

Quick start guide



Web app: www.iot4water.de

for computers and smartphones



Table of contents

1.	Web app / user interface	3
2.	Dashboard	5
3.	Mean values	8
4.	Measured values	8
5.	Watering	9
6.	Administration	10
6	6.1 Global Settings	10
	6.1.1 Warnings	11
6	S.2 Users	11
6	3.3 Surfaces	12
6	6.4 Devices	13



1. Web app / user interface

Use:

The web app can be used with both smartphones and computers.

A. Use via computer:

When using a computer, there are no special things to consider. The user interface <u>https://www.iot4water.de</u> works as standard.

B. Use with the smartphone:

The web app can be used with both Android-based and iOS-based smartphones.

When using a smartphone for the first time, the web address <u>https://www.iot4water.de</u> must be entered into the smartphone's internet browser and then called up. It is then necessary to log in with your user name and password (both issued by MMM).

Then have your access data saved by your smartphone's Internet browser (the smartphone normally asks for it) and add the login page of <u>https://www.iot4water.de</u> to the start screen of your smartphone.

If you proceed as described, you only need to enter your name and password the first time you log in.

Provided that the login page of <u>https://www.iot4water.de</u> has been added to the home screen of the smartphone and the access data has been saved, a small icon appears on the home screen of the smartphone, just like a conventional app, which only needs to be tapped with a finger to log in and access the data.



Registration:

Address: https://www.iot4water.de

On the PC:

uer Tab	× 😸 M	leuer Tab	× IoT4H20 A	nmeldung X	+								
\rightarrow G	皇	O & https://www	iot4water.de/4/user	/login					90%		\odot	G 🙂	0
eistbesucht 🔝 EUROP/	site - Validati	50 biquick Metasuche	🗣 Google Übersetzer	😸 dict.leo.org - Ergebnis.	C UPS	🗣 Deepl. 🏾 🍪 Un	verseller Text-Tran	W Incoterms - Wilopedia	Meteociel - I	revisions	>>	C Weiter	e Lesezei
)												
				Bitte melden Sie sich an Benutzername									
				Kennwort									
				Armolden									
										Impressun	AGE	Daten	schutz

On the smartphone:

Bitte melden Sie sich an
Benutzername
Kennwort
Anmelden
Version: A 0.9.2- Impres G Datensc
317710 sum B hutz
AA 🖬 iot4water.de C

Your user name: Has been communicated in a separate message

Your PW: Was communicated in a separate message

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2. Dashboard

The dashboard offers various options for graphically displaying the measured values. For example, the data from several devices can be displayed on one screen. The devices are assigned in the Manager account under Device administration.

Example graph with data from one device (4xWatermark, 1xSoil temperature):

IDT H.O									-
\$	Home · Dash	board							
n						Activate	the agror	omic lines	here
						710111010	and agroi		
•		Auswahl 1	7.11.2023	24.11.2023	Demosite Watermark V			\sim	
.o									
		Messwerte						Agronomische Lir	nien 🦳 Alle Geräte 🗸 上
		300							
		250							
		200							
		150							
		100							
		50							
		0							
		11	I. Nov 2023	19. Nov	20. Nov Temperature C Waterm	21. Nov ark 10cm Watermark 20cm	22. Nov Watermark 40cm Wa	23. Nov termark 50cm	24. Nov

The agronomic lines are displayed (green area). The limit values can be set under Administration/Global Settings (blue arrow).

	Name	
Global settings 🤽	Тур	
Benutzer 💄	Customer	
Flächen 🏦		Warnu
Geräte 🖵	Aktivierte Benachrichtigungen.	
Parameterwerte 🚿	Bitte Benachrichtigungen auswählen	~
Parameterwerte 🚿 Sensorgruppen (•)	Bitte Benachrichtigungen auswählen Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Ben gesetzt haben um diese zu erhalten.	achrichtigungen
Parameterwerte 🖋 Sensorgruppen 🕪	Bitte Benachrichtigungen auswählen Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Ben gesetzt haben um diese zu erhalten.	achrichtigungen Flächepa
Parameterwerte 🖋 Sensorgruppen (**)	Bitte Benachrichtigungen auswählen Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Ben gesetzt haben um diese zu erhalten. Bewässerungseinheit	v achrichtigungen Flächepa
Parameterwerte 🖋 Sensorgruppen 🕪	Bitte Benachrichtigungen auswählen Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Ben gesetzt haben um diese zu erhalten. Bewässerungseinheit mm Vurücksetzen	achrichtigungen Flächepa
Parameterwerte 🖋	Bitte Benachrichtigungen auswählen Wahlen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Ben gesetzt haben um diese zu erhalten. Bewässerungseinheit mm Vurücksetzen	 Achrichtigungen Flächepa Gerätpar
Parameterwerte 🖋 Sensorgruppen (**)	Bitte Benachrichtigungen auswählen Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Ben gesetzt haben um diese zu erhalten. Bewässerungseinheit mm Zurücksetzen Agronomic Lines Lower (Standardwert)	achrichtigungen Flächepa Gerätpar
Parameterwerte 🖋 Sensorgruppen (**)	Bitte Benachrichtigungen auswählen Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Ben gesetzt haben um diese zu erhalten. Bewässerungseinheit mm ✓ Zurücksetzen Agronomic Lines Lower (Standardwert) -50 Anpassen	chrichtigungen Flächepa Gerätpar



The individual measured values are displayed by moving the mouse over them in a window with a black background:



Individual measured values can be shown or hidden by clicking on the legend (sensor crossed out):





Everything can be selected, from the area selection to the device selection to the desired time period of the data.

				Area s	election				de	- Rephael A
Dashboard	Ĥ	Home ·	Dashboard			Data ra	inae		Device	
Messwerte										
Wassergaben	•	Au	swahl 17.11.2023	24.11.2023	Demosite Watermark V					
Administration	-									
Global settings	Set	t the	desired	k k				Agi	onomische Linien Alle Geräte	e 🗸 🛓
Benutzer	nor	ind	of the de	oto						
Flächen	per	100 0		ala						
Geräte	her	e.								Download
Parameterwerte	1	15	0							icon
Sensorgruppen	(*)	10								
			18. Nov 2023	19. No	ov 20. Nov	21. N ermark 10cm Watermark	lov : 20cm Watermark 4	22. Nov 60cm Watermark 50cm	23. Nov 24. Nov	
		Та	gesmittelwerte							0 L
							Demosite Wat	termark		
			Datum				Demo Water	rmark		

If you click on the blue download symbol on the far right above the graphic, you can download it as an image file.

If you click on the blue download symbol on the far right above the hourly averages table, the saved data will be downloaded to your computer as a .csv table and opened there. (With Excel, it is necessary to convert the .csv (= comma separated value) table format into the Excel data format first. Command: Data / Text in columns).



3. Mean values

A list of the hourly average values is displayed in tabular form below the dashboard for the displayed sensors of this area. This list can be downloaded as a csv file using the download icon.

50 0 21. Nov 2023	22. Nov	23. Nov 24. Watermark 10cm Waterma	Nov 25. Nov rk 20cm Watermark 40cm	26. Nov Watermark 50cm	27. Nov	
Tagesmittelwerte						 المعالية
Datum		Watermark 10cm	Demosite Watermark Demo Watermark Watermark 20cm	Watermark 40cm	Watermark 50cm	Download icon
27.11.2023 10:00	19,6	86,3	• 252,0	99,3	7,4	·
27.11.2023 09:00	19,4	86,2	• 252,0	99,4	7,4	
27.11.2023 08:00	19,2	86,3	• 252,0	99,7	7,5	

4. Measured values

In this view of the navigation bar, the measured values of the sensors of the associated area from the dashboard are displayed in a table. The area can be selected together with the associated device in a specific period. This list can also be downloaded.

â	Home · Me	sswerte		1	Period of	Downloa	ıd
		Wählen Sie ein Gerät um die M	Surfac	Devic	the data	icon	
۹۹ ۵۰		Messwerte auflisten für	Demosite Watermark V	Demo Watermark V	7.10.2023 - 27.11.2023	<u>ن</u>	
		Gemessen am	Temperature C	Watermark 10cm	Watermark 20cm	Watermark 40cm	Watermark 50cm
		27.11.2023 10:52	19,6	86,3	252,0	99,3	7,4
		27.11.2023 09:52	19,4	86,2	252,0	99,4	7,4
		27.11.2023 08:52	19,2	86,3	252,0	99,7	7,5
		27.11.2023 07:52	19,0	86,1	252,0	99,8	7,4



5. Watering

In this menu item, you can enter your water consumption. These are not displayed on the dashboard or in the measured values and therefore only serve as a log. You can create a new entry using the "New" symbol (blue arrow).

Dashboard	俞	Home · Wassergaben			
Messwerte		Wassergaben auflisten für Demosite Watermark ∨ 01.11.2023 → 27.11.2023	2023		+Neu
Wassergaben	•	kumulierte Wassermenge: 1 mm			
Administration	^ .º				
Global settings	<u>9</u>	Datum Fläche		Menge	
Benutzer	٤	27.11.2023 Demosite Watermark		1 mm	
Flächen	盦				
Geräte	Д				
Parameterwerte	1				
Sensorgruppen	((*))				

To do this, select the area, the start date of the irrigation and, if applicable, the end date. Below this, you can enter the quantity, whether fertilizer was present and enter notes. You can change the unit of measure under Global Settings. You can then add it to the water fork list using the "Add" symbol.

e · Wassergaben erfassen	
Wassergabe neu anlegen	X Abbrechen + Hinzufüger
Fläche	
Demosite Watermark \vee	
* Beginndatum	
27.11.2023	
Enddatum (falls gegeben)	
Datum auswählen 🗎	
* Menge (in mm)	
Contains nutrition	
Notes	



6. Administration

6.1 Global Settings

In the Global Settings, settings can be defined that apply to the entire account in the form of default values.

Activated notifications can be selected here for warnings.

The irrigation unit for watering is set here.

The numerical value between the Agronomic Lines Lower and Upper forms the green strip on the dashboard graphic in which the values are in the optimum range.

These can be set individually for each area again afterwards in the "Areas" tab.

		Home · Administration · Global settings	
Dashboard	Â		
Messwerte		Name	
Wassergaben	•	MMM Demo Account	
Administration	^ .°	Typ	
Global settings	2		
Benutzer	<u>.</u>		Warnungen -
Flächen	1	Bitte Benachrichtigungen auswählen	\sim
Geräte		Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Benachrichtigunge	en
Parameterwerte	1	gesetzt haben um diese zu erhalten.	
Sensorgruppen	$((\bullet))$		Flächeparameter
		Bewässerungseinheit	
		mm v Zurücksetzen	
			Gerätparameter
		Agronomic Lines Lower (Standardwert)	
		-50 Anpassen	
		Agronomic Lines Upper (Standardwert)	
		0 Anpassen	



6.1.1 Warnings

Our web app monitors the status of devices and sensors, such as battery level, temperatures, soil moisture, etc., with every data transmission from a device and automatically sends warnings to your e-mail stored under User in the event of critical conditions such as a device battery that is almost empty, risk of frost, excessive temperature, etc. The e-mails contain details of the affected device/sensor and the specific warning. This enables a quick response to potential problems and supports proactive maintenance.

You can set which warnings you would like to receive for all users. These can also be activated individually for each user with "Manager" status.

You can set the point at which a value is in a "critical state" separately for each sensor under the "Devices" menu item.

Warnungen

```
Bitte Benachrichtigungen auswählen
```

Aktivierte Benachrichtigungen.

Wählen Sie aktive Benachrichtigungen aus. Individuelle Benutzer müssen den Haken bei Benachrichtigungen gesetzt haben um diese zu erhalten.

6.2 Users

If additional persons are to be granted access to the data, it is possible to create further sub-accounts (users).

0					Create a p	ow year bara		Bergamann R -
Dashboard		Home · Administration	Benutz	er	Create a n	ew user nere		
Messwerte	100		Liste der B	enutzer			In Tabelle suchers	C. + Neu
Administration	~ .P							
Benutzer	1			Name ::	Benutzer :	E-Mail :	Rolle :	
Flächen				Bergemann	hbergemann	horticulture@mmm-lech.de	Manager	Click hara to
Geräte	-		1.5	Demokunde	interestedin	phantasie@mail.de	User	
								edit

To do this, create a new user under the menu item User. The name and password of a new user can be freely chosen. The password should be secure and the user name should be unique. A separate, individual email address must be entered for each new user.

Each additional user should be assigned the role (or status) "User", as the owner & main user of the IoT4H $O_2^{(8)}$ devices from MMM already has the role of

manager (with more accounts than one user) and this role should only be assigned once per account.

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The edit icon can also be used to set for each user whether they should receive warnings and notices by e-mail (blue arrow) (as already mentioned under the heading "Warnings" in these instructions).

Home · Administration · Benutzer bearbeiten			
Benutzer bearbeiten Demokunde - interestedin V	X Abbrechen	Speichem	Speichern & zurück
Demokunde			
* Benutzername			
interestedin			
Kennwort			
			ø
* E-Mail			
phantasie@mail.de			
V Aktiv			
Warnungen und Hinweise			
* Rolle			
User			~

6.3 Surfaces

Each $IoT4H O_2^{(B)}$ device must be assigned to an area. An area is either a field, a tunnel or a greenhouse or any other monitoring and cultivation unit. Several devices can also be assigned to an area. It is also possible to define the agronomic lines, i.e. the optimum area (green zone) in the graphic in the dashboard for each area by editing each area. In the editing window, it is also possible to enter a note for the respective area.

Dashboard	Â	Home · Administration · Flächen					
Messwerte		Liste der Flächen				-	L Nou
Wassergaben						Click here	T NCU
Administration	°。 ^	Name	Anmerkung	Geräte	Agronomische Linien	to edit.	
Global settings	2	Demosite Watermark		1	10 bis 45		20
Benutzer	<u>+</u>	Gewächshaus Eberswalde		0	-50 bis 0		
Flächen	Ê						
Geräte		Messedemo	in Messekiste	1	-40 bis -120		20
Parameterwerte	1	Radiation Demosite		1	-50 bis 0		
Sensorgruppen	((*))	Tensiometer+EC5		1	-20 bis -200		20



6.4 Devices

On delivery, the station(s) are identified by their ID number in a customer account. It is possible to rename the devices individually (in the Name field) under the menu item "Devices".

0										Bergemann R -
Dashboard.	*	Home - Administration	· Geräte							
Messwerte	-		Liste der Geräte	Gewächshaus Eberswalde 🔗					In Tabelle suction	
Administration	·									
Benutzer	1		Name :	Тур с	Geräte-ID :	Batterie 👙	Signal ::	HWIFW		
Flächen	\$		20120290	ict4water	20120290	-	4	3/1	00	
Geräte										
				Click here	e to edit	a device				
							_			

This screen then appears:

Gerät bearbeiten 20120290 - 20120290 \vee	X Abbrechen 🚯 Speichem S	Speichern 8
Kunde		
Fläche		
Gewächshaus Eberswalde \lor		
* Bezeichnung		
20120290		
* Name	A device can be renamed in the	
20120290		
* Тур	"Name" field	
iot4water		
Geräte-ID		
20120290		
Hardware-Kennung		
901288002327773		
Netzwerktyp		
nbiot		
Modell		

The sensors of a device appear further down on this page.



Before delivery, MMM named the sensors of the IoT4H $O_2^{(B)}$ devices in the customer account. Example: Substrate moisture 1 / Substrate moisture 2 / Substrate moisture 3. It is possible to rename the sensors individually (in the Name field) under the "Devices" menu item.

You now have the option of setting up **alarms** for the individual sensors of a device. To do this, please use the two text fields on the right-hand side of the table. In the left-hand text field, enter the minimum value below which an alarm is triggered. In the right-hand text field, enter the maximum value above which an alarm is also triggered. The threshold values should be selected according to the respective sensor and the requirements.



Example with temperature sensor warning thresholds entered.

			Sensoren		
* Bezeichnung	* Name	* Port	* Тур	Alarm <=	Alarm >=
temp1	Temperatur 1	1	ntc10k \vee	17	25 -
* Bezeichnung	* Name	* Port	* Тур	Alarm <=	Alarm >=
temp2	Temperatur 2	2	ntc10k V	17	25 😑



This quick start guide was created using various $IoT4H O_2^{\ensuremath{\mathbb{R}}}$ devices as examples. The illustrations correspond to the display on the computer. The display on the smartphone is slightly different.