

MACHEREY-NAGEL

PF-3 Soil and

VISOCOLOR<sup>®</sup> · NANOCOLOR<sup>®</sup>



## The perfect team for soil analysis

- Compact photometer with intuitive menu guidance
- Tough and water-proof according to IP 68
- Soil analysis right at the point of interest
- Determination of ammonium, potassium, nitrate, phosphate

Water Analysis



## Soil analysis made easy

Monitoring and reliable analysis are corner stones 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 (nitrate, phosphate, potassium and ammonium). The PF-3 Soil in combination with the proven VISOCOLOR® ECO and NANOCOLOR® tests is ideally suited for mobile analysis of the soil quality right at the point of interest.



## PF-3 Soil benefits at a glance



### Small and compact

- Handy and light weight
- Glass-fiber 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 Soil

|                      |   |
|----------------------|---|
| Type:                | LED photometer with 3 interference filters  |
| Wavelengths:         | 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, 64 x 128 pix, all important data at a glance: result with unit, data, time |
| Operation:           | Self-explanatory menu guidance, 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  |

**CE** This device complies with the following directives: EMC Directive 2014-30-EU; LVD Directive 2014-35-EU

## Test kit benefits at a glance

### Reliable and accurate

- Highly accurate measurements due to photometric determination with PF-3 Soil
- 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
- Color-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



## VISOCOLOR® and NANOCOLOR® tests running on the PF-3 Soil

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

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

## VISOCOLOR<sup>®</sup> reagent cases with PF-3 Soil

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 also offer a pre-packed reagent case including the PF-3 Soil, all important tests for a complete soil analysis and accessories.



## Ordering Information

| Description   | REF     |
|---|---------|
| Compact photometer PF-3 Soil, in a cardboard box, incl. manual, batteries and certificate                                   | 919 341 |
| Compact photometer PF-3 Soil, in a case with foam inlay, incl. manual, batteries and certificate                            | 934 202 |
| Reagent case with photometer PF-3 Soil, with VISOCOLOR <sup>®</sup> ECO reagents* nitrate, potassium, ammonium 3, phosphate | 934 210 |
| Reagent case for soil analysis with photometer PF-3 Soil, incl. reagents and accessories for sample preparation*            | 934 220 |

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

For more information please visit [www.mn-net.com/PF-3](http://www.mn-net.com/PF-3).



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