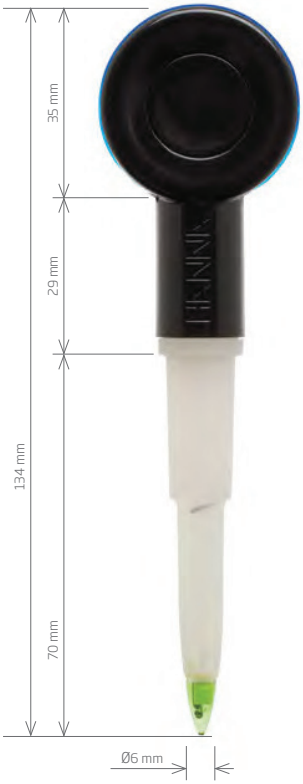
FC2022

HALO™

The FC2022 HALO is a Bluetooth® Smart (Bluetooth 4.0) Foodcare pH and temperature electrode composed of chemically resistant PVDF body. This electrode has a unique open junction design in which there is a viscolene (hard gel) electrolyte layer that is free of silver chloride (AgCl) between the sample to be measured and the internal reference cell. The open junction design resists clogging and the probe's conical tip makes it ideal for pH measurements in food products including dairy, dough, ground meats and other semi-solid food samples. All readings are transmitted directly to an iPhone or iPad® (not included) running the Hanna Lab App.



Ideal for food applications

Low Temperature Glass Formulation

The glass tip uses a special Low Temperature (LT) glass formulation with a lower resistance of approximately 50 megohms compared to General Purpose (GP) with a resistance of about 100 megaohms. This is beneficial since many food products are stored at low temperatures. As the temperature of the glass decreases in the sample, the resistance of the LT glass will increase approaching that of GP glass at ambient temperatures. If using GP glass, the resistance would increase above the optimum resistance for the high impedance input of a pH meter.The FC2022 is suitable to use with samples that measure from 0 to 50°C.

Spheric Glass Tip

The conical shaped tip design allows for penetration into solids, semi solids, and emulsions for the direct measurement of pH in food products including meat, cheese, yogurt, and milk.

Built-in Temperature Sensor

FC2022 features a built-in thermistor temperature sensor that is in the tip of the indicating pH electrode. A thermistor temperature sensor provides for a high accuracy temperature reading and should be as close as possible to the indicating pH electrode in order to compensate for the effect that temperature has on the change in resistance of the glass. By having an accurate reading it is possible to provide a temperature compensated reading.

PVDF Body

Polyvinylidene fluoride (PVDF) is a food grade plastic that is resistant to most chemicals and solvents, including sodium hypochlorite. It has high abrasion resistance, mechanical strength and resistance to ultraviolet and nuclear radiation. PVDF is also resistant to fungal growth.

Open Junction Reference

The open junction design consists of a solid gel interface (viscolene) between the sample and internal Ag/AgCl reference. This interface not only prevents silver from entering the sample, but also makes it impermeable to clogging, resulting in a fast response and stable reading.

HALO™ Specifications	FC2022
Reference	double, Ag/AgCl
Junction	open junction
Electrolyte	viscolene
Range	0.00 to 12.00 pH ±420 mV 0.0 to 60.0°C (32.0 to 140.0°F)
Bulb Shape	conical
Outer Diameter (glass)	12 mm to 8 mm taper (plastic)
Overall Length	134 mm
Solution Temperature	0.0 to 60.0°C (32.0 to 140.0°F)
Environment	0.0 to 50.0°C (32.0 to 122.0°F), electronic module is not waterproof
Temperature Sensor	integrated
Body Material	PVDF
Connection	Bluetooth® Smart (Bluetooth® 4.0), 10 m (33') range
Battery Type / Life	CR2032 3V lithium ion / approximately 500 hours
Ordering Information	**FC2022 (HALO)** is supplied with storage solution, cleaning solution, pH 7.01 buffer solution, pH 4.01 buffer solution, fill solution, battery, quality certificate and instruction sheet.