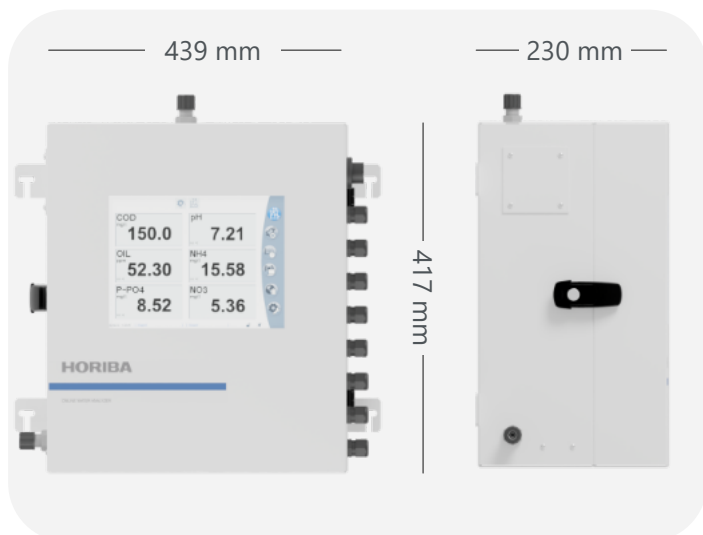


UV500 Compact

Multiparameter online water analyser



> Technical specifications

Sample flow Recommended : 0 - 5 L/min

Sample pressure 0 - 4 Bar (0 - 1 Bar with sampling peristaltic pump)

Sample temperature 0 - 80 °C

Operating temperature 0 - 60 °C

Wet part materials Quartz, PP, PE, FPM(viton), PMMA, Pharmed, PVC

Measuring interval Continuous or periodic: 1 min to 720 min

Memory 5000 lines of measurement (up to 16 channels) with date and time.

Chemical consumption Cleaning solution (5% sulfuric acid) : 220 mL/day

Maintenance interval Recommended : 6 months to 1 year (except for refilling)

Power supply 100 - 240 VAC $\pm$ 10% / maxi 100 VA / 50 - 60 Hz
24 V DC 3A max

Touch Screen Colour TFT LCD 640x480 pixels with LED backlight

RS232 with MODBUS protocol

RS485 with MODBUS protocol*

Outputs 4-20 mA output*

Relays*

pH/ORP modules*

Inputs 4-20 mA input*

RS485 for probes

Free sockets 12 free sockets for optional modules among :

4-20 mA I/O, Relays, pH, ORP, conductivity

EMC & Safety Standard CE, EN61010-1, EN61326

Enclosure Stainless Steel 316L, epoxy coating, wall mounting bracket

* **Optional module** **Weight** 20 to 30 kg depending on the configuration

> Parameters & Technologies

> Optical parameters

UV254 UV Absorbance

UV254 T UV Absorbance

COD UV254 correlation

TOC UV254 correlation

BOD UV254 correlation

Hydrocarbons (poly aromatic) UV Fluorescence

Chlorophyll A UV Fluorescence

Oil in Water UV Fluorescence

Color UV Absorbance

Nitrate UV Absorbance

> Probes and sensors

pH Potentiometric

Conductivity Conductivity

Dissolved Oxygen Fluorescence

Turbidity Nephelometry

ORP Potentiometric

Chlorine Amperometry

Total Suspended Solids Absorbance

> Key Features

- Automatic cleaning with sulfuric acid 5%
- Automatic zero
- Low maintenance
- Multiparameters : up to 16 parameters in one single unit
- Multiplexing : analyse up to 6 streams with one unit

> Parts number

> Basic unit

UV500-C *Basic unit (no measurement included)*

> Sampling

P-500 *Sampling peristaltic pump for unpressurized water*

Built-in on the left side of the enclosure

Flow of about 0.6 litre/min

Discontinuous operating to increase tube lifetime

P-EXT *External Peristaltic sampling pump for unpressurized water*

Flow of about 0.94 litre/min

Heavy duty brushless motor

Discontinuous operating to increase tube lifetime

> Optical parts

SPECTRO500 *UV-Visible spectrograph*

Range: 180 - 720 nm

Resolution 0.28 nm

2048 pixels

ABS500 *Flow cell and xenon lamp for absorbance measurements*

Optical path: 1 or 3 or 10 or 15 mm

Lamp lifetime: 10⁹ flashes, ~ 10 years

Wet materials: PMMA, Viton, Quartz

> 12 available emplacements for optional modules and probes

IN4-20-500 *Isolated 4-20 mA input module*

Input resistance : 100 ohm

OUT4-20-500 *Isolated 4-20 mA output module*

Active output, max load 500 ohm

LOGIC500 *Double logical inputs module*

Input no 1: external pulse command for measurement

Input no 2: measurements inhibition

Isolated 0 - 48 VDC inputs

Impedance: > 10 Kohm

RELAY500 *Relay module*

Contact rating : 2 A/220 V

Maximum 6 relays modules allowed

M-232-485 *Converter module from RS232 to RS422/485*

COND500 *Conductivity module*

Range: 0 - 100 μ S/cm to 0 - 100 mS/cm

ATC input for platinum RTD 100 Ohm

PH500 *pH/ORP module*

pH range: 0 - 14

ORP range: -2000 mV to +2000 mV

ATC input for platinum RTD 100 Ohm

> 2 years operation spare parts

T-TYG-1 *Tygon tube 3.2x6.4 mm - 1 meter*

P-ACI-HD-1 *Head of cleaning peristaltic pump or reagent pump*

T-PHAR-1 *Pharmed tube 6.4x9.6 mm - 0.75 meters (for optional sampling pump)*

>Analytical Parameters

Parameter	Standard range <i>Other ranges on request</i>	Parts reference	Chemical consumption <i>per measurement</i>	Measuring time	Typical repeatability FS ⁽¹⁾	Detection Limit ⁽¹⁾ <i>Zero value</i>	Accuracy ⁽¹⁾
UV254	0 - 200 Abs/m 0 - 600 Abs/m 0 - 2000 Abs/m	UV254-L-500 UV254-M-500 UV254-H-500	-	<5s	± 0,30 Abs/m ± 0,50 Abs/m ± 5,00 Abs/m	0,30 Abs/m 0,30 Abs/m 3,20 Abs/m	2%
UVT 254 nm transmittance	0 - 100 %	UV254T	-	<5 s	± 0,25 %	0,75 %	2%
COD by UV correlation	0 - 100 mg/L COD ⁽²⁾ 0 - 2000 mg/L COD ⁽²⁾ 0 - 20000 mg/L COD ⁽³⁾	COD-L-500 COD-M-500 COD-H-500	-	<5 s	± 0,15 mg/L ± 3 mg/L ± 30 mg/L	0,15 mg/L 3 mg/L 30 mg/L	2%
BOD by UV correlation	0 - 100 mg/L BOD ⁽²⁾ 0 - 1000 mg/L BOD ⁽²⁾ 0 - 10000 mg/L BOD ⁽³⁾	BOD-L-500 BOD-M-500 BOD-H-500	-	<5 s	± 0,15 mg/L ± 1,5 mg/L ± 15 mg/L	0,15 mg/L 1,5 mg/L 15 mg/L	2%
TOC by UV correlation	0 - 100 mg/L TOC ⁽²⁾ 0 - 1000 mg/L TOC ⁽²⁾ 0 - 10000 mg/L TOC ⁽³⁾	TOC-L-500 TOC-M-500 TOC-H-500	-	<5 s	± 0,15 mg/L ± 1,5 mg/L ± 15 mg/L	0,15 mg/L 1,5 mg/L 15 mg/L	2%
Nitrate	0 - 100 mg/L NO ₃	NO3-500	-	<5 s	± 0,25 mg/L	1 mg/L	2%
Color	0 - 100 Pt-Co 0 - 1000 Pt-Co	CO-L-500 CO-H-500	-	<5 s	± 0,25 Pt-Co ± 3 Pt-Co	0,8 Pt-Co 6 Pt-Co	2%
PAH	0 - 1 mg/L C ₆ H ₆ 0 - 10 mg/L C ₆ H ₆	PAH-500	-	<5 s	± 0,01 mg/L C ₆ H ₆ ± 0,1 mg/L C ₆ H ₆	0,1 mg/L C ₆ H ₆ 0,1 mg/L C ₆ H ₆	2%
Oil in water	0 - 100 ppm OIW 0 - 1000 ppm OIW	PAH-500	-	<5 s	± 1 mg/L OIW -	1 mg/L OIW -	2%
Chlorophyll A	0 - 100 µg/L ChlA	CHLOA-500	-	<5 s	± 2µg/L CHL A		2%
Turbidity TSS by correlation	0 - 10 NTU 0 - 100 NTU 0 - 1000 NTU	IRTURB-L-500 IRTURB-M-500 IRTURB-H-500	-	<5 s			
pH	0 - 14	ELPH	-	<5 s	± 0,1		2%
ORP	± 2000 mV	ELORP	-	<5 s	± 1 mV		2%
Dissolved Oxygen	0 - 25 mg/L O ₂	DO-F DO-F-AC	-	<5 s	± 0,01 mg/L		2%
Conductivity	0 - 200 mS/cm	ELCOND	-	<5 s	± 1 µS/cm		2%
Turbidity	0 - 40 NTU 0 - 400 NTU	EXT-TURBNEPH-L EXT-TURBNEPH-H	-	<5 s	± 1 mg/L		2%
Total Suspended Solid	0 - 1500 mg/L TSS 0 - 30000 mg/L TSS	EXT-TURB-L EXT-TURB-H	-	<5 s	± 1 mg/L		2%
Temperature	0 - 80 °C	TEMP	-	<5 s	± 0,1 °C		2%

⁽¹⁾ On standard solution & standard cabinet temperature 25°C

⁽²⁾ On river water

⁽³⁾ On municipal waste water