pHotoFlex Series

pHotoFlex:
The Portable Photometers

NEW

- **Complete Field Case**
  - **Photometry**
  - **pH**
  - **Turbidity**

- **Undetachable adapter**

- **Simple push button operation**

IP 67 | CE | cETLus | **2** Years Warranty

Field case with tray

The new portable photometers offer decisive advantages for field use: They are handy, have a low power consumption and a lot of extra features!

- Smart adapter solution for the use of different cuvettes
- Backlit display with automatic switch-off
- User guidance via display for easy operation without handbook reading
- Large selection of test sets for all requirements
- Method and software update via internet
- Integrated pH measurement with automatic temperature compensation
- Turbidity measurement with infrared light source according to DIN 27027/ISO 7027
- 100 program storage places for user-defined routine measurings
- Battery operation with 4 AA batteries for approx. 3000 measurements
- Optional LabStation with convenient data management for laboratory use
- Optional rechargeable battery set (alternative to LabStation)

The smart adapter solution

An ingenious flap mechanism has been developed to integrate the cuvette adapter undetachably in the instrument. Just slide the magnetic lid up and insert the 28 mm round cuvette. Or, simply flip up the adapter and use a 28 mm round cuvette. The cuvette can have a height of 91 to 104 mm and allows the use of different test sets.
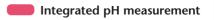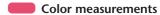
pHotoFlex – portable photometer with pH

The portable photometer pHotoFlex demonstrates its capability with complex tasks in environmental and process monitoring at changing locations.

pHotoFlex features a highly robust optical system, thus being optimally suited for mobile applications under changing conditions. The LEDs plus filters for 6 wavelengths have a remarkably low power consumption and deliver accurate measuring results. The intuitive menu guidance allows a smooth operation even without studying instruction booklets. Dilution functions and timer ease work in special cases.

pH function

The integrated pH function allows measurings of pH 0 ... 16 with automatic buffer recognition (TEC/NIST). Temperature compensation is automatic within the permitted range of 23 … 212 °F (– 5 ... 100 °C). WTW's MultiCal®-routine allows the automatic calibration with up to 3 calibration points. WTW offers a large selection of pH sensors as an optional accessory: For field use, the maintenance-free SenTix® 41 is recommended, whereas for precision measurements in the laboratory, the SenTix® 81 glass electrode should be used. The electrodes are described in detail in the pH measuring chapter (from p. 19 onward).

NEW

100 methods available

Integrated pH measurement

Color measurements

with pH sensor SenTix® 41

pHotoFlex Turb – Total Capability

additionally:

Turbidity measurement according to DIN 27027/ ISO 7027

0-1100 NTU/FNU

Calibration kit (0.02-10-1000 NTU)

The pHotoFlex Turb is analogous to the pHotoFlex, but has additionally an infrared (IR) light source for nephelometric turbidity measurement (90°), according to the requrirements of DIN 27027/ISO 7027. The calibration with the supplied AMCO® standards can be documented and output via RS232 like the measured data.

With the optional LabStation and the LSdata software, all data can be displayed and processed on the computer monitor conveniently and according to GLP (*see p. 88*).

pHotoFlex series in a convenient field case!

NEW

● **The "in-field laboratory"**

● **Integrated tray**

● **Convenient**

A small lab for in-field use. The integrated tray with placings for the instrument, cuvettes, measuring beaker and a stand for the pH electrode is particularly. practical. Complete sets with:

- pH electrode SenTix® 41 for all pHotoFlex models
- 1 variable pipette with 5 ml volume for all pHotoFlex models
- Calibration standards for pHotoFlex Turb and Turb 430 IR/T
- Many useful accessories: empty cuvettes, buffer solutions with pH 4.01 and 7.00, PC cable AK Labor 540 B, stand for the pH electrode, cleaning tissues, screwdriver for battery change
- Space for other accessories

LabStation plus LSdata –
The smart way of data management!

NEW

The LabStation upgrades the portable pHotoFlex and Turb 430 models to make it a small laboratory solution. With the new software package LSdata the measured data can be processed on a PC conveniently and according to GLP standards. The software is included in the delivery of the LabStation.

- Data export from the instrument to the PC according to GLP and with password protection
- Subsequent processing in Excel format, e.g. for clear documentation of individual sampling points
- Generation, administration and matching between instrument and PC of user-defined methods via dialogue window
- Calculation of calibration curve for user-defined methods

The LabStation also serves as charging station for the rechargeable battery set included in the delivery package. Alternatively a rechargeable battery set for pHotoFlex and Turb 430 models is available separately.

Parameter

pH

ORP

ISE

Oxygen
(D.O.)

Conductivity

Multi-
parameter

BOD/
Respiration

Photometers

Turbidity

Colony
Counter

Software/
Printers

Accessories

Making your work easier

The rechargeable battery set RB Flex/430

Upgrades pHotoFlex/Turb 430 to rechargeable battery set:
The set consists of a rechargeable battery pack with universal
power supply. For the connection to a PC via RS 232, the
AK540/B cable (Ordering No. 902 842) is required.

LabStation LS Flex/430

The LabStation pHotoFlex LS upgrades the models pHotoFlex
and pHotoFlex Turb as well as the turbidity meters Turb 430 IR/T
(*p. 108*) to a small laboratory instrument.

Because of the constant environmental conditions and
permanent power supply, the test sets can be run more
conveniently via barcode and without new zeroing. Barcodes
are offered in the analysis descriptions and on the WTW
website (www.WTW.com).

LSdata is an outstanding solution for the management of stored
measurement data and for user defined methods too! The
delivery includes LSdata, the rechargeable battery set RB Flex/430
and the connection cable AK Labor. The LabStation serves as a
charging station for the rechargeable battery set as well.

Technical Data

Model	pHotoFlex	pHotoFlex Turb
Light source	LED	LED
Wavelengths nm	436, 517, 557, 594, 610, 690	436, 517, 557, 594, 610, 690 + 860
User-defined methods	100	100
Timer	3	3
Data storage	1000 data sets	1000 data sets
pH	0-16	0-16
Turbidity	—	0-1100 NTU/FNU
Accuracy Photometry pH Turbidity (NTU/ FNU)	<2 nm wavelength accuracy, 0.005 abs. reproducibility ±0.01 pH —	< 2nm wavelength accuracy, 0.005 abs. reproducibility ±0.01 pH 0.01 NTU/FNU or ±2% of the measured value
Auto-zero adjustment/calibration: Photometry pH / Turbidity	With start of new method, with LabStation once a day 3 point	With start of new method, with LabStation once a day 3 point
Interface	RS 232, USB via adapter (optional)	RS 232, USB via adapter (optional)
Measuring parameters	Photometry, pH	Photometry, pH, Turbidity
Battery	Type AA batteries 4x1.5 V, for approx. 3000 measurements	Type AA batteries 4x1.5 V, for approx. 3000 measurements
Reachargeable battery	Optional: rechargeable battery or LabStation	Optional: rechargeable battery or LabStation
Test marks	cETLus	cETLus
Warranty	2 years	2 years

Ordering Information

	pHotoFlex	**Order No.**
pHotoFlex	Portable photometer with pH	**251 100**
pHotoFlex Turb	Portable photometer with pH and turbidity	**251 110**
pHotoFlex/SET	Portable universal LED filter photometer in a field case with tray to hold instrument and accessories	**251 200**
pHotoFlex Turb/SET	Portable universal LED filter photometer with integrated turbidity measurement and pH functions in a field case with tray to hold instrument, calibration standard kit and accessories	**251 210**
FC pHotoFlex/Turb 430	Field case with tray to hold instrument, for all pHotoFlex and Turb 430 models	**251 304**
LS Flex/430	LabStation for all pHotoFlex and Turb 430 models with LSdata software, rechargeable battery and universal mains adapter	**251 301**
RB Flex/430	Rechargeable battery for all pHotoFlex models and Turb 430 IR/T with universal plug	**251 300**

For information visit **www.WTW.com** for a customer care center near you or inside US: call **WTW 800 645 5999**.