

**EC / TDS / Temperature Monitors with Back-lit Display for Agriculture**

EC  
GROECHK®  
TDS  
GROECHK®



These indicators from Hanna have a large, dual-level, back-lit LCD to give instantaneous readings of both EC/TDS and temperature even from a distance. The waterproof EC/TDS indicators HI 993301 and HI 993302 have been designed to meet the Grower's need for equipment suited to the aggressive environments found in agricultural and hydroponics applications. At startup, HI 993301 and HI 993302 perform a self-check to assure proper working condition. These powerful instruments also feature a stability indicator and hold feature to prompt the user when to take the reading and freeze the display for easy and accurate recording. Calibration and temperature compensation is automatic, while the EC/TDS conversion factor and temperature coefficient factor (β) are user adjustable for application specific measurements. Choose your EC/TDS indicator according to the proper EC/TDS ranges for your application:

- HI 993301: EC - 0 to 3999 μS/cm; TDS - 0 to 2000 ppm
- HI 993302: EC - 0.00 to 20.00 mS/cm; TDS - 0.00 to 10.00 ppt

**Specifications**

		HI 993301	HI 993302
Range	EC	0 to 3999 μS/cm	0.00 to 20.00 mS/cm
	TDS	0 to 2000 ppm	0.00 to 10.00 ppt
	temperature	0.0 to 60.0°C / 32.0 to 140.0°F	0.0 to 60.0°C / 32.0 to 140.0°F
Resolution	EC	1 μS/cm	0.01 mS/cm
	TDS	1 ppm	0.01 ppt
	temperature	0.1 °C (0.1°F)	0.1 °C (0.1°F)
Accuracy (@20°C/68°F)	EC	±2% F.S.	±2% F.S.
	TDS	±2% F.S.	±2% F.S.
	temperature	±0.5°C (±1°F)	±0.5°C (±1°F)
EC/TDS calibration		automatic, 1 point, at 1413 μS/cm	automatic, 1 point, at 12.88 mS/cm
Probe		HI 7630 (included)	
EC/TDS conversion factor		adjustable from 0.45 to 1.00	
Temperature compensation		automatic with β adjustable from 0.0 to 2.4%/°C	
Power supply		12 Vdc adapter (included)	
Environment		0 to 50°C (32 to 122°F); RH max 95%	
Dimensions		160 x 105 x 31 mm (6.3 x 4.1 x 1.2)	
Weight		190 g (6.7 oz.) - meter only	

**Ordering Information**

HI 993301 is supplied complete with HI 7630 EC probe, 1413 μS/cm calibration solution (20 mL), 12 Vdc adapter and instructions.

HI 993302 is supplied complete with HI 7630 EC probe, 12.88 mS/cm calibration solution (20 mL), 12 Vdc adapter and instructions.

**Accessories**

HI 7630	Conductivity probe*	HI 70032P	1382 ppm calibration solution, 20 mL sachet, 25 pcs
HI 7030M	12.88 mS/cm calibration solution, 230 mL bottle	HI 7038M	6.44 ppt, calibration solution, 230 mL bottle
HI 70030P	12.88 mS/cm calibration solution, 20 mL sachet, 25 pcs	HI 70038P	6.44 ppt calibration solution, 20 mL sachet, 25 pcs
HI 7031M	1413 μS/cm calibration solution, 230 mL bottle	HI 710005	115 Vac/12 Vdc, power adapter, US plug
HI 70031P	1413 μS/cm calibration solution, 20 mL sachet, 25 pcs	HI 710006	230 Vac/12 Vdc, power adapter, European plug
HI 7032M	1382 ppm calibration solution, 230 mL bottle		

\*Replaceable by technical personnel only.  
For a complete range of calibration, cleaning and maintenance solutions, see section F. For EC/TDS probes, see section U.