

## Technical Data Sheet

# LETZTEST Photometer Kit

**Revolutionizing Photometry: 18 Wavelengths, 140+ Parameters, 5.5" Colour HD touch Display, Unparalleled Accuracy, and Spectrophotometer-Level Performance. Seamlessly Mobile and Robust, Connecting Effortlessly to Smartphones, Tablets, Computers, for Advanced Data Management**



## Description

Say hello to the future of photometry – made in Germany. A cutting-edge device that redefines precision, flexibility, and convenience in water analysis.

Unlock over 140 potential parameters: the ultimate solution for all your testing needs.

**High-Precision Readings:** Utilize 18 parallel wavelengths for unbeatable accuracy. Experience readings with narrow peaks between 390 and 950 nm, approaching the precision of a spectrophotometer.

**Seamless Connectivity:** Stay connected with WiFi, USB, Bluetooth®, and GSM\*\*.

**User-Friendly Software:** Access feature-rich software and a mobile app for easy data management.

**Cloud Sync:** Conveniently sync data through our free cloud service.

**HD Touch Display:** Effortlessly navigate your analysis on a spacious touch screen.

**Electrode Ready:** Expand your testing options with electrode compatibility.

**Wide Wavelength Coverage:** Cover UV, IR, and VIS ranges with 18 parallel wavelengths and LED angles for additional measurements.

Experience Water Analysis Without Boundaries!

## Specifications

- Art.: 1166
- Form: Hard Shell carrying case
- Dimensions: 432 x 381 x 191 mm
- Weight: 2,5 kg

## Content

- 1 x grey plastic carrying-case with standard foam insert
- 1 x 2.0 Multitest Photometer
- PLPar112 / Turbidity NTU activated (built in)
- 5.5" HD-Color-Touch Display
- 18 wavelengths-scan (410 - 940nm)

- "90° ready" for NTU, PTSA, Fluoresceine, Plankton Choose from more than 140 different Parameter- Methods (subject to charge)
- Option to create your own curves / methods 8.400 mAh Li-Ion-battery (built-in) Bluetooth 4.2
- WiFi
- USB Type C
- GSM (via USB-Type-C Modem)
- Option to connect Electrodes (via USB Type C plus A/D-changer-Box)
- built-in camera to scan QR-Codes Self-Calibration-Mode with certificate (via LabCOM software)
- "I-OTZ" Intelligent-One-Time-Zero compatible to the free of charge PrimeLab tools: LabCOM App/Software/Cloud (Android, iOS, Windows, Mac, Browser)
- 10 x 24mm/10ml glass-vials with lid (light-shield incorporated into the lid)
- 1 x light shield (for 16mm and 1ml vials as well as check-standards)
- 1 x 24mm vial adapter (built-in; exchangeable) 2 x 10.5 cm stirring rod
- 1 x 25ml shaker
- 1 x 10ml plastic syringe (graduated)
- 2 x 3ml plastic syringe
- 1 x 1 - 10ml professional lab pipette with 2 tips
- 2 x 2ml bulb-pipette
- 2 x pipetting ball for 2ml bulb-pipette
- 1 x NTU-Turbidity calibration kit. Sealed glass vials with 0.5 / 10 / 1000 NTU
- 3 x vial cleaning brush
- 1 x microfibre cleaning cloth for vials
- 1 x charger with cable (USB-Type-C)
- 1 x UK plug (for charger)
- 1 x printed user manual in a ring-binder
- Pre-activated parameters:
  - Alkalinity-M / 5 - 200 mg/l / tablet / Resolution 1
  - Aluminium / 0 - 0.3 mg/l / tablet / Resolution 0.01
  - Ammonia (LR) / 0 - 1 mg/l / powder / Resolution 0.01
  - Chloride / 0.5 - 25 mg/l / tablet / Resolution 0.1
  - Chlorine (free-combined-total) / 0.00 - 8.00 mg/l / tablet / Resolution 0.01
  - Copper / 0 - 5 mg/l / tablet / Resolution 0.01
  - Fluoride (SPADNS) / 0 - 2 mg/l / liquid / Resolution 0.01
  - Hardness-Total (LR/HR) / 2(20) - 50(500) mg/l / tablet / Resolution 1
  - Iron (LR) / 0 - 1 mg/l / tablet / Resolution 0.01
  - Manganese (LR) / 0.2 - 5 mg/l / powder / Resolution 0.1

Nitrate (HR) / 1 - 100 mg/l / powder / Resolution 1  
 Nitrite (LR) / 0 - 0.5 mg/l / powder / Resolution 0.01  
 Phosphate-ortho (LR) / 0 - 4 mg/l / tablet + powder / Resolution 0.01  
 Sulphate / 5 - 100 mg/l / powder / Resolution 1  
 Turbidity / 0.5 - 1000 mg/l (NTU) / Adapter / Resolution 0.01  
 Additional parameter activations on request.

## Possible Parameters

Parameter	Measurement Range	Resolution
Active Oxygen	0 – 40 mg/l	0.1
Alkalinity–M	5 – 200 mg/l	1
Alkalinity–M (HR)	0 – 500 mg/l	1
Alkalinity–P	25 – 300 mg/l	1
Aluminium	0 – 0.3 mg/l	0.01
Ammonia (LR)	0 – 1 mg/l	0.01
Ammonia (HR)	1 – 50 mg/l	0.1
Boron	0 – 2 mg/l	0.1
Bromine	0 – 18 mg/l	0.01
Bromine	0 – 18 mg/l	0.01
Bromine	0 – 4.5 mg/l	0.01
Carbohydrazide	0 – 1.3 mg/l	0.01
Chloramines	0.00 – 8.00 mg/l	0.01
Chloride	0.5 – 25 mg/l	0.1
Chloride	0 – 100 mg/l	0.1
Chloride in Methanol	0 – 20 mg/l	0.01
Chlorine (free–combined–total)	0.00 – 8.00 mg/l	0.01
Chlorine (MR)	0.00 – 10.00 mg/l	0.01
Chlorine (HR)	5 – 200 mg/l	1
Chlorine (HR)	0 – 200 mg/l	1
Chlorine Dioxide	0 – 15 mg/l	0.01
Chlorine Dioxide	0 – 5 mg/l	0.01
Total Oxidant	0 – 4 mg/l	0.01
Chlorite	0 – 8 mg/l	0.01
Chromium	0 – 2.2 mg/l	0.01
Chromium	0 – 1 mg/l	0.01
COD (LR)	0 – 150 mg/l	1
COD (MR)	0 – 1500 mg/l	1
COD (HR)	0 – 15000 mg/l	1
Colour (Hazen/APHA)	15 – 500 mg/l	1
Copper	0 – 5 mg/l	0.01
Cyanide	0.01 – 0.50 mg/l	0.01
Cyanuric Acid	2 – 160 mg/l	1
DBNPA	0 – 13 mg/l	0.01
DEHA	20 – 1000 µg/l	1.0
Dissolved Oxygen	0 – 10 mg/l	0.1
Erythorbic Acid	0 – 3.5 mg/l	0.01
Fluorescein	0 – 500 µg/l	1
Hardness–Calcium	0 – 500 mg/l	1
SPADNS Fluoride	0 – 2 mg/l	0.01
Hardness–Calcium (HR)	50 – 1000 mg/l	1
Hardness–Total (LR)	2 – 50 mg/l	1

Hardness–Total (HR)	0 – 500 mg/l	1
Hardness–Total (HR)	20 – 500 mg/l	1
Hydrazine	5 – 600 µg/l	1
Hydrocarbons in Methanol (tank wash)	yes/no	1
Hydrogen Peroxide (LR)	0 – 3.8 mg/l	0,01
Hydrogen Peroxide (HR)	0 – 200 mg/l	1
DEWAN–50	0 – 300 mg/l	1
Hydroquinone	0 – 2.5 mg/l	0,01
Iodine	0 – 28 mg/l	0,01
Iodine	0 – 28 mg/l	0,01
Iron (LR)	0 – 1 mg/l	0,01
Iron (MR)	0 – 10 mg/l	0.01
Iron (MR) Ferrous	0 – 10 mg/l	0.01
Iron (HR)	0 – 30 mg/l	0.01
Iron total	0 – 3 mg/l	0.01
Iron in Oil	20 – 450 mg/l	1
Isothiazolinone	0.0 – 10.0 mg/l	0.01
Legionella	60 – 106 cfu	1
Magnesium	0 – 100 mg/l	1
Manganese VLR	0 – 0.030 mg/l	0.001
Manganese	0.2 – 5 mg/l	0.1
Methylethylketoxime	0 – 4.1 mg/l	0.01
Molybdate (LR)	0 – 15 mg/l	0.01
Molybdate (HR)	5 – 200 mg/l	0.1
Molybdate	1 – 100 mg/l	0.1
Molybdate (HR)	0 – 40 mg/l	0.1
Nickel (HR)	0 – 7 mg/l	0.1
Nickel (HR)	0 – 10 mg/l	0.1
Nitrate	0.00 – 11.00 mg/l	0.1
Nitrate (HR)	1 – 100 mg/l	1
Nitrite (LR)	0 – 0.5 mg/l	0.01
Nitrite (HR)	5 – 200 mg/l	0.1
Nitrite (HR)	0 – 1500 mg/l	1
Nitrite (HR)	0 – 3000 mg/l	1
Nitrogen–Total (LR)	0.5 – 25 mg/l	0.1
Nitrogen–Total (HR)	5 – 150 mg/l	1
Ozone	0 – 5.4 mg/l	0.01
Ozone	0 – 5.4 mg/l	0.1
Peracetic Acid (LR)	0.00 – 10.00 mg/l	0.01
Peracetic Acid (HR)	0 – 300 mg/l	1
Permanganate Time Test in Methanol (tank wash)	0 – 100 %T	0.1
pH–value (LR)	5.2 – 6.8 pH	0.01
pH–value (MR)	6.5 – 8.4 pH	0.01
pH–value (MR)	6.4 – 8.4 pH	0.01
pH–Universal	5 – 11 pH	0.1
pH–Universal	4 – 11 pH	0.1
Phenol	0 – 5 mg/l	0.01
PHMB	2 – 60 mg/l	1
Phosphate–ortho (LR)	0 – 4 mg/l	0.01
Phosphate–ortho (HR)	0 – 80 mg/l	0.1
Phosphate–ortho (HR)	0 – 100 mg/l	0.1
Phosphonate	0 – 20 mg/l	0.01
Phosphorus–Total (LR)	0 – 2.6 mg/l	0.01
Phosphorus–Total (HR)	0 – 52 mg/l	0.1
Polyacrylate	1 – 30 mg/l	0.1
Potassium	0.7 – 12 mg/l	0.1
PTSA	0 – 1000 µg/l	1
QAC	25 – 150 mg/l	1

Sanosil	0 – 400 mg/l	0.01
Silica (LR)	0 – 5 mg/l	0.01
Silica (HR)	0 – 100 mg/l	1
Sodium Hypochlorite	0.2 – 40 %	0.1
Sulphate	5 – 100 mg/l	1
Sulphide	0.04 – 0.5 mg/l	0.01
Suphide	0 – 0.7 mg/l	0.01
Sulphite (LR)	0 – 10 mg/l	0.1
Sulphite (HR)	0 – 300 mg/l	0.1
Sulphite (HR)	0 – 200 mg/l	0.1
Suspended solids	0 – 750 mg/l	1
Tannic acid	0 – 150 mg/l	0.1
Tracer	0 – 1000 µg/l	1
Transmission / Absorption (all wavelenghts). Wavelenghts in nm: 410, 435, 460, 485, 510, 535, 560, 585, 610, 645, 680, 705, 730, 760, 810, 860, 900, 940	0 – 100 %	0.1
Turbidity (FAU)	20 – 1000 FAU	1
Turbidity (NTU)	0.5 – 1100 NTU	0.1
Urea	0.1 – 2.5 mg/l	0.1
Urea	0.2 – 5.0 mg/l	0.2
Watch Products	0 – 1000 µg/l	1
Zinc	0 – 1 mg/l	0.01

## Consumables

Each test requires a test reagent. Reagents needed for the LETZTEST Photometer 2.0 have the big advantage that they last up to 10 years without cooling, they exist either in tablet form, liquid form or as powder in single PE bags ensuring that no reagent is wasted due to exposure to air or humidity. Furthermore, the reagents can be used for either the LETZTEST Photometer or the LETZTEST Ultimate Visual Color Comparator Test Kit reducing time, costs, and logistical efforts.

# Photos

