



Trace Analyzer for water

Powered by German Hardware

GreenMon Online-Analyser

The GreenMon is a fully automatic,
wet-chemical multichannel online analyser.

It detects trace concentrations in fluids.

The operating interface is especially user-friendly.

Features:

- New photometer technology with high stability allows trustworthy measurements at low trace levels
- Many functions are included in the standard version, eg. Cyclical self-calibration and dilution processes
- RS-232/RS-485, LAN, CAN-bus
- Intelligent event handling via SMS, Fax or E-Mail
- Communication via TCP/IP over LAN, (optional W-LAN, GSM, GPRS and UMTS)
- Comprehensive software products are offered for archiving (SQL database), programming, visualization and real-time representation
- Administration of operation and analysis data in a MYSQL databank with data interface for integration, interrogation and further analysis of the data
- Use of wet chemical methods (Ionometry, Colorimetry, ...)
- Fully automatic operation with self-monitoring
- Compact user-friendly construction with minimal maintenance expenditure
- Actuation and control (PID) of metering pumps, metering units, valves, analog and digital, PLC functionality
- Implementation of PCS functions e.g. connection of external sensors and control via external actuators and calculation of complex parameters
- SCADA option with Remote Display and Operation from a PC via cable, Intranet, Internet, GPRS or UMTS
- Easy maintenance due clear and easy setup and easy reachable parts.
- Color TFT touch Display with good readability

GreenWorks Co., Ltd.
11F, No.1-23, Kuojian Rd.
80672 Kaohsiung City
Taiwan, R.O.C.

Asia's Competence Center

Phone: +886 7 841 3105
Fax: +886 7 811 8391
E-mail: greenworks33@gmail.com
Web: www.green-works.com.tw





GreenMon Ammonia

GreenMon Colorimeter Ammonia

Full automatic online analyzer for measuring medium concentrations in fluids according to wet chemical methods

The Colorimeter Ammonia version of the GreenMon system comprises the following equipment:

Analyzer unit, control and measurement electronics in a metal cabinet

Number of probe channels: 1 (optional up to 10 Channels on request)

Procedure : Ammonia (following EPA Taiwan, NIEA W437.52C method)

Range: 0 - 200 ppb to 0 - 500 ppm (higher than 30 ppm requires Dilution water)

In this procedure at a pH of 12-13 NH₃ reacts with hypochlorite ions and salicylate ions in the presence of sodium nitroprusside (Fe(III)) as catalyst to form a blue colored indophenol derivative. The maximum absorbance is at 650 nm. The method is linear up to a concentration of 20 mg/L with dilution to 500 ppm/l.

Typical performance data using aqueous standards:

Test conditions: range 0 – 4,0 mg/L, Colorimeter with 10 mm flow cell

Minimal measuring time (at 25°C)

approx. 13 min

Interferences

Primary amines, high conc. of urea

Measurement accuracy

± 3 – 5 %

System description GreenMon:

- Optimal dilution rate programmable
- Integrated PC with Linux-based operating system
- Graphical user interface with interactive touch screen operation
- Full network capability via direct LAN connection
- All standard communications interfaces are supported CAN-Bus, LAN, Modem and RS232 or RS485
- Protocols Modbus TCP and Modbus serial, other on request
- (Profibus DP optional)
- Connection of additional sensors (e.g. pH, conductivity, O₂, Turbidity, ISA spectrometer or other) is optional via the CAN-Bus.

Modem: The following modem types are optional available: UMTS, ISDN or Analog modem.

Technical Details:

Power 110/220 VAC or 24V DC

Protection classification: IP 54 (optional IP65)

Dimensions (HxWxD): Analyzer cabinet: 800 x 600 x 400 mm

Reagent cabinet: 650 x 600 x 400 mm

Total: 1450 x 600 x 400 mm

Cabinet material: SS316, optional Aluminum or carbon steel (powder coated)

Sample pressure: 0 bar (max 0.05 bar overpressure)

Sample temperature: 10 ... 35°C

Sample flow rate: 2... 10 l/h, no suspended solids

Environmental temperature: 15 ... 35°C

Operating system: Embedded Linux

Power consumption (average): 45W

Measurement, control inputs and digital outputs, Interfaces:

1x Ethernet (incl. MOD Bus)

1x RS232 or RS485 (incl. MOD Bus)

1x CAN bus (for connecting further GreenMon system modules for sensors and actuators)

1x modem slot for UMTS, ISDN or analog modem (modem optional)

Actuators:

2x current output 4 - 20mA alternatively 0 - 10V

2x relays for alarm function

GreenWorks Co., Ltd.
11F, No.1-23, Kuojian Rd.
80672 Kaohsiung City
Taiwan, R.O.C.

Asia's Competence Center

Phone: +886 7 841 3105

Fax: +886 7 811 8391

E-mail: greenworks33@gmail.com

Web: www.green-works.com.tw

