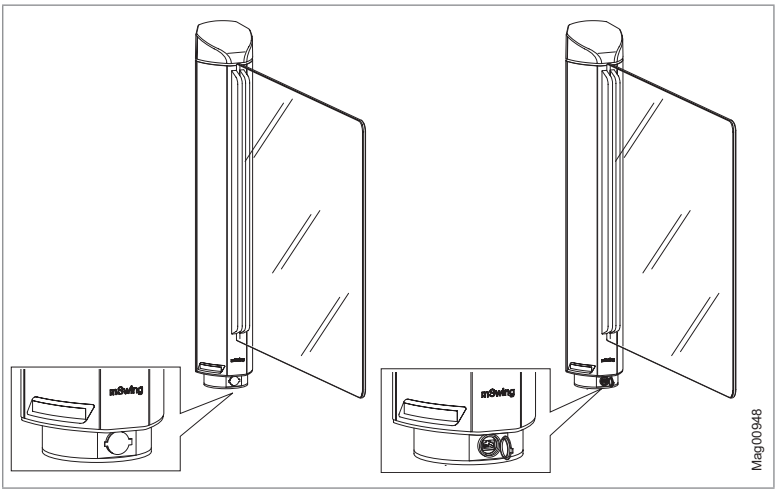


Fig. 2: RJ-45 socket mSwing

2. Connect the SM01 service module to the RJ-45 socket of the pedestrian gate.
3. Connect the Service Module SM01 to the laptop.
4. Start the "MGC.Connect" programme on the laptop.
   √ The MGC.Connect start view is displayed.
   √ The connection between MGC.Connect and the pedestrian gate is established.

√ When the connection is established, the symbol "Connection established" is displayed in the MGC.Connect header.

If the connection could not established, the connection settings may have been changed.

1. Open the "Configuration" window. To do so, click the "⚙" button in the header of the MGC.Connect programme. ↗ Page 22, chapter Fig. 5, pos. 1.
   √ The "Configuration" window is displayed:

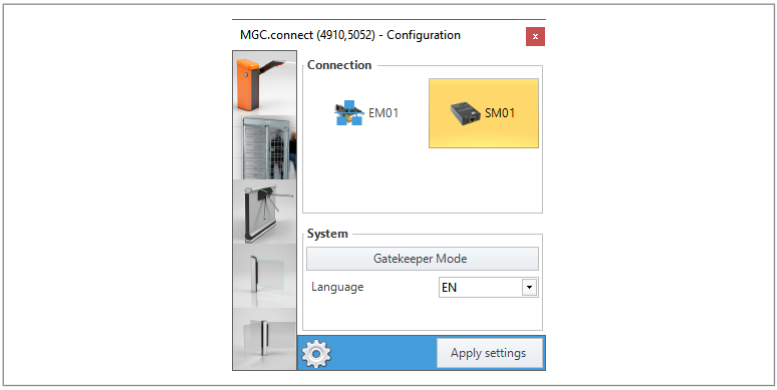


Fig. 3: "SM01 configuration" window

2. Select the connection "SM01".
3. Click the "Apply" button.

√ The connection between pedestrian gate and "MGC.Connect" programme is established.

2.6.2 Connection via Ethernet module EM01

Further information on the Ethernet module: Technical Manual "Ethernet Module" (Doc.ID: 5815,0001).

For pedestrian gates with the option "Ethernet module EM01", the Ethernet module is installed ex works.

1. Connect the EM01 Ethernet module to the customer's network via a customer-side network cable.
2. Check whether the LEDs on the EM01 Ethernet module are flashing. If the LEDs flash, the Ethernet module is connected correctly.
3. If necessary, set the IP address of the Ethernet module. DHCP is activated ex works. Note the IP address.
4. Start the "MGC.Connect" programme on the laptop.
   √ The MGC.Connect start view is displayed.
   √ The "Configuration" window is displayed:

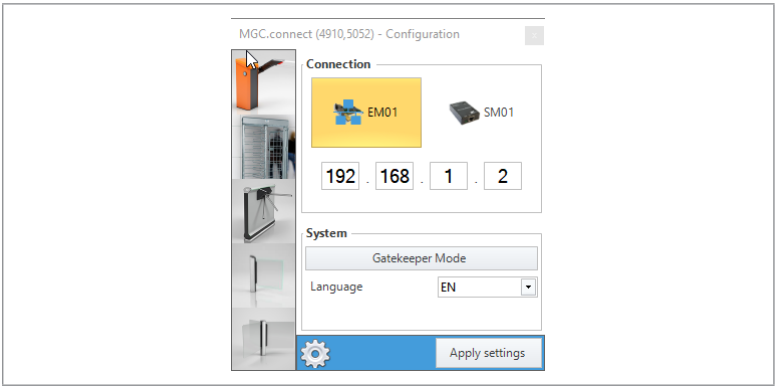


Fig. 4: "EM01 configuration" window

5. Select the connection "EM01".
6. Enter the previously noted IP address of the pedestrian gate.
7. Click the "Apply" button.

√ The connection between pedestrian gate and "MGC.Connect" programme is established.

2.6.3 Updating control unit MGC

IMPORTANT!
If necessary, download and update via the "SM-Downloader" programme.

3 Description of the "MGC.Connect" programme

3.1 Overview

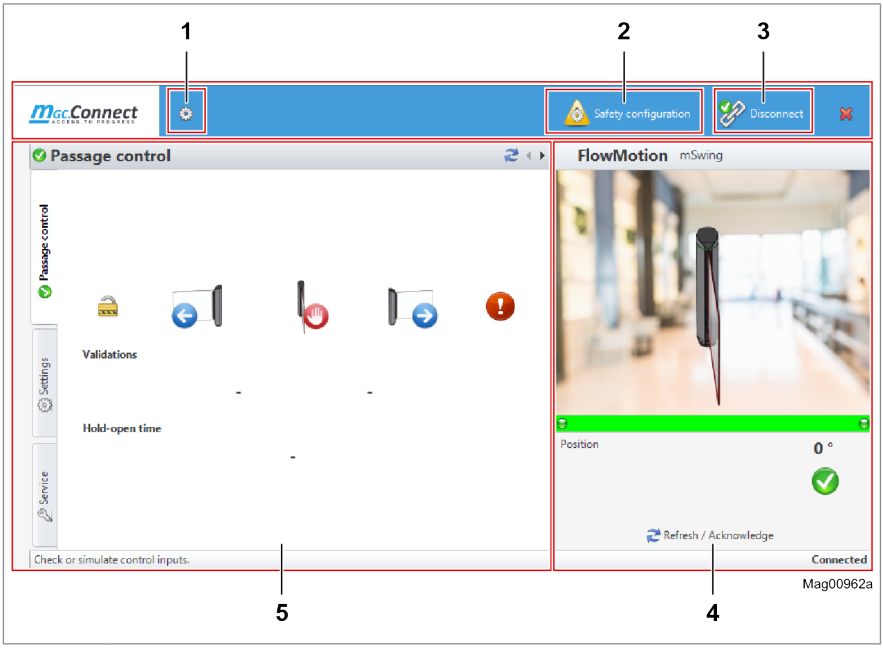


Fig. 5: Exemplary view "MGC.Connect"

1 Button to open the "Configuration" window
2 Button to display the "Safety configuration" tab
3 Button to disconnect or connect the connection
4 Status display of the pedestrian gate
5 Tabs and parameters

Button	Description
	No connection There is **no connection**between the pedestrian gate and the "MGC. Connect" programme. If the connection via the Service Module SM01 or via the Ethernet modul exists and you click on the "Connect" button, the connection is established.
	Connection is established The connection between pedestrian gate and "MGC.Connect" programme is currently being established.
	Connection available The pedestrian gate and the "MGC.Connect" programme are **connected**. If you click on the "Disconnect" button, the connection is interrupted.

Table 8: Description of the buttons "Connect" and "Disconnect"

3.2 Changing the menu language for MGC.Connect

By default, the MGC.Connect programme takes applies the language of the operating system.

You can change the menu language via the "Language" option in the "Configuration" window. Open the "Configuration" window with the "⚙" button in the header of the MGC.Connect programme. ↗ Page 22, chapter Fig. 5, pos. 1.

The changes are only assumed after a programme restart.

3.3 Status display mSwing

The status display shows the current position of the blocking element, signals certain events and shows the current status of the pedestrian gate.

In the "Closed" position the value is 0°. When turning to the left, the value is negative. When turning to the right, the value is positive.

Information on signalling: ↗ Page 17, chapter 2.3.

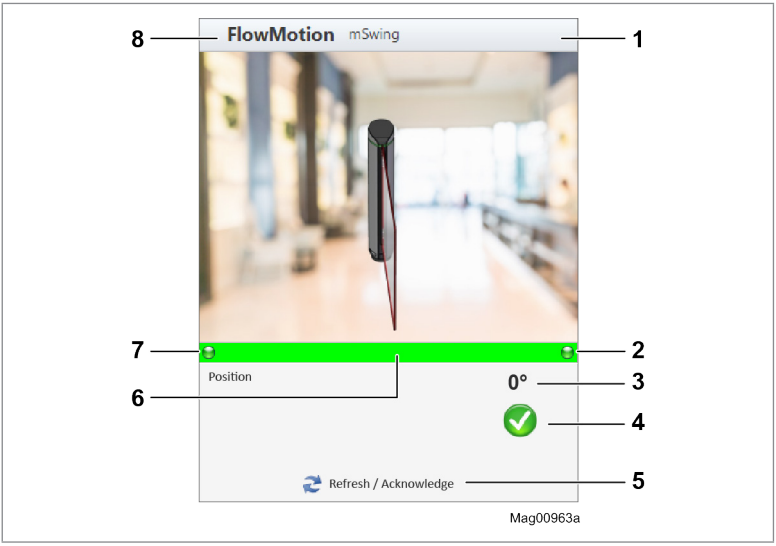


Fig. 6: Status display mSwing, example status "OK"

1 Display of symbols: ↗ Page 26, Table 9

2 Display of the current status of the output functions "GED red right" and "GED green right", depending on the parameterisation of the parameter "GED mode right". If no LED symbol is displayed, the option "Off" has been set for the parameter "GED mode right". ↗ Page 60, chapter 5.2.7

3 Current position of the blocking element, "Closed" position is 0°

4 Current status of the pedestrian gate such as "OK", WARNING, ERROR

5 Refresh the event display and, if available, confirm the pending messages

6 Display of the current status of the "LED strip left" and "LED strip right" output functions ↗ Page 18, chapter 2.4.1

7 Display of the current status of the output functions "GED red left" and "GED green left", depending on the parameterisation of the parameter "GED mode left". If no LED symbol is displayed, the option "Off" has been set for the parameter "GED mode left". ↗ Page 60, chapter 5.2.7

8 Gate type, here e.g. mSwing

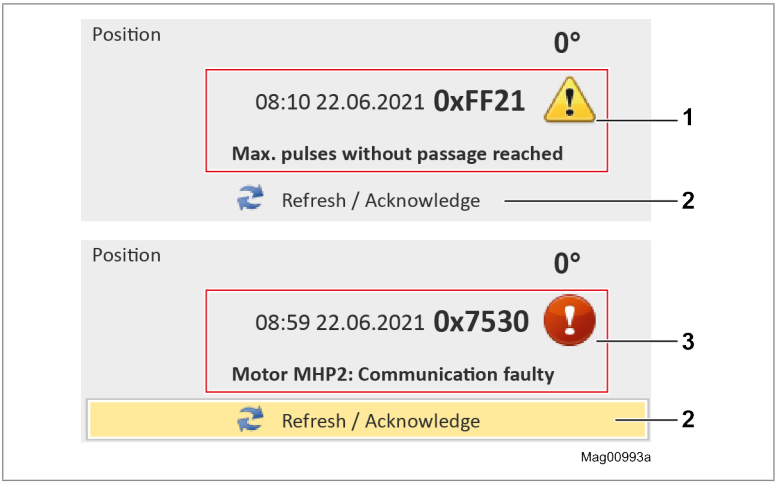


Fig. 7: Examples of event displays

1 Example of an event of the type WARNING

2 Confirm pending messages and update display

3 Example of an event of the type ERROR

Information on WARNING and ERROR: ↗ Page 90, chapter 9.6.

Symbol	Description
	OK No warning and no error is pending.
	WARNING A warning is pending. If you click the "Refresh / Acknowledge" button, the warning is confirmed and the display is refreshed.
	ERROR There is an error. After correcting the fault and a reset, you can acknowledge the fault and refresh the display via the "Refresh / Acknowledge" button. If several errors are pending at the same time, the next error is displayed after refreshing. In the "Service" tab, you can generate a current system report for the pedestrian gate. The system report contains an event log with additional information about a fault / message such as "Node name". ↗ Page 31, chapter 3.6.

Symbol	Description
	Locking active: The pedestrian gate is mechanically blocked. The symbol is displayed in the following cases: › For the "Security mode" parameter, the option "With locking" was selected and an attempted vandalism was detected. › For the "Security mode" parameter, the option "High security" has been selected. "Security mode" parameter: ↗ Page 56, chapter 5.2.4.
	The pedestrian gate has detected an attempted vandalism.

Table 9: Status display – Description symbols

3.4 "Passage control" tab

Use the "Passage control" tab to test the behaviour of the pedestrian gate.

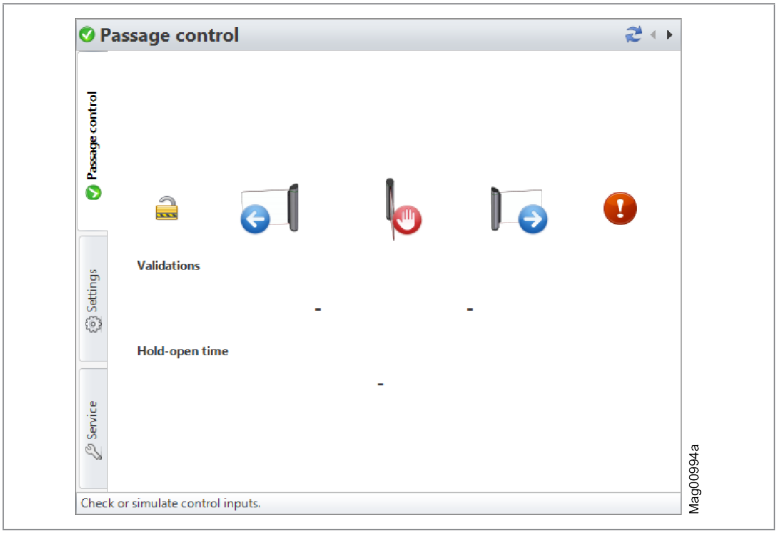


Fig. 8: "Passage control" tab

The view offers the following options.

Information about the input functions: ↗ Page 10, chapter 2.1.

Button / parameters	Description
	The permanent signal is deactivated. The 3 central buttons simulate pulse operation and you can test the respective input function by clicking on the button. The selected input function is automatically reset.
	The permanent signal is activated. The 3 central buttons are in hold mode. After you have selected an input function, this input function is held until you click the button again.
	Test input function "Open from left". Open the pedestrian gate for a passage from left.
	Test input function "Close (Inhibit opening)". Close the pedestrian gate.
	Test input function "Open from right". Open the pedestrian gate for a passage from right.
	Test input function "Emergency open".
Validations	Display of pending validations.
Hold-open time	Display of the current hold-open time still available. If several validations are pending, the total hold-open time is not displayed. The hold-open time is counted down again from the set value with each validation. ↗ Page 54, chapter 5.2.1.

Table 10: "Passage control" tab – Description buttons and parameters

3.5 "Settings" tab

The "Settings" tab encloses the sections: General, Signalling and Random check function.

Use the "Settings" tab to check and adjust the settings.

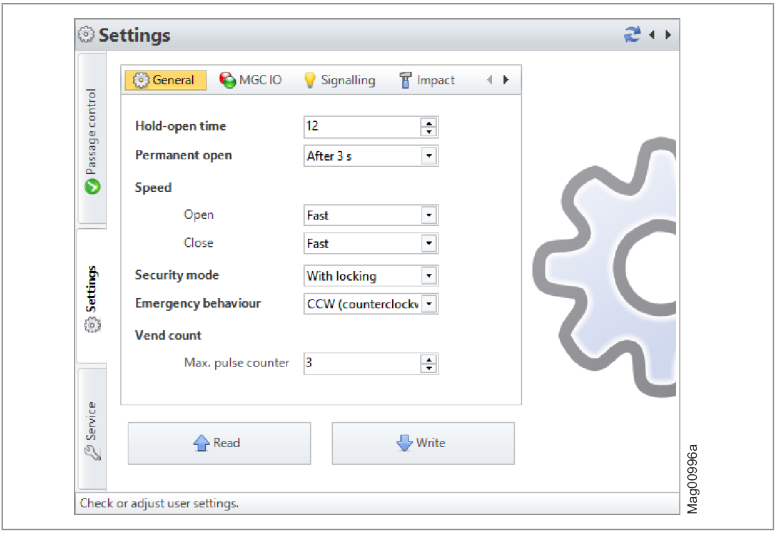


Fig. 9: "Settings" tab, "General" section

Button	Description
Reading	Read current settings from the control unit MGC into the "MGC.Connect" programme.
Writing	Transfer settings from the "MGC.Connect" programme to the control unit MGC.

Table 11: "Settings" tab – Description of buttons

"General" section

Parameter	Description
Hold-open time	"Hold-open time" parameter: ↗ Page 54
Permanent open	"Permanent open" parameter: ↗ Page 54
Speed	"Speed" parameter: ↗ Page 55
Security mode	"Security mode" parameter: ↗ Page 56
Emergency behaviour	"Emergency behaviour" parameter: ↗ Page 56
Vend count – Max pulse count	"Max pulse count" parameter: ↗ Page 57

Table 12: "Settings" tab – "General" section

"Signalling" section

Parameter	Description
Buzzer/Siren	"Buzzer/Siren" parameter: ↗ Page 60
GED left	"GED mode left" parameter: ↗ Page 60
GED right	"GED mode right" parameter: ↗ Page 60

Table 13: "Settings" tab – "Signalling" section

"Impact" section

Parameter	Description
Impact when opening – Response	"Open – Impact response" parameter: ↗ Page 58
Impact when opening – Delay	"Open – Impact delay" parameter: ↗ Page 58
Impact when closing – Response	"Close – Impact response" parameter: ↗ Page 59
Impact when closing – Delay	"Close – Impact delay" parameter: ↗ Page 59
Sensitivity	"Sensitivity" parameter: ↗ Page 59

Table 14: "Settings" tab – "Impact" section

"Sensor" section

Information on operation and functioning ↗ Page 76, chapter 8.

Information on parametrisation: ↗ Page 79, chapter 8.3.

3.6 "Service" tab

Use the "Service" tab to select the target stop and set the 3 target positions "Closed (0°)", "Left" and " Right".

The target stop is the stop that is approached during a reference run (homing). The target stop should correspond to the "Open" position.

In the case of homing, the blocking element is first moved to the "Open" position and then to the "Closed" position (home position).

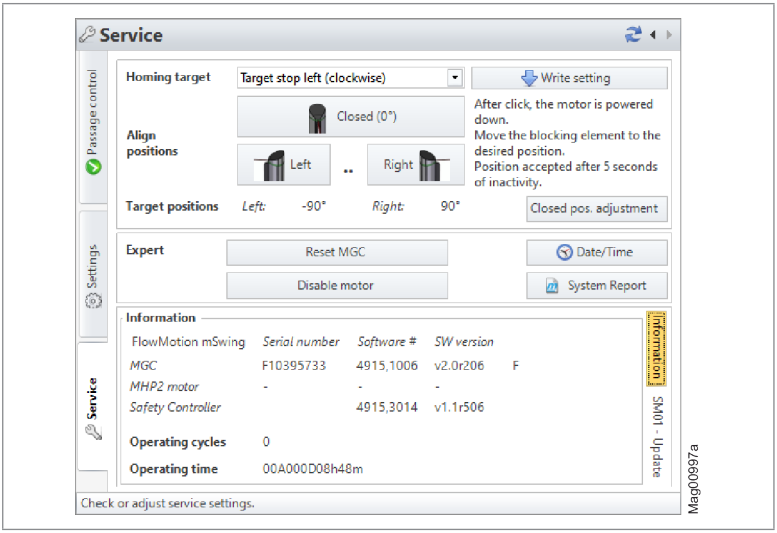


Fig. 10: "Service" tab – "Align positions" section

3.6.1 Selecting target stop and setting target positions

Requirement

› The mechanical end stops are set. The mechanical end stops must be set at least 3° behind the respective target position. If, for example, the target stop for the right is to be 90°, the mechanical end stop must be set to at least 93°.

› After setting the mechanical end stops, a reset and thus a homing was performed. Reset: ↗ Page 96, chapter 9.7.

IMPORTANT!

For setting the mechanical end stops, see separate operating instructions "Swing door mSwing MHTM™ FlowMotion® (Doc.ID: 5817,0032)".

IMPORTANT!

After each change of the mechanical end stops you must check the target positions and readjust them if necessary.

Procedure

1. Determine target stop if necessary.
2. Set target position "Closed (0°)". The set position corresponds to 0°.
3. Set target positions "Left" and "Right".

Setting target stop

1. Select the desired target stop for the "Homing target" parameter.
2. Click the "Write setting" button.
   √ The changes are accepted.
   √ Taught-in target positions "Closed (0°)", "Left" and "Right" are reset to the factory setting.

Setting target positions

There are the 3 target positions "Closed (0°)", "Left" and "Right". First you have to set the target position "Closed (0°)". Then you can set the two target positions "Left" and "Right". During the setting process you must move the blocking element to the desired target position.

The set target position "Closed (0°)" corresponds to 0°. The degrees for the target positions "Left" and "Right" are determined by the "Closed (0°)" position. The value for the target position "Left" is negative. The value for the target position "Right" is positive.

IMPORTANT!

After you have clicked the button, you have **10 seconds** to move the blocking element. The remaining time is displayed in the "Align positions" section.

1. Click the "Closed (0°)" button.
   √ The motor is de-energised. The setting mode is indicated by flashing in yellow.
2. Move the blocking element to the desired target position.
   √ After 5 seconds the target position "Closed (0°)" is accepted. The position corresponds to 0°.
   √ The swing door automatically switches to normal operation. If a buzzer is installed, a short tone will sound.
3. Click the "Left" or "Right" button.
   √ The motor is de-energised. The setting mode is indicated by flashing in yellow.
4. Move the blocking element to the desired target position.
   √ After 5 seconds the target position is accepted. The set value is displayed in the "Target positions" field.
   √ The swing door automatically switches to normal operation. If a buzzer is installed, a short tone will sound.
5. Select remaining target position "Left" or "Right". To do this, repeat steps 3 and 4.

√ The 3 target positions are set.

3.6.2 Description of the buttons and parameters

Button / parameters	Description
Homing target	Select the target stop for homing. › Target stop left (clockwise) › Target stop right (counterclockwise)
Write setting	Changes for the target stop are accepted. Set target positions "Closed (0°)", "Left" and "Right" are reset to the factory setting.
Align positions	Set position "Closed (0°)". The set position "Closed (0°)" corresponds to 0°. After you have clicked the button, you have 10 seconds to move the blocking element. The remaining time is displayed in the "Align positions" section.
Target positions	Display of the current positions for the right and left target stop.
Expert – Deactivate motor	Disconnect the motor from mains. You can move the blocking element freely and check the current position of the blocking element in the status display. The "Closed" position is 0°.
Expert – Reset MGC	Perform reset.
System Report	Open the current System Report. You can save the System Report. The System Report includes various information, the current parameterisation of the inputs and outputs, an event list (event log) and the current parameter settings.
Date/Time	Set the date and time.
Information	Display of serial number, software # and software versions
Operating cycles	Display of the current cycle counter reading of the pedestrian gate. The counter reading cannot be changed.
Operating time	Displays the operating hours counter. The operating hours counter records the time, during which the pedestrian gate is supplied with electrical power.

Table 15: "Service" tab – Description buttons and parameters

3.7 "Safety Settings" tab

⚠ WARNING	
	**Entering values that do not fit the blocking element!** Entering values that do not fit the installed blocking element can lead to increased speed and incorrect torque, and thus to injuries. › Only MHTM™ FlowMotion® service experts may enter the values for safe operation. › The entered values must fit the installed blocking element.

Use the "Safety" tab to enter the parameters for safe operation in low-energy mode according to DIN EN 17352 for the pedestrian gate.

The values to be entered depend on the installed blocking element.

3.7.1 Activating "Safety" tab and entering safety parameters

Requirement

› The latest version of the "MGC.Connect" programme is installed on the laptop. ↗ Page 22, chapter 2.6.3.

› The latest software is installed on the control unit MGC. ↗ Page 22, chapter 2.6.3.

Activating "Safety" tab

The "Safety" tab is not displayed by default.

1. Click on the "Safety configuration" button in the header.
   √ The dialog box for entering the password is opened.
2. Enter "Service Password".

√ The "Safety" tab is displayed.

Entering safety parameters

The values to be entered for the safety parameters can be found on a label that is attached to the blocking element. If you shorten the bracket, the values on the label are no longer valid. ↗ Page 38, chapter 3.7.2.

1. Enter values "S", "T" and "C" according to the label in the "Safety parameter" section.
   √ The entered values are checked. If the values are incorrect, the field "C" is displayed in red. If the values are correct, the field "C" is displayed in green.
2. Click the "Write" button.
   √ The entered values are written to the control unit.

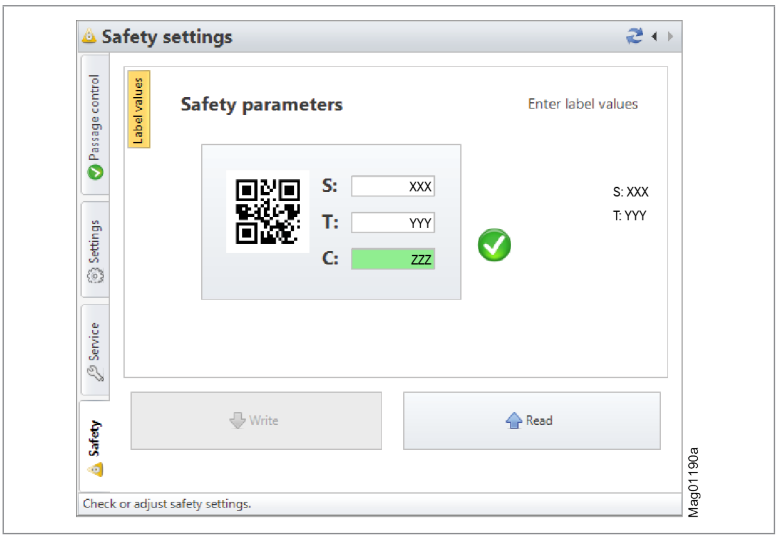


Fig. 11: "Safety" tab, example input of correct values, field "C" is green

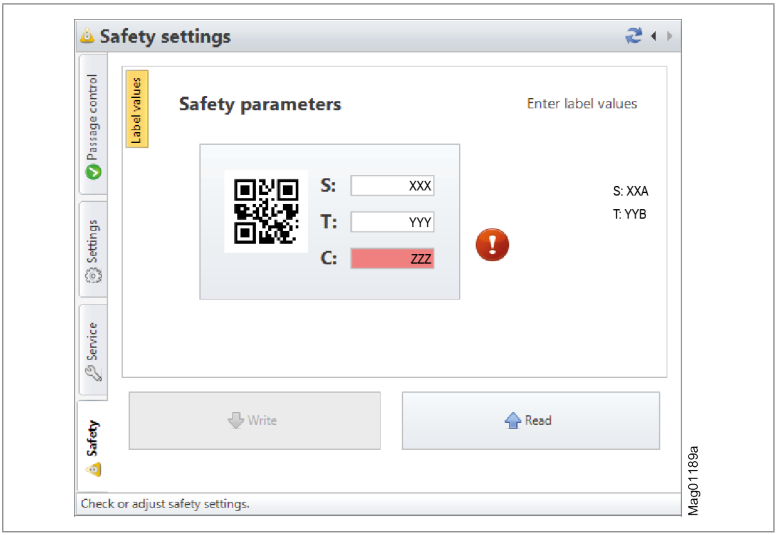


Fig. 12: "Safety" tab, example input of wrong values, field "C" is red

√ The written values are read back. The written values are displayed in a dialog box together with the test values.

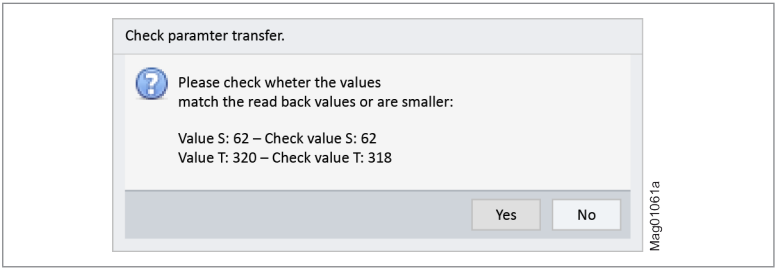


Fig. 13: Check parameter transmission (example)

3. Check whether the written values are less or equal the test values.
4. If the result is correct, click the "Yes" button.

√ The values are accepted. The speeds and torque are configured for the mounted blocking element.

3.7.2 Safety parameters for shortened blocking elements "bracket"

You can shorten the supplied blocking element "bracket" by sawing it off. In this case the safety parameters on the label are no longer valid.

According to the blocking element length "L" you must enter the following values for "S" and "T".

Blocking element length "L" [mm]	Blocking element height "H" [mm]	S [0.1 / min]	T [0.1 Nm]	C
500	390	241	424	1205
600	390	200	491	1732
700	390	170	558	1265
800	390	147	625	816
900	390	129	692	1419
905	390	128	696	1410
1000	390	115	759	913
1055	390	108	796	1464
1100	390	103	826	1429
1200	390	93	893	14
1300	390	84	960	1557
1400	390	77	1027	1171
1500	390	71	1094	1792
1600	390	66	1161	277
1700	390	61	1228	1910
1755	390	58	1265	1397

Table 16: Safety parameters for shortened blocking elements "bracket"

4 Parameterisation directly at the control unit MGC

4.1 Changing menu language

The default setting in the MGC control unit is the menu language "English".

Change the menu language as follows:

The operational view is displayed.

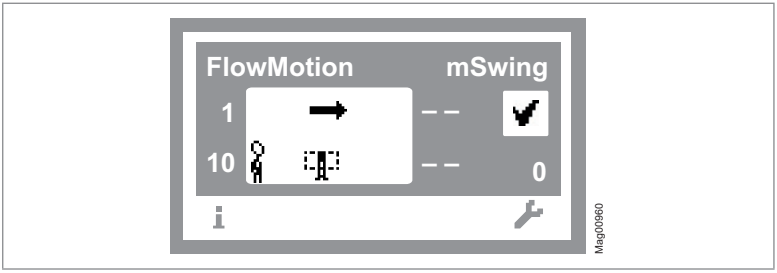


Fig. 14: Example "Operational view"

1. Press right operating button «».

2. Access to parameterisation can be password-protected. If password protection was activated, you are asked to enter a password.

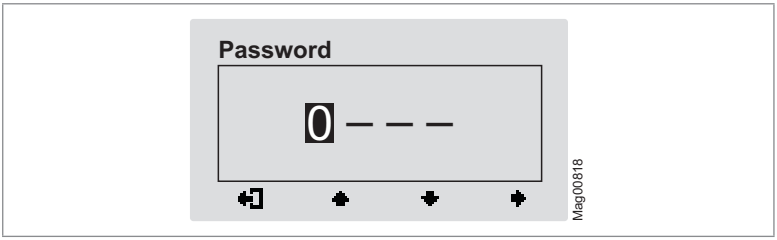


Fig. 15: "Enter password" view

3. The "Main menu" menu is displayed. The "Settings" menu has a dark background and is thus selected.

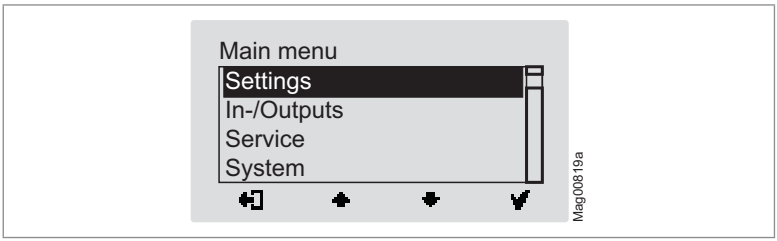


Fig. 16: "Main menu – Settings" view

4. Select the "System" menu with the two middle buttons «», «».

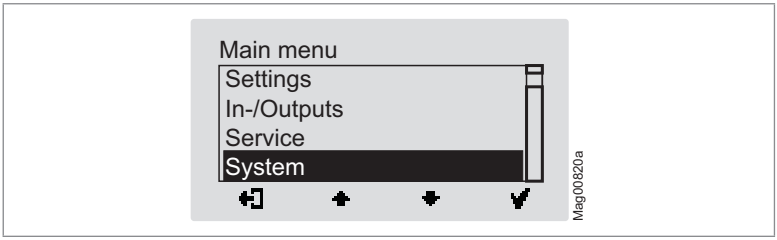


Fig. 17: "Main menu – System" view

5. Confirm selection with the right control button «». The following view is displayed. The menu "Language" is chosen.

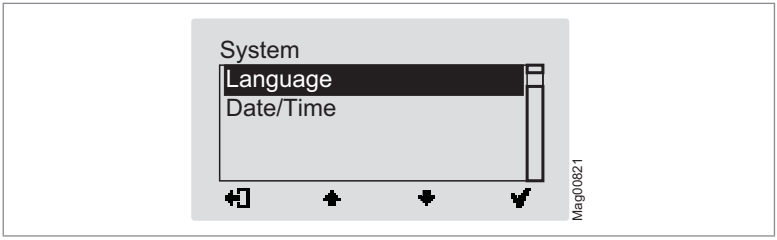


Fig. 18: "Language" view

6. Confirm selection with the right button «✓». The following view is displayed. The menu language "English" is chosen.

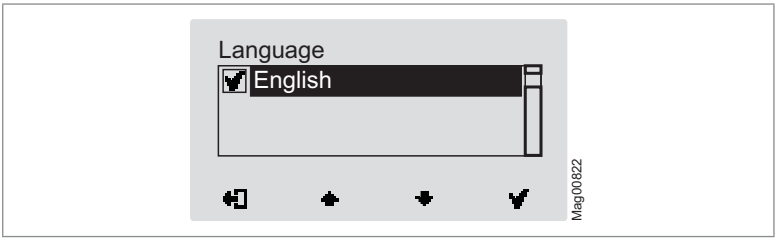


Fig. 19: "Language – English" view

7. Select the language "German" with the two middle buttons «▲», «▼». The language "German" has a dark background.

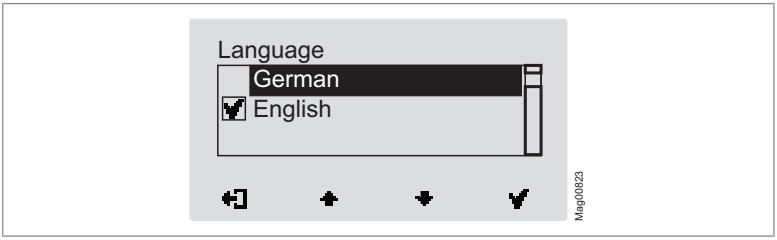


Fig. 20: "Language – German" view

8. Use the right button «✓» to select the new menu language. Your selection is marked with the symbol «☑».

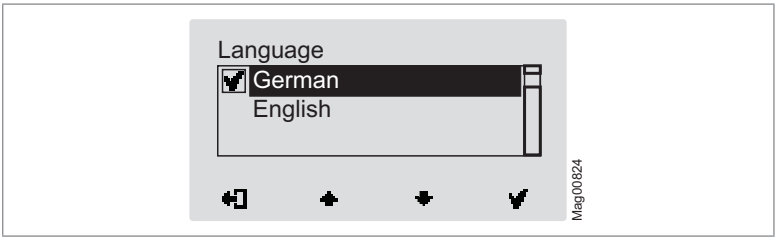


Fig. 21: "Language – German, step 2" view

9. Use the left button «⏎» to leave the "Language" menu. The safety prompt "Save changes?" appears.

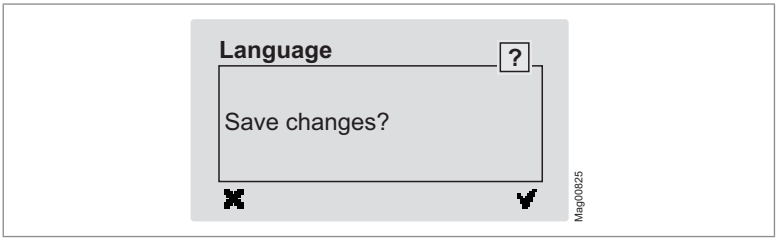


Fig. 22: "Safety prompt – Save changes?" view

10. Push the left button «✘» if you do not want to save the changes. The menu language "English" remains active.
11. Confirm safety prompt with the right button «✔». The new menu language "German" is activated. The following view is displayed:

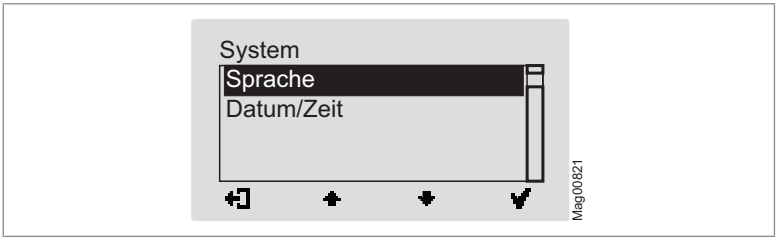


Fig. 23: View "System" menu – Menu language "German" is activated

12. Press the left button «⏎» repeatedly until the operational view is displayed again. ↗ Page 39, Fig. 14.

4.2 Entering password

You need to enter a password in the following cases:

› You would like to change parameters in the control unit and the password protection was activated.

› You would like to reset the parameters to factory settings.

If a password is required, the following view is displayed:

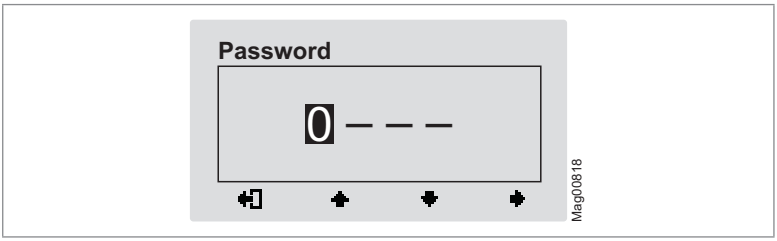


Fig. 24: "Password" view

1. Use the two middle buttons «▲», «▼» to enter the first digit of the password.
2. Use the right button «►» to select the second digit of the password. The following view is displayed:

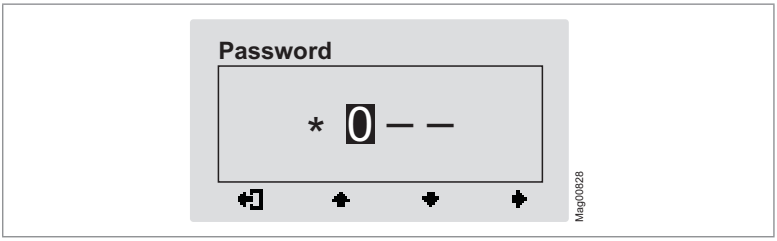


Fig. 25: "Enter second digit of the password" view

3. Use the two middle buttons «▲», «▼» to enter the second digit of the password.
4. Use the right button «►» to select the third digit of the password.
5. Use the two middle buttons «▲», «▼» to enter the third digit of the password.

6. Use the right button «» to select the fourth digit of the password. The following view is displayed:

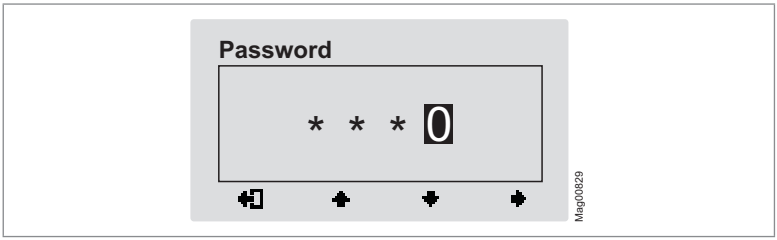


Fig. 26: "Enter fourth digit of the password" view

7. Use the two middle buttons «», «» to enter the fourth digit of the password.
8. Confirm the password with the right control button «».

4.3 Control unit elements

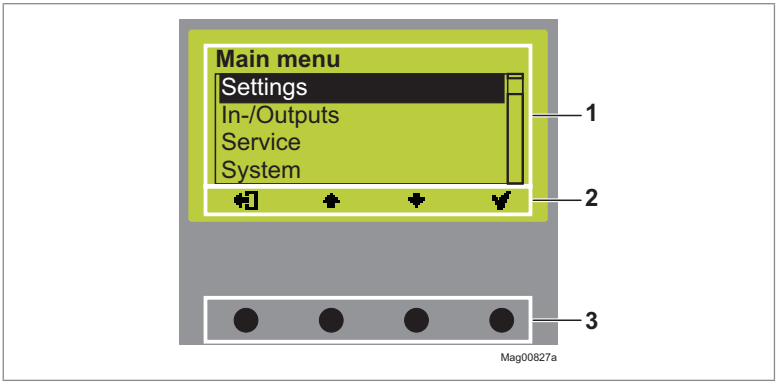


Fig. 27: Control unit elements MGC

1 Menu
2 Current function of the 4 control buttons
3 Control buttons

4.4 Displays of the control unit

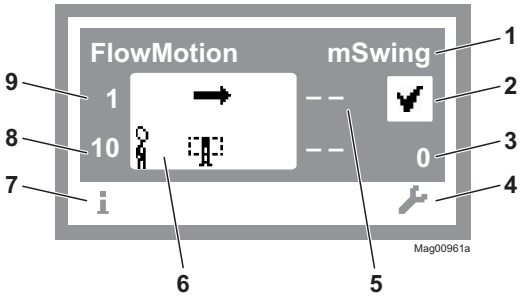


Fig. 28: Example "Operational view"

1 Type pedestrian gate, here mSwing
2 Status display, here ready for operation
3 Angle of rotation, here 0
4 Current function of the right control button, here accessing menu "Main menu"
5 Validations (validation pulses) for passage from left, here blocked
6 Operating display, here passage from left is released
7 Current function of the left control button, here accessing menu "Information"
8 Hold-open time, here 10 seconds
9 Validations (validation pulses) for passage from right, here 1

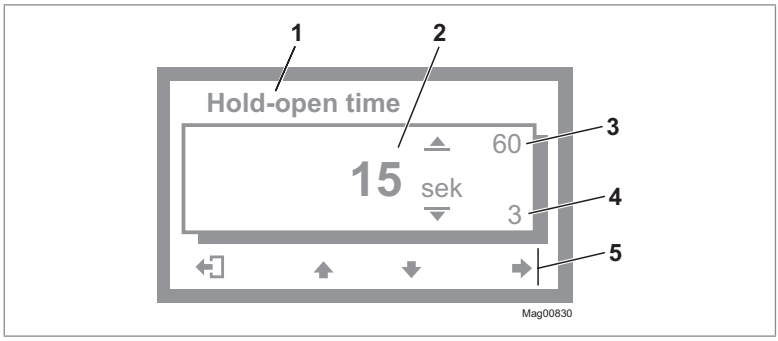


Fig. 29: Example "Screen Change Value"

1 Parameter
2 Current value
3 Possible upper value
4 Possible lower value
5 Current functions of the control buttons

4.5 Symbols in the display

4.5.1 Control button functions

The control unit is equipped with 4 control buttons. The function of the control buttons change depending on the current view in the display. The current functions are shown in the display.

Function	Description
	› Access "Information" menu. › Scroll "Information" menu.
	› Access "Main menu" menu. In the "Main menu" menu you can make all settings.
	› Leave current menu level. The next-higher menu level is displayed.
	› Access next-lower menu level. › Select desired option or desired value. When the desired option was selected, the symbol  is displayed.
	› Option was selected but not yet stored.
	› Within one menu level: Move cursor (market) upwards. › For setting value: Increase figure.
	› Within one menu level: Move cursor (market) downwards. › For setting value: Decrease figure.
	› Move cursor one position to the right. › In "Service" mode: Open the pedestrian gate for a passage from left.
	› In "Service" mode: Open the pedestrian gate for a passage from right.
	› Delete error message. › When changing settings: Cancel changing process.

Table 17: Control button functions

4.5.2 Further symbols

Function	Description
	Wrong password entered. Access denied.
	Reset values to factory settings. To do this, you must enter the password "0000".
	There is an information. Check the "Information" menu. To do this, press the left operating button.
	There is a warning. Check the "Information" menu. To do this, press the left operating button.
	There is an error. Check the "Information" menu. To do this, press the left operating button.
	The passage direction from left is released.
	The passage direction from right is released.

Table 18: Further symbols

4.6 Setting display contrast

The display contrast of the control unit is adjustable after activation while the logo is still displayed. The logo is displayed for 3 seconds.

If you push one of the middle buttons «», «», the display time of the logo extends by 2 seconds per push. You can thus extend the time to set the display contrast.

› Increase contrast, display grows darker: Press the «» button.

› Reduce contrast, display grows lighter: Press the «» button.

The set display contrast is saved automatically.

4.7 Protecting parameterisation from access

You can apply the access to the main menu with password protection.
↗ Page 61, chapter 5.3.1.

4.8 Parameterising value

Example: Change hold-open time

The operational view is displayed. ↗ Page 45, Fig. 28.

1. Press the right button «».
   √ The "Main Menu" menu is displayed.
2. Select the "Settings" menu with the two middle buttons «», «».
3. Confirm the selection with the right button «».
4. The "Hold-open time" parameter has a dark background and is therefore selected. If necessary, use the two middle buttons «», « » to select the "Hold-open time" parameter.
5. Press the right button «».
   √ The current hold-open time value is displayed. The cursor flashes on the first digit.
6. Use the middle buttons «», « » to set the desired digit.
7. Use the right button « » to move the cursor to the right.
   √ The cursor flashes on the second digit.
8. Use the middle buttons «», « » to set the desired digit.
9. Press the right button « ».
10. Use the left button « » to leave the "Hold-open time" parameter.
    √ The safety prompt "Save changes?" appears.

11. If the changes are to be saved, press the right button «✓». The new hold-open time is activated.
    If the changes are not to be saved, press the left button «✗». The previous hold-open time remains active.
    √ The "Settings" menu is displayed.
12. Press the left button «⇦» repeatedly until the operational view is displayed again.

4.9 Switching the "Service" mode on and off

IMPORTANT!

The service switch is located on the control unit. The control unit is only accessible when the blocking element, the hood and the outer tube have been removed. ↗ Page 18, Fig. 1.

Before attaching the reinforcing plate, the outer tube, the blocking element and the cover for normal operation, make sure that the "Service" mode is switched off.

Switching the "Service" mode on

Switch the "Service" switch for the "Service" mode. The LED lights red. The display backlighting flashes. The button assignment in the operating display changes.

Switching the "Service" mode off

After the service work, the switch "Service" must be switched. The LED must light green.

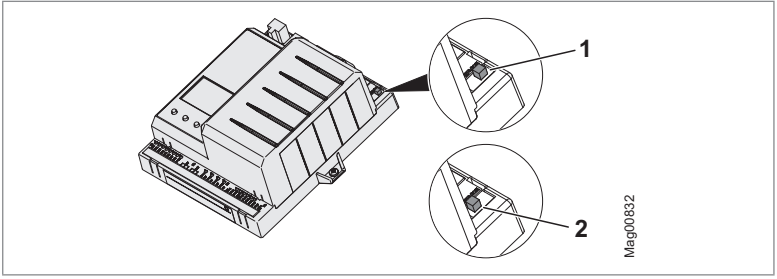


Fig. 30: Service switch

1 Mode "Service" on

2 Mode "Service" off

Functions in "Service" mode

If "Service" mode is activated at start, the current position is adopted as the "Closed" position. This is necessary for the further tests, as the homing function is only available with the outer tube mounted.

Signals via the inputs of the control unit or via the interface are ignored.

In "Service" mode, you can control the motor with the two middle control buttons.

- Middle left button «  »: Open the pedestrian gate for a passage from right.
- Middle right button «  »: Open the pedestrian gate for a passage from left.

5 Description of menus and parameters

5.1 "Information" menu

Accessing and navigating

The operational view is displayed. ↗ Page 45, Fig. 28.

1. Press left button «».
2. Use the left button «» to scroll within the menu.
3. The "Information" menu can be left as follows:
   - › press the left button «» repeatedly until the operational view is displayed again or
   - › press the right button «».

Operational view > Information	
Parameter	**Description**
Error, warning or event messages	Display of the error, warning or event messages that occurred since the last voltage reset, including date and time. Use the «» and «» buttons to navigate through the messages. If no messages are present, the menu is not displayed.
Inputs	Displays the current settings for the digital inputs IN1 to IN8. Separate inputs can be deactivated or inverted. Deactivated inputs are marked with a "–", e.g. "IN8: –". Inputs with inverted functions are marked with a "|", e.g. "IN7: | Illumination off".
Outputs	Displays the current settings for the digital outputs DO1 to DO4 and the relay outputs NO1 to NO3 and NO/NC4 to NO/NC6. Separate outputs can be deactivated or inverted. Deactivated outputs are marked with a "–", e.g. "DO2: –". Outputs with inverted functions are marked with a "|", e.g. "NO5/NC5: | Passage clear Right".
Module info	Display of the software numbers (Software #) and software versions (SW version) of the control unit and plugged-in plug-in modules.

Table 19: "Informationen"

5.2 "Settings" menu

5.2.1 Hold-open time

Operational view > Main menu > Settings > Hold-open time	
Parameter	**Description**
Hold-open time	Set the hold-open time. The hold-open time is started by a validation by a control device, such as a card reader. A passage should take place within the set hold-open time. If there is no passage during the hold-open time, the direction is blocked. With the setting 0 seconds, the direction remains open until a passage takes place. **Setting range** › 0 to 60 s **Factory setting** › 12 s

Table 20: Hold-open time

5.2.2 Permanent open

Operational view > Main menu > Settings > Permanent open	
Parameter	**Description**
Permanent open	You use this parameter to specify whether and after what time the permanent open is activated for a permanent signal at the "Open from left" or "Open from right" inputs. **Example "After 3 s" option** If the signal is present at the "Open from left" or "Open from right" input for 3 seconds, the system switches to the "Permanent open" operating mode. As soon as the signal is no longer present at the input, the direction is immediately blocked. **Options** › Deactivated › After 3 s › After 10 s **Factory setting** › After 3 s

Table 21: Permanent open

5.2.3 Speed

Operating view > Main menu > Settings > Speed	
Parameter	**Description**
Close	Select the speed of the closing movement for the blocking element. **Options** › Slow › Medium › Fast **Factory setting** › Fast
Open	Select the speed of the opening movement for the blocking element. **Options** › Slow › Medium › Fast **Factory setting** › Fast

Table 22: Speed

5.2.4 Safety/Security

Operational view > Main menu > Settings > Safety/Security	
Parameter	**Description**
Security mode (Security)	Select the security mode, i.e. the behaviour of the locking. **Options** › Without locking Select the "Without locking" option if no locking is connected or if the pedestrian gate should never lock mechanically. The blocking element is only held in position by the motor power. › With locking Select the "With locking" option if the pedestrian gate is to lock via the tooth coupling. As soon as an attempt is made to push the blocking element out of the closed position, the locking is immediately activated. After waiting for a time, the locking is released again and the blocking element is moved to the "Closed" position. › High security (Security) With the "High security" option, the pedestrian gate is permanently locked in the "closed" position. With a validation, the locking is released and then the movement is executed. As this setting is only intended for special cases, please consult Magnetic for this setting. **Factory setting** › With locking
Emergency behaviour	Select the behaviour of the blocking element when the signal at the "Emergency open" input disappears. **Options** › –: Blocking element remains in the "Closed" position. › Clockwise (CW): Blocking element is moved clockwise › Counterclockwise (CCW): Blocking element is moved counterclockwise › Free spin: The blocking element is disconnected from mains and can be freely spinned in both directions. **Factory setting** › Counterclockwise (CCW)

Table 23: Safety/Security

5.2.5 Vend count

Operational view > Main menu > Settings > Vend count	
Parameter	**Description**
Counter left	Shows the current counter for validations for a passage from left to right.
Counter right	Shows the current counter for validations for a passage from right to left.
Max pulse count	Set the behaviour of the pedestrian gate during validation. › 1: The hold-open time is extended (retriggered) by the set hold-open time with each new validation. › 2 to 10: As soon as the set value is exceeded, further validations are ignored. **Setting range** › 1 to 10 **Factory setting** › 3

Table 24: Vend count

5.2.6 Impact

Operational view > Main menu > Settings > Impact	
Parameter	**Description**
Open – Impact response	Select the response in case of the control unit detecting an obstacle when opening. An obstacle could be, for example, a stopping user or a trapped piece of luggage. **Options** › Safe stop: The blocking element is moved 5° against the direction of movement. After the set delay, the control unit attempts to move the blocking element to the "Open" position with reduced speed and force. › Close (Reverse): The pedestrian gate is closed. After the set delay, the control unit attempts to move the blocking element to the "Open" position with reduced speed and force. › Free spin: The pedestrian gate is disconnected from the power supply. The user can move the blocking element. After the set delay, the control unit attempts to move the blocking element to the "Open" position with reduced speed and force. › Push on: The pedestrian gate is opened further with reduced speed and force. **Factory setting** › Safe stop
Open – Impact delay	Select the delay after which the blocking element continues the movement with reduced speed and force. **Options** › 3 s, 5 s, 7 s, 10 s or 15 s **Factory setting** › 5 s

Operational view > Main menu > Settings > Impact	
Parameter	**Description**
Close – Impact response	Select the response in case of the control unit detecting an obstacle when closing. An obstacle could be, for example, a stopping user or a trapped piece of luggage. **Options** › Safe stop: The blocking element is moved 5° against the direction of movement. After the set delay, the control unit attempts to move the blocking element to the "Close" position with reduced speed and force. › Close(Reverse): The pedestrian gate is closed. After the set delay, the control unit attempts to move the blocking element to the "Close" position with reduced speed and force. › Free spin: The pedestrian gate is disconnected from the power supply. The user can move the blocking element. After the set delay, the control unit attempts to move the blocking element to the "Close" position with reduced speed and force. › Push on: The pedestrian gate is closed further with reduced speed and force. **Factory setting** › Safe stop
Close – Impact delay	Select the delay after which the blocking element continues the movement with reduced speed and force. **Options** › 3 s, 5 s, 7 s, 10 s or 15 s **Factory setting** › 5 s
Sensitivity	Select the sensitivity for impact detection. **Options** › Medium › High › Low **Factory setting** › Medium

Table 25: Impact

5.2.7 Signalling

Operational view > Main menu > Settings > Signalling	
Parameter	**Description**
Buzzer/Siren	Activate events for which an acoustic signal is to be triggered. Connect the acoustic signal to the "Buzzer/Siren (alarm)" output. An acoustic signal is possible for the following events: › Vandalism › Validation › Error › Obstacle detection › Closing warning (a signal is sent before the pedestrian gate is closed) **Options** › [ ]: Deactivated › [X]: Activated **Factory setting** › Vandalism [X]
GED mode left	Set the behaviour of the illumination connected to the outputs with the function "GED red left" and "GED green left". The illumination off can be a GED, for example. **Options** › Off: The display is dark. › Red: The display is permanently red. › Green: The display is permanently green. › Standby red: The display is red when locked. When released, the display turns green. The display is red during a passage in the opposite direction. › Standby off: The display is off when locked. When released, the display turns green. The display is red during a passage in the opposite direction. › Standby green: The display is green when locked. When released, the display flashes green. The flashing frequency is increased at the end of the hold-open time. The display is red during a passage in the opposite direction. **Factory setting** › Standby green
GED mode right	Set the behaviour of the illumination connected to the outputs with the function "GED red right" and "GED green right". The illumination off can be a GED, for example. **Options** "GED mode left" parameter: ↗ Page 60

Table 26: Signalling

5.3 "Inputs/Outputs" menu

5.3.1 Inputs

↗ Page 10, chapter 2.1.

5.3.2 Outputs

↗ Page 13, chapter 2.2.

5.3.3 Inverted In-/Outputs

This menu is only intended for MAGNETIC's service and only accessible with a password.

This menu allows you to invert individual inputs and outputs and with it the assigned functions. Customer-side additional relays for signal inversion are therefore not required.

Example

The input IN7 is assigned the function "Illumination off". In delivery state, as soon as a voltage of 24 V is applied to this input, the optional cover illumination and floor illumination are switched off.

If the illumination is to be switched off as soon as a voltage of 0 V is applied to input IN7, invert the "Illumination off" function according to the following description.

The operational view is displayed. ↗ Page 45, Fig. 28.

1. Press the right button «».
   √ The "Main Menu" menu is displayed.
2. Confirm selection with the right control button «».
3. Select the menu "Inputs/Outputs".
4. Confirm selection with the right control button «».
5. Select the menu "Invert Inputs/Outputs".
6. Confirm selection with the right control button «».
7. Enter "Service Password".
8. Confirm password with the right control button «».
9. Select the menu "Inputs".
10. Confirm selection with the right control button «».

11. Select input "Input 7 [ ]".
12. Invert the function of the input with the right button «✓».
    √ Your selection is marked with the symbol [X].
13. Use the left button «⏎» to leave the "Settings" menu.
    √ The menu "Invert In-/Outputs" is displayed.
14. Press the left button «⏎» repeatedly until the operational view is displayed again.

Input IN7 and therefore the assigned function "Illumination off" is inverted. In the menu "Information ()", the input IN7 with inverted function is marked with a "|"; in this example, it is "IN7: | Illumination off".

5.4 "Service" menu

This menu is only intended for Magnetic's service and only accessible with a password.

5.4.1 Gate HW

Use the "Gate HW" menu to select the target stop and set the 3 target positions "Closed", "Left" and "Right".

The procedure corresponds to the "Service" tab of the "MGC.Connect" programme. ↗ Page 31, chapter 3.6.

1. Set the target stop using the "Homing direction" parameter.
2. Set target position "Closed" via the parameter "Align home position". The set position corresponds to 0°.
3. Set target positions "Left" and "Right" via the parameters "Align position left" and "Align position right".

Operational view > Main menu > Service > Gate HW	
Parameter	**Description**
Align home position	Set target position "Closed". You start the process via the "Activated [X]" option. The motor is disconnected from the power supply. Within 10 seconds you can move the blocking element to the desired target position. The new target position is accepted after 5 seconds.
Align position left	Set target position "Left". You start the process via the "Activated [X]" option. The motor is disconnected from the power supply. Within 10 seconds you can move the blocking element to the desired target position. The new target position is accepted after 5 seconds.
Target position left	Check and adjust the angle of rotation of the blocking element. Observe the position of the mechanical end stops. If necessary, the mechanical end stops must be reset. **Setting range** › 0° … –120° **Factory setting** › –90°
Align position right	Set target position "Right". You start the process via the "Activated [X]" option. The motor is disconnected from the power supply. Within 10 seconds you can move the blocking element to the desired target position. The new target position is accepted after 5 seconds.

Operational view > Main menu > Service > Gate HW	
Parameter	**Description**
Target position right	Check and adjust the angle of rotation of the blocking element. Observe the position of the mechanical end stops. If necessary, the mechanical end stops must be reset. **Setting range** › 0° ... +120° **Factory setting** › 90°
Homing direction (Homing target)	Select the direction of rotation for the blocking element during homing. The swing door performs a homing after each switch on. In the case of homing, the blocking element is first moved to the "Open" position and then to the "Closed" position (home position). If you change the setting for the "Homing direction" parameter, the parameters "Align home position", "Target position left" and "Target position right" are reset to the factory setting. **Options** › Clockwise (CW) › Counterclockwise (CCW) **Factory setting** › Clockwise (CW)

Table 27: Gate HW

5.4.2 Further parameters

Operational view > Main menu > Service	
Parameter	**Description**
Cycles	Display of complete passage procedures.
Lifetime	Displays the operating hours counter. The operating hours counter records the time, during which the pedestrian gate is supplied with electrical power.
System time	Displays the internal date and the internal clock.
Main menu password	Activate and deactivate password protection for the main menu. To activate a change of the settings, either access the operational view or switch the power supply on or off. **Options** › OFF: You can change the main menu without entering a password. › ON: You can change the main menu only after entering a password. The password is identical with the one for the "Service" menu. **Factory setting** › OFF

Table 28: Service

5.5 "System" menu

Operational view > Main menu > System	
Parameter	**Description**
Language	Select menu language. **Factory setting** › English
Date/Time	Correct date and time of the control unit MGC.

Table 29: System

5.6 "Information" menu

Operational view > Main menu > Information	
Parameter	**Description**
Serial no	Displays the serial number of the control unit
Hardware Version	Displays the present hardware version
Software #	Displays the present software number
SW version	Displays the present software version
Temperature	Displays the current temperature in the control unit
Logic voltage	Display of the logic voltage, from hardware version E
X20-EN	Display of the analogue voltage 0–10 V at the terminal "X20-EN", from hardware version E onwards
PSU-FB	Feedback signal of the mains unit (for future expansions), from hardware version E onwards

Table 30: Information

5.7 "Motor MHP2" menu

Operating view > Main menu > Motor MHP2	
Parameter	**Description**
Motor temperature	Display of the current motor temperature.
Information	Display of information about the "MHP2 Motor" module: Serial number (Serial No), hardware version, software # and software version.

Table 31: Motor MHP2

5.8 "Safety Controller" menu

Operating view > Main menu > Safety Controller	
Parameter	**Description**
Safety parameter	Display of the parameters for safe operation.
Information	Display information about the "Safety Controller" module: Software # and software version.

Table 32: Safety Controller

5.9 "Factory settings" menu

IMPORTANT!

The parameters of the control unit are stored in the three memory areas "Default settings", "Factory settings" and "User settings".

The default settings are identical to the factory settings in these operating instructions. The default settings are firmly store din the firmware and cannot be changed.

The factory setting can be assigned factory- or product-specific settings.

The user settings are the operating parameters.

Options in the "Factory settings" menu

The menu "Factory setting" offers the following options:

- Restore factory settings: The stored parameters in the memory area "Factory settings" are accepted as operating settings.
- User settings as factory settings: The current parameter settings are stored as factory settings. These factory settings can be used to receive project-specific settings.
- Default settings as factory settings: The factory settings are overwritten by the default settings.

If you would like to accepted the default settings as operating settings and the factory settings were overwritten first, you need to use the option "Default settings as factory setting" and then the option "Restore factory setting".

"Restore factory setting" option

The operational view is displayed. ↗ Page 45, Fig. 28.

1. Press the right button «».
   √ The "Main Menu" menu is displayed.
2. Select the menu "Factory setting" with the two middle buttons «», « ».
3. Confirm selection with the right control button «».
4. Enter password "0 0 0 0".
5. Confirm password with the right control button «».
   √ The message "Reset to factory settings" appears.

6. Press the right button «✓».
   √ The safety prompt "Save changes?" appears.
   › If the changes are to be saved, press the right button «✓». The current settings are reset to factory settings. A restart is performed.
   › If the changes are not to be saved, press the left button «✗».
7. Press the left button «⇦» repeatedly until the operational view is displayed again.

Via service password for all options

The operational view is displayed. ↗ Page 45, Fig. 28.

1. Press the right button «🔧».
   √ The "Main Menu" menu is displayed.
2. Select the menu "Factory setting" with the two middle buttons «⇧», «⇩».
3. Confirm selection with the right control button «✓».
4. Enter "Service Password".
5. Confirm password with the right control button «✓».
   √ The message "Reset to factory settings" appears.
6. Select the desired option with the two middle buttons «⇧», «⇩».
7. Confirm selection with the right control button «✓».
   √ The safety prompt "Save changes?" appears.
   › If the changes are to be saved, press the right button «✓». The current settings are reset to factory settings. A restart is performed.
   › If the changes are not to be saved, press the left button «✗».
8. Press the left button «⇦» repeatedly until the operational view is displayed again.

6 Function description

6.1 Definition of "left" and "right"

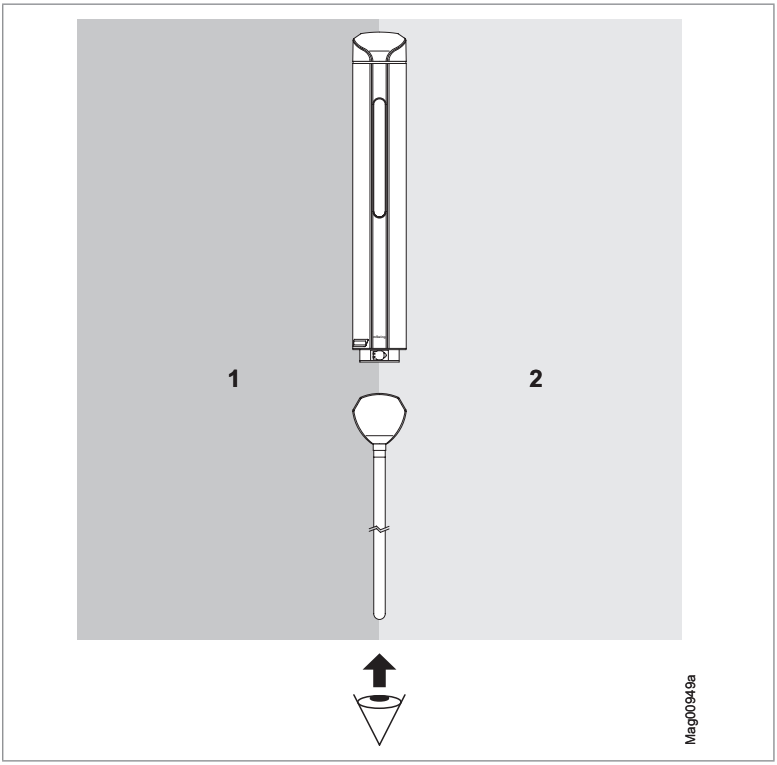


Fig. 31: Definition of "left" and "right"

1 Left (function "Open from left" for a passage from left)

2 Right (function "Open from right" for a passage from right)

6.2 Start-up and regular movement sequence

6.2.1 Power-off state

The motor is not energised in the power-off state. The locking is released. The blocking element can be moved freely.

Ensure that the swing door can take up operation unhindered. The swivel range of the blocking element must be free and limited by setting the mechanical end stops.

6.2.2 Reference run (Homing)

After switching on, the swing door automatically performs a reference run (homing).

In the case of homing, the blocking element is first moved to the "Open" position and then to the "Closed" position (home position). The "Open" position corresponds to the parameterised target stop. During homing, the illumination flashes yellow.

You can use the "Homing target / homing direction" parameter to adjust the direction of rotation of the blocking element.

6.2.3 Regular movement process

After receiving a validation in one direction, the blocking element is opened in the passage direction. The hold-open time expires immediately. If the hold-open time is 0 seconds and there are no further validations, the blocking element is closed.

Via the "Close (Inhibit opening)" input, the hold-open time and all pending validations are deleted.

If the value "1" was set for the parameter "Max pulse count", the hold-open time is extended (retriggered) by the set hold-open time with each new validation. If a value greater than "1" has been set for the "Max pulse count" parameter, further validations are ignored as soon as the set value is exceeded. You can set a maximum of 10 validations.

6.2.4 Permanent open

Prerequisite: For the parameter "Permanent open" either the option "After 3 s" or "After 10 s" has been selected.

A continuous signal at the "Open from left" input or at the "Open from right" input opens the swing door until the signal is no longer present.

6.3 Special cases within the motion sequence

6.3.1 Turning back during the closing movement

If a user tries turning the blocking element back during the closing movement, the behaviour of the pedestrian gate depends on the setting of the parameter "Security mode". "Security mode" parameter: ↗ Page 56.

If the option "With locking" is selected, the locking is activated. After waiting for a time, the locking is released again and the movement continues. If the option "Without locking" is selected, the blocking element is held only by the motor power.

6.3.2 Obstacle detection

The behaviour of the pedestrian gate when it detects an obstacle is set via the "Impact" menu. "Impact" menu: ↗ Page 58, chapter 5.2.6.

If an obstacle is detected during the movement, e.g. a user does not continue to walk or a piece of luggage is jammed, the set response is executed. After the set delay, the movement is continued with reduced speed and force. After several consecutive opening attempts with obstacle detection, the pedestrian gate closes.

6.3.3 Vandalism attempt

When a user tries to pass the pedestrian gate without authorisation, the pedestrian gate proceeds as follows.

- the locking is activated when either the "With locking" or "High security" option is set for the "Security" parameter. "Security" parameter: ↗ Page 56
- The output function "Buzzer/Siren (alarm)" is set
- The output function "Vandalism" is set

The output function "Buzzer/Siren (alarm)" is parameterised ex works for the event "Vandalism". The output function "Vandalism" is **not** parameterised ex works.

After waiting for a time, the locking is released and the system checks to see if the vandalism attempt continues. If this is the case, the locking is immediately reactivated. The waiting time until the locking is released again is extended.

6.3.4 Emergency

If the input with the "| Emergency open" function is interrupted during operation, the pedestrian gate switches to the "Permanent open" operating mode.

The behaviour of the blocking element depends on the setting of the "Emergency behaviour" parameter. "Emergency behaviour" parameter: ↗ Page 56

The status is logged via the warning message 0xFF20.

As soon as power is restored at the "| Emergency open" input of the control unit, the pedestrian gate is put back into operation.

IMPORTANT!

The input function "| Emergency open" does **not** fulfil the requirement of an emergency opening device as required for escape and emergency routes.

To use the mSwing pedestrian gate in an escape and emergency route, see the separate operating instructions "Swing door mSwing MHTM™ FlowMotion® (Doc.ID: 5817,0032)", chapter "mSwing for escape and emergency routes".

7 Parallel operation

7.1 Overview and definitions

In parallel operation, two mSwing swing doors face each other.

Parallel operation is suitable for blocking off wide passages.

The wiring is done in parallel.

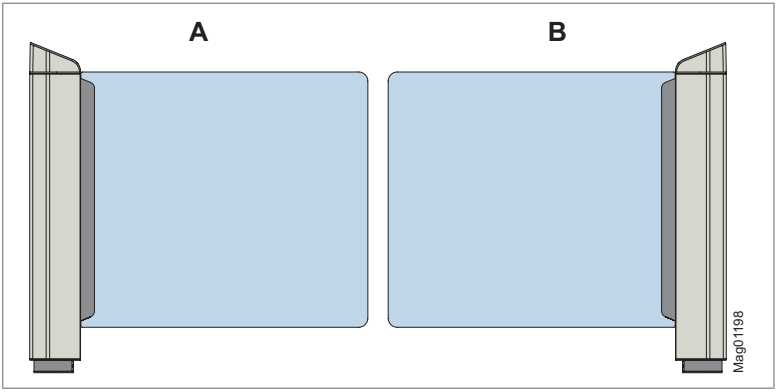


Fig. 32: Parallel operation, here as an example mSwing with wing

A Swing door mSwing A

B Swing door mSwing B

7.2 Wiring of the control unit MGC

IMPORTANT!

A jumper is factory-set between X1.COM and X2.0 on the MGC control unit. For the mSwing B swing door, you must remove this jumper.

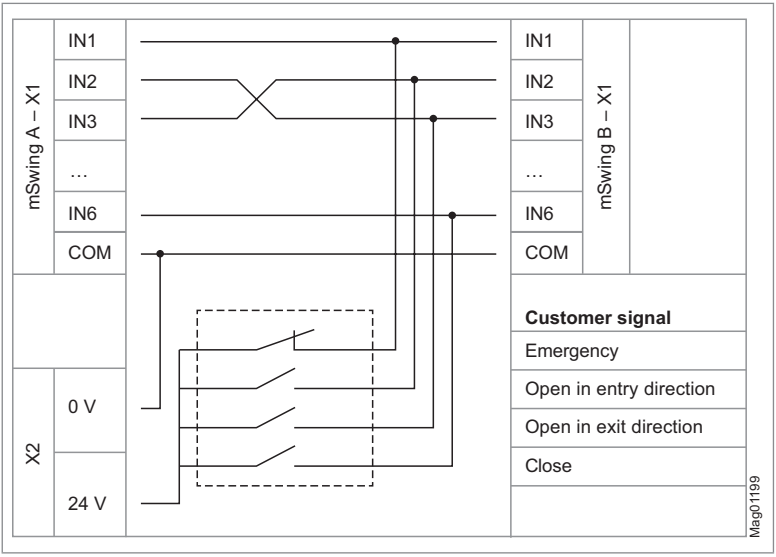


Fig. 33: Wiring for parallel operation

7.3 Connection of digital inputs

Customer signal	mSwing A		mSwing B	
	Clamp	Input function	Clamp	Input function
| Emergency (closed-circuit principle)	X1.IN1	| Emergency open	X1.IN1	| Emergency open
Open in exit direction	X1.IN2	Open from left	X1.IN3	Open from right
Open in entry direction	X1.IN3	Open from right	X1.IN2	Open from left
Close	X1.IN6	Close	X1.IN6	Close

Table 33: Required connections for parallel operation

7.4 Settings

IMPORTANT!

Except for the parameters "Emergency behaviour" and "Homing target", the parameters must be set identically for both swing doors mSwing A and mSwing B.

Parameters (menu path)	mSwing A	mSwing B
Emergency behaviour MGC.Connect, "Settings" tag	Counterclockwise (CCW)	Clockwise (CW)
Homing target (Homing direction) MGC.Connect, "Service" tag	Target stop left (clockwise)	Target stop right (counterclockwise)

Table 34: Different settings for mSwing A and mSwing B

8 Operation with sensor

8.1 Recommendations for the layout and functional scope of the sensor

Connect the sensor signals for the detection of persons to the inputs with the functions "Sensor left" and "Sensor right". You receive a feedback via the output function "Stopped by sensor", if the function sequence is controlled by the connected sensor.

For the application, we recommend a detection laser scanner with two parameterisable safety zones, such as a laser scanner of the TiM series from SICK.

For applications where the swing door only opens in one direction, other sensor types such as the MLSHOR01 laser scanner are also conceivable.

Place the sensor in relation to the blocking element as seen in the following figure. Integrate the sensor e.g. in a wall, railing or post to prevent the risk of tripping.

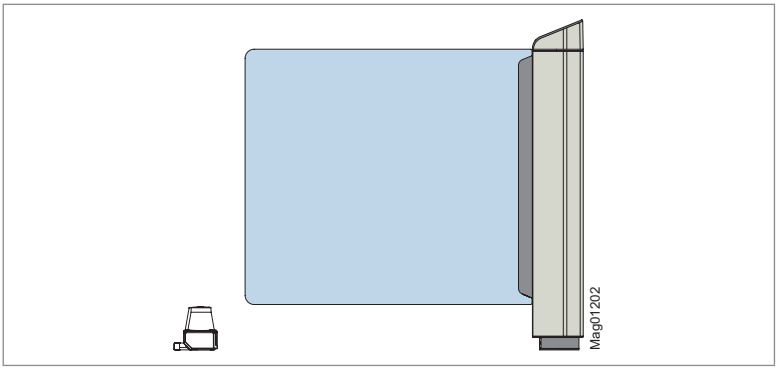


Fig. 34: Sensor placement

The safety zones must never be occupied by the blocking element of the swing door.

If the blocking element moves through a safety zone, select the option "Continue closing" for the parameter "Response close" and the option "Deactivated" for the parameter "Stop when opening".

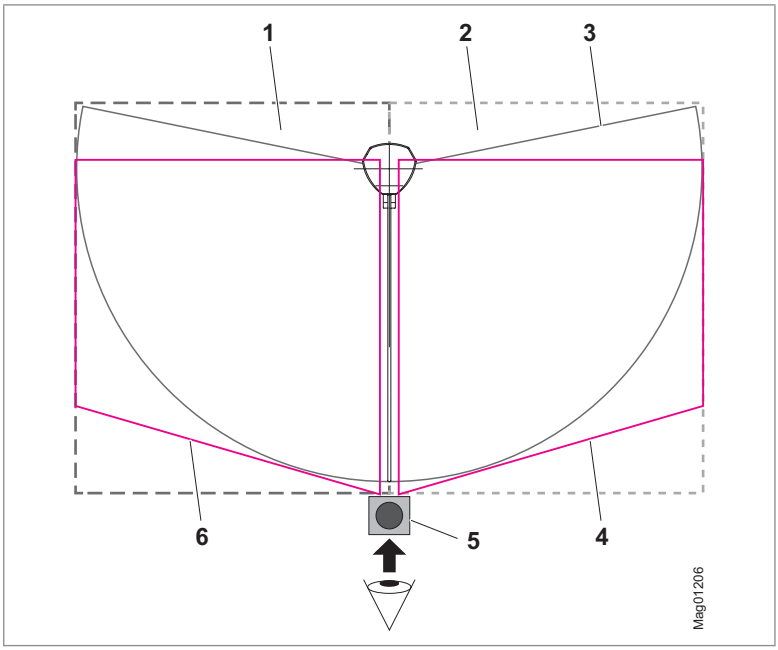


Fig. 35: Application example mSwing with sensor

1 Sensor left
2 Sensor right
3 mSwing swivel range
4 Taught-in safety zone for "Sensor right"
5 Sensor (example)
6 Taught-in safety zone for "Sensor left"

8.2 Function description with sensors

Normal function sequence with sensors

After receiving a validation, the passage is only opened in the passage direction when the sensor for the opposite safety zone is free. As long as the sensor is occupied, the opening is delayed. The cover illumination is yellow. As soon as the sensor is free, the hold-open time starts and the swing door opens.

If the swing door is passed in the direction of passage, the sensor for the opposite safety zone is occupied by the person. Once the sensor is free, the hold-open time will be deleted. If there is no passage or the person is not detected by the sensor, the swing door closes after the hold-open time has elapsed.

If there are no further validations and the sensor in the swivel range is not occupied, the swivel door is closed immediately.

Occupancy of the sensors during the movement

If the sensor in the swivel area is occupied during opening or closing, the blocking element is stopped in the movement. The cover illumination flashes red.

However, the blocking element is only stopped during the opening if the set cut off angle has not yet been reached. I.e. the current opening angle is smaller than the set cut off angle for the "When opening" parameter. This setting option prevents the blocking element from being stopped if a person is already detected by the sensor for the opposite safety zone during opening.

When closing, the blocking element is only stopped if the current opening angle is greater than the set cut off angle for the "When closing" parameter and the "Stop" option is selected for the "Response close" parameter. If the "Open" option has been selected, the swing door is opened again. If the option "Continue closing" is selected, the swing door is further closed.

As soon as the sensor is no longer occupied, the movement of the blocking element continues at a slow speed.

8.3 Parameterising the control unit MGC

8.3.1 Digital inputs

IMPORTANT!

If the signal polarity is unsuitable, you can invert the input behaviour via the "Invert In-/Outputs" menu. ↗ Page 61, chapter 5.3.3

Input function	Descriptions
Sensor left	To this input, you can connect, among others, the following: › The sensor signal for the left safety zone on laser scanners with two parameterisable safety zones. › The sensor signal of the left sensor for simpler sensors such as an ultrasonic sensor. As soon as the sensor detects a person in the safety zone, the following actions are possible: › Opening from the right is prevented. › If the swing door is opened to the left, closing is prevented. › If the person leaves the safety zone for a passage from the right, the validation is deleted. › If the swing door is just being closed from the right and the current opening angle is greater than the set cut off angle for the "When closing" parameter and the "Stop" option has been selected, the blocking element is stopped. Once the sensor is free again, the closing movement will be continued. If the "Open" option has been selected for the "Response close" parameter, the swing door is opened again. If the option "Continue closing" is selected, the swing door is further closed. › If the swing door is just opened for a passage from the right and the current opening angle is smaller than the set cut off angle for the "When opening" parameter, the movement is stopped. Once the sensor is free again, the opening movement will be continued.

Input function	Descriptions
Sensor right	To this input, you can connect, among others, the following: › The sensor signal for the right safety zone on laser scanners with two parameterisable safety zones. › The sensor signal of the right sensor for simpler sensors such as an ultrasonic sensor. As soon as the sensor detects a person in the safety zone, the following actions are possible: › Opening from the left is prevented. › If the swing door is opened to the right, closing is prevented. › If the person leaves the safety zone for a passage from the left, the validation is deleted. › If the swing door is just being closed from the left and the current opening angle is greater than the set cut off angle for the "When closing" parameter and the "Stop" option has been selected, the blocking element is stopped. Once the sensor is free again, the closing movement will be continued. If the "Open" option has been selected for the "Response close" parameter, the swing door is opened again. If the option "Continue closing" is selected, the swing door is further closed. › If the swing door is just opened for a passage from the left and the current opening angle is smaller than the set cut off angle for the "When opening" parameter, the movement is stopped. Once the sensor is free again, the opening movement will be continued.

Table 35: Function digital inputs

8.3.2 Digital outputs and relay outputs

Output function	Descriptions
Stopped by sensor	You receive a feedback via this output function, when the function sequence is controlled by the connected sensor. You can parameterise the function of the sensor on the swing door via MGC. Connect in the "Sensor" tab ↗ Page 81, chapter 8.4.

Table 36: Function digital outputs and relay outputs

8.4 Parameterisation of the "Sensor" function via MGC.Connect

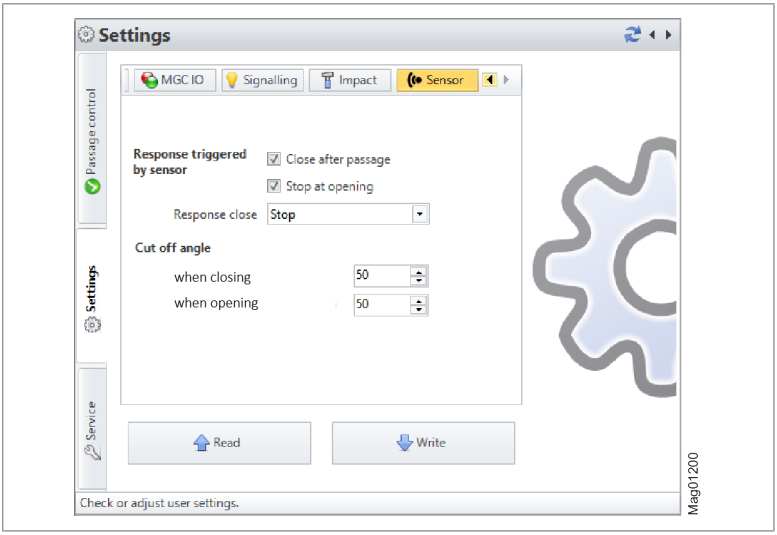
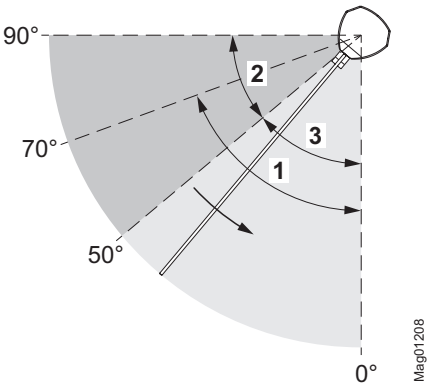


Fig. 36: "MGC.Connect" programme, "Settings" tab, "Sensor" section

Parameter	Description
Response triggered by sensor	Select the response of the swing door when the sensor is occupied during the selected movement. More information: ↗ Page 84, table "Response triggered by sensor" If the function of the swing door is controlled by the sensor, this is reported via the output function "Stopped by sensor".

Parameter	Description
Cut off angle when closing	Enter the cut off angle for the closing process, if the sensor is occupied during closing. This parameter is effective if "Stop" or "Open" has been selected for the "Response close" parameter. **Setting range:** › 0° to 70° **Factory setting:** › 50° **"Response close" parameter, "Stop" option** If the sensor in the swivel range is occupied during the closing and the current opening angle of the blocking element is greater than the set cut off angle "when closing", the blocking element is stopped in the movement.  Fig. 37: Swing door is closed, set cut off angle in this example is 50° 1 Adjustment range 0° to 70° 2 Area in which the blocking element is stopped during closing. 3 Area in which the blocking element is no longer stopped during closing **"Response close" parameter, "Open" option** If the sensor in the swing area is occupied during closing and the current opening angle of the blocking element is greater than the set cut off angle "When closing", the swing door is opened again.

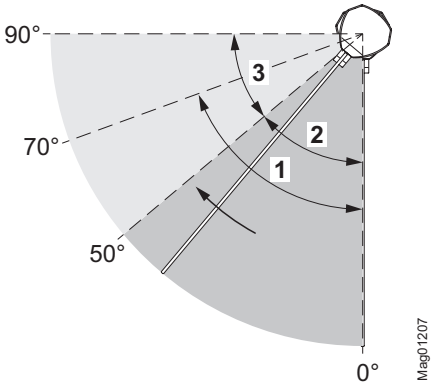
Parameter	Description
Cut off angle when opening	Enter the cut off angle for the opening process, if the sensor is occupied during opening. This parameter is effective if "Activated" has been selected for the "stop when opening" parameter. If the sensor in the swivel range is occupied during the opening and the current opening angle of the blocking element is smaller than the set cut off angle "when opening", the blocking element is stopped in the movement. **Setting range:** › 0° to 70° **Factory setting:** › 50°  Fig. 38: Swing door is opened, set cut off angle in this example is 50° 1 Adjustment range 0° to 70° 2 Area in which the blocking element is stopped during opening 3 Area in which the blocking element is no longer stopped during opening

Table 37: "Settings" tab – "Sensor" section

Response triggered by sensor

Selection	Description
Close after passage	Select the response of the swing door when the sensor for the opposite safety zone becomes free. **Options:** › Activated: As soon as the sensor for the opposite safety zone is free, the validations are decremented by one. If there are no further validations, the swing door is closed immediately. › Inactive: No action. After the end of the hold-open time, the validations are decremented by one. If there are no further validations, the swing door is closed immediately. **Factory setting:** › Activated
Response close	Select the response of the swing door if the sensor in the swivel range is occupied when closing and the current opening angle of the blocking element is greater than the set cut off angle "When closing". **Options:** › Stop: The movement of the blocking element is stopped. As soon as the sensor becomes free again, the movement of the blocking element is continued. › Open (Reverse): The swing door is opened again. › Continue closing: The swing door is closed further. **Factory setting:** › Stop
Stop when opening	Select the response of the swing door if the sensor in the swivel range is occupied when opening and the current opening angle of the blocking element is smaller than the set cut off angle "When opening". **Options:** › Activated: The movement of the blocking element is stopped. As soon as the sensor becomes free again, the movement of the blocking element is continued. › Inactive: The swing door opens further. **Factory setting:** › Activated

Table 38: Settings" tab – "Response triggered by sensor" section

8.5 Visualisation of the sensor signals with MGC.Connect

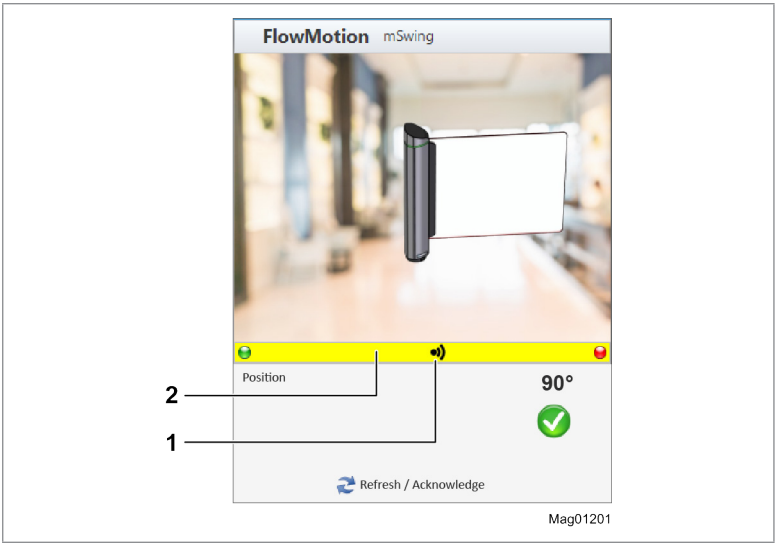


Fig. 39: Visualisation for applications with sensor

1 Symbol for sensor, here sensor right occupied

2 Display of the current status of the "LED strip left" and "LED strip right" output functions ↗ Page 18, chapter 2.4.1

Symbol	Description
	Sensor left occupied
	Sensor right occupied

9 Corrective action

9.1 Safety in troubleshooting

Qualification of personnel

› Technician
› Magnetic MHTM™ FlowMotion® service expert

↗ Page 9, chapter 1.3.1.

Personal protective equipment

Wear the following personal protective equipment:

› Work clothes
› Protective gloves
› Safety shoes.

⚠ WARNING	
	**Inappropriate troubleshooting!** Inappropriate troubleshooting can cause severe injuries. › Observe possible movements of the blocking element. Defective control may lead to inadvertent movement of the blocking element. › In case of damaged components, take the pedestrian gate out of operation. › Use only original spare parts. › After completion of troubleshooting, ensure that all covers are correctly mounted.

The following chapters describe possible causes of malfunctions and troubleshooting tasks.

Faults of the types WARNING and ERROR may only be corrected by a MHTM™ FlowMotion® service expert.

For the required qualification of the MHTM™ FlowMotion® service expert:
↗ Page 9, chapter 1.3.1.

9.2 Malfunctions pedestrian gate

Malfunction: Display is difficult or impossible to read.

Possible cause	Corrective action	Removal by
Display contact set too light or dark.	Correct display contact. ↗ Page 49, chapter 4.6.	Technician

Malfunction: Pedestrian gate does not open.

Possible cause	Corrective action	Removal by
Power supply is not connected.	› Switch on power supply. › Check power supply.	Technician
Error present. The corresponding error message is displayed.	Depending on error message, check components, wiring, etc.	MHTM™ FlowMotion® service expert
Power supply is present. Control unit display does not light up.	Control unit defective. Replace the control unit.	MHTM™ FlowMotion® service expert
Locking signal present.	Remove locking signal.	MHTM™ FlowMotion® service expert

9.3 Event, warning and error messages – definitions

The control unit differentiates between events, warnings and errors.

A message consists of a number, the category and a message text.

Event messages "INFO"

Event messages inform about events. The pedestrian gate continues to operate normally. Event messages do not influence the outputs of the control unit.

Warning messages "WARNING"

Faults that could be reset by the control unit are displayed as warnings. Operation of the pedestrian gate is not or only briefly impaired.

Error messages "ERROR"

Faults that cannot be reset by the control unit are displayed as errors. The pedestrian gate is put out of service.

IMPORTANT!

With some messages, the control unit tries to reset the cause of the message. If the attempt was successful, the message is displayed as WARNING. If the attempt failed, the message is displayed as ERROR.

9.4 Displaying and signalling messages

Messages are displayed and signalled as follows:

- Status display in the MGC.Connect programme: ↗ Page 25, Fig. 7.
- On the display of the MGC control unit.
- The output with the function "| Error" is deactivated in case of an error (ERROR) (closed-circuit principle). This function is not parameterised ex works. ↗ Page 13, chapter 2.2.
- The output with the function "| Warning" is deactivated in case of a warning (WARNING) (closed-circuit principle). This function is not parameterised ex works. ↗ Page 13, chapter 2.2.

9.5 Procedure in case of a fault / message

IMPORTANT!

Faults of the types WARNING or ERROR may only be corrected by a MHTM™ FlowMotion® service expert.

For the required qualification of the MHTM™ FlowMotion® service expert: ↗ Page 9, chapter 1.3.1.

IMPORTANT!

In the "Service" tab of the "MGC.Connect" programme, you can generate a current system report for the pedestrian gate. The system report contains an event log with additional information about a fault / message such as "Node name". ↗ Page 31, chapter 3.6.

1. Correct the fault according to the following chapters:
   - Node name "Gate Controller": ↗ Page 90, chapter 9.6.1.
   - Node name "Motor MHP2": ↗ Page 92, chapter 9.6.2.
   - Node name "Safety Controller": ↗ Page 94, chapter 9.6.3.
   - All others: ↗ Page 95, chapter 9.6.4.
2. Perform reset. ↗ Page 96, chapter 9.7.
3. Acknowledge message. ↗ Page 26, chapter 3.4.

9.6 Event, warning and error messages (troubleshooting)

9.6.1 Event, warning and error messages – Logic control (control unit)

Number	Designation	Possible cause	Corrective action
3120 ERROR	Mains power failure	Short-term power failure detected.	Check supply voltage and mains quality.
5112 WARNING	24 V logic voltage too low	Under voltage	› Reduce load. › Check mains unit.
5530 ERROR	EEPROM checksum	Checksum of parameters not correct.	› Reset parameters to factory settings. ↗ Page 67, chapter 5.9.
6000 ERROR	Module SW-update failed	Firmware update was not performed correctly.	› Restart the control unit. › If the error remains, perform the update again via the service module.
6101 ERROR	Software error: VS	Software error	› Perform software update.
6102 ERROR	Software error: System bus	Within the control, an error is pending in communication.	› Check SW versions of all plug-in modules. If necessary, update via the service module. › If all FW versions are up to date, contact service.
6103 WARNING	FW defaults restored	After a software update.	› Perform reset. ↗ Page 96, chapter 9.7. › If the error occurs repeatedly, replace the control unit MGC.
6104 WARNING	Unexpected motor state	Motor control error	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › Check wiring.
6105 ERROR	Homing failed	The pedestrian gate could not execute a reference run.	› Check mechanical end stops. › Check ease of movement. › Perform reset. ↗ Page 96, chapter 9.7.

Number	Designation	Possible cause	Corrective action
6110 ERROR	Safety Controller: SW update required	MHP2 motor detected. A software package with the firmware Motor GW is installed in the control unit. The Firmware Safety Contoller is required.	Perform the software update as follows: › Execute package PREPARE_MHP2. › Install the latest firmware package for pedestrian gates SMP-MGC-PA0.
6111 ERROR	Motor GW: SW update required	No motor detected. Firmware Motor GW is required for the selected product.	› Check setting for gate type. Perform the software update as follows: › Execute package PREPARE_MHP1. › Install the latest firmware package for pedestrian gates SMP-MGC-PA0.
6130 ERROR	Safety Controller: Configuration faulty	The configuration of the safety controller is not consistent.	› Enter the safety parameters. ↗ Page 35, chapter 3.7.
7530 WARNING	Motor MPH2: Communication faulty	› No motor connected. › Cables and / or plugs to the motor interrupted. › Power supply to the motor interrupted.	› Check connections. › Check CAN termination and correct if necessary. See separate electrical wiring diagram.
8130 WARNING	Node monitoring	The communication to a plug-in module was interrupted.	› Check whether all plug-in modules are listed in the main menu. › Perform reset. ↗ Page 96, chapter 9.7.
FF20 WARNING	Emergency open active	0 V or no signal is present at the "Emergency open" input.	› Check input signal. › If not used, deactivate the input function.

Table 39: Event, warning and error messages – Logic control (control unit)

9.6.2 Event, warning and error messages – Motor MHP2

Number	Designation	Possible cause	Corrective action
2220 WARNING	Over current	Over current detected	› Check mains unit. › Check wiring.
3210 ERROR	Over voltage Ucc	Over voltage detected. Vandalism or mains unit defective.	› Check mains unit.
3211 ERROR	Over voltage Udc	Over voltage detected. Vandalism or mains unit defective.	› Check wiring. › Check mains unit.
3220 WARNING	Under voltage Ucc	Under voltage detected	› Disconnect additional loads from the MGC control unit. › Check mains unit.
3221 WARNING	Under voltage Udc	Under voltage detected. Mains unit overloaded. The message can occur in case of vandalism and deactivated locking.	› Disconnect additional loads from the MGC control unit. › Check mains unit. › Check wiring.
4210 ERROR	Over temperature	High temperature detected. Motor overloaded or blocked.	› Check the motor temperature via the "Motor MHP2" menu. The temperature must be below 100°C. › Reduce load. › Reduce speed.
4211 ERROR	Over temperature PCB	Motor overloaded or blocked.	› Reduce load. › Reduce speed.
4220 WARNING	Derating	The power consumption of the motor is reduced to prevent the temperature from increasing any further. Motor overloaded or blocked.	› Remove inadmissible attachments. › Reduce load. › Reduce speed.
4221 ERROR	Under temperature PCB	Ambient temperature too low.	› Check environmental conditions.
5010 ERROR	Motor HW	–	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › Replace motor.

Number	Designation	Possible cause	Corrective action
5020 ERROR	Encoder	–	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › Replace motor.
5030 ERROR	Hardware: I2C	–	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › Replace motor.
5040 ERROR	Hardware: SPI	–	› Perform reset. › Perform software update. › Replace motor.
6150 ERROR	Selftest failed	EMC interference, motor control or microcontroller defective.	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › Replace motor. › If the error occurs repeatedly, replace the control unit MGC.
6170 ERROR	Configuration faulty	–	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update.
FFA1 ERROR	Trajectory	–	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › Check Motor.
FFA4 WARNING	Vandalism	An unauthorised passage was detected.	› Check locking. › Confirm warning via input.
FF30 WARNING	Impact detection	Blocking element has hit an obstacle or end stops are set incorrectly.	› Remove obstacle from swivel range. › Check setting of end stops. › Check safety parameter. ↗ Page 35, chapter 3.7.
FF32 ERROR	HW-Enable test failed	–	› Check position and attachment of the control unit MGC (circuit board). If necessary, correct position and reattach. › Perform reset. ↗ Page 96, chapter 9.7. › Perform software update.

Table 40: Event, warning and error messages – Motor MHP2

9.6.3 Event, warning and error messages – Safety Controller

Number	Designation	Possible cause	Corrective action
6150 ERROR	Selftest failed	EMC interference, motor control or microcontroller defective.	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › Replace motor. › If the error occurs repeatedly, replace the control unit MGC.
6170 ERROR	Configuration faulty	–	› Perform reset. ↗ Page 96, chapter 9.7. › Reset parameters to factory settings. ↗ Page 67, chapter 5.9. › Check safety parameter. ↗ Page 35, chapter 3.7. › Perform software update.
FFB1 WARNING	Emergency stop	The speed or torque has been exceeded during movement, e.g. due to vandalism or motor overload.	› Check safety parameter. ↗ Page 35, chapter 3.7. › Perform reset. ↗ Page 96, chapter 9.7. › Perform software update.
FFB2 WARNING	Safety stop	Vandalism, safety parameter exceeded or motor overloaded.	› Check safety parameter. ↗ Page 35, chapter 3.7. › Perform reset. ↗ Page 96, chapter 9.7. › Perform software update.
FF32 WARNING	HW-Enable test failed	–	› Check wiring. › Perform reset. ↗ Page 96, chapter 9.7. › Perform software update.

Table 41: Event, warning and error messages – Safety Controller

9.6.4 Event, warning and error messages – All modules

Number	Designation	Possible cause	Corrective action
5510 ERROR	Controller selftest failed	EMC interference, MGC control unit or microcontroller defective.	› Perform reset. ↗ Page 96, chapter 9.7. › Perform software update. › If the error occurs repeatedly, replace the control unit MGC.
5531 WARNING	EEPROM 1 checksum	After a software update	› Perform reset. ↗ Page 96, chapter 9.7. › If the error occurs repeatedly, replace the control unit MGC.
5532 WARNING	EEPROM 2 checksum	After a software update	› Perform reset. ↗ Page 96, chapter 9.7. › If the error occurs repeatedly, replace the control unit MGC.
5600 WARNING	Motor/Gearbox configuration invalid	Wrong motor installed.	› Compare the marking on the type plate of the spare part with the original motor.
6010 WARNING	Watchdog reset	Software error	› Contact Service.
8110 WARNING	Bus error	Warning	› When the error occurs repeatedly, contact service.
8120 WARNING	Bus HW error	Warning	› Check the DIP switch next to the service interface (ON position). › If necessary, remove devices at the service interface.

Table 42: Event, warning and error messages – All modules

9.7 Performing reset

If you use one of the following options, the control unit will perform a reset:

› Switch of power supply and switch it on again after 10 s.

› Press the two middle operating buttons on the control unit display for 5 s.

› In the "MGC.Connect" programme, click on the "Service" tab and select the "Reset" button.

NOTICE

Restarting quickly!

Restarting the pedestrian gate too quickly can lead to damage of the equipment!

› Wait at least 10 seconds after switching off the pedestrian gate before you switch the mains power on again.

10 Menu structure

10.1 Menu structure directly on the control unit MGC

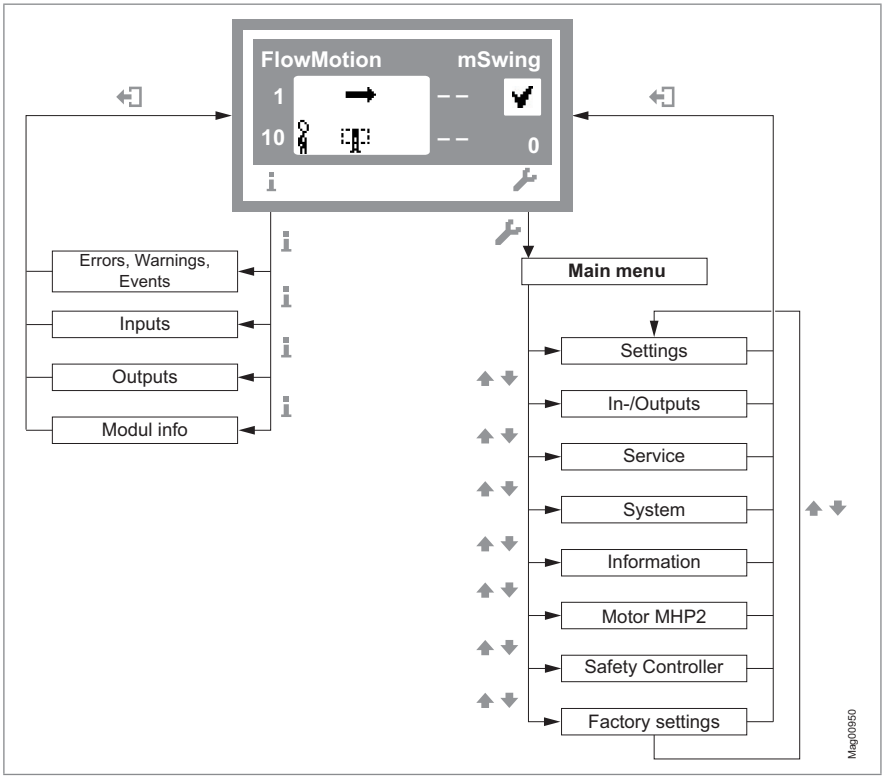


Fig. 40: "Information" and "Main menu"

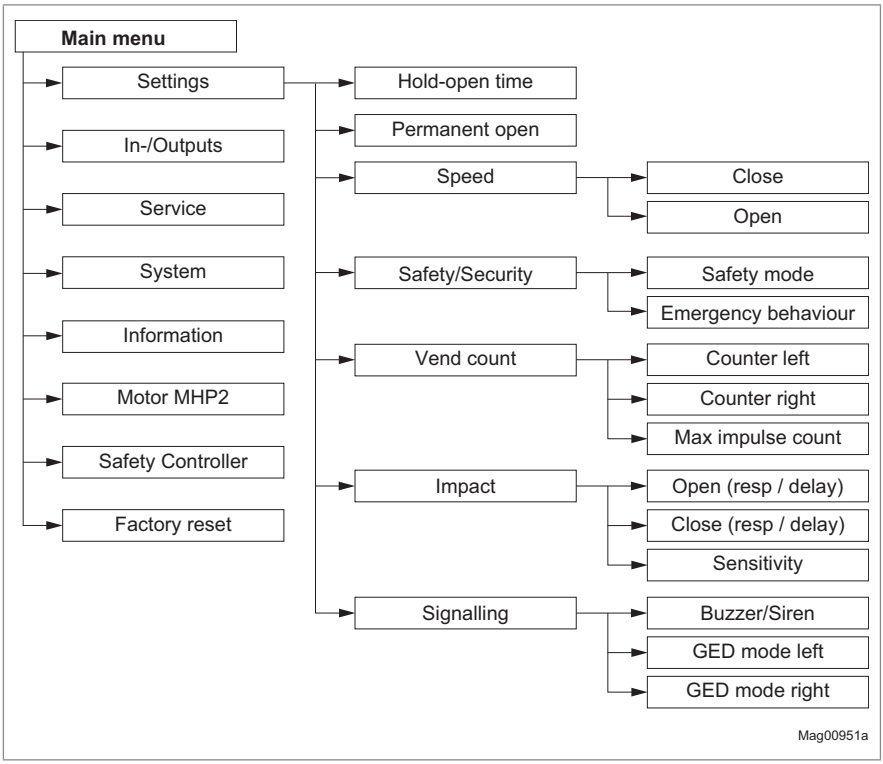


Fig. 41: "Settings" menu

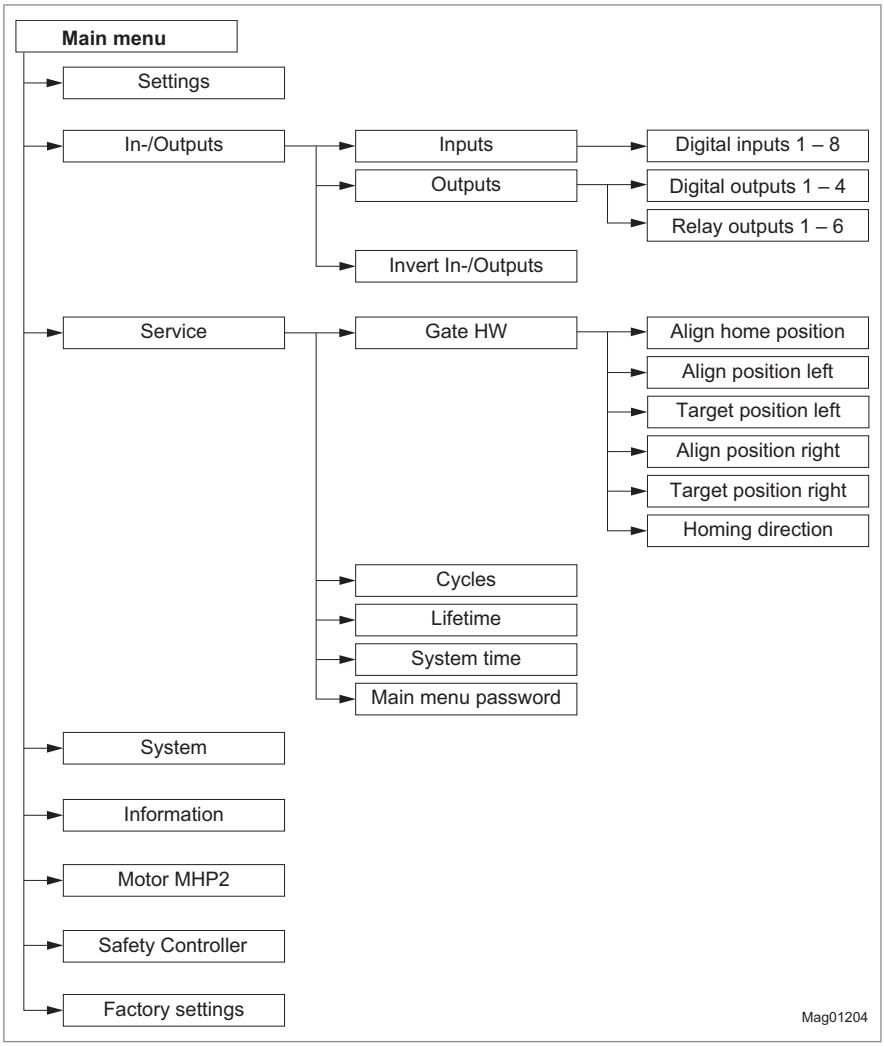


Fig. 42: Inputs/outputs" and "Service" menu

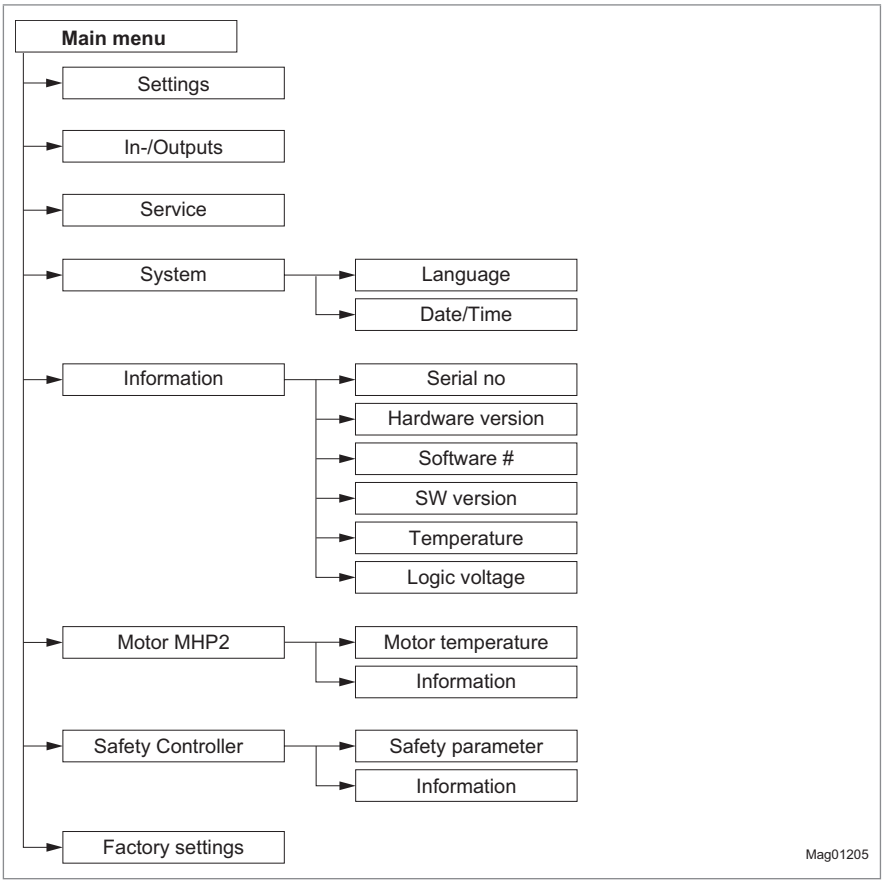


Fig. 43: Menu "System", "Information", "Motor MHP2", "Safety Controller" and "Factory settings

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MAGNETIC AUTOCONTROL GMBH
Grienmatt 20
D-79650 Schopfheim
Germany

Phone +49 7622 695 5
Fax +49 7622 695 802
info@magnetic-germany.com
www.magnetic-access.com

Sales partner

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