

Technical Data

Measurement and Sample Preparation

Type of measurement :	COD measurement by electrochemical oxidation
Measurement Range :	Ranging from 1 - 100 to max. 1 - 100.000 mg/l COD
Accuracy :	5 %
Repeatability :	5 %
Response Time :	30 sec
Sample preparation :	Maintenance-free particle separator "Flowsampler"

Operation and Data Output

Graphic-LCD-screen, high resolution, back-lit
Autostart-Function
Self-explaining software including maintenance checklists and support
Industry-standard data interface
Data storage on 3.5" floppy disk

Connections

Waste water, Drain :	Tube 30 mm ID or threaded 32 mm OD or as specified
Electrical Power :	230 / 100 V~, 50 / 60 Hz, 50 VA
Analog Output :	0/4 - 20 mA
Serial interface for data transfer and remote control	
Malfunction Alarm, Life-Zero	
Connection for printer	

Protection Class, Dimensions and Weight

Elox100 / Elox100A:	Steel cabinet IP 55 (NEMA 13)
Elox100 plus / plus II:	Stainless steel cab. IP 65 (NEMA 4x)
Dimensions :	600 x 720 x 420 mm (W x H x D) (23.6 x 23.6 x 13.7 inches WxHxD)
Weight :	45 kg

The information and the illustrations in this brochure on appearance, service, measure, weight, consumption, maintenance times and so forth, are not binding and only an approximate description. It does not assure guaranteed qualities. This product description corresponds to the state of printing. Deviations in design, tint, as well as changes of the scope of delivery remain reserved.

If you require more information about our products (e.g. for online-TOC, TN_x, COD, BOD or toxicity measurement), please call us.

...There's so much more!



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Measurement of COD
in two minutes!

Elox Series

- Elox100
- Elox100 A
- Elox100 plus
- Elox100 plus II

Continuous Short-Time
COD Measuring Systems

- For waste water treatment and process control
- Fast, minimal maintenance

- **The economical solution to sensitive and fast COD determination**

By using "State of the Art" manufacturing materials and techniques the **Elox 100** offers performance previously only available from the most expensive on-line analysers.

Using the same LAR measuring principle, the **Elox 100**, designed and built on the worldwide success of the EloxMonitor, offers an economical alternative for on-line Cod measurement.

For this, the Elox technique, a worldwide patented electrochemical method has been developed by LAR, which, by the action of an electrical current on an electrode, produces OH-radicals as the oxidizing agent.

OH-Radicals have a higher oxidation potential than common oxidizing agents (ozone, hydrogen peroxide), and therefore, they will oxidize difficult substances in water FAST!

- **Instant "Spike" detection**

The great advantage of the system is that within 30 seconds of delivering a sample the measured COD value is available.

The sensitive and fast measurement guarantees the successful operation of the **Elox 100** as a useful measuring instrument in municipal and industrial process control.

- **Easy to operate and reliable**

Every available software function is screen help supported, in addition to the operation manual which gives information in relation to routine operation and servicing. Data can easily be transferred to disk or via serial or parallel interface to a measuring station for further processing or remote control.

The **Elox100** resumes normal operation after power loss and stores all previous data in memory.

- **For industrial and municipal waste water treatment plants (WWTP)**

The **Elox 100** is suitable for almost every COD measurement in sewage treatment and industrial applications.

The ranging allows the determination of COD values between 1 and 100 000 mg/l. This extremely wide measuring range fully cover the needs for monitoring and process control.

Moreover, an enormous number of users from very different industries trust in the **Elox 100**, world-

- **Maintenance- and filtration-free sample preparation**

The patented sample preparation system "**Flow Sampler**" works filtration-free as the sample is taken in the centre of the sample stream against the direction of the main flow.

Thereby, all large particles are reliably removed. Smaller solid matter particles will however be sampled, so that a representative sample reaches the Analyzer.

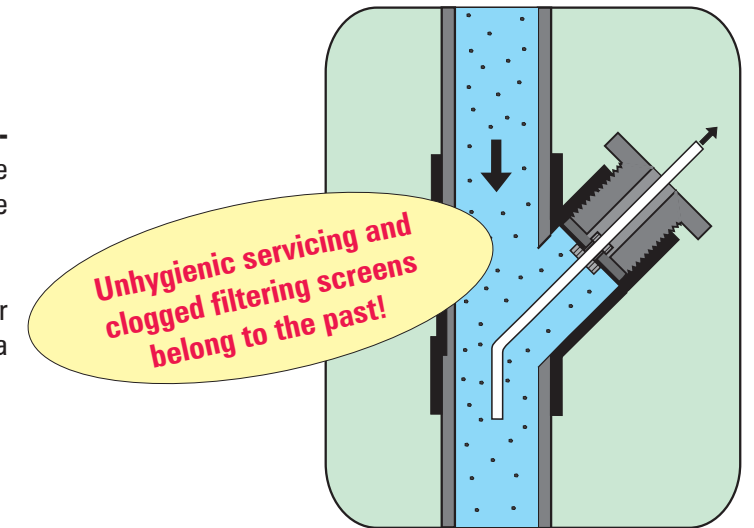


Figure 2 :
The patented clog-free sample preparation system "FlowSampler"

FlowSampler masters even the most difficult tasks; for example, sampling at sewage works influents before the coarse screen!

- **Accurate COD measurement with good correlation to the standard method**

The electrochemical measuring principle delivers directly an electrical measuring signal. This gives good correlation with the standard dichromate method.

The graphic presents the measurements at the influent of a petrochemical WWTP.

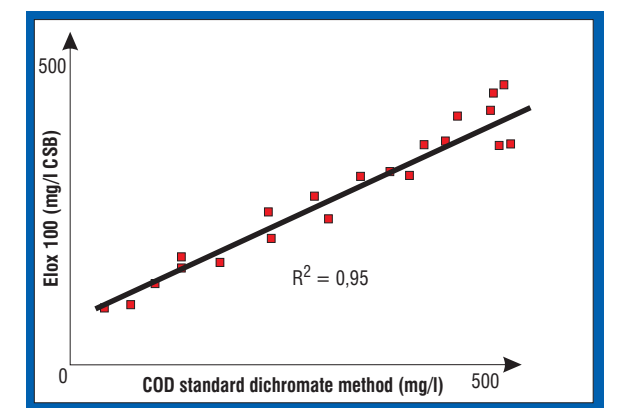
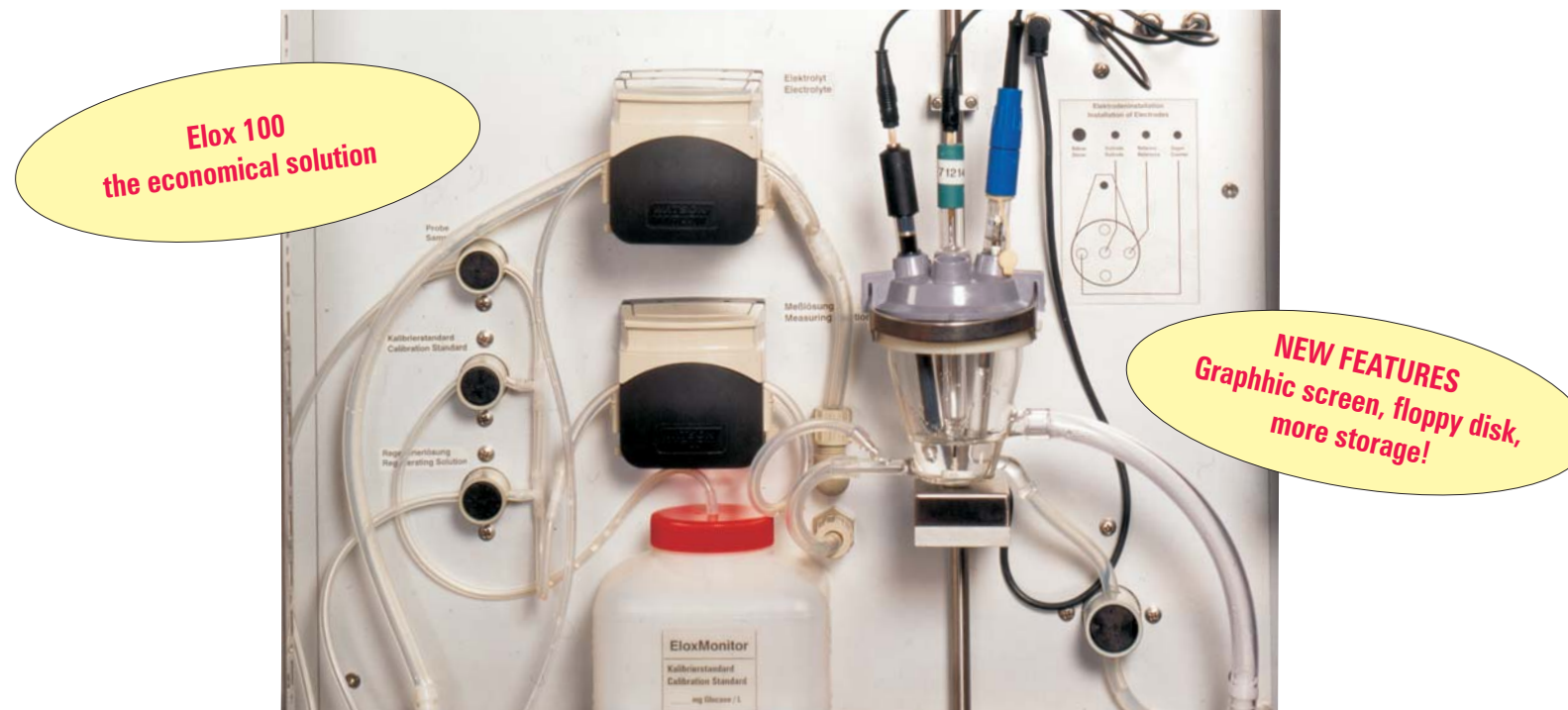


Figure 3:
Good correlation - Elox100 with the standard dichromate method



- **No hazardous reagents**
- **No dangerous user exposure**

The method requires no caustic or other endangering substances. No cleaning solutions or hazardous reagents are required to be used or disposed of.

The result is the highest operational safety and outstanding uncomplicated operation.

- **Actual oxidation in seconds**

The crucial advantage of the **Elox 100** is the oxidation of all water components in short time. Different from photometric measurement systems an actual oxidation happens. A falsification of values due to coloration or turbidity (e. g. in chemical industry or paint production) cannot occur.