



HIQ Safe Gate

The HIQ Safe Gate system allows counting and restricting access based on the number of people. In addition, it allows automatic verification of certain entry conditions, such as hand disinfection, medical condition (normal body temperature), use of a protective mask ...

The basis consists of a control system that enables the connection of all devices of the Smart Gate system as a whole and enables secure connection to the HIQ Universe cloud service.

Devices that can be included in the 3s system:

1	TOF sensor	People counting separately in entering and exiting direction. If the person enters, the counter increases until the set limit of people. If the person exits, it decreases.
2	Body temperature sensor	Sensor for non-contact temperature measurement that detects fever. To use it, bring your face close to the sensor which will automatically measure your body temperature. If the person has a fever, he can't enter.
3	Protective mask detector	Sensor for optical detection of the use of a protective mask. It can be combined with a body temperature sensor.
4	Restricting entry and exit	Management of doors or gates to restrict or allow access to the controlled area.
5	QR code and RFID card reader	Allows entry by persons with priority of entry.
6	Alphanumeric display	Display status and instructions before entry.
7	Graphic display	Display status and instructions upon entry.
8	Communication interface	Connection to the cloud service.
9	HIQ Smart Gate Configurator	Windows PC application for commissioning and system operation set-up.
10	HIQ Universe	An online cloud service for monitoring and analyzing system performance. It also serves to connect 3rd party systems to the Smart Gate system.



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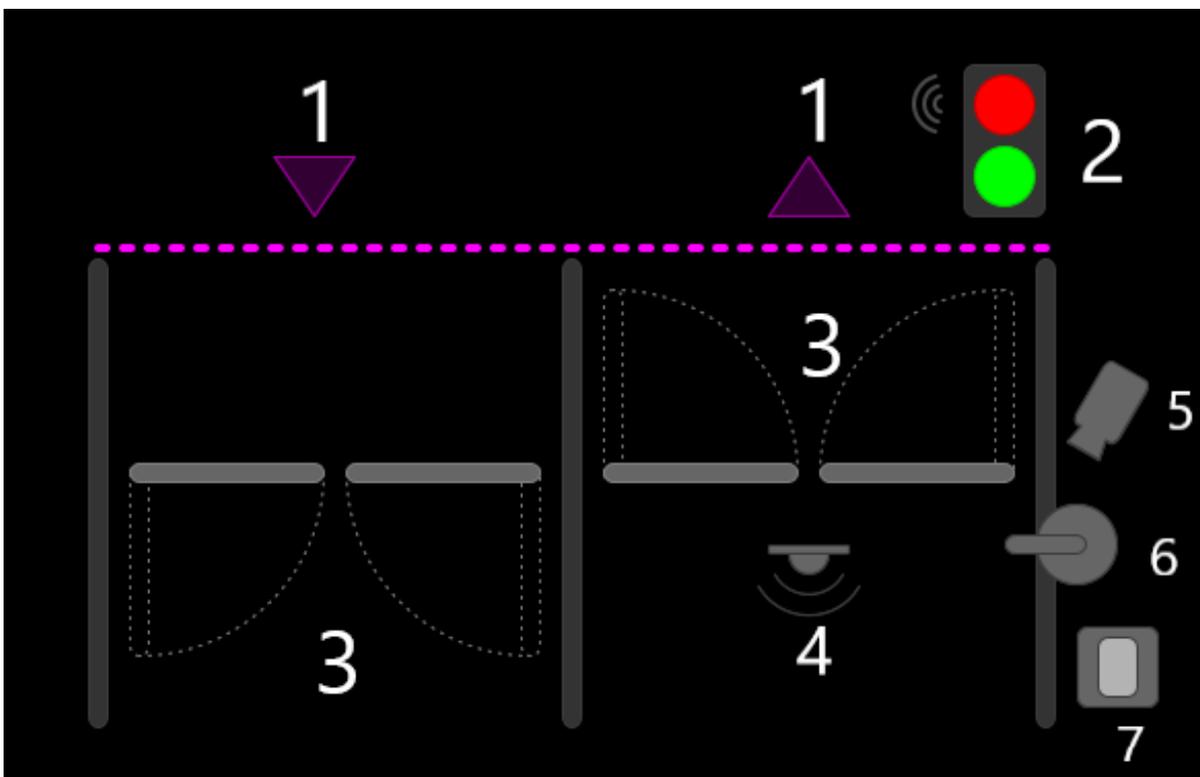
On this menu, the user can overview system operations.



The menus can be changed on the right side of the window.

Icons color meaning		
	Gray	This condition doesn't have to be met because it's disabled

<input checked="" type="checkbox"/>	Grayed out	This condition is enabled, but it can't be met right now
<input checked="" type="checkbox"/>	Yellow	This condition must be met and is waiting for the person to do it
<input checked="" type="checkbox"/>	Green	Everything is okay, you're clear to enter
<input checked="" type="checkbox"/>	Orange	From now on you can enter only with L2 allowance
<input checked="" type="checkbox"/>	Red	Something is wrong, you must not enter
Status overview		
<input checked="" type="checkbox"/>	Occupation status and limit count	It shows occupied status and remaining count to the limit of people
<input checked="" type="checkbox"/>	Disinfectant status	It shows if person had applied a disinfectant
<input checked="" type="checkbox"/>	Allowance status	It shows if person has a fever and if he wears a facemask
<input checked="" type="checkbox"/>	Card reader	It shows if the use of entry card is needed and the user's level of access
<input checked="" type="checkbox"/>	Confirmation status	It shows if the receptionist had left you in and the person's level of access
<input checked="" type="checkbox"/>	Enter status	It shows if person should enter or exit



This is the gate status overview.

Gate status overview		
1	Door sensors	It TOF sensor detects person, the entrance sensor (right) turns on for the people coming in, or the exit sensor (left) turns on for the people going out
2	Semaphore status	If both red and green light are turned on, the entrance conditions must be met (card, face sensor, disinfectant, ...), if the green light is turned on you can enter, if the red light is turned on you can't enter. If the semaphore beeper is turned on along with a red light, the person must exit the building immediately. Beeper can be disabled on the System setup menu or it can be set that it resets when the person exits the building

3	Gate status	It shows if gates are closed or open
4	Presence status	It shows if the presence sensor has been triggered
5	Thermo and mask camera status	It shows if person has a fever and if he wears a face mask. It can be set, in the System setup menu, on permission mode, which means the doors are closed and they open if you pass the temperature and mask condition (among the others). Or it can be set on prevention mode, which means the doors are open, but they close if you don't pass that condition.
6	Disinfectant status	It shows if a person applied disinfectant
7	Code reader	It shows the status of access
Configuration		
Set count	Set count for total number of people counted in space	
Confirm L1	If the condition for L1 access are met, the button will become enabled	
Confirm L2	If the condition for L2 access are met, the button will become enabled	
Reset alarm	Resets alarm	
Gate auto/gate opened	Switches between gates opening automatically with security measures or opening manually. When they can be opened manually it usually means it's because of emergency and everyone must leave the building immediately	

ACCESS SETTINGS

On this menu, the code and access status can be added.



Configuration	
Edit code	Manually input new user's code, alternatively you can scan it with the card scanner
Type	Set user level of access, which are L1 for normal users, L2 for VIPs and UL unlimited access (employees)
Code list	All the users are saved here, choose user to edit it's code and type, holds up to 100 users
Search	Checks the code list for desired code, which the user inputs in the edit code section. The code number and type are then returned.
Save	Saves the created edit code
Clear	Clears the edit code and type
Delete	Deletes the code from the code list

SYSTEM SETUP

When the system is connected and turned on, the technician sets these settings.



Configuration	
Limit 1	This is the limit for normal access, everyone can enter. After this limit is reached, only VIPs and employees can enter (no more L1 access)

Limit 2	This is the limit for VIP access, L2 and UL can enter. After this limit is reached, only employees can enter (UL access only)
Counting type	Choose if the counting of people is with digital IO or communication
Presence time-out	Set how long the presence sensor is active after detecting someone
Entry gate time-out	Set how long the entry doors are open after the TOF sensor has detected someone
Exit gate time-out	Set how long the exit doors are open after the TOF sensor has detected someone
Alarm duration	Sets duration time of the alarm
Alarm beeper enabled	Enable or disable alarm beeper
Reset alarm on exit	Enable or disable the reset of alarm on exit
The conditions that have to be met if everything is enabled: disinfection and allowance condition must be met and then just one of other two conditions must be met, that means either reader or confirmation condition.	
Disinfection	Sets if disinfection is necessary for user's level of access, sets time-out that triggers after check
Allowance	Sets if face mask and temperature check is necessary for user's level of access, sets time-out that triggers after check
Reader	Sets if disinfection is necessary for user's level of access, sets time-out that triggers after check
Confirmation	Sets if receptionist confirmation is necessary for user's level of access, sets time-out that triggers after check
Allowance type	If set on permission, door opens when user is clear to enter after ok allowance check, if set on prevention, door closes when users fails allowance check
Internet access	
Enable push to server	Enable connection to the cloud server (allow controller to send periodical push message to server) every 30 seconds
Test	Send push message instantly
Reset	Reset number of sent messages
Push timer	Shows countdown after which the push message will be sent
Messages	Number of all sent messages and number of successfully sent messages
Roundtrip	Time it takes the message to get to server and the response to come back
Master code	The code which employee has on a card or qr code. When the master code is scanned, red and green light will start flashing. If the master code is scanned, then normal cards are scanned and master code is scanned again, all the normal cards will be added to the code list (if they aren't already on it) and they will be granted L2 access. If master code is scanned and then scanned again, all the entries on code list will be deleted

Send LAN code query	If scanned code is not on the code list for that device, a query will be sent to other devices in the system. If it gets the response from other device, that the code is on it's list, access is granted
Process LAN code query	Enable to process code query and send back answer
LAN query timeout	Set query timeout. If the device that sent query doesn't get answer in set time, it refuses access
Autodetect	It searches for other controllers in the network and opens a menu with found controllers. If the other controller is chosen, you manage this one
Parameters configuration	
Init parameters	Set parameters to the ones saved in permanent memory
Save parameters	Save set configuration to the permanent memory
Read parameters	Read parameters from the permanent memory and write them to work parameters

DISPLAY SETTINGS



Parameters configuration for alphanumeric display	
Line 1	
Presence	Set text that will be displayed on first line when proximity detector detects someone
Advertising 01-09	Set text that will be displayed when proximity detector isn't detecting anybody
Advertising text time	Set timer at which the advertising text changes
Line 2	
Counters	Displays number of people with L1 and with L2 access in the building
Line 3	
Enter	Set the text that will be displayed when person is allowed to enter
Disinfect	Set the text that will be displayed when person has to disinfect hands
Camera	Set the text that will be displayed when person has to look at the camera
Confirm	Set the text that will be displayed when waiting for confirmation to enter
Code	Set the text that will be displayed when person has to scan the code
Occupied	Set the text that will be displayed as long as the limit of people inside is reached
Fever	Set the text that will be displayed if fever is detected
Exit	Set the text that will be displayed if the person has to exit the building
Parameters configuration for graphic display	
Caption	

Full	Set text that will be displayed if the place is full
Level 2	Set text that will be displayed when the limit of people for L1 access is reached and only people with L2 access are allowed to enter
Level 1	Set text that will be displayed if no limit of people is reached
Alarm	Set text that will be displayed if alarm is triggered
Warning	Set text that will be displayed if warning is triggered
Text	
Enter	Set the text that will be displayed when person is allowed to enter
Disinfect	Set the text that will be displayed when person has to disinfect hands
Camera	Set the text that will be displayed when person has to look at the camera
Confirm	Set the text that will be displayed when waiting for confirmation to enter
Code	Set the text that will be displayed when person has to scan the code
Occupied	Set the text that will be displayed as long as the limit of people inside is reached
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