

Water Analysis

For soil analysis



PF-3 • VISOCOLOR® • NANOCOLOR®

The perfect team for soil analysis

- Compact photometer of the youngest generation
- Determination of Ammonium, Potassium, Nitrate, Phosphate
- Intuitive user guidance
- Small and tough
- Soil analysis right at the point of interest



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Soil analysis made easy

Monitoring and reliable analysis is a corner stone in supporting and maintaining healthy, productive and biologically active soil. To effectively and efficiently plan all measures that affect the soil (fertilization, liming, etc.) it is crucial to determine the important soil parameters first.

The newest version E of the compact photometer PF-3 comprises the important soil parameters ammonium, potassium, nitrate and phosphate. It is ideally suited for mobile analysis right at the point of interest. Together with the proven VISOCOLOR® ECO and NANOCOLOR® tests, the instrument can provide a quick and reliable information on soil quality.

PF-3 customer benefits at a glance



Small and tough

- Handy and light weight
- Glass-fibre reinforced housing •
- Water proof according to IP 68 •
- Shock-resistant optics

Ideal for all your analysis needs in the lab and right at the point of interest



Easy and convenient

- Fully developed menu structure using just 4 buttons •
- Optional storage for just one 0-measurement
- Results in different units
- Open cuvette slot

Safe results and convenient operation




Smart and clever

- Runs on standard or rechargeable batteries •
- Free of charge data export software
- Add new tests and parameters anytime
- Power supply and data transfer via USB port

Flexible use and easy data administration

Technical data compact photometer PF-3

Type:	LED photometer with 3 interference filters
Wavelengths:	Version E: 365 nm, 450 nm, 660 nm
Wavelength accuracy:	± 2 nm, bandwidth at half transmission 10–12 nm
Measuring modes:	Pre-programmed MN-tests
Cuvette holder:	Tubes 16 mm OD
Memory:	50 results
Display:	Backlit graphic display, result with unit
Operation:	Self-explanatory menu guidance, plastic foil keypad, test selection via parameter lists
Power supply:	3 AA batteries, rechargeable batteries, USB interface; optional internal accu-pack
Housing:	Water proof, IP 68 certified
Dimensions:	170 x 95 x 68 mm

 This device complies with the following directives: 2006/95/EC - Low-Voltage Directive; 2004/108/EC - EMC Directive

Test kit benefits at a glance



Reliable and accurate

- Highly accurate measurements due to photometric determination with PF-3 • Simple chemical- analytical methods
- Reaction principles based on internationally acknowledged regulations (DIN, EN, ISO)
- Low susceptibility to interferences assures reliable results

High measurement safety for reliable water analysis



VISOCOLOR® – Easy and comfortable

- Intuitive instructions with pictograms
- Colour-coded reagent bottles with clear dosing instructions
- Fast-dissolving reagents save time
- Cost efficient refill packs available

Convenient handling without the need for time consuming training



NANOCOLOR® – Precise and versatile

- Ready-to-use reagents for easy and fast measurements • One tube for both, reaction and measurement
- Contact with dangerous chemicals is avoided
- Ideal for routine analysis

Highest accuracy due to pre-dosed reagents



Fair and economical

- Individual combination of reagent bundles
- Competent customer service by highly educated and experienced professionals • Free seminars and product information
- Fast replacement availability in case of repair

Consistently fair concept with impressive price-performance ratio



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Tests running on the PF-3

VISOCOLOR® ECO Test	Measurement range	Test number	Version	No of tests	REF
Ammonium 3*	0.2–4.0 mg/kg NH ₄ -N	5-08	E	50	931 208
Potassium*	40–300 mg/kg K	5-32	E	60	931 232
Nitrate	2–28 mg/kg NO ₃ -N	5-41	E	110	931 241
Phosphate	20–500 mg/kg PO ₄ -P	5-84	E	80	931 284
NANOCOLOR® Test	Measurement range	Test number	Version	No of tests	REF
Ammonium 3	0.08–4.60 mg/kg NH ₄ -N	0-03	E	20	985 003
Ammonium 10	0.4–16.0 mg/kg NH ₄ -N	0-04	E	20	985 004
Ammonium 50	2.0–80.0 mg/kg NH ₄ -N	0-05	E	20	985 005
Potassium 50*	40–1000 mg/kg K	0-45	E	20	985 045
Nitrate 50*	1–44 mg/kg NO ₃ -N	0-64	E	20	985 064
Phosphate 5*	4–100 mg/kg PO ₄ -P	0-81	E	20	985 081
Phosphate 15*	6–300 mg/kg PO ₄ -P	0-80	E	20	985 080

* These products contain harmful substances which must be specially labelled as hazardous. For detailed information please see MSDS.

Additional tests and versions will be launched successively.

VISOCOLOR® reagent cases

To provide maximum flexibility MACHEREY-NAGEL offers flexible case solutions for multiple applications. These mini-labs in rugged cases with premium foam inlays can be equipped in an individual and highly flexible way with different test kits. Catering to our customer needs we offer cases with just the photometer and a pre-packed reagent option including the PF-3, test kits and analytical accessories.

Ordering information photometer PF-3



Type	REF
Photometer PF-3, version E, in a box incl. manual, batteries and certificate	919 341
Photometer PF-3, version E, in rugged case, without reagents, incl. manual, batteries, certificate and accessories	934 202
Reagent case with photometer PF-3, version E and VISOCOLOR® ECO test kits Ammonium, Potassium, Nitrate, Phosphate, incl. manual, batteries, certificate and accessories	934 210



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