

Supplementary sheet to the manual iks aquastar for the level control (Min/Max) and the lighting function with the beginning with firmware version 2.25 .

7.5.5 Level control (water level,Min/Max)

Main menu	12
Control	<>

First of all, select the menu "Control" from the main menu level with the arrow keys and confirm with *Enter*.

Control	20
Level	<>

Now select " Level " with the arrow keys and confirm with *Enter*.

SensorNo.?	21
3	<>

If you have connected **several modules of the same kind**, you can now use the arrow keys to select the desired module and then confirm your choice with the *Enter* key. If you would like to programme a min/max level control with 2 level sensors, please enter here the number of the sensor located at the lower position (Min). Please observe the functional principle of the Min/Max control as described in Section 13.8.

Lv ProcessNo?22	
Nr: 01 S(--)	<>

This display **only** appears in the **professional** level. Confirm with *Enter*.

Control type? 23	
Top up	<>

You can now use the arrow keys to select between "Off", "Drain", "Top up" and "min/max". In the case of "Top up" the socket to be allocated later is then live as soon as the lower level (**Minimum**) is reached (e.g. by evaporation – by far the most common application). "Drain", on the other hand, activates an allocated socket when the set level is **exceeded**.. Confirm your selection with *Enter*.

SensorMax No?2l	
Sensor 4	<>

If you have selected the "Control Type""**Min/Max**", the additional menu item "SensorMax No?" appears. Here, enter the number of the level sensor in the upper position (**Max**).

Alarm time	2G
00:50:00	

Now an **alarm time** is to be entered. The point of this alarm time is provide **reliable protection against possible water damage** in cases of a faulty level (float) switch. **Example:**You notice that the level-sensor activates the control process "Top-up" when ca 0.2l of water have evaporated. To refill this amount of water, your pump requires a period of 10 minutes. A sensible setting for the alarm time, in this case, would be 30 minutes, for example. In this case, the appropriate control process (socket) would be switched off after 30 minutes, the equivalent of 1 litre of water in this example. This effectively prevents any risk of your tank overflowing. Confirm your input.

Which socket? 29	
Nr:13 (--)	<>


Now you can use the arrow keys to look for a vacant socket that can then be allocated to this function. In the adjacent example you can see that , for example, Socket No.13 (i.e. one on socket panel L3 on the *iks aquastar*) is still vacant"(**--**)". Select a socket and confirm with the *Enter* key

Control	20
Level	<>

Now you can programme a further control process or return to the main menu level with the *esc* key.



The switch hysteresis is ca. 2mm.

 If you haven't made a note of your settings, please repeat the above process, making the appropriate notes. This can be done relatively quickly as you can jump from point to point with the *Enter* key.

7.6.7 Lighting function

The lighting function enables you to create up to 24 daily recurring illumination sequences (lighting sequences) using **dimnable** power strips or iks 4-channel modules (SIMMOD). Up to **12** so-called **dimming points** (time and brightness) can be set for each lighting sequence and assigned to a dimmable power socket or one of the SIMMOD's channels. With 3 different lighting sequences, for example, four dimming points can be assigned to Socket 1, six to Socket 2, and eight to socket 3 etc.!

Main menu	13
Time functions	<>

Using the arrow keys, select "**Time functions**" from the main menu level and confirm by pressing *Enter*.

Time functions	31
Light function	<>

Using the arrow keys again, you can now select the lighting function. Confirm with *Enter*.

Light sequence 3a	
No: 01 s(--)	<>

First select the number of the lighting sequence (**not the number of the socket**). If no lighting sequence has been set yet, the display will appear as shown on the left. Press *Enter*.

Light sequence 3b	
1x / week	<>

You can now use the arrow keys to select between activating the lighting sequence "**Daily**" or "**1x/week**". If you want to deactivate a lighting sequence, select "**Off**". Confirm by pressing *Enter*.

Day of week	30
Sunday	<>

If you have selected "1x/week" activation, the appropriate day of week can be selected using the arrow keys. Confirm again using the *Enter* key.

WhichSocket?	29
No: 10 (--)	<>

A socket will now be assigned to this function. Use the arrow keys to select which one. Socket 10 has been selected in the adjacent example. The displayed element "**(--)**" shows that no further function has been assigned to this socket yet. This socket can be selected using the *Enter* key. **Only dimmable sockets can be selected.**

Time 1 on?	3c
No	<>

You can now specify whether you want to activate the first dimming point ("**Yes**") or not ("**No**"). If you have selected "**No**", this dimming point is deactivated and the next 2 menu items are skipped. Confirm by pressing *Enter*.

Point 1	3d
08:00:00	

Now specify the time for the dimming point no. 1 (e.g. 8 a.m.) and press *Enter* to confirm.

Brightness 1	3e
020% (on)	ZF2

Now specify the brightness as a percentage for the appropriate dimming point no. 1.

Now you can first enter the output as a percentage of the **variable-output** socket for the time of the dimming point. Please observe the restrictions regarding the systems that can be connected (Section 4.3.2 e.g. **no HQL- or HQL lighting!**) It's best to connect the appliances now (e.g. pump, lamp) to the appropriate socket. Enter, for example, '80%' by pressing the keys *zero, eight, zero* (not *eight, zero*, as this would mean 800%!). Now press the *F2* key. The socket or the appliance will now be supplied with the appropriate current. If the results are not quite what you wanted then you can enter another value and test it with *F2*. Repeat this procedure as often as you want until the setting suits your requirements. Confirm your input with *Enter*.

Time 2 on?	3c
No	<>

You can now specify whether you want to activate the second dimming point ("Yes") or not ("No"). If you have selected "No", this dimming point is deactivated and the next 2 menu items are skipped. Press *Enter* to confirm.

Point 2	3d
09:00:00	

Now specify the time for the dimming point no. 2 (e.g. 9 a.m.) and press *Enter* to confirm.

Brightness 2	3e
080% (on)	ZF2

Now specify the brightness as a percentage for the appropriate dimming point no. 1. Here, too, you can test the entered value using the *F2* key.

Time 3 on?	3c
No	<>

You can now specify whether you want to activate the third dimming point ("Yes") or not ("No"). If you have selected "No", this dimming point is deactivated and the next 2 menu items are skipped. Press *Enter* to confirm.

Point 3	3d
19:00:00	

Now specify the time for the dimming point no. 3 (e.g. 7 p.m.) and press *Enter* to confirm.

Brightness 3	3e
080% (on)	ZF2

Now specify the brightness as a percentage for the appropriate dimming point no. 1. Here, too, you can test the entered value using the *F2* key.

Time 4 on?	3c
No	<>

You can now specify whether you want to activate the fourth dimming point ("Yes") or not ("No"). If you have selected "No", this dimming point is deactivated and the next 2 menu items are skipped. Press *Enter* to confirm.

Point 4	3d
20:00:00	

Now specify the time for the dimming point no. 4 (e.g. 8 p.m.) and press *Enter* to confirm.

Brightness 4	3e
20% (on)	ZF2


Now specify the brightness as a percentage for the appropriate dimming point no. 1. Here, too, you can test the entered value using the *F2* key.

With the values entered in the example above, socket no. 10 would run a linear ramp from 8 a.m. to 9 a.m. (1 hour) whose brightness will be 20% at the beginning of the ramp and 80% at the end (at 9 a.m.). This socket would also run another linear dimming ramp from 7 p.m. to 8 p.m. whose brightness will be 80% at the beginning of the ramp (at 8 p.m.) and 20% at the end. The brightness will automatically remain at 20% between 8 p.m. and 8 a.m. The brightness will automatically remain at 80% between 9 a.m. and 7 p.m.

You have the option of entering up to 12 dimming points for the "Point" and "Brightness" parameters" for a lighting sequence. Please observe the functional principle and limitations of the lighting function as described in Section 13.9.

Time functions	31
Light function	<>

Next, you can use the arrow keys to select other time functions or programme another lighting function with *Enter*. Press the *esc* key to return to the main menu.

 If you haven't made a note of your settings, please repeat the above process, making the appropriate notes. This can be done relatively quickly as you can jump from point to point with the *Enter* key.

13.8 Functional principle of the min/max level control system

Installing the fill-level sensors: In order to control fill-level by means of minimum/maximum contact (e.g. for activating reverse osmosis systems) 2 optical level (fill-level) sensors are installed in a tank. The upper fill-level sensor is designated "SensorNr. Max?" in the menu prompts. The lower fill-level sensor is designated "SensorNr.? Min". Only the latest iks fill-level sensors are to be used for the lower fill-level sensors. They have a black shaft of 7 cm in length and a small cone-shaped measuring tip. All iks fill-level sensors are suitable for the upper fill-level position. We recommend fitting the lower fill-sensor on a sensor plug-in position of the iks aquastar with a lower number than the number of the plug-in position of the upper fill-level sensor.

Mode of function: A tank can be topped up by means of the fill-level min/max control function. The appropriate switching socket/switching output is switched on as soon as "Sensor Min." detects an inadequate water level. If the water level reaches "Sensor Max." whilst the tank is being topped up, the switching socket/switching output is switched off. This process is equivalent to the "Top up" function, though with the aid of 2 sensors (upper/lower).

Alarm time: The set alarm time defines the maximum switching period, or the maximum amount of time the switching socket is permitted to remain switched on. This can prevent a potentially faulty fill-level sensor at the upper position allowing the water in the tank to overflow. If the set time is exceeded, the fill-level control system and the switching socket connected to it are deactivated immediately, triggering an alarm. The fill-level control system is reactivated and the alarm cancelled when the fill-level sensor at the upper position detects the intended state (water). The alarm time should be set for the amount of time the respective pump requires to fill the tank with water from the lower to the upper fill-

level position. Owing to movement of the surface of the water caused by minor waves arising during the filling process, the upper fill-level sensor is activated a little earlier or later. The time (alarm time) for filling should therefore be set a little longer.

Note on entering the control parameters in the menu: when entering the control parameters, asked for first is the number of the sensor that must be located at the **lower** position (Min) in the appropriate tank. This sensor is the main sensor for the min/max control function. All the other parameters to be entered then relate to this sensor. The number of the sensor at the upper position (SensorMax Nr?) is requested after this. The entered control parameters do not relate directly to this sensor, it is only responsible for switching off the pump (or similar) when its fill-level is reached.

ATTENTION! If the sensor at the **upper** position were to be entered by mistake for the **first** request for "Sensor Nr.?" when going through the menu **again**, then all the other parameters entered would be assigned to this sensor. This would cause an **additional second** fill-level min/max control function to become active. **Neither** of the fill-level control functions would then function correctly. In the menu tool the sensor at the lower position must always be entered for the first request for "SensorNo.?".

13.9 Lighting function

Attention! 2 or more dimming points must not have the **same time** within a single lighting sequence. The following 2 dimming points within lighting sequence no. 1 (on socket 4), for example, are not permitted:

Lighting sequence no. 1 Dimming Point. 1 Time 20:01:02 Brightness: 55% Socket 4

Lighting sequence no. 1 Dimming Point. 2 Time 20:01:02 Brightness: 95 % Socket 4

If 2 dimming points (within one and the same lighting sequence) are mistakenly set to exactly the same time to the second, the brightness values will change at one-second intervals when the lighting function is in operation.

Attention! Lighting sequences can be configured with the "Daily" or "Weekly" settings. A maximum of 12 dimming points can be set on one socket using the "Daily" setting. It is therefore not possible to configure 12 dimming points on a certain socket within a single "Daily" lighting sequence and configure more dimming points within a second lighting sequence on **the same** socket. If, for example, the "daily" lighting sequence no. 1 is set on Socket 5 and then another lighting sequence (e.g. No. 2, "daily" or on a certain weekday) on Socket 5, the socket is withdrawn from lighting sequence no. 1. Only lighting sequence no. 2 on Socket 5 will then be active in the controlling mode.

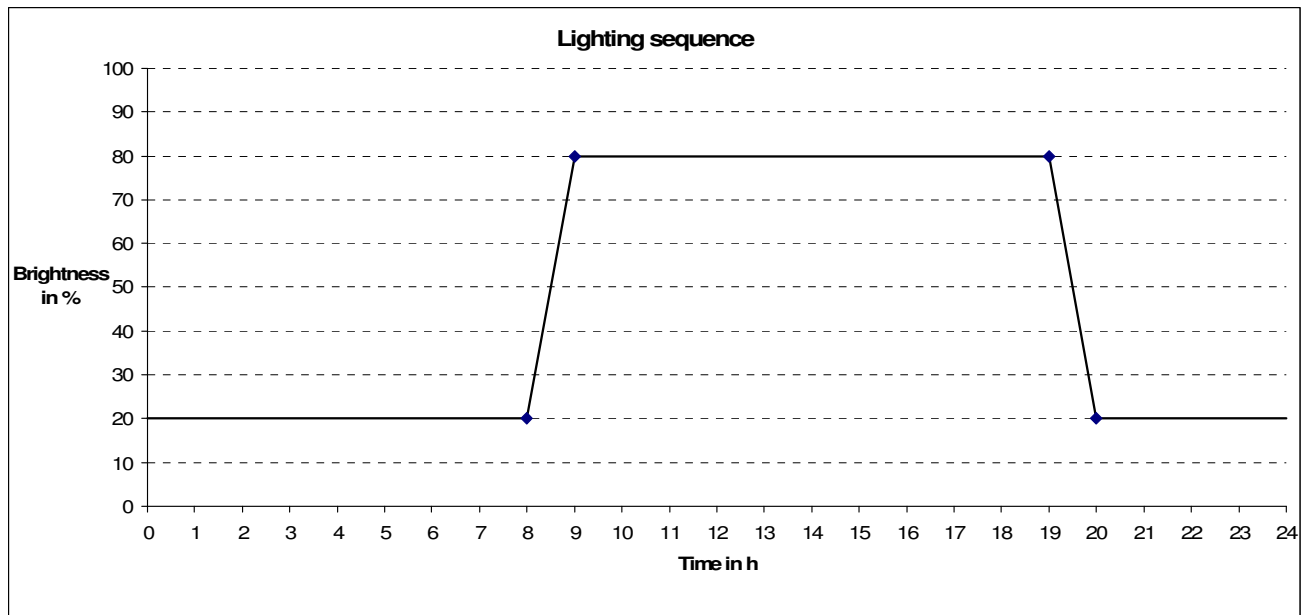


Diagram with a lighting sequence as an example to illustrate 4 configured dimming points

Dimming Point. 1:	Time 08:00 a.m.	Brightness: 20 %
Dimming Point. 2:	Time 09:00 a.m.	Brightness: 80 %
Dimming Point. 3:	Time 07:00 p.m.	Brightness: 80 %
Dimming Point. 4:	Time 08:00 p.m.	Brightness: 20 %