ROYAL Eijkelkamp

Meet the difference

Scuba Trimeter
simple, low cost solution when you need quality data, but fewer sensors

Royal Eijkelkamps new Scuba Trimeter is the simple, low cost solution when you need quality data, but fewer sensors. Get all the features of a Scuba, including top-grade sensors and simple software, in an instrument designed for economy.

The Scuba Trimeter (Ø 50 mm) holds any one sensor* (e.g. turbidity, dissolved oxygen (DO) or EC), plus temperature and depth sensors (depth is optional). For example, a 3-parameter configuration could be turbidity, temperature, and depth. Another example could be Dissolved Oxygen (DO) and temperature. Offered as complete packages you are provided with everything you need to get testing water.

*Exceptions include PAR, CO_2, transmissometer and ISE sensors

Features
- Choose any Eijkekamp sensor and add depth and/or temperature
- Use as a spot checker/profiler, self-powered logger, or with telemetry
- LED indicators for probe status (power, logging, communication)
- Uses off the shelf "D" replaceable batteries
- Compact, rugged design
- Works with all Eijkelkamp's display options, such as the ScubaMobile and PC/Laptop (Windows).

Available sensors
- Temperature
- Depth
- Conductivity/Salinity/TDS
- pH/ORP
- Dissolved Oxygen (optical sensor)
- Turbidity
- Chlorophyll a
- Blue green algae
- Rhodamine
- Crude oil
- Refined oil
- TDG and more (see table)

Physical
- Length: 355 mm (14") (without battery pack) 610 mm (24") (with battery pack)
- Outside diameter: 50 mm (1.95")
- Weight: 635 gr (1.4lb), 816 gr (1.8 lb) with internal battery pack.
- Durable Delrin® housing

Connectivity options
- Underwater cable or data cable via marine connector
- Bluetooth connectivity via ScubaMobile

Battery
- Holds three 1.5 VDC "D" size replaceable alkaline batteries
- Logging time dependent on sensors, logging interval and temperature

Data memory
- 4 Mbytes for logged data, 1,000,000 readings

Accessories
- Underwater cables 3 – 200 meters
- Battery pack for self-powered logging
- ScubaMobile Bluetooth
- Carry case
- Flow cell
- Anti-fouling sensor guard (copper gauze)

Warranty
- 3 year limited warranty on sonde (covers all components, including sensors)

Sensor specification					
Sensor	Parameter	Range and units	Resolution	Accuracy	Comments
Temperature	Temperature	-5 to 50 °C	0.01	±0.1	Calibration not required
pH / ORP	pH	0 to 14 units	0.01	±0.1 within 10 °C of calibration; 0.2 otherwise	Refillable reference electrode; corrected for temperature; typical sensor life >6 years; optional ORP sensor is combined with pH sensor
	ORP	-999 to 999 mV	0.1	±20 mV	
Turbidity	Turbidity	0 to 1000 FNU	0.01	±0.3 FNU or ±2% of reading whichever is greater	Filtered for non-turbidity spikes; includes wiper to clean the optics; FNU and NTU are interchangeable
		1000 to 4000 FNU		±4% of reading	
Dissolved oxygen (optical sensor)	Concentration	0 - 20 mg/l	0.01	±0.1	Compensated for temperature and salinity; EPA approved "lifetime" luminescence method; typical sensor cap life > 6 years
		20 - 30 mg/l	0.01	±0.15	
		30 - 50 mg/l	0.01	±5% of reading	
	% Saturation	0 to 500% saturation	0.1	Corresponds with the accuracy of the concentration reading	
Conductivity	Specific conductance, µS/cm	0 to 5000 µS/cm	0.1	±0.5% of reading or ±1 whichever is greater	Corrected for temperature; four easy-to-clean graphite electrodes; optional sensor provides ±0.5% of reading accuracy to 100 mS/cm.
	Specific conductance, mS/cm	0 to 100 mS/cm	0.001	±1% of reading ±0.001	
		100 to 275 mS/cm	0.001	±2% of reading	
	Salinity	0 to 70 PSU	0.01	±2% of reading	Calculated from conductivity and temperature, PSU is equivalent to ppt
	Total dissolved solids (TDS)	0 to 65 g/l	0.1	±5% of reading	
Pressure	Depth	0 to 25 m	0.01	±0.05	Compensated for temperature and salinity
		0 to 200 m		±0.4	
	Vented depth	0 to 10 m	0.001	±0.003	Compensated for temp, salinity, barometric pressure
	Barometric pressure	400 to 900 mm Hg	0.1	±1.5	Included with depth sensor
	Total dissolved gas (TDG)	400 to 1400 mm Hg	0.1	±1	Compensated for temp; maximum depth 15m
Fluorometers	Chlorophyll a - blue	0 to 500 µg/l	0.01	Linearity of 0.99 R²	Highest-quality fluorometric sensors; fluorometers often require non-trivial calibration; custom optics available upon request
	Chlorophyll a - red	0 to 500 µg/l			
	Rhodamine dye	0 to 1000 ppb			
	Phycocyanin (freshwater BGA)	0 to 4500 ppb			
	Phycoerythrin (marine BGA)	0 to 750 ppb			
	CDOM/FDOM	0 to 1500/3000 ppb			
	Optical brightener	0 to 2500 ppb			
	Tryptophan	0 to 5000 ppb			
	Fluorescein dye	0 to 500 ppb			
	PTSA	0 to 650 ppb			
	Refined oil	0 to 20 ppm			
	Crude oil	0 to 1500 ppb			

For best accuracy, always calibrate near the anticipated field readings, and near the temperature of the anticipated field readings.
Specifications indicate typical performance and are subject to change.