

The
Green

Way

Works

Sensors for Water
Water Analyzers
Water Monitoring Stations
Process Optimizations





GreenMon Total Manganese(II)

Full automatic online analyzer for measuring medium concentrations in fluids according to wet chemical methods. The total Manganese and Manganese(II) version of the GreenMon® system comprises the following equipment:
Analyzer unit, control and measurement electronics in metal cabinet.

Procedure :

Manganese concentrations are measured with the Formaldoxime method following the International Standard ISO 6333 method. Manganese solutions form a red product after reaction with formaldoxime at an elevated pH. Following Beer's Law to get concentration of Manganese, for the two step reaction 3 reagents are added to a sample. The Interference of Iron is prevented by using a Masking Solution (EDTA).

The reagents of concentration of Formaldoxime (below 15%) and Formamide (below 10%)

Measurement range:

Minimal measuring time:

Interference:

Accuracy

**Range: 0-0.2ppm to 0-5ppm
approx.60min.**

**Nickel, Copper, Uranium, Mercury
Titanium may form turbidity
+/- 5% (Full Scale or better)**

Technical Details:

Power 110/220 VAC, 50/60Hz(Isolate)

Dimensions(HxWxD):1450x600x400mm or other

Display: Touchpanel, LCD color graphic display

(Easy to see state of program , alarm status and history data)

Cabinet material:SS304, SS316

Calibration function: Zero point, two point or Slope.(Can be adjust calibration time)

Clean function: Automatic or manual operation (can be adjust clean time)

Environmental temperature:15...35°C

Measurement, control inputs and digital outputs, Interfaces:

2x4-20mA output

1xRS232 or RS485(incl. MOD Bus)

1xCAN bus

1xEthernet(incl. MOD Bus), download data via USB

1 x TCP/IP

4 x Relay (connect for timer , pump , buzzer or more)



Online-Analyzer

The SMART GreenMon® is the result of 30 years of experience in Inline and Online analysis, combined with state of the art smart technology and with hardware, engineering, chemical knowhow from Germany

No matter if it is a measurement in the low ppb range (like 0,2 ppb SiO₂ or 10 ppb Cu²⁺) or measurements in ppm range (like 2 ppm Boron or 2,000 ppm NH₄⁺) GreenMon® Analyzers have proven to measure with accuracy and reliability, independent, with minimum maintenance requirements and operation cost.

Besides of standard data transmission via analog signals, GreenMon® is equipped to send digital data, alarms or status info via SMS, email, internet and other industrial communication standards without additional outside hardware.

Remote control via a SCADA system is possible via Intranet or Internet (LAN cable connection).

Finding custom analytical solutions for special requirements for the chemical matrix of the customer sample is one key for our success.

Operation of the Analyzer is intuitive via the interactive color touch screen.

Multiple, repeated orders from some of the biggest companies in Semiconductor business confirm we meet the expectation of demanding customers.

GreenMon® Analyzers which are installed in River-water monitoring and industrial Waste-water are connected directly to environmental authorities to report measuring data and/or limit violations.

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
- Isolated signal output and USB connection
- Intelligent event handling via SMS, Fax or E-Mail
- Communication via TCP/IP over LAN, (optional W-LAN, GSM, GPRS)
- 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, Titrimetry)
- Connection for a spectrometer
- Fully automatic operation with self-monitoring and auto-clean function
- Compact user-friendly construction with minimal maintenance expenditure
- Actuation and control (PID) of metering pumps, metering units, valves analog and digital, PLC functionality
- Connection of external sensors and calculation of complex parameters
- Following CE and UL of safety electricity
- Easy maintenance due clear and easy setup and easy reachable parts.
- Up to 100 Sensors(pH, Turbidity, Flow, Level, Temperature...) and Actuators (Pumps, Valves, Heaters, Motors...) can be connected and controlled.

Some of the many possible parameters to measure:

Copper, Boron Sodium, Silica, Total Nitrogen, Total Phosphate, Ammonia, Hydrazine, Phenol, Nitrate, Nitrite, Cyanide, Fluoride, COD, TOC, BOD via UV/Vis spectrometer, Chromium, Iron, Manganese, and many more just ask us.....

