



Lab- and Field-Polarograph TEA 4000

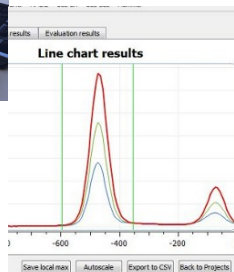
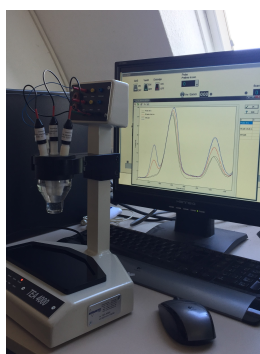


The **TEA 4000** is a compact Microprocessor Analyzer integrated a Personal Computer / Notebook with Intel Core i5 Processor, 16 GB RAM, 512 GB SSD, Windows 11 (64-bit), 13-inch Screen, USB 3.0 Port, Ethernet Port RJ45 and Software TEAsoft for Measuring and Evaluation for Determining of Heavy Metals, Organic Compounds and others in Water in the Range of Trace.

The system may be used and in the field with a special Field Kit.

Possible Operational Areas

- Quality Assurance in
 - Metal, Electronic or Chemical Industry
 - Food Production
- Environmental Analysis: Investigation of Waters and Soil
- Waste and Process Water Monitoring
- Ultra Trace Element Analysis: Purity Analysis in Galvanic, Metallurgy, etc.
- Tribodiagnosics in the Engine Industry
- Many Further Applications more...



Product Features

- Compact, Designed Housing for Significant Reduction in Risk of Mercury Spills
- 220 V \pm 10 %, 50/60 Hz
- Low investment and operating costs
- Can be used without inert gases
- Very low detection limits in partial areas
- Easy sample preparation and short analysis time
- Simultaneous detection of 5 elements possible
- Data Output to PC/Notebook via USB
- Analysis of Potential Changes associated with Ions/Materials
- Software Records Potential changes over Time

Measuring Methods

- DC Direct Current
- DCS Direct Current Stripping
- DP Differential Pulse
- DPS Differential Pulse Stripping
- CV Cyclic Voltammetry
- CVS Cyclic Voltammetry Stripping

Applications - Examples

- Cations (Heavy Metals)
 - Zinc, Cadmium, Lead and Copper
 - Manganese and Iron
 - Arsenic
 - Chromium
 - Silver and many more
- Anions
 - Sulfide, Sulfite Nitrooxydes and Thiosulfate
 - Chloride and Bromide
- Organic Compounds
 - Vitamin C in Fruit Juice
 - Vitamin B2 (Riboflavin)
 - Vitamin B9

!n Liquid and Solid Samples
(after Digestion)

Installation at site is performed by NORDANTEC GmbH, if required.

Technical Specifications:

- Base Plate: stove enameled, Measuring Arm: POM
- Magnetic Stirrer: 50 - 3.500 1/min by Stability +/- 2 %
- Measurement / Electrolysis Cell Glass and Plastic, PTFE, with Chemical Resistance
- Potentiostat/Galvanostat
- Voltage Range / Scan Rate: -5 V - +5 V / 1 mV/s - 1 V/s
- Output Voltage: +/- 12 V
- Current Range / Resolution: 1 nA - 200 mA / 0,1 nA
- Voltage Resolution: 1 mV
- Sweep Rate DC, CV: 0,1 mV/s - 3 V/s with Voltage Step 10 mV - 1.000 mV
- Sweep Voltage / Polarization Voltage: +/- 5,0 V +/- 0,1 %

- Humidity: 20 - 85 %
- Software included, PC or Notebook included

Available Electrodes:

- Working Electrode HMDE (Hanging Mercury Drop Electrode) / DME, Droplet Range: 0,1 - 1,0 Hz
- Working Electrode Glass Carbon
- Working Electrode Gold (for As, Hg)
- Auxiliary Electrode Platinum
- Reference Electrode Ag/AgCl
- Cleaning/Polishing Kit for Electrodes

Calibration Standards for 7 Elements/Ions by 125 mL Volume, Mercury by 100 mL and Electrolytes and Buffers by 500 mL are included normally.



Startseite **Produkte** Anwendungen Entwicklungen Service Über uns

Detection Ranges:

Fe:	0,1 µg/dm ³	-	1.000 µg/dm ³
Cl:	1,0 µg/dm ³	-	1.000 µg/dm ³
I:	1,0 µg/dm ³	-	1.000 µg/dm ³
Cd:	0,01 µg/dm ³	-	2.000 µg/dm ³
Mn:	0,1 µg/dm ³	-	1.000 µg/dm ³
Cu:	0,01 µg/dm ³	-	3.000 µg/dm ³
As:	0,1 µg/dm ³	-	1.000 µg/dm ³
Ni:	0,01 µg/dm ³	-	2.000 µg/dm ³
Hg:	0,01 µg/dm ³	-	1.000 µg/dm ³
Pb:	0,01 µg/dm ³	-	2.000 µg/dm ³
Cr:	0,01 µg/dm ³	-	2.000 µg/dm ³
Zn:	0,01 µg/dm ³	-	3.000 µg/dm ³
Co:	0,01 µg/dm ³	-	2.000 µg/dm ³
Se:	1,0 µg/dm ³	-	1.000 µg/dm ³
Bi:	0,1 µg/dm ³	-	500 µg/dm ³
Tl:	2,0 µg/dm ³	-	500 µg/dm ³
NO ₂ ⁻ :	10,0 µg/dm ³	-	3.000 µg/dm ³
NO ₃ ⁻ :	50,0 µg/dm ³	-	5.000 µg/dm ³
PO ₄ ³⁻ :	10,0 µg/dm ³	-	4.000 µg/dm ³
SO ₄ ²⁻ :	20,0 µg/dm ³	-	2.000 µg/dm ³
S ²⁻ :	5,0 µg/dm ³	-	1.000 µg/dm ³



All Standards and Chemicals have a Durability Period of 2 Years at least.