



HL4

Applications

- Fresh Water Quality
- Coastal Estuary Quality
- Watershed Monitoring
- Stormwater
- Nutrient Monitoring
- Lake/Reservoir Monitoring
- Wetland Management
- Groundwater Studies
- Agriculture Runoff
- Ecosystem Assessment

Multiparameter sonde

Versatile solution to measure and collect water quality data

Designed for spot monitoring and continuous deployments in a wide range of freshwater applications

Lightweight, portable, and flexible for quick monitoring

A compact solution for high quality, reliable data

Intuitive software with guided calibrations and status indicators

Traceable datasets, supported by metadata

Pair with HL Surveyor handheld meter for portable field use

Streamlined calibrations

Quickly view instrument status to maximize uptime, ensure it is functioning, and identify if a calibration is needed. Guided calibrations provide step-by-step instructions, streamlining sensor calibrations and verification checks.

Customizable sensor configurations

Field proven sensor options coupled with the robust construction and easy calibration delivers high quality reliable data. The HL4 sonde has a temperature sensor, four sensor ports and an optional internal depth sensor.

Intuitive setup and data management

HYDROLAB Operating Software allows for quick data retrieval and setup of logging files. This powerful software tools helps to make better decisions, minimize errors, and increase efficiency in the lab or at the deployment site.

Compact multiparameter sonde

The sonde has ease of portability between sites and installation. Its lightweight design and compact size helps readily access difficult locations. The durable design provides long term usage for a variety of applications.

Technical Specifications

Sensor / Parameter	Range	Accuracy	Resolution	Comments
TEMPERATURE	-5 to 50 °C	±0.1°C	0.01°C	Installed with every sonde
CONDUCTIVITY	0 to 100 mS/cm	±0.5% of reading + 0.001 mS/cm	0.001 mS/cm	Open cell design with graphite electrodes
DISSOLVED OXYGEN mg/L, % SAT	0 to 60 mg/L	±0.1 mg/L for 0-8 mg/L ±0.2 mg/L for more than 8 mg/L ±10% reading for more than 20mg/L	0.01 mg/L	Optical Sensor HACH LDO® Luminescent Dissolved Oxygen
pH	0 to 14 pH	±0.2 pH	0.01 pH	Glass bulb with a user refillable reference with PTFE junction
TURBIDITY	0 to 3000 NTU	0 to 100 NTU: ±1% 100 to 400 NTU: ±3% 400 to 3000 NTU: ±5% Requires 4 point calibration	0 to 400 NTU: 0.1 400 to 3000 NTU: 1.0	SelfCleaning Wiper and central cleaning brush
DEPTH	0 to 25m 0 to 100m 0 to 200m	±0.05 meters ±0.05 meters ±0.1 meters	0.01 meters 0.01 meters 0.01 meters	
CHLOROPHYLL A	0 to 500 ug/L	Linearity: 0.998R ² Serial dilution of Rhodamine WT	0.01 ug/L	Turner Designs Optical Sensor
BLUE GREEN ALGAE (FRESHWATER CYANOBACTERIA)	0 to 40,000 ppb	Linearity: 0.999R ² Serial dilution of Phycocyanin pigment from Prozyme diluted in deionized water	0.02 ppb	Turner Designs Optical Sensor
BLUE GREEN ALGAE (MARINE CYANOBACTERIA)	0 to 750 ppb	Linearity: 0.999R ² Serial dilution of Phycoerythrin pigment from Prozyme diluted in deionized water	0.01 ppb	Turner Designs Optical Sensor
SALINITY	0 to 70 psu	±0.2 psu	0.01 psu	Calculated parameter from Conductivity and Temperature
SPECIFIC CONDUCTANCE	0 to 100 mS/cm	±0.5% of reading + 0.001 mS/cm	0.001 mS/cm	Calculated parameter from Conductivity and Temperature
TDS (TOTAL DISSOLVED SOLIDS)	0 to 64 g/L	N/A	0.01 g/L	Calculated parameter from Conductivity, Temperature and defined constant
ORP	-999 to 999 mV	±20 mV	1 mV	Platinum band
RHODAMINE	0 to 1000 ppb	Linearity: 0.999R ²	0.01 ppb	Turner Designs Optical Sensor
ION SELECTIVE ELECTRODES AMMONIUM/AMMONIA NITRATE CHLORIDE	0 to 250 mg/L-N 0 to 250 mg/L-N 0 to 18000 mg/L	Greater of ±10% reading , or ±2 mg/L-N Greater of ±10% reading , or ±2 mg/L-N Greater of ±10% reading , or ±5 mg/L	0.01 mg/L-N 0.01 mg/L-N 0.01 mg/L	Max Depth: 15meters

Instrument Specifications

DIMENSIONS	Diameter: 4.44 cm (1.75 in.) without rubber bumpers; 5.33 cm (2.1 in.) with rubber bumpers Length: 51.43 cm (20.25 in.) with no internal battery pack and standard sensor guard Length: 66.36 cm (26.125 in.) with no internal battery pack and extended sensor guard Length: 62.23 cm (24.5 in.) with internal battery pack and standard sensor guard Length: 77.787 cm (30.625 in.) with internal battery pack and extended sensor guard
WEIGHT	2.2 kg (5 lb) with internal battery pack, one Dcell battery
SENSOR PORTS	6 sensor ports available 2 fixed sensor ports for temperature and optional depth sensor only 4 ports for integrating other sensor options Parameters available depends on sensor installed Maximum of 2 ports available for optical dissolved oxygen and another optical sensor
POWER REQUIREMENTS	6-24 VDC (12 VDC nominal) applied to the communications module, 12 VDC: 250 mW average, 18 W peak
BATTERY LIFE**	75 days

*Contact your local representative for availability.

**HL4 Battery Life - One internal alkaline D-cell battery, non-rechargeable. Approximately 75 days of use with a 15-minute logging interval and the default warm-up time with depth, temperature, conductivity, pH and LDO sensors installed at room temperature.