

# BlueBox

The intelligent connection



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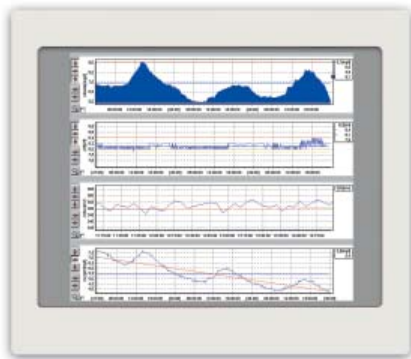
## Measurement and control in a single system

From Bran+Luebbe: complete solutions for environmental monitoring and water treatment plant control.

BlueBox - the intelligent connection between sensors and actuators

Bran+Luebbe has fifty years' experience in on-line monitoring, and now supplies an even wider range of analyzers for power stations, drinking water treatment plants and waste water processing.

In co-operation with GO Systemelektronik we now offer the innovative BlueBox, a worthy addition to our exceptionally efficient and reliable Monitors.



A system that breaks new boundaries

The BlueBox is not just a very powerful system; it sets a new standard. One BlueBox can control 100 sensors and actuators. Units from almost any manufacturer can be connected. The BlueBox's plug-and-play capability makes it compatible with all current sensors, for physical, chemical and biological parameters.

Furthermore, the BlueBox can communicate with sensors over a distance of up to 1,000 meters. It is no longer necessary to leave the control room to check results.

BlueBox keeps you in the picture, wherever and whenever...

A further BlueBox advantage is automatic remote data transfer. This is possible via radio, email, SMS or the internet, and extends your control capability to just about anywhere on earth.

The system also controls active components. This enables complete measurement and control loop systems to be automated.



Many jobs - one solution: BlueBox!

The flexibility of BlueBox lends itself to many different areas of application, including:

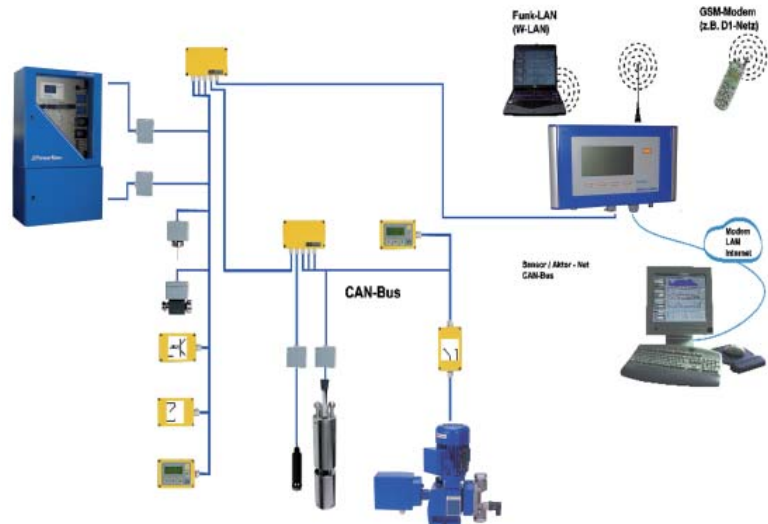
- Monitoring ground water and leachate around rubbish tips
- Water course protection
- Process water control
- Food production
- Drinking water monitoring
- Waste water control
- Hydrological and climatic measurement



# The top team - BlueBox and the UV/vis spectrometer ISIS II

ISIS II represents the state of the art in sensor technology and is a perfect partner to the BlueBox.

The submersible probe can measure several parameters simultaneously, and is ideal for water supply and distribution, industrial processes and the analysis of waste water and ultra pure water.



## The system has many advantages:

- Qualitative spectrum evaluation from 200 - 385 nm or 190 - 720 nm
- Continuous direct measurement in a process stream, pipe or canal
- Almost maintenance free
- Ultra compact design allows parallel data acquisition
- Simple installation
- Extremely cost effective
- Very user friendly



Sensors from Bran+Luebbe and other manufacturers can be connected to one BlueBox to create a customized analysis system with up to 100 parameters which meets your precise requirements - at distances of up to 1000 m.

#### Conductivity sensor for waste water

Range: 0 - 80 mS/cm  
Accuracy: 0.03 mS/cm

#### Conductivity sensor for ultra-pure water

Range: 0 - 2000  $\mu$ S/cm  
Accuracy: 0.1  $\mu$ S/cm

#### Turbidity sensor

Range: 2 - 1000 FNU  
Accuracy: 1% of range

#### Temperature sensor

Range: -4 to 30 °C  
Accuracy: 0.03 K

#### pH sensor

Range: pH 2 - 12  
Accuracy: 0.1

#### Oxygen sensor

Range: 0 - 20 mg/l  
Accuracy:  $\pm$  0.5 mg/l

#### Redox sensor

Range: +2000 to -2000 mV  
Accuracy:  $\pm$  5 mV

Sensors can be adapted to customer's range and accuracy requirements.

#### UV/VIS spectrometer

ISIS is suitable for many different measurements in almost all sample types.

Analysis parameters include:

- Nitrate
- Solids
- Organic compounds
- DOC
- COD
- BOD
- Individual substances such as
  - Benzene
  - Xylene
  - Toluene
  - BTX
  - Naphthalene
  - Nitrobenzene
  - Phenol
  - etc.

#### On-line Monitors

On-line Monitors are ideal for measurement and control in many process, with liquid and gaseous samples.

These microprocessor controlled stand-alone systems are ideal for waste water, drinking water, river and ultra-pure water.

They can be used as part of a complete process control system.

#### Their advantages are:

- Fully automatic operation
- Self-checking
- Low reagent consumption and operating costs
- Precise measurement
- Long-term stability, with automatic calibration.

#### The DiaMon Resources

The DiaMon monitors analyze several parameters with a single instrument, with fully automatic on-line operation.

Spectroscopic and chemical measurements can be combined in one analyzer.

