



FC200B

PVDF Body Foodcare pH Electrode for Dairy Products and Semi-Solid Food

The FC200B is a PVDF body, gel filled, single junction pH electrode with a BNC connector. This probe features an open junction design, a sensing bulb made of low temperature glass, and a food grade plastic body.

This design consideration is ideal for pH measurements in the food industry including dairy, dough, ground meats, and other semi-solid food samples. The recommended operating temperature range is from 0 to 50°C.

- Low Temperature Glass
- PVDF Body
- Open Junction

Details

Hanna Instruments offers a wide variety of pH electrodes that are designed for many different applications. The type of glass used for sensing pH, bulb shape, body material, type of junction, type of reference and electrolyte used are just some of the design considerations.

The FC200B uses low temperature (LT) glass, conical bulb, food grade PVDF body, and open junction with viscolene gel electrolyte.

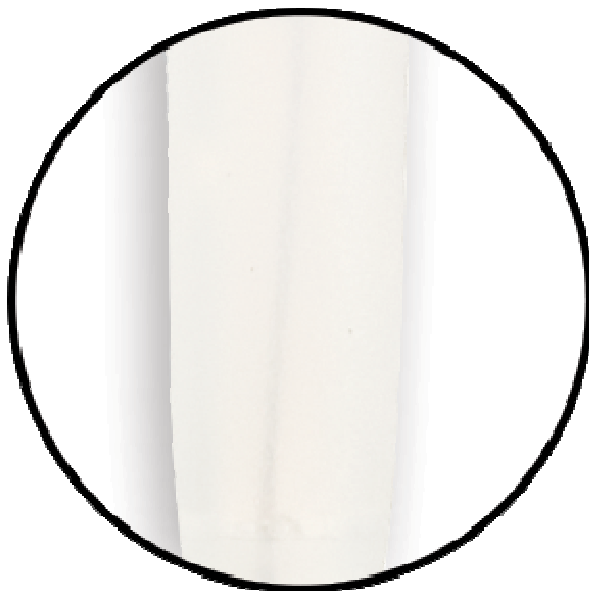


Low Temperature Glass Formulation

The glass tip uses a special LT glass formulation with a lower resistance of approximately 50 megaohms 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 FC200B is suitable to use with samples that measure from 0 to 50°C.

**Conical 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.

**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

Suspended solids and proteins found in food products will clog a conventional ceramic reference junction. This clogging will impede the measurement circuit between the indicating electrode and the internal reference resulting in slower response time, erratic readings, and frequent electrode replacement. 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 readings.



BNC Connector

The FC200B uses a BNC connector. This type of connector is universal in that it can be used on any pH meter that has the female BNC probe input. Other type of connectors include DIN, screw type, T-type, and 3.5mm to name a few. These types of connectors tend to be proprietary for a particular type of meter and are not interchangeable.

Specifications

Body Material	PVDF
Reference	single, Ag/AgCl
Junction / Flow Rate	open
Electrolyte	viscolene
Range	pH: 0 to 12
Max Pressure	0.1 bar
Tip Shape	conic (6 x 10 mm)
Diameter	6 mm
Body Length / Overall Length	75 mm / 111.5 mm
Recommended Operating Temperature	0 to 50°C (32 to 122°F)
Temperature Sensor	no
Matching Pin	no
Amplifier	no
Digital	no
Cable	coaxial; 1 m (3.3')
Connection	BNC
Applications	dairy, milk, semi-solid foods, yogurt
Warranty	6 months