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Conductivity/TDS

edge®EC is thin and lightweight, measuring just 1/2" (12 mm) thick and weighing less than 9 ounces (250 g). edge[®]EC has an incredibly wide viewing angle, 5.5" (14 cm) LCD and a sensitive capacitive touch keypad.

edge®EC measures conductivity through its unique digital conductivity probe. The digital conductivity probe is auto-recognized, providing type, calibration data and a serial number when connected to edge®EC by an easy to plug-in 3.5mm connector. The versatile design of edge®EC enables it to be used as a handheld, benchtop or wall-mounted meter. edge®EC simplifies measurement, configuration, calibration, diagnostics, logging and transferring data directly to a computer or USB drive.

- Digital four-ring conductivity probe
 Covers all ranges from 0.00 µS/cm to
 - 500 mS/cm (absolute EC)
- Accuracy
 - ± 1% of the reading ± (0.05 µS/cm or 1 digit, whichever is greater)
- Calibration
 - $\cdot~$ Offset (O $\mu\text{S/cm})$ and cell factor calibration
 - Choice of 5 standards
- Auto-ranging or manual range selection
- EC, TDS and salinity reading modes
- Temperature compensation
 - Automatic
 - NoTC (absolute)
- GLP data
 - Records date, time, offset and cell constant value (K)
 - Data of the last performed calibration is stored in the probe: date, time, cell constant, temperature coefficient, reference temperature and battery status. When the probe is connected to edge®EC, GLP data is automatically transferred.
- Adjustable EC to TDS conversion factor
- Adjustable temperature correction coefficient



 Incredibly thin and lightweight, edge®EC measures just 1/2" (12 mm) thick and weighs just 8.8 ounces (250 g).





edge[®] EC Technical Features

• Two USB ports

edge®EC includes one standard USB for exporting data to a flash drive. edge®EC also includes one micro USB port for exporting files to your computer as well as charging edge®EC when the cradle is not available.

Clear, full text readout

edge®EC features clear, full text guides displayed on the bottom of the screen. There is no need to decipher scrambled abbreviations or symbols; these helpful messages guide you through every process quickly and easily.

Data logging

edge®EC allows you to store up to 1000 log records of data. Data sets include readings, GLP data, date and time.

 Basic mode
 You can use edge®EC in Basic Mode–ideal for routine measurements for a simplified screen and features.

Accepts edge®EC compatible conductivity probes

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edge® EC Design Features

odgo®EC

Capacitive touch keypad

edge®EC features a capacitive touch keypad that gives a distinctive, modern look. Since the keypad is part of the screen, your buttons can never get clogged with sample residue. For faster scrolling, simply hold down the arrow keys.

Easy to read LCD

Specifications

edge®ECfeatures a 5.5" (14 cm) LCD display that you can clearly view from over 5 m (16.4'). The large display with its wide 150° viewing angle provide one of the easiest to read LCD's in the industry.

Zero footprint

Using the wall mount cradle (included), edge®EC can be placed on a wall, leaving zero footprint on the benchtop space. The cradle has a built in connector to power edge®EC and charge its batteries.

Plugging an electrode in has never been simpler; no alignments or broken pins, just connect the 3.5 mm plug and begin. Digital SMART electrodes

Specifications		edge®EC
EC	Range	0.00 to 29.99 µS/cm; 30.0 to 299.9 µS/cm; 300 to 2999 µS/cm; 3.00 to 29.99 mS/cm; 30.0 to 200.0 mS/cm; up to 500.0 mS/cm (absolute EC)**
	Resolution	0.01 μS/cm; 0.1 μS/cm; 1 μS/cm; 0.01 mS/cm; 0.1 mS/cm
	Accuracy (@25°C/77°F)	$\pm 1\%$ of reading $\pm (0.5\mu S$ or 1 digit, whichever is greater)
	Calibration	single cell factor calibration; six standards available: 84 μS/cm, 1413 μS/cm, 5.00 mS/cm, 12.88 mS/cm, 80.0 mS/cm, 118.8 mS/cm, one point offset: 0.00 μS/cm
	Temperature Coefficient	0.00 to 6.00%/°C (for EC and TDS only), default value is 1.90%/°C
TDS	Range	0.00 to 14.99 mg/L (ppm); 15.0 to 149.9 mg/L (ppm); 150 to 1499 mg/L (ppm); 1.50 to 14.99 g/L; 15.0 to 100.0 g/L; up to 400.0 g/L (absolute TDS)**, with 0.80 conversion factor
	Resolution	0.01 mg/L (ppm); 0.1 mg/L (ppm); 1 (ppm) 0.01 g/L; 0.1 g/L (0.8 TDS Factor)
	Accuracy (@25°C/77°F)	$\pm 1\%$ of reading $\pm (0.03 \text{ ppm or } 1 \text{ digit}, \text{ whichever is greater})$
	Calibration	through EC calibration
	TDS Factor	0.40 to 0.80 (default value is 0.50)
Salinity [†]	Range	0.0 to 400.0 % NaCl; 2.00 to 42.00 PSU; 0.0 to 80.0 g/L
	Resolution	0.1 % NaCl; 0.01 PSU; 0.01 g/L
	Accuracy (@25°C/77°F)	±1% of reading
	Calibration	one-point with HI7037 100% NaCl sea water standard
Temperature	Range*	-20.0 to 120.0°C; -4.0 to 248.0°F
	Resolution	0.1°C; 0.1°F
	Accuracy	±0.5°C; ±0.9°F
Additional Specifications	Temperature Compensation	automatic -5.0 to 100.0°C (23.0 to 212.0°F); NoTC – none, absolute conductivity.
	Logging	up to 1000† (400 for basic mode) records organized in: manual log- on-demand (max. 200 logs), manual log-on-stability (max. 200 logs), interval logging† (max. 600 samples; 100 lots)
	Connectivity	one USB port for storage; one micro USB port for charging and PC connectivity
	Probe	HI763100 digital four-ring conductivity probe with 1/8"(3.5mm) connector and 1 m (3.3') cable
	Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing
	Power Supply	5 VDC adapter (included)
	Dimensions	202 x 140 x 12 mm (7.9" x 5.5" x 0.5")
	Weight	250 g (8.82 oz.)
Ordering Information	HI2003-01 (115V) and HI2003-02 (230V) edge®EC includes: HI763100 Conductivity probe, 1413 μS/cm conductivity standard sachets (3), 12880 μS/cm conductivity standard sachets (3), benchtop docking station with electrode holder, wall-mount cradle, USB cable 5 VDC power adapter, quality certificate and instruction manual.	

3.5 mm probe input

are automatically recognized.



Portable field unit

edge®EC is ideal for field use due to its light weight, large screen and thin design. It can be slipped into a back pack or messenger bag. Up to 8 hours of battery life when used as a portable device.



• Wall mount cradle

The included wall mount cradle makes it easy to conserve space on the benchtop and can charge edge®EC with the AC adapter. Ideal for continuous monitoring applications.



• Electrode holder with built-in cradle

The electrode holder features a swivel, adjustable arm with a built-in cradle to hold edge®EC securely in place at the optimum viewing angle.

instruments

* temperature limits will be reduced to actual probe limits ** with temperature compensation function disabled † standard mode only

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EC , TDS and salinity solutions begin on page 6.42