

Water Analysis

NANOCOLOR® 500 D



Simply flexible

The Photometer *NANOCOLOR*® 500 D

- Backlit graphic display with user guidance
- USB interface for data transfer
- *NANOCOLOR*® barcode technology
- Measurements without light shield and adaptor

MACHEREY-NAGEL



NANOCOLOR® 500 D

Be prepared for the future

Unique and versatile

The digital photometer *NANOCOLOR*® 500 D is a logical result of a further advancement based on our very successful photometer *NANOCOLOR*® 400 D. Adapted to our customers' present and future requirements it is suitable for universal use in water and wastewater analysis. This includes municipal and industrial waste water, drinking water, surface water and ground water as well as cooling and boiler water.

Save time



Fast measurements – *NANOCOLOR*® barcode technology (NBT)

- Fully automatic, instant cuvette detection by the built-in laser scanner allows simple and fast routine analysis.
- Selection of test method and suitable wavelength, actual measurement and storage of results are carried out automatically. No additional keystroke is required.

Measurements without light shield

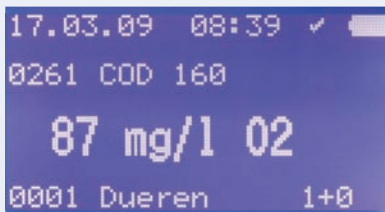
- The progressively designed optics is insensitive to external light and makes measuring straightforward.

Everything at a glance

The backlit graphic display shows all important data at a glance.

- Measurement result, displayed directly in the required unit
- Date / time
- Battery charge status
- Sample number, sample location and dilution

Values above or below the measuring range are clearly marked as "out of range".



Pre-programmed tests and photometric basic functions

- More than 100 pre-programmed tests with over 200 analysis programmes.
- Professional photometric basic functions, such as absorbance, transmission, factor, standard and kinetics.

Experience precision



Self-explanatory user guidance

- All tests and menu items can be activated quickly and easily. The photometer can be operated without any complex and time-consuming training. The newly developed user guidance allows safe operation and facilitates your daily work. In the configuration menu, you can select up to 12 languages (de, en, fr, es, it, nl, hu, pl, pt, cz, id, si).

Manual with test instructions, presented as pictograms

- Safe test procedures without complex instructions

Highly accurate measurements – high-quality optical components

- Precision optics ensures accurate results

IQC according to ISO 9001 with *NANOCONTROL* *NANOCHECK*

- Fast and easy self control of *NANOCOLOR*® 500 D's photometric accuracy with *NANOCONTROL* *NANOCHECK* (Cat. No. 925 701).
- Checking *NANOCOLOR*® 500 D in accordance with internal quality control (IQC) standards satisfies supervisors' and authorities' requirements.



Enjoy flexibility

No cuvette adaptor required

- Round tubes (16 mm OD) and rectangular cuvettes (10, 20, 50 mm) can be used without any adaptor.
- Accessories are not required.



Programmable for user-defined applications

- Free programming of up to 100 user-defined methods.

In the field and in the lab

The robust, high-performance battery with charge regulator allows continuous operation at 220V (110V) and up to 3000 on-site, mains-independent measurements. The battery charge status is shown in the graphic display. In the power saving mode the photometer switches off automatically after a definable time.

Fast photometer update – free of charge

- At any time, stay up-to-date by easy programme updating via Internet/PC.
- For the current photometer software update please visit www.mn-net.com



Assure results

Result documentation in accordance to GLP

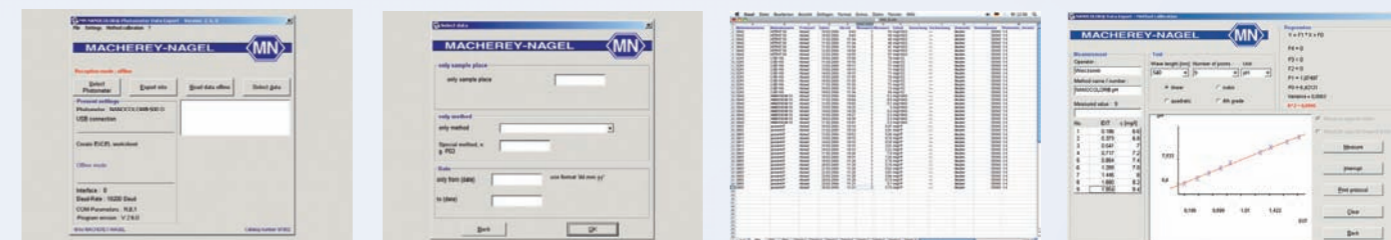
- Individual entries of sample number, sample location and dilution.

Easy memory management

- GLP-conform storage of results with all supplementary information such as date, time, sample number, sample location and dilution.
- Fast and easy access to stored results and data sets by method, sample location, date and time.

Convenient data export

- Easy transfer of results to your computer.
- Direct print-out on the *NANOCOLOR*® thermal printer (Cat.No. 919 16).



Professional software for data processing included

- User-friendly data transfer to MS Excel or MS Access with the *NANOCOLOR*® data export software
- Easy processing of transferred data with standard software
- Recording of calibration curves for programming user-defined methods

NANOCOLOR® 500 D

Technical data

Type:	Single beam filter photometer with microprocessor control, self-test and auto-calibration, wavelength range 340 – 860 nm
Optics:	Automatic filter wheel with 10 interference filters
Wavelengths:	345 / 365 / 436 / 470 / 520 / 540 / 585 / 620 / 690 / 800 nm plus 2 compartments for additional filters
Wavelength accuracy:	± 2 nm, bandwidth at half transmission 10 – 12 nm
Light source:	Tungsten lamp
Detector:	Silicon photodiode
Blank value:	Automatic and prestored
Measuring modes:	Over 100 pre-programmed tests, 99 freely programmable methods, extinction, transmission, factor, kinetics, two-point calibration
Measuring range:	About 3 E neutral sign
Photometric accuracy:	± 1 %
Stability:	< 0.002 E/h
Cuvette holder:	Round tubes 16 mm, rectangular cuvettes 10, 20, 50 mm
Data memory:	500 measurement data records, GLP compatible
Display:	Backlit graphic display, 64 x 128 pixels, 12 languages
Operation:	Bar code technology, display user guidance, foil-covered push-buttons
Interfaces:	USB 1.1 and bidirectional serial RS 232
Update:	Via Internet / PC
Operating range:	0 – 50° C, up to 90 % relative humidity
Power supply:	100 – 240 V~, 50/60 Hz / 6 V, 3.2 Ah via built-in battery with charge regulator and mains power supply
Dimensions:	227 x 282 x 105 mm
Weight:	2.4 kg
Warranty:	2 years



This appliance comply with the following EC directives:
– (2006/95/EC)
– Low-Voltage Directive
– 89/336/EEC of 03.05.89
(including amendment directive 92/31/EEC) – EMC Directive

Data export software included



Ordering information:

Universal photometer *NANOCOLOR*® 500 D incl. software DVD, manual, dust cover, mains power supply, data cable, USB cable and calibration cuvette in stable transport bag

REF 919 500

Water analysis from A to Z:

For information on *NANOCOLOR*® round tube tests, standard tests and the *NANOCONTROL* system for analytical quality assurance, request the flyer "*NANOCOLOR*® Reagents for Photometric Water Analysis".

Your local distributor:

KATEN100053
Flyer NANO 500D en4/3/0/04.2009 PD
Printed in Germany

MACHEREY-NAGEL

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · D-52355 Düren
Germany and worldwide: Switzerland: France:
Tel.: +49 (0) 24 21 96 90 Tel.: +41 (0) 62 388 55 00 Tel.: +33 (0) 3 88 68 22 68
Fax: +49 (0) 24 21 96 91 99 Fax: +41 (0) 62 388 55 05 Fax: +33 (0) 3 88 51 76 88
e-mail: sales-de@mn-net.com e-mail: sales-ch@mn-net.com e-mail: sales-fr@mn-net.com



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