

ADVANCE ANALYTIK PRODUCT CATALOG

Analytical Instruments

Empowering Innovation through Advanced Analytics



It's Made in Hungary – it's made smart & made with heart.



VIZ Series Controllers



VIZ- Classic Series



VIZ- Eco Series



VIZ- Pro Series

Feature	VIZ Classic Series (e.g., pH/ORP, Conductivity/TDS)
Channel Type	Single-Channel
Parameters	pH/ORP or Conductivity/TDS
Sensor Connection	Analog Type (e.g., pH, ORP, Conductivity, TDS)
Display	16x2 Character display
Communication	4-20 mA with HART protocol
Power Supply	12-32V DC, Loop Powered
Memory	NA
Enclosure/IP Rating	IP65 for Wall mount or Front facia IP65 for Panel Mount
Relay Outputs	NA

Feature	VIZ Eco Series (Solo, Duo, Multi)
Channel Type	Single, Dual, or Multi-Channel (up to 7 sensors for Multi)
Parameters	Wide range including pH, DO, ORP, conductivity, turbidity, SS, COD, BOD, TOC, TDS, Nitrate, Nitrite, Color, Sludge Level, ISE, Residual Chlorine, and others
Sensor Connection	Select any one/two/seven sensor(s) (Digital/Analog/ISE)
Display	128x64 dot matrix LCD with LED backlight (Solo, Duo). 7-inch color touch screen (Multi)
Communication	Modbus RS485, 4-20mA (standard). MODBUS RS485, 4G, NB (optional) (Multi)
Power Supply	AC: 80-265 VAC (50/60Hz) or DC: 9-36VDC
Memory	16 GB Memory Card Slot (stores 1 year of data, optional for Solo/Duo)
Enclosure/IP Rating	IP65/NEMA4X
Relay Outputs	1 x SPDT (Solo), 2 x SPDT (Duo), 4 x SPDT (Multi)

Feature	VIZ Pro Series (Single, Dual, Multi)
Channel Type	Single, Dual, or Multi-Channel (up to 12 sensors for Multi)
Parameters	Wide range including pH, DO, ORP, conductivity, turbidity, SS, COD, BOD, TOC, TSS, Color, UV 254, and others
Sensor Connection	Select any one/two/twelve sensor(s) (Digital/Analog/4-20mA/ISE)
Display	5.0" Inch Color TFT LCD 800 x 480 pixels with Industrial projected capacitive touch screen
Communication	RS 232 and RS 485
Power Supply	90-265 VAC 47/63 Hz or 24V DC 0.5 A
Memory	16 GB Memory Card (stores 1 year of data)
Enclosure/IP Rating	IP66, IP68 (24 Hours-2M Depth)
Relay Outputs	2 x SPDT (Single/Dual), 4 x SPDT (Multi)

pH Analog and Digital Sensor



pH Range: 0-14 pH

ORP Analog and Digital Sensor



ORP Range: -2000 mV to +2000 mV

EC Analog and Digital Sensor



Range: 0.0-200.0 us/cm ;
0-2000us/cm ; 0.01-20.00ms/cm

TDS Analog and Digital Sensor



Range: 0-5000 ppm Range:0-10000 ppm

Chlorine Sensor



Range: 0-2ppm; 0-5 ppm; 0-20 ppm

DO Sensor



Range: 0-20 ppm

Turbidity Sensor



Low Range For Drinking Water

Range: 0-100 NTU

Turbidity Analyser



Compact For Drinking Water

Range: 0-100 NTU

Turbidity Sensor



Mid and High Range For Wastewater

Range: 0-100 NTU ;0-4000 NTU

TSS Sensor



Range: 0-20,000; 0-45,000;
0-120,000 ppm

ISE Sensors



NH₄-N - 0.1-3000 mg/L
Nitrate - 0.5-3000 mg/L
Chloride - 3-3500 mg/L
Fluoride - 0.5-10000 mg/L
Potassium - 0.5-5000 mg/L

OIW Water



Range: 0-100 ppm

UV Sensor Low Range



*Range:
COD - 0-1500 ppm
BOD - 0-1000 ppm
TSS - 0-1000 ppm
TOC - 0-1000 ppm

UV Sensor High Range



*Range:
COD - 0-3000 ppm
BOD - 0-2000 ppm
TSS - 0-2000 ppm
TOC - 0-2000 ppm

Total Phosphate (TP)



Range: 0-2 ppm

Fecal Coliform Sensor



Range: 0-100 MPN/100mL

Hardness Analyzer



Range: 0 - 1,000 ppm

Ozone Sensor



Range: 0-20 ppm



OPTICS-1000 Multi Parameter



Overview

Designed with state-of-the-art optical technology, the Optic 1000 operates on UV-Vis spectroscopy with a wavelength range of 200–750 nm and employs a double-beam system, ensuring exceptional stability, high precision, and low operating costs. Its modular design offers versatility across various applications, including wastewater treatment plants, river monitoring stations, and industrial process monitoring. The user-friendly interface allows operators to easily select any 7 parameters of choice, making water quality analysis efficient and highly customizable.

Features:

- Multi-parameter monitoring
- Advanced Optics
- 7" full-color touchscreen Display & Control
- Supports 4-20 mA, RS485 Modbus
- Durability: Built-in automatic cleaning system
- Modular Design: Expandable with external probes
- Flexible Mounting - Wall or panel mounting; IP65 enclosure.
- User Access Levels - Three-tier management for secure operation.
- Auto Diagnostics - Alerts for sensor errors, calibration, and maintenance needs.

Key Applications

- Sewage Treatment Plants (STPs)
- Effluent Treatment Plants (ETPs)
- Common Effluent Treatment Plants (CETPs)
- Industrial Wastewater Monitoring
- Environmental Compliance Monitoring

Advantages

- **Reagent-less UV Technology** – Low OPEX
- **Multi-Parameter Integration** – One platform for all
- **Modular Design** – Easy expansion and sensor swap
- **Cloud Ready** – Seamless data upload to local regulatory body.
- **Low Maintenance** – Auto cleaning and diagnostics
- **High Reliability** – IP68 sensors & IP65 controller



Measurable Parameters and Ranges	
• COD (UV Vis Method)	0 - 3000 mg/L
• BOD (UV Vis Method)	0 - 2000 mg/L
• TOC (UV Vis Method)	0 - 2000 mg/L
• TSS (UV Vis Method)	0 - 2000 mg/L
• pH	0-14 pH
• Temperature	0 - 80°C

Additional Parameters	
Oil in Water	0 - 50 ppm
Ammonia (NH ₄ -N)	0.1 - 1000 mg/L
Nitrate (NO ₃ -N)	0 - 1000 mg/L
Total Nitrogen	0 - 1000 mg/L
Total Phosphate	0-2 ppm
Fecal Coliform	0-100 MPN/100ml

Technical Specifications:

Display	7-inch touch screen, simple operation interface
Power supply	AC power supply: 85-500 VAC or DC power supply: 9-36 VDC
Output	4-20mA analog output (optional)
Relay	A relay, programmable response parameters and response values
Dimensions (HxWxD)	450x350x200 mm
Communication protocol	MODBUS RS485 communication function is equipped as standard, which can transmit the measured value in real time.
Fittings	Inlet: straight through to hard pipe Ø 8 Outlet: straight through to hard pipe Ø 12
Storage temperature	0-45°C
Operating temperature	0-50°C
Enclosure rating	IP 65
Dimensions	350*270*550 mm (L*W*H)



Viz Eco Series



System Overview

The Viz Eco Series offers advanced, versatile transmitters designed for simultaneous monitoring of multiple water quality parameters. Supporting up to 2 sensors (Eco Duo) or up to 7 sensors (Eco Multi), these transmitters are ideal for a wide range of applications—from wastewater treatment and waterworks to industrial and environmental monitoring. With multiple data transmission options, intuitive user interfaces, and reliable performance, the Viz Eco Series ensures efficient integration and reduced operational costs.

Viz Eco Series – Key Features

- Flexible Sensor Integration: Supports up to 2 sensors (Duo) or up to 7 sensors (Multi), compatible with both analog and digital types.
- Plug-and-Play Sensor Setup: Quick and convenient electrode installation and replacement.
- User-Friendly Interface: Intuitive operation via LCD screen (Duo) or 7-inch color touchscreen (Multi) with easy navigation and rich content.
- Versatile Data Output: Multiple transmission options including 4–20mA, MODBUS RS485, and optional wireless connectivity.
- Real-Time & Historical Data: Real-time parameter display, data storage, and historical data access for dynamic monitoring.
- Automatic Alerts: Built-in error detection and alarm notifications with signal upload capabilities.
- Access Control: Three-level user access management (Multi) for secure operation.
- Flexible Installation: Supports wall, panel, pipe, or pole mounting (Duo); wall or panel mounting (Multi).
- Low Maintenance: Designed for ease of use, reduced errors, and minimal maintenance needs.

Parameters

Measurable Parameters and Ranges	
• COD (UV Vis)	0 - 1500 mg/L
• BOD (UV Vis)	0 - 1000 mg/L
• TOC (UV Vis)	0 - 1000 mg/L
• TSS (UV Vis)	0 - 1000 mg/L
• pH	0- 14 pH
• Temperature	0 - 80°C

Additional Parameters	
Oil in Water	0 - 50 ppm
Ammonia (NH ₄ -N)	0.1 - 1000 mg/L
Nitrate (NO ₃ -N)	0 - 1000 mg/L
Total Nitrogen	0 - 1000 mg/L
Total Phosphate	0-2 ppm
Fecal Coliform	0-100 MPN/100ml

Specifications	Viz Eco Duo	Viz Eco Multi
Power Supply	AC Power supply: 80 – 265 VAC (50/60Hz); DC Power Supply: 9-36VDC	AC: 85 – 265 VAC; DC: 9 – 36 VDC
Communication Interface	Modbus RS485, 4–20mA	MODBUS RS485 (standard), 4G UDP/TCP, NB: UDP (optional)
Inputs / Supported Sensors	Select any two Sensors (Digital/Analog/ISE)- pH, ORP, Chlorine Sensor, DO, Turbidity, UV-VIS, TSS, Ion, etc.	Up to 7 sensors Supports same sensor types (not all explicitly listed)
Outputs	2 × 4–20mA active output (load of 500 ohm max)	8 × 4–20mA active output (load of 500 ohm max)
Relays	2 × electromechanical SPDT (Form C) contact, programmable individually	4 × electromechanical SPDT (Form C) contact, programmable individually
Memory	16 GB Memory card slot (Stores 1 year measurement data)	32 GB Memory card slot (Stores 2 year measurement data)
Display	128x64 dot matrix LCD with LED backlight	7-inch color touch screen
Certifications /Protection	IP65/NEMA4X	IP65 / NEMA4X
Enclosure Material	Glass-filled nylon synthetic polyamide thermoplastic (topcover); Aluminum powder dusting (lower shell)	Glass-filled nylon synthetic polyamide thermoplastic (top cover); Aluminum powder dusting (lower shell)
Dimensions (L×W×H)	145 x 125 x 162 mm	260 mm x 200 mm x 123.5 mm
Weight	1.5 kg	2.0 kg
Operating Temperature	-15 to 60°C	-15 to 60°C
Data Transmission	4–20mA, MODBUS RS485.	4–20mA, MODBUS Rs485, Wireless (optional)

UV Sensor Technical Specifications:

Measuring Range	
Parameter	COD: 0~1500 mg/l BOD : 0~1000 mg/L TOC : 0~1000 mg/L TSS : 0~1000 mg/L
Accuracy	COD/BOD/TOC/TSS : ±5%
Repeatability	5% (using KHP calibration)
Resolution	COD/BOD/TOC/TSS: 0.01 mg/l
Pressure Range	≤0.1Mpa
Sensor material	Body: SUS316L ; Cable: PUR
Measuring temp.	0-45°C
Dimensions	34mm * Length 209mm
Weight	0.8KG
Protective rate	IP68/NEMA6P
Cable length	Standard:10m,the maximum may be extended to 100m

pH Sensor Technical Specifications

Main material	Black Polypropylene, Ag/Agcl Reference Gel
Measurement range	0-14 pH
Temperature range	0-80°C (Non-freezing)
Pressure range	≤0.6 Mpa
Response time	≤10 seconds
Dimension	Dia 28.7mm * Length 195mm
Weight	0.2KG
Protective rate	IP68/NEMA6P
Cable length	Standard: 10 m, the maximum can be extended to 20M



Optics-1000 Series

Heavy Metal & Specialty Water

Overview

The Optics-1000 Series by Advance Analytik is a high-precision, modular optical analyzer suite designed for continuous monitoring of heavy metals and special chemical parameters in aqueous systems (e.g. process water, wastewater, industrial effluents, drinking water). It integrates robust spectrophotometry, ion-selective electrodes, and automated reagent / fluidics systems to deliver reliable, real-time measurement with minimal maintenance.



Key Measured Parameters

The Optics-1000 platform supports the following analytes:

Category / Technique	Parameters / Ions
Colorimetric / Photometric	Aluminum (Al), Arsenic (As), Boron (Low Range), Chromium VI (Cr), Cyanide (CN ⁻), Cyanuric Acid Copper (Low / High), Hydrazine (N ₂ H ₄), Nitrite (NO ₃ ⁻), Iron (Low / High), Manganese (Mn), Nickel (Ni), Phenol (Low / High), Orthophosphate (PO ₄ ³⁻), Silica (SiO ₂) - Low / High, Starch, Zinc (Zn).
Ion-Selective	Ammonium (NH ₄ ⁺) Potable Water, Ammonium (NH ₄ ⁺) - Raw Water, Nitrate (NO ₃ ⁻), Chloride (Cl ⁻), Chlorine (Cl ₂), Fluoride (F ⁻), Sodium (Na)
Titration	Alkalinity, Boron (High Range), Calcium Hardness, Carbonate, Caustic Soda (NaOH), Total Hardness

Note: Additional or specialized analytes can be added on request and custom configured, depending on reagent availability and system design.

Technical Features & System Capabilities

Measurement Technology:

High-precision colorimetric / spectrophotometric detection Ion-selective electrodes (ISE) and titrimetric techniques for ions such as (NH₄⁺), (Cl⁻), (F⁻), etc.

Reagent & Fluidics System:

Automated dosing system

Scheduled cleaning cycles

Overflow prevention, anti-overflow systems, level detection, fast-loop sampling to minimize dead volume

System Calibration & Corrections:

Manual or fully automatic calibration options

Temperature compensation, blank correction, LED current correction

Self-diagnostics and internal checks

Housing & Environmental Specs:

Operating temperature: 0 °C to 45 °C

Protection: IP66 enclosure (optionally mounted in robust frames)

Communications & Output:

Analog outputs: 4-20 mA

Relays (e.g. 4 configurable relays at 24 V) for alarms or control actions

Robustness & Autonomy:

Low reagent consumption to increase operational autonomy

Built-in redundancy and component protection

Modular design for easy replacement and maintenance

- Power: AC 100-240 V, 50 Hz
- Enclosure size / footprint adapted per configuration
- Digital communication: RS-485 with Modbus
- Internal diagnostic menus, remote monitoring, logging

Applications & Use Cases

- Online monitoring of industrial effluent heavy metal concentrations (plating, mining, chemical plants)
- Regulatory compliance and discharge monitoring
- Monitoring of drinking water / potable water sources
- Process control in water treatment plants
- Research / pilot plant water quality monitoring



GAZ-CEMS Series



Overview:

The **GAZ-CEMS** (Continuous Emission Monitoring System) is a fully integrated, high-precision system designed for continuous online monitoring of industrial emissions. Developed by **Advance Analytik KFT**, it ensures compliance with stringent environmental standards while delivering accurate, real-time gas and particulate data.

Measured Parameters:

SO₂ NO CO CO₂ CH₄ NH₃ H₂S O₃ and Particulate Matter (SPM).

Applications:

Ideal for emission monitoring in:

- Thermal & coal-fired power plants
- Waste incineration and cement industries
- Glass, lime & ceramic manufacturing
- Steel & metallurgical plants
- Desulfurization and De-NO_x processes

Key Features:

- Uses UV differential spectroscopy and NDIR - immune to dust and moisture interference.
- High-resolution spectrometer with ultra-low detection limits.
- Modular Configuration (light source, spectrometer, circuits, gas chamber, sensors) for easy maintenance.
- Selective and Accurate Detection: measure specific pollutant gases by their unique infrared & UV absorption characteristics.
- Fully automated temperature-controlled optical path for precision and reliability.
- Durable design featuring long-lasting components and minimal maintenance requirements

System Composition:

1. Gaseous Pollutant Monitoring Subsystem:

Uses UV-DOAS and NDIR for SO₂, NO_x and O₃ measurement. Integrated sampling pretreatment removes moisture and particulates.

2. Particulate Matter Monitoring Subsystem:

Employs laser light scattering (forward or backscatter) to measure dust concentration.

3. Flue Gas Parameter Subsystem:

Monitors flow, temperature, pressure, and humidity.

4. Data Acquisition & Processing Subsystem:

Collects, displays, stores, and transmits data to centralized environmental platforms.

Technical Highlights:

- Fast response and high stability
- Remote monitoring and control capability
- Automatic calibration with standard gases
- Resistant to harsh environments (temperature, humidity, dust)

Optional Configurations:

- Extractive type
- Additional sensors for CH₄, NH₃, H₂S
- Data transmission via Ethernet/4G/Modbus



Ambient Air Quality Monitoring System (AAQMS)

GAZ-AQMS Series

Overview:

The GAZ-AQMS Series from Advance Analyk KFT is a compact and modularly designed ambient air quality monitoring system for airborne pollutants using internationally defined reference methods that enables you to carry out air quality monitoring at hot spots or other sites with a high ecological relevance. Simple to install, economical to operate, and low maintenance.

Features:

- Real-time cloud data upload via wireless communication.
- Modular and customizable configurations.
- TUV-qualified sensors and advanced calibration options.
- Applicable for industrial, roadside, and environmental surveillance.



Applications of AAQMS

Urban Solutions: Monitor air quality in urban areas to protect public health and meet regulatory standards.

Regulatory Compliance: Provide accurate data to help municipalities and industries comply with air quality standards and avoid penalties.

Real-Time Data: Enable timely responses to air quality issues by providing immediate data on pollution levels.

Control Systems: Integrate with control systems to automatically adjust processes and mitigate air pollution.

Parameters

Gas Name	Symbol	Measuring Range
Carbon monoxide	CO	0–25 PPM
Ozone	O ₃	0–0.5 PPM
Nitrogen dioxide	NO ₂	0–0.2 PPM
Sulphur Dioxide	SO ₂	0–10 PPM
Nitric Oxide	NO	0–0.5 PPM
Volatile Organic Compound	VOC	0–20 PPM
Hydrogen Sulphide	H ₂ S	0–10 PPM
Carbon Dioxide	CO ₂	0–2000 PPM
Particulate Matter (PM1)	PM ₁	0–200 µg/m ³
Particulate Matter (PM2.5)	PM2.5	0–2000 µg/m ³
Particulate Matter (PM10)	PM10	0–5000 µg/m ³
Total Suspended Particulates (TSP)	TSP	0–5000 µg/m ³

Principals or Methods of Analysis

Principle / Method	Parameter(s) Measured
Chemiluminescence	Nitrogen Oxides NO/NO ₂ /NO _x
UV Photometry	Ozone O ₃
UV Fluorescence	Sulphur Dioxide SO ₂ and Hydrogen Sulphide (H ₂ S)
NDIR Gas Filter Correlation	Carbon Monoxide CO, Benzene/Toluene/Ethylbenzene/ Xylene (BTX)
Nephelometry	Particulate Matter (PM ₁ , PM2.5, PM10, and TSP)
Laser Light Scattering	Pm10, PM2.5- Simultaneous measurement



Field Instruments Series

Comprehensive Solutions for Pressure, Level, Flow & Temperature Measurement Overview

The **Advance Analytik Field Instruments** portfolio offers a robust, reliable, and precise range of transmitters and sensors designed for industrial process control and monitoring. With dedicated series for **Pressure (Nyom Series)**, **Level (Szint Series)**, **Flow (ANAM Series)**, and **Temperature (hőség Series)**, these instruments are engineered to provide accurate real-time data for automation, safety, and regulatory compliance. All models are built to international standards, ensuring long-term stability, wide operating ranges, and compatibility with industry protocols.

Key Series and Model Classification

Category	Series	Model Examples	Technology / Type
Pressure	Nyom Series	Nyom-GPM (Gauge Pressure), Nyom-DPM (Differential Pressure), Nyom-HPM (High Pressure), Nyom-VPM (Vacuum), Nyom-LM (Local Display)	Piezo-resistive / Capacitive Transmitters
Level	Szint Series	Szint-ULM (Ultrasonic), Szint-RLM (Radar), Szint-HLM (Hydrostatic), Szint-DLM (Displacer / Float), Szint-CLM (Capacitance)	Ultrasonic, Radar, Hydrostatic, Capacitance
Flow	ANAM Series	ANAM-UFM (Ultrasonic), ANAM-EFM (Electromagnetic), ANAM-VFM (Vortex), ANAM-TFM (Turbine), ANAM-MFM (Mass Flow)	Ultrasonic, Electromagnetic, Vortex, Turbine, Thermal Mass
Temperature	hőség Series		RTD, Thermocouple, IR, Thermistor

Technical Features

- **High Accuracy & Stability:** Advanced sensing elements and digital signal conditioning ensure minimal drift and long-term stability.
- **Wide Measurement Range:** Supports pressure up to several hundred bar, flow from micro-scale to pipeline level, and temperature up to 1200 °C.
- **Industrial-Grade Design:** Rugged stainless steel or reinforced polymer housings with IP65-IP68 protection.
- **Flexible Outputs:** 4-20 mA, Modbus, RS-485, HART, or analog voltage options for easy integration with PLCs / DCS.
- **Smart Diagnostics:** On-board temperature compensation, self-test routines, and sensor-health monitoring.
- **Ease of Maintenance:** Modular sensor heads, replaceable probes, and calibration-free operation in select models.
- **Environmental Compatibility:** Explosion-proof (Ex d / Ex ia) and intrinsically safe models available for hazardous zones.

Applications

- **Water & Wastewater Treatment:** Continuous pressure, level, and flow monitoring in pumping stations, tanks, and filtration systems.
- **Industrial Process Control:** Reliable measurement for chemical, petrochemical, and power plant operations.
- **Environmental Monitoring:** Flow and level sensors integrated with online analyzers for pollution and effluent control.
- **HVAC & Utility Systems:** Temperature and pressure control for industrial and commercial HVAC systems.
- **Food & Beverage / Pharma:** Hygienic-design sensors for CIP/SIP processes and clean-room environments.





Overview

We, Advance Analytik KFT, are a distinguished manufacturing company based in Budapest, Hungary. Our company's long-standing presence in this vibrant city reflects our unwavering commitment to excellence, innovation, and adaptability in a competitive industry.

At Advance Analytik, we specialize in precision and performance, offering a wide array of advanced analytical instruments. Our product range includes state-of-the-art analog and digital sensors, cutting-edge controllers, and modular analyzers designed for diverse applications. Each product is a testament to our meticulous attention to detail and dedication to exceeding industry standards.

The backbone of our success lies in our exceptional team of professionals. Comprised of skilled engineers, innovative designers, and dedicated support staff, our team works in synergy to deliver solutions that empower our clients.



Research & Development Facility
(Edeleny, Hungary)

OUR MISSION

To be the preferred partner for industries worldwide, offering entire and reliable analytical solutions that drive innovation and ensure quality

OUR VISION

To revolutionize analytical science by pioneering state-of-the-art instruments and services, empowering researchers and businesses to achieve new unprecedented accuracy

Why Choose Advance Analytik?

Cutting-edge Technology

We leverage the latest advancements in analytical instrumentation and software to provide our customers with state-of-the-art solutions that deliver accurate and precise results.

Customized Solutions

We understand that every industry and research field has unique requirements. That's why we offer customized solutions tailored to your specific needs.

Reliable Performance

We take pride in delivering instruments and solutions that consistently deliver reliable performance.

Exceptional Support and Service

Our dedicated team is committed to providing comprehensive support throughout your analytical journey.

Trusted Expertise

With years of experience in the analytical instrumentation industry, we have developed a deep understanding of our customers' needs and challenges.



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