

L A B S



Product catalogue 2024

— LILIAN LABS —

EDITORIAL

Dear customers,

my name is Dr. Alexander Rohr. I am one of the three founders and managing directors of Lilian Labs GmbH and responsible for marketing and sales.

I am pleased to present the current product catalogue 2024 to you. We also have some exciting innovations in our portfolio for next year. Our new LILIAN Wave product line should be particularly interesting.

Feel free to browse through the catalogue and contact us if you have any questions.

I wish you lots of fun,

Yours sincerely



Contact me

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Founder & CEO

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HIGHLIGHTS

New LILIAN Wave product line

In addition to the LILIAN Pro, there is now the new LILIAN Wave for users who take measurements less frequently than swimming pools. Details on the LILIAN Wave can be found on page 16.

Cyanuric acid as a SensoStick parameter

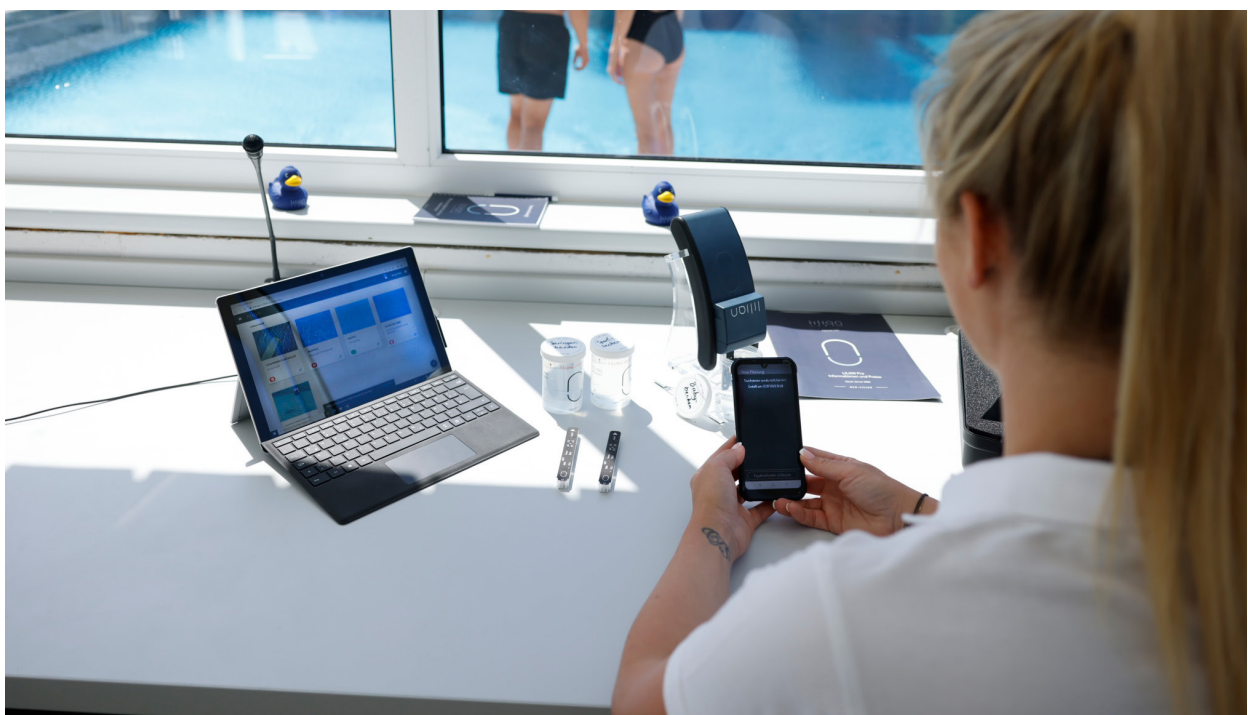
A SensoStick for determining ICA/Cyanuric acid is expected to be available in the first half of 2024. Current details can be found on our homepage at pools.lilianlabs.com. An overview of all parameters that can be measured with LILIAN can be found from page 17 onwards.

Active chlorine calculation possible in new software version

The calculation of active chlorine, which is mandatory in some European countries, is possible with the LILIAN apps since 2023. Further details on the functions of the LILIAN Manager can be found from page 19 onwards.

LILIAN App and LILIAN Manager for Apple systems

From 2024, the two LILIAN apps will be iOS-compatible in addition to Android, meaning they will be listed in both the Google and Apple stores. You will of course be informed immediately via the usual channels as soon as the apps are available in the Apple Store.



PRODUCT CATALOGUE 2024

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OUR MISSION

The goal of Lilian Labs

Water is a valuable resource whose quality is under acute threat due to many influences. At Lilian Labs, we want to ensure that everyone can be sure that the water available to them is of optimum quality, regardless of where and how it is used.

This is why Lilian Labs and its 26 employees have been bringing the LILIAN technology for mobile water analysis, which they developed themselves, to more than 10 European countries over the past 7 years. LILIAN is 100% made in Germany.

01

INNOVATION

Our drive: Enhance existing methods better and better.

02

SCIENCE

Our methods: Scientifically sound and recognized.

03

HEALTH

Our motto: Clean water analysis with no risk to health - mixing chemicals is oldschool.

04

SUSTAINABILITY

Our goal: A system that is of long-term and sustainable benefit to all users.

05

EFFICIENCY

Our concern: Save time for you and your employees when checking your water quality.

06

QUALITY

Our principle: Compliance with high quality standards through development and production in Germany.



WHAT IS THE LILIAN WATER ANALYSIS SYSTEM ALL ABOUT?

WE HAVE TURNED SOMETHING COMPLICATED INTO SOMETHING SIMPLE

The LILIAN water analysis system, which is already available in many European countries, greatly simplifies the regular measurement of water quality in swimming pool water.

It is a new type of photometer with a connected digital platform on which the water values are recorded digitally. The special trick: the LILIAN takes over the usually necessary chemical preparation of the water sample for the user.

This means that hygiene parameters such as pH value, chlorine or total alkalinity can be determined in under 60 seconds at the touch of a button. Errors in sample preparation can no longer occur and every swimming pool employee receives the same precise values.

The measurement results are then stored digitally. The system also automatically checks whether the limit values you have specified have been exceeded. In the event of critical measured values, selected persons are automatically informed seconds after the measurement. This creates seamless digital documentation and allows you to react immediately if necessary. The measurement data can also be integrated directly and fully automatically into any existing software via an interface.

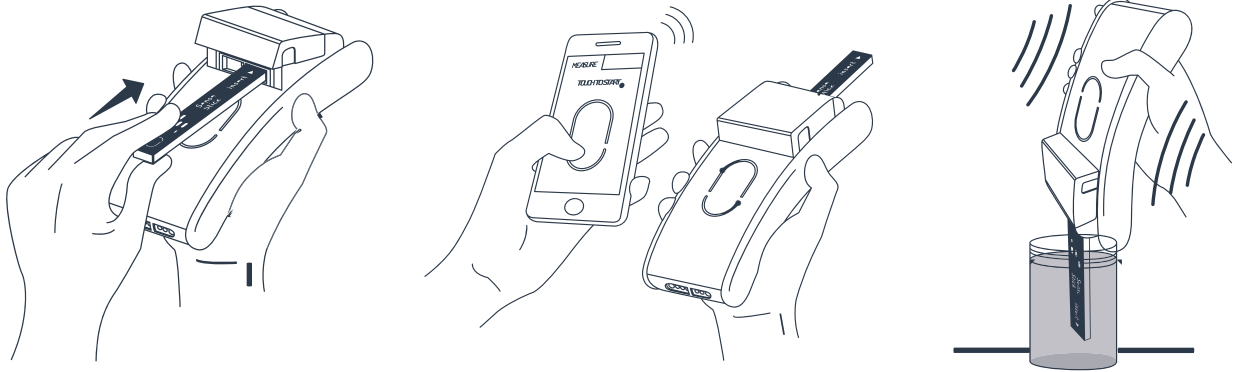
Water testing has never been so easy, because our LILIAN hand-held measuring device has just a single button. No frills or complicated procedures, fast and with maximum precision - with the certainty of having done everything right.



HOW DOES IT WORK?

Your water measurements at the touch of a button

Wireless, compact and simple - that's the LILIAN measuring device for comprehensive determination of your water quality at the touch of a button.



Simply insert the SensoStick into the LILIAN, connect it to the app and start the measurement at the touch of a button. The rest of the measurement process takes less than a minute. The measuring accuracy complies with DIN19643.

The measurement data is displayed on the smartphone within seconds and can be saved immediately.

In addition, you can save the values as an Excel or text file or automatically and tamper-proof to the LILIAN Manager platform.



CUSTOMER VALUES AND PROFITABILITY CALCULATION

The LILIAN system is unique in the world.

With the LILIAN, you'll get unique advantages that no other photometer offers. Simplicity and time savings are particularly important elements if you are also faced with a shortage of skilled labour. With the LILIAN, healthcare professionals can concentrate on the essentials and even assistants can carry out reliable hygiene parameter measurements.



PRECISE RESULTS

The revolutionary technology ensures fast and accurate measurement results.



SAFE WATER TESTING

No more tedious handling of chemicals. Protecting your employees health.



HUGE TIME SAVING

Within 60 seconds, the LILIAN System prepares, analyzes and documents all relevant values.



EASY HANDLING

The LILIAN measuring device is handy, wireless and easy to use.



SIGNIFICANT COST SAVING

Efficient staff deployment creates free space for other important tasks.



ENVIRONMENTALLY FRIENDLY DISPOSAL

The SensoSticks can be returned to us and will be recycled in an environmentally friendly way.



TIME IS MONEY

You can currently save around 50% of running costs if you take into account the time saved by your employees. You can calculate this for your organisation using our calculation tool.

You can find the tool at: lilianlabs.com/downloads.



LILIAN TECHNOLOGY

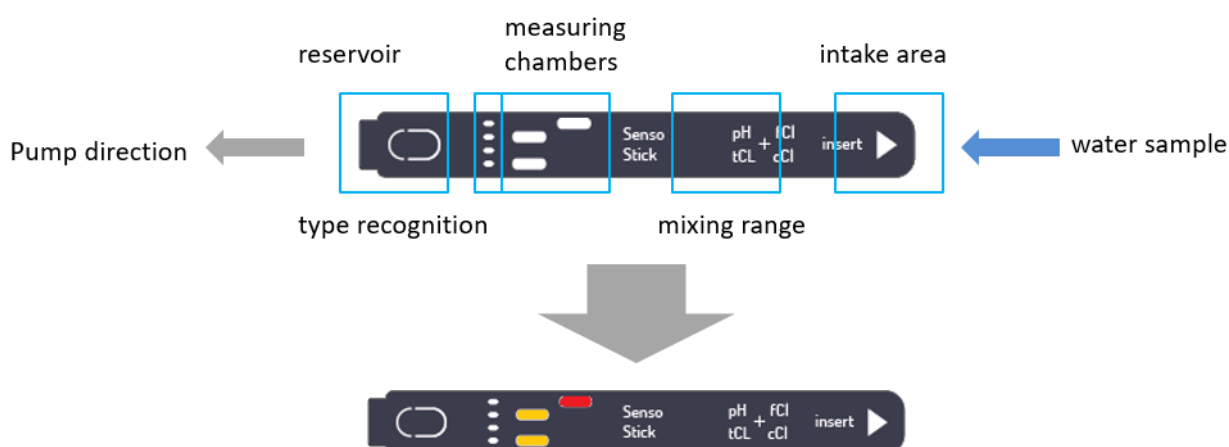
How exactly does the measuring method with LILIAN work?

The LILIAN measuring device is an advanced photometer that no longer uses cuvettes with which water samples have to be taken individually and chemicals added.

Instead, with the LILIAN you simply insert the SensoStick into the measuring device. This is a microfluidic element on which several micro-scale cuvettes are integrated. As soon as the measurement is started by pressing a button, a pump in the measuring device draws water into the SensoStick. The water sample is divided into different microchannels, each of which absorbs the chemicals and takes on the characteristic colour.

A microlab integrated into the SensoStick takes over the manual sample preparation required by conventional photometers. The SensoStick contains measuring windows, which the measuring device uses to determine the colouration and derive the corresponding water value.

As the measuring principle is based on the requirements stipulated by DIN19643 and ISO 7393-2 and "only" the manual sample preparation is automated, the LILIAN fully complies with the requirements of the authorities for regular monitoring of measurement and control technology. By automating and parallelising the measurements, the user is able to work significantly faster than before and is less prone to errors.



CERTIFICATES AND PRECISION

High measuring accuracy for the determination of water samples

Below you can see the Lilian Labs certificates for chlorine and pH. The measurement data and results on which this document is based were determined and calculated by an independent German institute. Feel free to compare these values with the certificates of other manufacturers, we are among the best!

Method validation data – Free chlorine

Method

Name	SensoStick Pool
Article number	#5012
Measurement	Free chlorine (fCl); sodium hypochlorite solution
Method	Photometry DPD method
Settlement proceedings	DIN EN ISO 7393-2
Measuring range	0.03 - 4.00 mg/l
Photometer	Lilian Pro
Cuvette	10 mm, PMMA

Process characteristics

Absolute standard deviation (N=10)	
Concentration level 0.060 mg/l Cl ₂ [s ₁]	0.0067 mg/l (12.7 %)
Concentration level 0.99 mg/l Cl ₂	0.013 mg/l (1.3 %)
Confidence interval (95%) at 1 mg/l	± 0.021 mg/l
Detection limit [3 - s ₁]	0.020 mg/l
Limit of quantification [10 - s ₁]	0.067 mg/l
Coefficient of determination R ²	> 0.99, related to the recovery function in the working range of 0.03 mg/l - 4.00 mg/l Cl ₂

Method validation data – pH value

Method

Name	SensoStick Pool
Article number	#5012
Measurement	pH value (pH)
Method	Photometry, indicator phenol red
Settlement proceedings	DIN EN ISO 10523
Measuring range	6,3 - 8,4
Photometer	Lilian Pro
Cuvette	10 mm, PMMA

Process characteristics

Measuring solution	Mean value (N = 3) pH value	Abs. Standard deviation (N = 3) pH units
pH 6.30 Buffer solution	6,33	0,010
pH 6.50 Buffer solution	6,48	0,029
pH 6.88 Buffer solution	6,84	0,006
pH 7.00 Buffer solution	7,03	0,021
pH 7.50 Buffer solution	7,64	0,012
pH 8.00 Buffer solution	8,13	0,000

SUSTAINABILITY

Material Selection

The basic SensoStick mould is made of pure Plexiglas without the addition of any other substances. This makes used SensoSticks very suitable for further use.

Fewer chemical substances

The innovative design of the SensoSticks with microlabs ensures maximum accuracy with fewer chemicals. The SensoStick type for the pool area, for example, uses 40 times less chemical substances than photometric measurements with standard cuvettes.

Environmentally friendly packaging and shipping

Lilian Labs only sends parcels climate-neutrally with the GoGreen label. The filling material used when sending parcels is usually made from recycled cardboard remnants. No plastic is used for the sales boxes either.

SensoStick-Recycling

Returned SensoSticks are already being broken down by Lilian Labs into their components at specialised companies and returned to the raw material cycle.

In areas where plastic recycling is not possible, energy recovery is used. Primary energy sources such as crude oil or gas are usually used to generate energy and heat. This consumes valuable resources. Used SensoSticks can also be utilised instead. As the kilns operate at very high temperatures, the exhaust gases are free of pollutants. The chemical residues in the SensoSticks are completely decomposed during the process.



We were honoured with the „Golden Wave Award 2022“ in the „Green Technology“ category for our sustainability concept.

WATER ANALYSIS WITH LILIAN

Simple. Precise. Fast. The LILIAN system is the innovation for today's water analysis.



REFERENCES

Almost 1000 customers in more than 10 countries swear by LILIAN!

Once you are convinced and start measuring with LILIAN, you will never stop! The time and cost savings as well as the simple handling are something you won't want to give up.

AQUANTIC

Center Parcs



**HOLSTEN
THERME**



bnnz

:DÜSSELDORF
Bädergesellschaft

Europabad
Karlsruhe



wellnest

SALES PARTNERS

Where to get the LILIAN measurement system?

Please contact us or the sales partner responsible for your country for an offer or more informations.



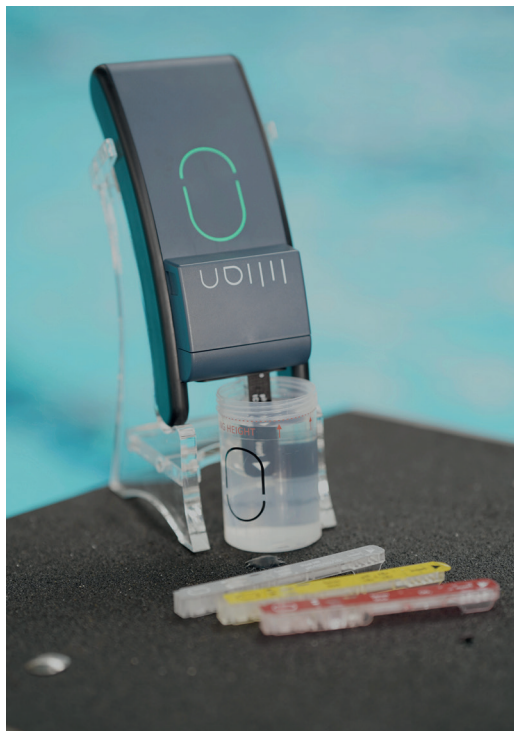
LILIAN PRO

THE LILIAN FOR FREQUENT MEASUREMENT USE

Public Swimming pools with high measurement volumes in particular benefit from the speed of measurements with the LILIAN measuring device. However, the costs per measurement play a major role for this customer group.

For this reason, users of the LILIAN Pro have access to the particularly favourable "Pool Cl" SensoSticks, which are also available in large boxes of 250 SensoSticks. The LILIAN system has the potential to reduce the costs of daily sampling by up to half!

The software, LILIAN Manager or the LILIAN app, is included free of charge. In addition, a waterproof smartphone (IP68) can also be ordered, on which the LILIAN App and the LILIAN Manager App are already pre-installed.



Please ask your local LILIAN sales partner for prices.

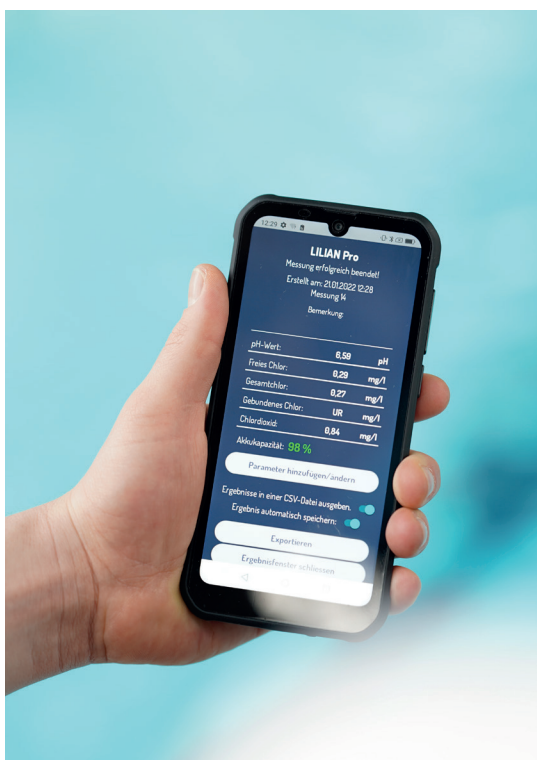
LILIAN WAVE

THE LOWER COST VARIANT: THE LILIAN WAVE

Precise measurement is not only important for large pools and hotel chains. Customers who measure irregularly also need precise results. Health authorities, technicians and pool builders in particular can benefit from the LILIAN Wave.

When you buy the device, you already save EUR 400 compared to the LILIAN Pro. In addition, the SensoSticks type "Pool CL Wave" and type "Brom Br Wave" are available in pack sizes from 5 pieces. This means that customers with lower measurement volumes also benefit from the advantages of the LILIAN.

The LILIAN app and the LILIAN Manager are available free of charge. In addition, a waterproof smartphone (IP68) can also be ordered. The corresponding apps are even pre-installed.



Please ask your local LILIAN sales partner for prices.

SENSOSTICKS

SENSOSTICK TYPE „POOL CL“ AND “POOL CL WAVE”



Parameter	Accuracy	Measuring range
pH value	+ - 0,03	6,3 - 8,4
Chlorine free	+ - 0,03 mg/l	0,03 - 4,00 mg/l
Chlorine total	+ - 0,03 mg/l	0,03 - 4,00 mg/l
Chlorine combined	calculated	calculated

SENSOSTICK TYPE “POOL BR” AND “POOL BR WAVE”



Parameter	Accuracy	Measuring range
pH value	+ - 0,03	6,3 - 8,4
Bromine free	+ - 0,05 mg/l	0,05 - 9,00 mg/l
Bromine total	+ - 0,05 mg/l	0,05 - 9,00 mg/l
Bromine combined	calculated	calculated

SENSOSTICK TYPE “POOL CL HR”



Parameter	Accuracy	Measuring range
pH value	+ - 0,03	6,3 - 8,4
Chlorine free	+ - 0,1 mg/l	0,1 - 10,0 mg/l
Chlorine total	+ - 0,1 mg/l	0,1 - 10,0 mg/l
Chlorine combined	calculated	calculated

SENSOSTICK TYPE “KS4.3 / TA”



Parameter	Accuracy	Measuring range
Total alkalinity	+ - 0,1 mmol/l	0,1 - 5,0 mmol/l
	+ - 5,0 mg/l (below 100 mg/l)	5,0 - 250,0 mg/l

SENSOSTICK TYPE "CYA" (ICA / CYANURIC ACID)



Parameter	Accuracy	Measuring range
ICA / Cyanuric Acid	+/- 5 mg/l (below 100 mg/l)	5 - 160 mg/l

SENSOSTICK TYPE "ACTIVE OXYGEN"



Parameter	Accuracy	Measuring range
Active oxygen	+/- 0,2 mg/l	0,2 - 20,0 mg/l

SENSOSTICK TYP "ClO2"



Parameter	Accuracy	Measuring range
Chlorine dioxide	+/- 0,05 mg/l	0,05 - 8,00 mg/l

Please ask your local LILIAN sales partner for prices.

LILIAN MANAGER

Cloud-based documentation tool with digital operating diary

Have you had enough of handwritten documentation and time-consuming transferring your water parameters to Excel? With the LILIAN Manager you can always keep an eye on your water quality from anywhere - in any facility, at every measuring location and at every measuring position. Recognise critical measured values immediately! Create reports and export the data to your PC or Mac.

The Manager can even be used as a digital operating diary. The LILIAN Manager can be used to digitally log both your measurement data measured with the LILIAN and all other values such as redox voltage, water temperature, etc.

And best of all, the LILIAN Manager can be used free of charge for all your pools:

- Cloud-based user and data management system
- Free evaluation and export tools
- No restriction on the number of users, measurements, locations, ...
- Digital operating diary: Logging of all measured values in your pools possible
- Automatic correction of measured values for special water, e.g. brine
- Active chlorine calculation
- Available in 7 languages



Premium packages

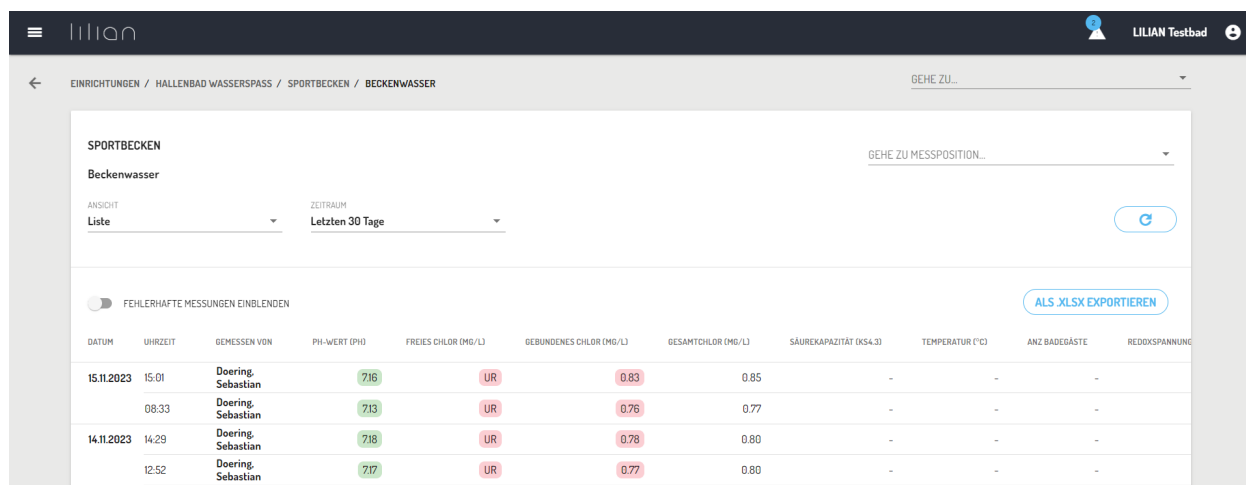
There are additional premium functions that the customer can use for a certain period of time against payment. As a rule, a licence runs for one year, in the discounted “Season Pass” only for half a year.

Limit value and alarm system

Configure specific threshold values for your parameters and receive a push notification or email if the threshold values are exceeded. Your threshold values are automatically highlighted in green, yellow and red, depending on the default range, so that you can see at a glance whether everything is OK.

Interface (client-based API)

With the Manager interface, we also offer you the option of automatically exporting your automatically export your data records to external IT structures. For example, existing software solutions such as pool and bath managers (e.g. TASKO), system software (e.g. dosing systems) can be supplied with the mobile measurement data recorded by the LILIAN via the interface.



The screenshot shows the LILIAN Testbad web interface. The top navigation bar includes the LILIAN logo and a user profile icon labeled 'LILIAN Testbad'. Below the navigation, there are breadcrumb links: 'EINRICHTUNGEN / HALLENBAD WASSERSPASS / SPORTBECKEN / BECKENWASSER'. The main content area is titled 'SPORTBECKEN' and 'Beckenwasser'. It features a search bar 'GEHE ZU...' and a dropdown 'GEHE ZU MESSPOSITION...'. There are controls for 'ANSICHT' (set to 'Liste') and 'ZEITRAUM' (set to 'Letzten 30 Tage'). A toggle switch for 'FEHLERHAFTHE MESSUNGEN EINBLENDEN' is visible. A blue button 'ALS XLSX EXPORTIEREN' is present. The main data is presented in a table with the following columns: DATUM, UHRZEIT, GEMESSEN VON, PH-WERT (PH), FREIES CHLOR (MG/L), GEBUNDENES CHLOR (MG/L), GESAMTCHLOR (MG/L), SÄUREKAPAZITÄT (KS4.3), TEMPERATUR (°C), ANZ. BADEGÄSTE, and REDOXSPANNUNG. The table contains four rows of data, with values for pH, free chlorine, and total chlorine highlighted in green or red to indicate status.

DATUM	UHRZEIT	GEMESSEN VON	PH-WERT (PH)	FREIES CHLOR (MG/L)	GEBUNDENES CHLOR (MG/L)	GESAMTCHLOR (MG/L)	SÄUREKAPAZITÄT (KS4.3)	TEMPERATUR (°C)	ANZ. BADEGÄSTE	REDOXSPANNUNG
15.11.2023	15:01	Doering, Sebastian	7.16	UR	0.83	0.85	-	-	-	-
	08:33	Doering, Sebastian	7.13	UR	0.76	0.77	-	-	-	-
14.11.2023	14:29	Doering, Sebastian	7.18	UR	0.78	0.80	-	-	-	-
	12:52	Doering, Sebastian	7.17	UR	0.77	0.80	-	-	-	-

Please ask your local LILIAN sales partner for prices.

ACCESSORIES



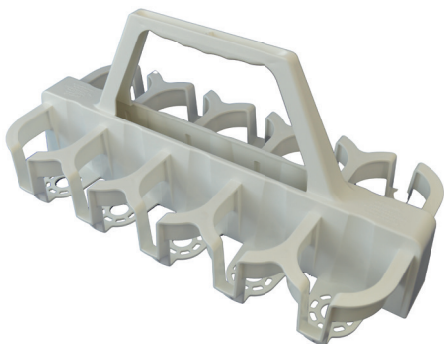
SMARTPHONE

Dust and waterproof smartphone (IP68), LILIAN apps pre-installed, as a single purchase without starter set.



MAINTENANCE KIT

For easy replacement of springs and seals.



CUP HOLDER 10-FOLD

Simply collect water samples and then measure them centrally and directly one after the other to save even more time.



DIAGNOSIS SET

To regularly check the function of the LILIAN measuring device.



LILIAN CHARGER

A practical tool: Simply place the LILIAN in the tray and it will load automatically every time you put it down.

Please ask your local LILIAN sales partner for prices.

SERVICES

MANUFACTURER MAINTENANCE

Lilian Labs stands for precision in water analysis. In daily use, your Lilian device is exposed to high loads. We therefore recommend annual maintenance of your device at Lilian Labs.

In addition to the assurance that your system is working correctly, you will also receive a certificate confirming this. And best of all, you receive a one-year guarantee after every service!

Your benefits at a glance:

- o General inspection of the measuring device incl. minor repairs
- o Replacement of springs and seals
- o If necessary: Replacing the batteries
- o Installing the latest software
- o Checking the measuring accuracy
- o Certificate to confirm the measuring accuracy
- o Warranty extension for 1 year
- o Replacement device for the duration of maintenance



TEST PACKAGE

We offer you the opportunity to take advantage of a free trial period. You can test our LILIAN extensively for a two-week period.

So far, we have only provided the test phase packages directly for customers in Germany. Please ask your local sales partner, if this is also possible in your country.



Please ask your local LILIAN sales partner for prices.

DATES

WHERE CAN I MEET LILIAN LABS IN 2024?

19/01/24 BDS Landesfachtagung NRW

Stadthalle Waltrop, Raiffeisenplatz 1, 45731 Waltrop, Germany

15/02/24 Seminar Hydrotec Berlin

Seminaris Campus Hotel, Takustraße39, 14195 Berlin

28/02/24 Schwimmbadhygienetag SaarLorLux

Stadthalle, Pachtener Str. 13, 66763 Dillingen/Saar, Germany

05/03/24 - 06/03/24 basi Schöberl GmbH & Co. KG Rastatt

Bildungshaus St. Bernhard, An d. Ludwigsfeste 50, 76437 Rastatt, Germany

12/03/24 - 13/03/24 Aquatec Fair

Oberpfalzhalle Schwandorf, Schwimmbadstraße 4, 92421 Schwandorf, Germany

19/03/24 - 20/03/24 basi Schöberl GmbH & Co. KG Rastatt

Bildungshaus St. Bernhard, An d. Ludwigsfeste 50, 76437 Rastatt, Germany

03/04/24 - 04/04/24 basi Schöberl GmbH & Co. KG Rastatt

Bildungshaus St. Bernhard, An d. Ludwigsfeste 50, 76437 Rastatt, Germany

24/04/24, 13:00 Onlinetraining for LILIAN Measurement System

Please register at info@lilianlabs.com.

22/10/24 - 24/10/24 Interbad Stuttgart

Landesmesse Stuttgart GmbH, Messsepiazza 1, 70629 Stuttgart, Germany

19/11/24 - 22/11/24 Piscine Global Lyon

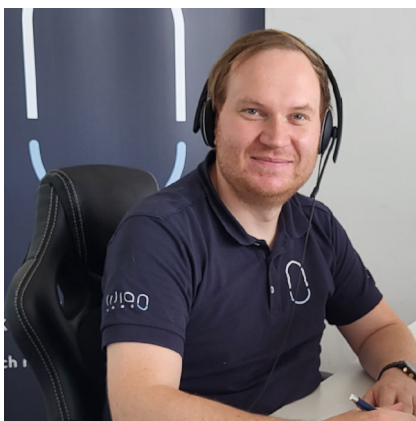
Piscine Global Europe, 59 Quai Rambaud, 69002 Lyon, France

30.10. Onlinetraining for LILIAN Measurement System

Please register at info@lilianlabs.com.

Please note: Dates are subject to change, please inform yourself in advance.

CONTACT DATA



We are looking forward to your messages!



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Follow us on social media:



@LILIANLABS

WATER ANALYSIS
FOR TOMORROW

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