

FC2143

pH / Temperature Probe for Beer

The FC2143 pH electrode is a flat tip pH sensor made with specialized glass to provide a long life when measuring temperatures up to 80°C. A built in temperature sensor compensates for temperature variations. The probe has a built in amplifier and a titanium body that acts as a matching pin to reduce noise as a result from the effect that humidity has on probe connection to the meter. The FC2143 connects to the HI98167 with a quick-connect, waterproof DIN connector, allowing for a secure, non-threaded attachment.

Titanium Body

A pH measurement is a very sensitive voltage measurement that is susceptible to interference. To reduce this susceptibility the titanium body serves as a matching pin. A matching pin is a differential measurement technique used to eliminate electrical noise in the measurement system.

Flat Tip pH Sensor

The flat tip sensor allows for easy cleaning of the pH sensing surface as solids from mash and cooled wort collect on the surface.

Quick Connect DIN Connector

This secure waterproof connector allows for a single cable to be used for both pH and temperature measurements.



Application Importance

The measurement of pH during the beer making process is important due to the effect it has on enzymatic activity in the mash, yeast activity in fermentation, and the incorporation of flavoring components. Monitoring and controlling the pH allows for a consistent flavor profile and ensures a stable product. The brewer is faced with a number of challenges when measuring pH. The mash has a high content of semi-solids and sugars are formed from the conversion of starch by enzymatic activity. Both can pose problems, including coating the glass and clogging the junction. The mash and cooled wort after boiling are typically above room temperature, which leads to the degradation of the sensitive glass. To overcome these challenges the HI98167 beer pH meter is supplied with a uniquely design titanium body pH electrode.

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pH

portable

Specifications	FC2143
Description	pH electrode
Reference	single, Ag/AgCl
Junction	cloth
Electrolyte	gel
Max Pressure	3 bar
Range	pH: 0 to 12
Recommended Operating Temperature	0 to 80°C (32 to 176°F)
Glass Type	LT (low temperature)
Tip /Shape	flat
Temperature Sensor	yes
Amplifier	yes
Body Material	titanium with HT glass sensor
Cable	coaxial; 1 m (3.3')
Connection	quick connect DIN