

## Technical Data

<b>Technology</b>	μLFR* Technology, Batch, sequential for all MP versions
<b>Applications</b>	Hydrology/Water Resources/Coastal monitoring
<b>Measurements frequency</b>	Programmable
<b>Cycle time</b>	MP4 Nutrients, 40 minutes, for a complete cycle, other configurations from 40 to 60 minutes.
<b>Samples preheating</b>	Yes
<b>Max number of reagents</b>	8 reagents + QC check solution and Wash solution
<b>Reagent stability</b>	4-10 weeks, depending on the water temperature
<b>Deployment time</b>	Up to 2.5 months
<b>Body material</b>	PVC
<b>Max depth</b>	-10m
<b>Operating temperature</b>	4° - 40°C
<b>Wastes</b>	n. 1 x 5L bag for wastes containing reagents, free waste for washings with DI Water & Sample
<b>Flow cell type</b>	Quartz 4 measuring sides: 10mm x 2.5mm
<b>Detectors</b>	<ul style="list-style-type: none"> <li>- Standard Colorimetric methods: multi-beam fiber optic colorimeter with silicon detector</li> <li>- Fluorimetric methods: LED/filters: Ex./Em. at specific wavelength</li> <li>- Turbidimetric: scattering at 800nm</li> <li>- COD UV: LED 254nm corrected at 525nm</li> <li>- TN/NO3 UV: Xenon flash lamp, filters 220 and 270nm</li> </ul>
<b>Detector technology</b>	LED/LED UV/UV filters
<b>Reading methods</b>	Absorbance/Fluorimetry/UV/Nephelometry
<b>Reduction Module for NO3</b>	Yes by UV photoreduction
<b>WIZ Control Panel Software</b>	Compatible with Windows XP, 7.0 & 8.0, WIZ setup and operations, data download to PC,
<b>QC solution</b>	Concentrated for long term stability, diluted on line when required
<b>Off scale sample dilution and reanalyze</b>	Yes
<b>Automated sample spike</b>	Yes
<b>Calibration</b>	Automated after reagent replacement
<b>Power supply</b>	12VDC
<b>Power requirements</b>	3W in Stand By, 8W (average) during analysis, max 1.5A; MP4 standard 0.46Ah
<b>Dimensions</b>	Analytical unit: 140mm (diameter) x 535mm (height) Reagent canister (standard): 70mm (diameter) x 230mm (height)
<b>Connector</b>	Submergible male 6 poles for RS232 and 12VDC power
<b>Cable</b>	Submergible Standard length 10m female connector
<b>Data output</b>	RS232
<b>Filtration options:</b>	10/25/100/400uM with or w/o self cleaning, 0.25uM self purging microfilter
<b>Standard package:</b>	<ul style="list-style-type: none"> <li>- WIZ probe</li> <li>- Reagents canister standard (Enlarged version on request)</li> <li>- 12 VDC power supply for maintenance and setup</li> <li>- Reagent bag filling tool</li> <li>- 10 m submergible cable</li> <li>- Carrying case</li> <li>- Wiz control panel software license</li> <li>- Start-up kit</li> </ul>
<b>Options</b>	<ul style="list-style-type: none"> <li>- Customized cable length</li> <li>- Enlarged Reagent Canister</li> <li>- Zetalog</li> <li>- Zetaced setup and license</li> </ul>

\* Patented

Subject to change without notice

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# WIZ

## PORTABLE IN-SITU PROBE FOR WATER ANALYSIS



## WIZ CONTROL PANEL:

Control Panel (WCP) software package allows to setup any WIZ probe, using an RS-232 serial port; it can be used even remotely through a GSM modem.

Main options:

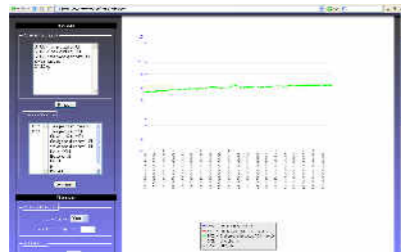
- edit/modify the operating parameters
- display OD in real time during measurements
- set up monitoring parameters
- download memory buffer with measured data
- modify the measuring sequence for any method.

## ZETALOG AND ZETACED

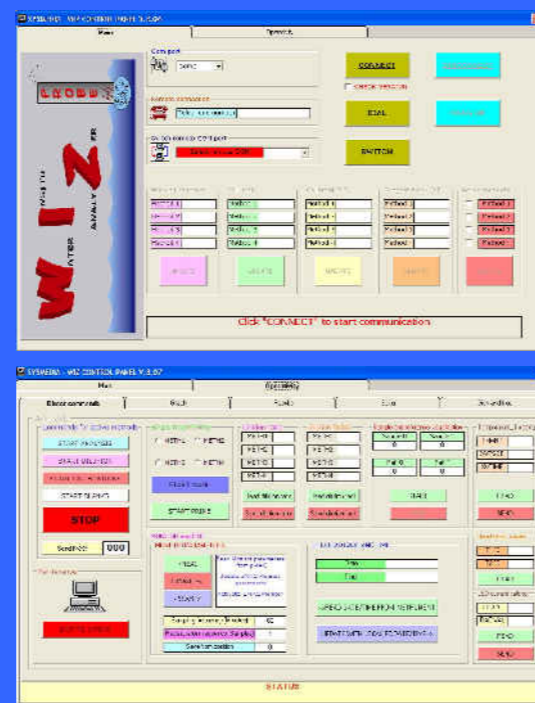
Zetalog and Zetaced are a unique package that allows to use WIZ at the higher level. Zetalog turns on WIZ just before the measurement cycle and turns it off as soon as completed, allowing power saving. Data are sent through GPRS to Zetaced, running on a web server, where they are logged and can be retrieved, validated and displayed as a table or graphics trend.



ZETALOG 2.0



ZETACED GRAPH TREND



WIZ Control Panel

### UNIQUE METHODS

**-NH<sub>3</sub> OPA fluorimetric:** enhanced sensitivity, single reagent, high stability, long term operations.

**-NO<sub>3</sub>+NO<sub>2</sub> Vanadium Chloride reduction:** long term operations, green method, no use of Cadmium or Hydrazine, high sensitivity for low level measurements

## STANDARD CONFIGURATIONS

- MP4 NUTRIENTS
- MP4 NUTRIENTS & SiO<sub>2</sub>
- MP5 NUTRIENTS (Requires datalogger control)
- MP3 NITROGEN
- MP4 PHOSPHOROUS
- MP3 PHOSPHORUS & AMMONIA
- MP4 ECO

NH<sub>3</sub>/NO<sub>2</sub>+NO<sub>3</sub>/NO<sub>2</sub>/PO<sub>4</sub>  
 NH<sub>3</sub>/NO<sub>2</sub>+NO<sub>3</sub>/PO<sub>4</sub>/SiO<sub>2</sub>  
 NH<sub>3</sub>/NO<sub>2</sub>+NO<sub>3</sub>/PO<sub>4</sub>/SiO<sub>2</sub>/NO<sub>2</sub>  
 TN/NO<sub>2</sub>+NO<sub>3</sub>/NO<sub>2</sub>/NH<sub>3</sub>  
 TP/P INORG./P ORGANIC/ORTHO-P  
 TP/PO<sub>4</sub>/NH<sub>3</sub>  
 TOC/COD/BOD/TURBIDITY

METHODS	CHEMISTRIES	Typical Range	MDL
NH <sub>3</sub> -N	OPA - FLUORIMETRIC EX/EM.:370/420÷ 470nm	0-500ppb	<1
BOD	TRYPTOPHAN LIKE, FLUORIMETRIC EX/EM 280/360nm	0-20...500mg/L	<1
TOC/COD	DIRECT READING AT 254NM, CORRECTION AT 550nm	0-50...200mg/L	<1
NO <sub>3</sub> -N Colo	VANADIUM CHLORIDE REDUCTION TO NO <sub>2</sub> , SAA+NED	0-1000ppb	<2
NO <sub>3</sub> -N UV	DIRECT READING AT 220nm, CORRECTION AT 270nm	0-10mg/L	<0.3
NO <sub>2</sub> -N	SAA+NED	0-250ppb	<1
PO <sub>4</sub> -P	MOLYBDATE/ASCORBIC ACID	0-1000ppb	<2
SiO <sub>2</sub>	SILICOMOLYBDATE/ASCORBIC ACID	0-2000	<3
TP	HT DIGESTION, UV OXIDATION, MOLYBDATE/ASCORBIC	0-1000ppb	<3
TN	UV OXIDATION TO NO <sub>3</sub> , UV PHOTOREDUCTION TO N <sub>2</sub> , NED+SAA	0-5.0mg/L	<0.05
TN - UV	UV OXIDATION TO NO <sub>3</sub> , DIRECT READING AT 220nm	0-10mg/L	<0.3
TURB.	NEPHELOMETRIC AT 800nm	0-20...500NTU	<1

# WIZ IN-SITU PROBE FOR WATER ANALYSIS APPLICATIONS



- Ammonia (N-NH<sub>3</sub>)
- Orthophosphate (P-PO<sub>4</sub>)
- Nitrate + nitrite N-(NO<sub>3</sub>+NO<sub>2</sub>)
- Nitrite (N-NO<sub>2</sub>)
- Total Phosphorous (P)
- Total Nitrogen (N)
- COD/TOC
- BOD
- Turbidity/TSS
- Cr<sup>6+</sup>/Fe<sup>2+</sup>/Ni<sup>2+</sup>/Cu<sup>2+</sup>/Zn<sup>2+</sup>

& Many others

## ADVANTAGES AND BENEFITS

- **Multiparametric:** up to 4 parameters in the same unit.
- **Flexibility:** more than 10 multiparametric configurations already developed, active methods selectable by control software.
- **Low reagents consumption:** few uL of reagents per analysis.
- **Low electrical consumption:** battery operated
- **Deployment Kit:** including buoy, warning lamp, batteries, batteries charger and solar panels available as option
- **Reagent canister:** easy to plug in, new reagent set can be plugged on site w/o WIZ removal
- **Quick start up:** delivered fully tested and calibrated as per end user specifications, just fill the reagent canister & power to start up
- **Autowash/Autocleaning:** self wash and/or cleaning at the end of each measurement.
- **Control Software:** easy to use and to learn; short training, specifically designed for chemists.
- **QC control:** programmable QC check while deployed.
- **Filter options:** wide range of filter options, 10/25/100/400uM self cleaning or not or 0.25uM microfilter, self purging
- **Control options:** integrated firmware & internal data logging, data retrieve by PC software, external data logger for power On& OFF, analysis frequency, GPRS data transmission to control center. Remote control by combined use of Zetalog & Zetaced.
- **Zetalog:** System datalogger ready for WIZ & filtration unit control and data transmission to control center, allow in combination with System Zetaced control center the remote management of the probe
- **Zetaced:** System control center running on web server for WIZ and other sensors data management



REAGENT CANISTER



DEPLOYMENT KIT