

A Step Ahead in Testing

PRIMELAB_{1.0} MULTITEST PHOTOMETER



PrimeLab Device Operates in Multiple Languages:

-  English (en)
-  Spanish (es) 
-  French (fr)
-  Germany (de)

Photometer meets Future

Photometers for electronic and highly accurate determination of water values are standard equipment in every laboratory. Similarly, mobile phones are standard equipment in our daily lives, and yet over the past few decades they have continuously adapted to technical progress.

Do you still make calls today with a mobile phone of past generations from 10 or 20 years ago or do you prefer the benefits of smartphones with fast Bluetooth® - wireless technology -, synchronisation with your PC software, apps and many other technical advantages?

How about your photometer ...?

Has it kept pace with technological progress, or do you still transmit your data via a serial port, an IR interface or even not at all?

Is your data analysis restricted to predefined, parameters?

Did you have a choice of which parameters you want to measure?

Is the performance of your photometer limited to a few or even only one wavelength?

Time for a change

Introducing the next generation of photometers!

Data connection via Bluetooth® - wireless technology -within seconds, similar to your smartphone in your car

A sensor by JENCOLOR with unprecedented accuracy, able to measure all parameters where colour development is visible to the human eye after adding a reagent (visible wavelength).

Software that will offer you not only user used management of your measurement sources (e.g. pools) and related measurement data but also offer advice on adjusting the water values back to ranges defined by you.

Software allowing you to easily upload additional parameters on your Photometer. A device that auto-calibrates itself within milliseconds at the push of a button without having to return it to the manufacturer!



PrimeLab Features

- Selfcalibration mode and instant Certificate
- Accurate and Reliable Water Testing
- 1 JENCOLOR Sensor - ALL Parameters
- Flexible Parameter Setup. Add more parameters at any time, anywhere
- Fast Bluetooth® - Connection
- Powerful free Software and App plus Cloud service
- Unique technology and product especially for Marine and Industrial use
- Easy to use automated reporting system
- New way of testing electronically and reporting at same time to head office
- Accurate tests and easy way of testing
- Worldwide availability
- Extra reagents not needed for one year
- Yearly order for reagents saving time and money
- Install more parameters at any later time by just entering a code
- Time saving for purchasing departments
- Corrections on treatment and instructions are given automatically by photometer itself
- Heavy case to carry
- Connected to Mobile phones so all have access on info
- Legionella accurate test and report in 1 hour
- Step by step on screen instructions in multiple languages for each parameter



Technical Details

Dimensions	175 mm x 88 mm x 59mm
Weight:	160 g
Spectral Range:	389 nm-780 nm with 7 open channels and \pm nm overlap each
Data Transmission:	Built-in Bluetooth® module
Calibration:	Auto-calibration by JENCOLOR sensor; determination of LED brightness
One Time Zero:	Intelligent OTZ (One Time Zero) function, detecting different ZERO types
Internal Memory:	100 data records/20 accounts records
Clock/Date:	RTC (real-time clock) with date function
Auto-off:	Default = 10 minutes. Individually adjustable
Time Saving:	For Engineers on reporting and checking – sending to head office (free cloud service = real time reporting)
Menu Navigation:	Intuitive, display-controlled 4-button menu system; test instructions during the measurement process (can be skipped)
Power Supply:	Optionally 4 x 1.5 V AAA batteries or 100-240 V AC, 50/50 Hz, 0.2 A → 5.0 V 1200mA, 6W
Display:	Graphical LCD display, monochrome
Environment:	5°C-45°C (41°F-113°F) /30% - 90% relative humidity
Water Resistancy:	The unit is splash-proof
Reagents:	The calibration curves of the individual parameters are matched to the reagents offered by the manufacturer. The use of reagents by other manufacturers may result in measurement errors The scope of delivery of the PrimeLab includes solely high-quality reagents "Made in Germany" and "Made in Britain"



Option 5: Legionella Spp. Test on PrimeLab

1 hour Legionella Spp. Test on PrimeLab 1.0 Photometer

- Test result in just 1 hour
- Quantitative 60 – 1,000,000 cfu/l
- Certified against culture
- New, patented method
- Living Legion. spp detected

Filter equipment:

- 5 x LP-Fil-man 1 way filter equipment (pre and main filter)

Accessories:

- PLSp-LegiAD-1 Primelab 1ml-cuvette adapter
- LG-MP2 unit for 2 x MHCb cuvettes plus magnet



Legionella-Kit

Item-code	Product	Quantity
PL01B	PrimeLab 1.0 Multitest Photometer BASIC-KIT / contains: 1 x PrimeLab 1.0 Multitest Photometer 1 x black plastic case 4 x 24mm/10ml glass vials 1 x light shield 1 x stirring rod 1 x 10ml syringe 1 x cleaning brush 1 x Bluetooth USB dongle 1 x CD with PrimeLab software (Windows) 4 x AAA batteries 1 x 110V/230V interchangeable power supply 1 x full manual	1
Total		1

Additional Accessories Included in the Kit

Item-code	Product	Quantity
LGP-MP2-kit	1 x plastic support with magnet to hold 2 cuvettes / 2 x MHCb cuvettes	1
PLSp-LegiAD-1	Primelab Adapter for 1ml CB cuvettes	1
LP-Fil-man	1-time-use manual filter kit: 1 x 60ml Elution Flask 1 x Syringe Glass fiber filter, with pore 1 x Self-contained micro-filter 1 x Syringe elution of 10 ml with Luer Lock connector (2 units) 1 x Syringe filtration of 50 ml with Luer Lock 1 x Stopper 2 x Stopper filter end	5
Total		7

Pre-installed Parameters

Item-code	Product	Quantity
PLPar147	ID 147 / Legionella / 60-1000000 cfu/l / liquid / Resolution 1	1
Total		1

Reagents

Item-code	Product	Quantity
LGP-10	Kit to perform max. 9 tests (1 control / batch): 1 x bottle (110ml) "L0 Diluent" 10 x single-doses (each 1ml) "L1 Capture Reagent" 1 x bottle (200ml) "L2 Washing buffer" 10 x single-doses (each 1ml) "L3 Enzyme-labeled anti-Legionella" 5 x tetra dose (each 5ml) "L4 Enzyme-co-substrates" 1 x bottle (2ml) "L5 Stopping reagent" 5 x disposable pipette 10 x 1CB cuvette	1
Total		1

Legionella - What is it

In aerosols generated by a shower head of a hospital or a hotel, in a car wash or in an industrial cooling system, there may be water droplets brimming with bacteria. This is how Legionella reaches us, through inhalation. Legionella sp. can travel huge distances. Cases of infection have been reported in a radius of up to 10 km away from the source. Near or far, if Legionella reaches our lungs it will behave in a very similar way, either colonizing or invading. In a few days pneumonia will develop. Legionellosis is a systemic infectious disease that primarily affects the lungs and has a mortality rate between 5% and 30%. Of the total cases reported, 95-98% can be attributed to Legionella pneumophila. This disease is a hot topic in the field of Public Health, as its average mortality rate is 12%-15% and it can easily reach 30-50% in patients with weak immune systems or who do not receive antibiotics promptly.

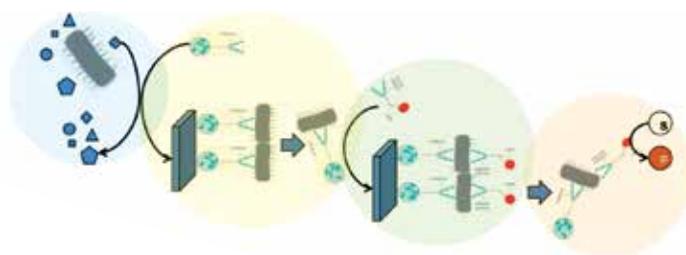
Advantage of Legipid® + PrimeLab

Current standard recommended Legionella test is based on a cultural method, needing up to 2 weeks for Legionella bacteria to grow and to be counted which is far too long to take action and to prevent danger.

The new Legipid® test is based on a patented, immunomagnetic method, detecting only living Legionella sp. As tests develops a readable color, it now got adapted on the PrimeLab 1.0 multitest photometer.

How Does It Work?

Whilst the common cultural method needs an agar on which legionella have to grow to be counted after several days, Legipid® works differently. 1 litre of sample water is filtered to concentrate Legionella on a filter paper. Legionella on filter paper gets released in a small vial where "L1" is added. "L1" is a patented solution, containing immunomagnetic particles (antibodies), only attaching to living Legionella sp. After several washing steps, a colouring solution is added to colour the captured Legionella. Concentration of the colour is in relation to concentration of Legionella in the sample which makes it possible to be tested by the PrimeLab 1.0. Result is displayed as cfu per litre.



SAMPLING | FILTERING | CAPTURING | MARKING | DETECTING

Requirements

For all those who currently use a Primelab, all you need, is an update through the Primelab Desktop Assistant Software or the App, an activation code for ID 147 (Legionella) and a small plastic adapter to use 1 ml Legionella vials. If you do not yet have a Primelab, it benefits from more than 120 different test methods, starting with A for Alkalinity to Z for Zinc.

JENCOLOR sensor technology allows parallel testing on 400 different wavelengths ensuring outmost accuracy of test results.

Wireless Bluetooth technology, free software and App, individual parameter setup, free cloud service, dosage recommendations based on your individual water treatment chemicals, activation of more parameters at any time, reports per account (test sources), Turbidity (NTU) along with PTSA and Fluorescein by adapter to name just a few of the benefits of the Primelab 1.0 Multi test photometer.

Legipid® Test Kit

Legipid® test kit comes with all you need to run Legionella tests, apart from the Primelab plastic adapter for 1 ml vials and a filter kit to filter your water sample. Both, adapter and filter kit, is available as accessories. Legipid® is offered as a kit of 10, 40 or 100 units. Each test requires just one "ZERO".



High Risk Facilities

Legionellosis is a worldwide health issue. Each year, 6,000 cases are registered in Europe and between 8,000 and 18,000 people are hospitalized in the USA.

Mortality rate figures range from 6% to 15% every year, likely to be an underestimation, since many countries are unable to provide mortality figures.

High Risk Facilities Include:

- Cooling towers and evaporative condensers
- Hot water systems with water tanks and return circuits
- Heated water systems with water recirculation through high speed water jets or air injection
- Internal systems for cold water intended for human consumption (pipes, water tanks, cisterns or mobile tanks)
- Hot water systems without a return circuit
- Evaporative cooling equipment which sprays water
- Humidifiers
- Ornamental fountains
- Sprinkler water systems in urban environments
- Fire extinguishing systems that uses water
- Outdoor aerosol equipment that uses water
- Other devices that store water and produce aerosols
- Respiratory therapy equipment
- Respirators
- Nebulisers



	 PLATE CULTURE	 PCR	 legipid	 FAST-PATH	 PVT-TEST	 PhAST Blue	 Sieve-ID
TECHNOLOGY USED	CULTURE	PCR	CEIA <small>immunomagnetic capture and enzymatic immunoassay</small>	Immuno-cromatography	CULTURE	V-PCR	IMAGE ANALYSIS (FLUORESCENCE)
TARGET	 Legionella spp.	 Legionella spp.	 Legionella spp.	 <i>L. pneumophila</i> , Sg1	 Legionella spp.	 Legionella spp.	 Legionella spp.
LOD (CFU/l)			 40	 10 ³ -10 ⁶	 10 ⁴	 NOT REPORTED	 NOT REPORTED
INVESTMENT IN SPECIFIC EQUIPMENT	 HIGH	 HIGH	 LOW	 LOW	 AVERAGE	 HIGH	 HIGH
CONSISTENCY WITH REFERENCE METHOD	REFERENCE METHOD		 95,6 %	 80%	 < 66%	 NOT REPORTED	 81 %
QUANTITATIVE RESULT (YES/NO)							
TIME OF ANALYSIS (h/40 analysis)	 192-288 h	 6-8 h	 1 h	 0,5 h	 48-72 h	 6-8 h	 6-8 h
USER'S REQUIRED QUALIFICATION	 AVERAGE	 VERY HIGH	 LOW	 LOW	 AVERAGE	 HIGH	 HIGH
INTERNATIONAL CERTIFICATION	 ISO	 AFNOR	 	 NO	 NO	 NO	 NO
THIRD PARTY VALIDATION (YES/NO)	REFERENCE METHOD						
HIGHLIGHTS	OFFICIAL REFERENCE METHOD <small>LATE RESULT - NON-PREVENTIVE USE</small>	ALTERNATIVE METHOD IN FRANCE <small>FREQUENT FALSE POSITIVES</small>	FAST AND RELIABLE	ONLY <i>L. pneumophila</i> serogroup 1	HIGH LIMIT OF DETECTION	SEVERAL OUTSTANDING TECHNICAL ISSUES	LOW ANALYTICAL PERFORMANCE

Photometer meets future

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Similarly, mobile phones are standard equipment in our daily lives, and yet over the past few decades they have continuously adapted to technical progress.

Do you still make calls today with a mobile phone of generations from 10 or 20 years ago or do you prefer the benefits of smart phones with fast Blue-tooth - wireless technology, synchronisation with your PC software, apps and many other technical advantages.

How about your photometer.

Has it kept pace with technological progress, or do you transmit your data via a serial port, an IR interface or even not at all.

Is your data analysis restricted to predefined, parameters?

Did you have a choice of which parameters you want to measure?

Is the performance of your photometer limited to a few or even only one wavelength?

Take advantage of the innovative technology of Primelab 1.0 Photometer which covers 400 wavelengths (380-780nm) in parallel, offers self-calibration without the need of calibration standards, comes with free software, App and Cloud service for easy test result management and reporting and even allows you to add more parameters at any later time by just entering a code. Beside of that, Primelab 1.0 Photometer gives easy step by step on screen test instructions in multiple languages.

The Bluetooth equipped Primelab 1.0 Photometer covers 400 wavelengths (380-780nm) in parallel thanks to the JENCOLOR multi spectral sensor.

It offers self-calibration without the need of calibration standards, comes with free software, App and Cloud service for easy test result management and reporting and even allows you to add more parameters at any later time by just entering a code.

Use the software Primelab desktop assistant

Uploading further methods on the Primelab convenient management of test results with reporting function create proposals for water treatment on the basis of measurement results by entering your water treatment chemicals as well as ideal ranges (min/max) per parameter, updates the Primelab firm-and software remote control your Primelab synchronize accounts and test results in real time via free Cloud Service.

Installed parameters/measurement methods

The parameters / measurement methods installed on the Primelab may be individually denied by the user and extended at any time after purchase by entering activation codes into the software. Thus also subsequently developed measurement method scan still be installed.

The Primelab will never become obsolete.



Basic Equipment

- Primelab Multi test with integrated Bluetooth-module
- Black Plastic case
- DC adapter (220/110 V) with interchangeable international plugs
- 4xAAA 1.5 V batteries
- Bluetooth - USB dongle for wireless connection to your PC
- CD-ROM Primelab Desktop Assistant
- 2x24 mm standard round cuvette (glass/10 ml) with light absorber integrated into lid
- Light protection lid for 16 mm standard cuvettes
- 10ml syringe
- Cleaning brush for cuvettes
- Stirring rod



A truly innovative device Made in Germany. Learn more about Primelab 1.0 by visiting www.primelab.org