

HI83099

COD Meter and Multiparameter Photometer

- Easy COD measurement
- Outstanding measurement quality
- Compact, multiparameter meter
- PC compatible
- 47 methods



The HI83099 is one of the most versatile photometers on the market. In addition to COD, this meter measures 44 of the most important water quality parameters using liquid or powder reagents. The amount of reagent is precisely dosed to ensure maximum reproducibility.

The HI83099 bench photometer can be connected to a PC via a USB cable. The optional HI92000 Windows® Compatible Software helps users manage their data.

The HI83099 features a powerful interactive user support to assist during each step of the analysis process. A tutorial mode is also available in the setup menu.

Specifications HI83099

Light Source	tungsten lamps with narrow band interference filters
Light Life	the life of the instrument
Light Detector	silicon photocell
Environment	0 to 50°C (32 to 122°F); RH max 90% non-condensing
Power Supply	external 12 VDC power adapter or built-in rechargeable battery
Dimensions	235 x 200 x 110 mm (9.2 x 7.87 x 4.33")
Weight	0.9 kg (2 lbs.)

Ordering Information

HI83099-01 (115V) and **HI83099-02** (230V) is supplied with glass cuvettes with caps (4), cell protective cap, batteries, 12 VDC adapter, sample preparation kit (for turbidity or concentrated samples), cloth for wiping cuvettes, 60mL glass bottle for DO analysis, scissors, and instructions.

ADP
Application Designed Photometers

COD Test	Range	Method	Reagent Code
COD LR	0 to 150 mg/L	dichromate EPA† dichromate mercury-free** dichromate ISO°	HI93754A-25 HI93754D-25 HI93754F-25
COD MR	0 to 1500 mg/L	dichromate EPA† dichromate mercury-free** dichromate ISO°	HI93754B-25 HI93754E-25 HI93754G-25
COD HR	0 to 15000 mg/L	dichromate	HI93754C-25

Water Quality Test	Range	Method	Reagent Code†
Alkalinity	0 to 500 mg/L (ppm) as CaCO ₃	bromocresol green	HI93755-01
Aluminum	0.00 to 1.00 mg/L	aluminon	HI93712-01
Ammonia MR	0.00 to 10.00 mg/L	Nessler	HI93715-01
Ammonia LR	0.00 to 3.00 mg/L	Nessler	HI93700-01
Bromine	0.00 to 8.00 mg/L	DPD	HI93716-01
Calcium	0 to 400 mg/L	oxalate	HI937521-01
Chlorine Dioxide	0.00 to 2.00 mg/L	chlorophenol red	HI93738-01
Chlorine, Free	0.00 to 2.50 mg/L	DPD	HI93701-01*
Chlorine, Total	0.00 to 3.50 mg/L	DPD	HI93711-01*
Chromium VI HR	0 to 1000 µg/L	diphenylcarbohydrazide	HI93723-01
Chromium VI LR	0 to 300 µg/L	diphenylcarbohydrazide	HI93749-01
Color of Water	0 to 500 PCU	colorimetric platinum cobalt	-
Copper HR	0.00 to 5.00 mg/L	bicinchoninate	HI93702-01
Copper LR	0 to 1000 µg/L	bicinchoninate	HI95747-01
Cyanuric Acid	0 to 80 mg/L	turbidimetric	HI93722-01
Fluoride	0.00 to 2.00 mg/L	SPADNS	HI93729-01
Hardness, Calcium	0.00 to 2.70 mg/L	calmagite	HI93720-01
Hardness, Magnesium	0.00 to 2.00 mg/L	EDTA	HI93719-01
Hydrazine	0 to 400 µg/L	p-dimethylaminobenzaldehyde	HI93704-01
Iodine	0.0 to 12.5 mg/L	DPD	HI93718-01
Iron HR	0.00 to 5.00 mg/L	phenantroline	HI93721-01
Iron LR	0 to 400 µg/L	TPTZ	HI93746-01
Magnesium	0 to 150 mg/L	calmagite	HI937520-01
Manganese HR	0.0 to 20.0 mg/L	periodate	HI93709-01
Manganese LR	0 to 300 µg/L	PAN	HI93748-01
Molybdenum	0.0 to 40.0 mg/L	mercaptoacetic acid	HI93730-01
Nickel HR	0.00 to 7.00 g/L	photometric	HI93726-01
Nickel LR	0.000 mg/L to 1.000 mg/L	PAN	HI93740-01
Nitrate	0.0 to 30.0 mg/L	cadmium reduction	HI93728-01
Nitrite HR	0 to 150 mg/L	ferrous sulfate	HI93708-01
Nitrite LR	0.00 to 1.15 mg/L	diazotization	HI93707-01
Oxygen, Dissolved (DO)	0.0 to 10.0 mg/L	Winkler	HI93732-01
Ozone	0.00 to 2.00 mg/L	DPD	HI93757-01
pH	6.5 to 8.5 pH	phenol red	HI93710-01
Phosphate HR	0.0 to 30.0 mg/L	amino acid	HI93717-01
Phosphate LR	0.00 to 2.50 mg/L	ascorbic acid	HI93713-01
Phosphorus	0.0 to 15.0 mg/L	amino acid	HI93706-01
Potassium HR	20 to 200 mg/L	turbidimetric tetraphenylborate	HI93750-01
Potassium MR	10 to 100 mg/L	turbidimetric tetraphenylborate	HI93750-01
Potassium LR	0.0 to 20.0 mg/L	turbidimetric tetraphenylborate	HI93750-01
Silica	0.00 to 2.00 mg/L	heteropoly blue	HI93705-01
Silver	0.000 to 1.000 mg/L	PAN	HI93737-01
Sulfate	0 to 150 mg/L	turbidimetric	HI93751-01
Zinc	0.00 to 3.00 mg/L	zincon	HI93731-01

HI3898 Chloride Test Kit



Quick Chloride Tests

The HI3898 is a chloride concentration test kit developed according to the ISO 15705:2002 method.

This very important test is recommended by ISO, since an excessive presence of chloride can interfere with the COD analysis.

This test gives a fast YES/NO reply to the question if chloride will interfere with the COD analysis. If chloride concentration is greater than the official maximum level, the solution turns yellow and the sample needs to be diluted before performing the COD test, otherwise if the solution is orange-brown, the sample doesn't need to be diluted.

The maximum level allowed is 1000 ppm of Cl⁻ following ISO methods, or 2000 ppm of Cl⁻ for US EPA, APHA, AWWA and WEF methods.

Specifications	HI3898
Range	1000 ppm Cl ⁻ (ISO) 2000 ppm Cl ⁻ (EPA)
Analysis Method	visual evaluation
Sample Volume	2 mL
Number of Tests	100
Dimensions	120 x 110 x 90 mm (4.7 x 4.3 x 3.5")
Weight	200 g (7.0 oz.)

Ordering Information

HI3898 is supplied with 25 mL chloride titrant (4), chloride Indicator 7 mL (1), glass cuvette with plastic stopper (1) and calibrated syringe with tip (2).

- Notes:
- † Method with chromium-sulfuric acid is officially recognized by EPA for wastewater analysis.
 - ° The HI93754F-25 and HI93754G-25 method follows the official method ISO 15705.
 - ** This method is recommended for general purpose analysis with no chloride interference.
 - * For Chlorine, liquid reagents also available.