



HI98263
**pH and Temperature
Bluetooth® Meter**
for meat applications



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Designed for food professionals

HI98263 is a Bluetooth® portable meat pH meter that measures pH and temperature using the foodcare FC2323 meat pH electrode (compatible with FC099 stainless steel piercing blade).

This waterproof meter complies to IP67 standards and is rugged and portable with the performance and features of a benchtop. The HI98263 is supplied with an application specific electrode and cleaning solutions.

Main features

- Bluetooth data transfer using third party application
- USB data transfer using supplied HI920015 cable connector
- Reliable readings guaranteed by pH calibration checks
- Up to five points pH calibration with Hanna/NIST-traceable, custom, or millesimal pH buffers
- Context-sensitive Help that supports setup and measurement
- Warning message when the calibration is outside range
- Calibration timeout alert when calibration is due

Other features

- pH and Temperature probe for meat with stainless steel piercing blade included
- IP67 rated waterproof, rugged enclosure
- Log on demand of up to 200 samples (100 pH and 100 mV)
- First stable reading kept on display
- GLP data to provide data from previous calibration to ensure Good Laboratory Practices are met
- Automatic or manual temperature compensation
- 200 hour battery life (approx.) with battery icon indicator
- "Auto hold" automatically holds the first stable reading on the display



Backlit graphic LCD display

These meters feature a backlit graphic LCD with on-screen help. The graphic display allows for the use of virtual keys to provide for an intuitive user interface.

Waterproof protection

The meter is enclosed in an IP67 rated waterproof casing and can withstand immersion in water at a depth of 1 m for up to 30 minutes.

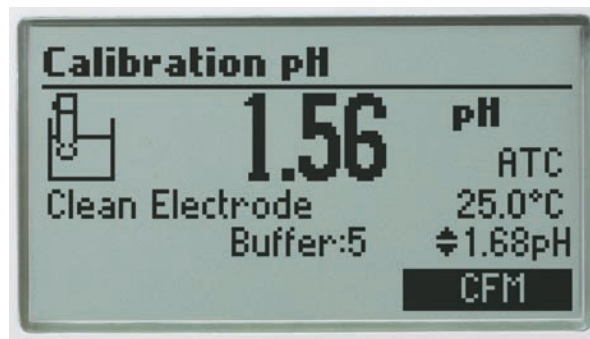
Intuitive keypad

The fitted rubber keypad has dedicated keys for many important and often used functions. These meters also feature two virtual soft keys that navigate the user through setup and logging of data. The interface is intuitive for any user's level of experience.



Quick Connect Probe

Each meter features an application specific pH/temperature probe with a quick connect DIN connector to make attaching and removing the probe simple and easy.

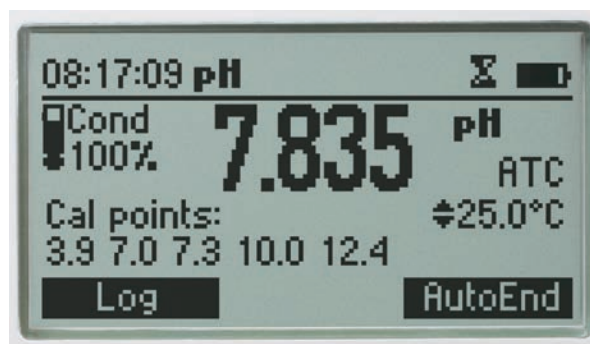


pH calibration

Choose from seven standard pH buffers and five custom values to obtain up to five point calibration and achieve high precision readings with a 0.001 pH resolution and a pH accuracy of ± 0.002 .

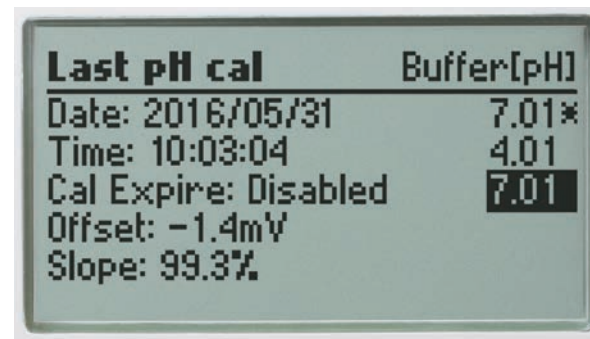
Enhanced calibration

An "out of calibration range" warning can be engaged to keep the user informed of the current calibration and help to avoid performing measurements that are out of the bracketed range..



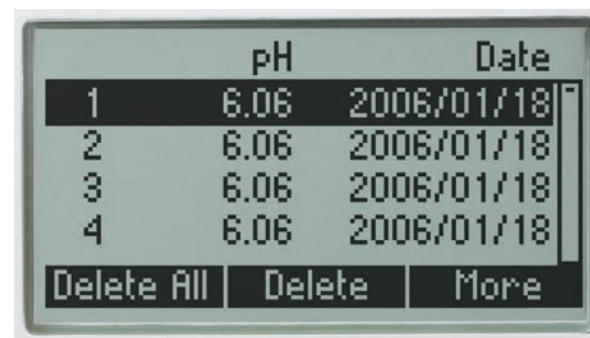
CAL Check™

Hanna's CAL Check maintains a history of past calibrations and monitors the pH electrode and buffers during subsequent calibrations for any signs of wide variances due to a dirty or broken electrode or contaminated pH buffers. During calibration, users are alerted to problems should they occur. After calibration, the electrode's overall condition is displayed as a percentage.



GLP

Comprehensive GLP functions are directly accessible by pressing the GLP key. Calibration data including date, time, and calibration values are stored with logged data for retrieval at a later time.



Data logging and connectivity

The log-on-demand feature allows users to store up to 200 samples that can be transferred via Bluetooth® using a third party application or to a PC with the HI920015 USB cable and HI92000 software.

Dedicated help key

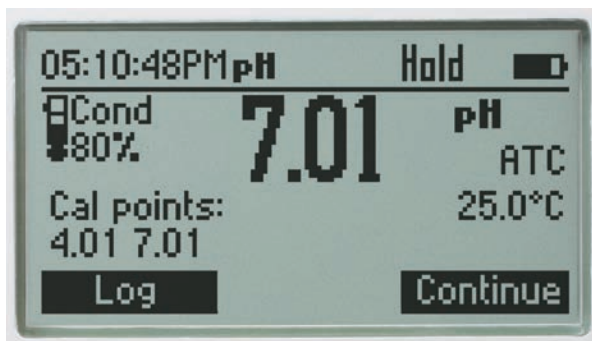
Contextual help is always available through a dedicated "HELP" key. Clear tutorial messages and directions are available on-screen guide users through setup and calibration. The help information displayed is relative to the setting/option being viewed.

Automatic temperature compensation

pH sensors incorporate a built-in temperature sensor in the tip of the electrode for a fast and accurate temperature compensated value.

Long Battery Life

The display of the meter has a battery icon indicator to show the remaining power. The meter uses four 1.5V AA batteries that provide up to 200 hours of battery life.



Auto hold

Pressing AutoEnd during measurement automatically holds the first stable reading on the display.



Setup screen

Our extensive setup screen features a host of configurable options.



Supplied Complete in a Rugged Custom Carrying Case

Each meter is supplied complete with Foodcare electrode, buffer solutions, electrode cleaning solution, 100 mL beakers, batteries, USB cable, probe quality certificate, instrument quality certificate, and quick reference guide with QR code for manual download in a hard carrying case.

The inside compartment of the carrying case is thermoformed to securely hold and protect all of the components.



Application Importance

In the meat production industry, the monitoring of pH is considered to be of the utmost importance due to its effect on the meat's quality factors including water binding capacity and shelf life. Upon slaughter, biochemical processes begin to break down the meat. Glycolysis begins post-mortem, converting glycogen to lactic acid, reducing the pH of the carcass. Depending on a number of factors such as type of animal and even breed, this decrease in pH can take anywhere from a single hour to many. It is vital to monitor pH during this phase as once the lowest pH value is reached, the pH will begin to slowly rise, indicating that decomposition has begun.

The pH value of meat influences its water binding capacity which directly impacts consumer qualities such as tenderness and color. Lower pH values result in a lower water-binding capacity and lighter colors. Factors such as these can be important when considering how to efficiently produce meat products. For example, when producing dry sausages the meat must have a low water binding capacity so that it can dry evenly.

Depending on the type of the final product and the steps required to get there, pH values will vary throughout the meat processing industry. It is imperative, regardless of the final product, that pH be maintained at a low value to prevent bacterial spoilage and comply with food safety regulations. By monitoring pH values throughout the meat production process, you can ensure the creation of consistent and safe meat products.



FC2323

pH / Temperature Probe for Meat

Food Grade PVDF body

The food grade PVDF body material is easy to clean and disinfect. Resistant to most chemicals (e.g. solvents, sodium hypochlorite), ultraviolet light, and fungal growth, the PVDF body has high-abrasion resistance and mechanical strength.

Viscolene electrolyte

The viscolene electrolyte offers a hard gel interface between the inner electrode components and the sample being measured. The electrolyte is silver-free for use in food products and is maintenance-free.

Stainless steel piercing blade

The electrode has been designed to be used with the FC099 (35 mm / 1.38") stainless steel blade. The FC099 stainless steel blade can be attached to the probe for easy meat penetration. Piercing into the meat will allow for the pH glass and reference junction to be in contact with the sample for a direct pH measurement without extensive sample preparation.

Open junction reference

The open junction reference provides for a direct contact with the semi-solid product and resists clogging, ensuring a stable measurement.

Low temperature glass

Specialized low temperature (LT) pH glass ensures fast stabilization and accurate results at lower temperatures.

Built-in temperature sensor

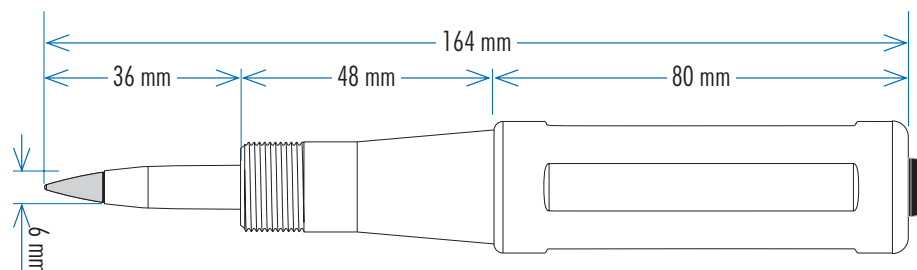
Built-in temperature sensor at the tip of the pH electrode allows for rapid determination of the sample temperature and a high-accuracy temperature reading.

Conic tip shape

This design along with a piercing blade allows for the easy penetration into semisolids for the direct measurement of pH.

Specifications		HI98263
pH*	Range	-2.0 to 20.0 pH -2.00 to 20.00 pH -2.000 to 20.000 pH
	Resolution	0.1 pH; 0.01 pH 0.001 pH
	Accuracy	±0.1 pH ±0.01 pH ±0.002 pH
	Calibration at 25 °C	Up to five-point calibration 7 standard buffers (pH 1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45) 5 custom buffers
mV	Range	±2000 mV
	Resolution	0.1 mV
	Accuracy	±0.2 mV
Temperature	Range	-20.0 to 120.0 °C (-4.0 to 248.0 °F)
	Resolution	0.1 °C (0.1 °F)
	Accuracy	±0.4 °C (±0.8 °F) (excluding probe error)
Additional Specifications	Slope Calibration	from 80 to 110%
	Temperature Compensation	automatic
	Logging	On demand 100 pH samples & 100 mV samples
	Battery type	1.5V AA batteries (4 pcs.)
	Battery life	Approximately 200 hours of continuous use without backlight (50 hours with backlight)
	Auto power-off	Configurable: 5, 10, 30, 60 minutes Disabled
	Connectivity	Opto-isolated USB (serial data transfer or Bluetooth® transfer)
	Protection rating	IP67
	Environment	0 to 50 °C (32 to 122 °F); RH 100%
	Dimensions	185 x 93 x 35.2 mm (7.3 x 3.6 x 1.4")
	Weight	400 g (14.2 oz.)
Ordering Information	HI98263 is supplied with FC2323 pH electrode, FC099 meat piercing stainless steel blade, pH 4.01 buffer solution (230 mL), pH 7.01 buffer solution (230 mL), cleaning solution for meat, grease and fats (2 sachets), 100 mL plastic beaker (2 pcs.), 1.5V AA batteries (4 pcs.), HI920015 USB cable, Instrument quality certificate, electrode quality certificate, and quick reference guide.	
Accessories	HI710035 Blue protective rubber boot FC099 Stainless steel piercing blade. FC099 screws on FC2323 for pH-sensing bulb of glass pH electrode protection and easy piercing into meat (semi-solids).	

Specifications		FC2323
Type	Pre-amplified pH/temperature	
Range	pH: 0 to 12	
Body Material	PVDF	
Reference	Single, Ag/AgCl	
Junction	Open	
Electrolyte	Viscolene	
Maximum pressure	0.1 bar	
Recommended operating temperature	0 to 50 °C (32 to 122 °F)	
Glass type	LT (low temperature)	
Cable	Coaxial; 1 m (3.3')	
Connection	Quick connect DIN	



HI710035 Blue Shockproof Silicon Rubber Boot

Specially designed to protect the HI98263 from damage or impact

