

## HI12883 PH/EC/TDS Multiparameter Probe With Quick Connect DIN Connector



The HI12883 is a 3-in-1 pre-amplified multiparameter probe that measures pH, EC/TDS, and temperature within a single polypropylene body. The pH portion of this probe is constructed with a cloth junction, maintenance free polymer gel electrolyte, and a low temperature glass sensing bulb. The EC/TDS portion of this probe utilizes two graphite sensors for an amperometric determination of conductivity and total dissolved solids. A built-in temperature sensor ensures that both pH and EC/TDS readings are compensated for temperature variations in both standards and samples.

The design consideration for the HI12883 is ideal for measuring the pH, EC/TDS, and temperature in greenhouses, hydroponics, environmental monitoring, water treatment, wastewater treatment and boilers and cooling towers. The HI12883 is designed for use with Hanna's HI991300 and HI991301 portable multiparameter meters.

- Pre-amplified pH electrode
- Amperometric EC/TDS sensor
- Built-in temperature sensor

### Pre-Amplified pH Electrode

The pH electrode circuit has a built-in amplifier that serves to reduce the effects of electrical noise on the high impedance pH measurement. Electrical noise can come from motors and pumps that are common in greenhouses. The single reference junction design of the pH electrode has a cloth junction that allows ion movement between the inner gel electrolyte and the sample being measured. The advantage of the cloth junction is that it can be extracted from the probe, exposing a fresh surface when readings become drift or erratic. These features make this probe ideal for use in fertilizer solutions.

### Amperometric EC/TDS Sensor

EC/TDS readings are performed by a two-pin amperometric sensor. An alternating voltage is applied to the sensor and the amount of current that passes between the two stainless steel pins determines the amount of dissolved ionic solids present.

### Built-In Temperature Sensor

pH and EC/TDS readings must be temperature compensated in order to obtain accurate results. The built-in temperature sensor of the HI1288 provides a speedy temperature reading which is then used to adjust the pH and EC/TDS results accordingly.

#### Polypropylene Body

The polypropylene body of the HI12883 houses all three sensors within a sturdy, single body design. This body material is suitable for a wide range of applications and excels in measurements with portable meters due to its durability. The fins around the spherical glass pH bulb minimize breakage due to accidental bumping or dropping of the electrode. The polypropylene plastic is a high quality plastic that is chemically resistant to many aggressive chemicals.

#### Quick Connect DIN Connector

The HI12883 uses a quick connect DIN connector. This type of connector is generally proprietary to the meters they are supplied with and may not be interchangeable. The HI1288 is made for use with Hanna's HI991300 and HI991301 portable multiparameter meters.

SKU	HI12883
Name	HI12883 pH/EC/TDS Multiparameter Probe with Quick Connect DIN Connector
Reference Cell Type	HI12883
Junction Type/Flow Rate	cloth
Type of Electrolyte	gel
Body Material	polypropylene
Glass Type	low temperature (LT)
Tip / Shape	spheric (8 mm)
Matching Pin	no
Max. Pressure	0.1 bar
Optimum pH Range	0 to 13
Temperature Operating Range	0 to 50°C (32 to 122°F)

Body Length/Overall Length	95 mm / 185 mm
Temperature Sensor	yes
Outer Diameter	16 mm
Cable	7-pole; 1 m (3.3 in.)
Connector Type	quick connect DIN connector
Amplifier	yes
Recommended Use	General purpose, water treatment, agriculture, boilers, cooling towers
Notes	To be used with HI991300 and HI991301