PF-12^{*Plus*}

Compact photometer for mobile water analysis

The photometer PF-12^{*Plus*} is a device tailored for the mobile water analysis. The icon-based menu guidance and clear taskbar make the PF-12^{*Plus*} an easy to use photometer for all fields of water and wastewater analysis without the need for extensive training. The device comes in a rugged case equipped with useful accessories and is therefore particularly popular with users for the direct analysis at the point of sampling.

Easy implementation

Measurement results are obtained very quickly with the PF-12^{*Plus*}, thanks to its simple operation. Equipped with more than 100 preprogrammed methods, it is the ideal companion for analysis on the road. The PF-12^{*Plus*} comes with easy to understand pictogram instructions in a practical manual for the evaluation of *VISOCOLOR*® *ECO* test kits.

Free programming

In addition to the preprogrammed methods, the PF-12^{*Plus*} offers the possibility to create up to 50 special methods for customized applications. Equations up to 4th degree and logarithmic functions can be programmed systematically.

Turbidity measurements

With its especially positioned 860 nm LED the PF-12^{*Plus*} enables nephelometric turbidity measurements (NTU) in the range of 1–1000 NTU. Therefore, disturbing turbidities will be detected reliably in parallel to a measurement of tube tests - a huge PLUS on measurement safety. Furthermore, the PF-12^{*Plus*} offers the possibility to accurately determine the turbidity in transmitted light from 4–350 FAU.

How it's done

Photometric determination with the PF-12^{*Plus*}
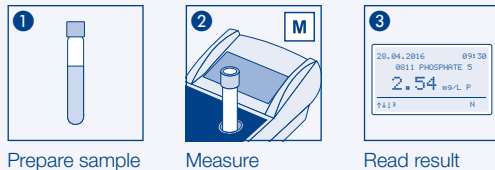
| ❶ Prepare sample | ❷ Measure | ❸ Read result |

Good to know

Turbidity – a source of error: Turbidity is often underestimated since it is not always visually recognizable. During each measurement, the MACHEREY-NAGEL spectrophotometers automatically measure the turbidity and warn the user in case of an interfering turbidity.

Ordering information

Description	REF
☐ Compact photometer PF-12^{*Plus*} for evaluation of *VISOCOLOR*® *ECO* tests and *NANOCOLOR*® tube tests, incl. software DVD, manual, 4 batteries, 4 empty test tubes, funnel, beaker, syringe, USB cable, calibration cuvette, cleaning cloth and certificate in rugged case	919 250
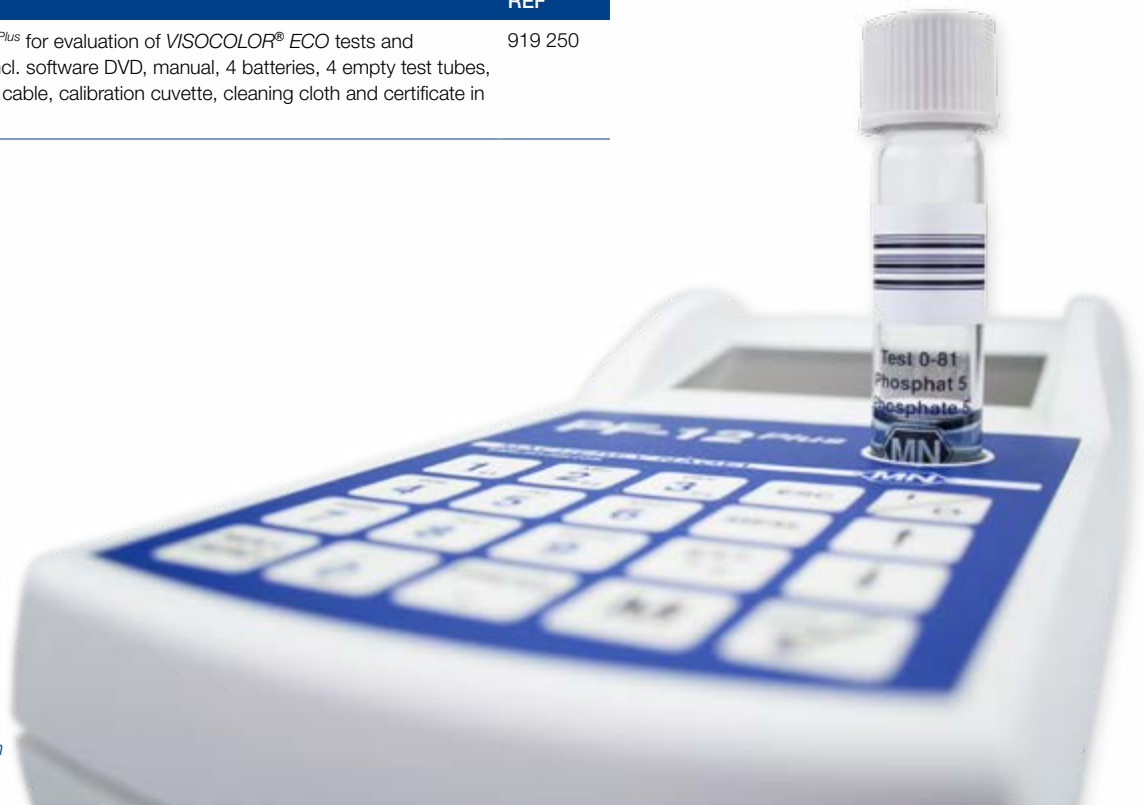
Safe

- Easy handling for precise results
- GLP-conform storage of all measurement results
- Comfortable data export and data backup concept

Mobile

- Flexible power supply via batteries or accu-pack
- Backlit graphic display also for critical lighting conditions
- Robust and waterproof according to IP 68

Versatile

- Compatible with *NANOCOLOR®* and *VISOCOLOR® ECO* test kits
- Nephelometric turbidity measurement and NTU-check
- Applicable in all fields of water and waste water analysis

Technical data

PF-12^{Plus}	
Type	Filter photometer with microprocessor control, self-test and auto-calibration
Optics	Automatic filter wheel with 7 interference filters Insensitive to external light for fast measurements without cuvette slot cover
Wavelengths	345 nm / 436 nm / 470 nm / 540 nm / 585 nm / 620 nm / 690 nm plus 1 compartment for an additional filter; 860 nm LED for NTU measurement
Wavelength accuracy	± 2 nm, bandwidth at half transmission 10 nm–12 nm
Light source	Xenon high pressure lamp
Detector	Silicon-photodiode
Blank value	Automatic
Measuring modes	Over 100 preprogrammed tests and special methods, absorbance, transmission, factor, standard, nephelometric turbidity measurement; 50 freely programmable methods
Compatible test kits	*NANOCOLOR®* tube tests (see page 88) *VISOCOLOR® ECO* tests (see page 76)
Photometric range	± 3 A
Photometric accuracy	± 1 %
Stability	< 0.002 A/h
Cuvette slot	Tubes 16 mm OD
Data memory	1000 results, GLP conform
Display	Backlit graphic display, 128 x 64 pixels. All important data at a glance: Result with unit, date, time, sample number, sample location, dilution, measuring range control bar
Auto-off function	Inactive or automatic shutdown after 5 min, 10 min, 15 min, 20 min, 60 min
Quality control	With *NANOCONTROL* NANOCHECK
Operation	Self-explanatory menu guidance, foil keypad, test selection via parameter lists
Interface	USB 2.0
Languages	DE / EN / FR / ES / IT / NL / HU / PL / PT / CZ / ID / SL / TR / MY
Update	Free of charge via Internet / PC
Operating range	10 °C–40 °C, up to 80 % relative humidity (non-condensing)
Power supply	4 AA batteries, rechargeable batteries, USB interface; optional internal accu-pack
Housing	Shock-resistant; waterproof and dustproof, according to IP 68
Dimensions	215 mm x 100 mm x 65 mm
Weight	0.7 kg
Warranty	2 years
CE	CE certified