



HI 99163

**pH METER FOR MEAT PROCESSING APPLICATIONS**



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# pH METER FOR MEAT PROCESSING APPLICATIONS

HI 99163 is a portable pH/temperature meter specifically designed for the meat processing industry. pH is a critical parameter which is measured in meat processing plants and slaughter houses to ensure the quality of the product.

The FC 232D pre-amplified pH electrode and stainless steel blade is easy to clean and enables users to perform unintrusive measurements on meat products. The free diffusion junction of the FC 232D helps to prevent clogging.

The HI 99163 easily fits in the palm of your hand and the bottom probe connection ensures the electrode cable doesn't get in your way. The large, multi-level LCD displays the primary reading, temperature and calibration guides simultaneously.

## FEATURES

- **pH probe with a stainless steel penetration blade**
- **Ideal for the Processing Plant**  
The HI 99163's casing is small enough to fit into a coat pocket
- **Waterproof**
- **Multi-level LCD display**  
The meters display the current measurement simultaneously with the current temperature. A quick-guide is also displayed to aid users in instrument operation
- **HOLD**  
The Hold button freezes readings on the display for manual recording
- **Automatic Temperature Compensation**
- **Automatic 1 or 2 point calibration**
- **BEPS**  
BEPS (Battery Error Prevention System) alerts the user in the event that low battery power could adversely affect readings
- **Battery % displayed on startup.**
- **Heavy-duty**  
The enclosure of these waterproof meters are made of tough ABS plastic
- **Easy to clean and keep clean**



**WE DESIGN, MANUFACTURE, SUPPLY AND SUPPORT ALL OF OUR PRODUCTS.**

## THAT'S 360° VALUE

Over the past 30 years, HANNA has never failed to design fresh and innovative products and the new HI 99163 is no exception. We are excited to introduce such high accuracy and ease of use in a compact, modern design that fits right in your hand.

HANNA is the largest family-owned manufacturer of analytical instrumentation in the world. The HI 99163 is manufactured in our European state-of-the-art ISO 9001:2000 production facility and is CE compliant to EN 61326-1 and EN 61010-1 standards.

When you buy a HANNA product, you're not only buying the best value for your money, but you're also adding the benefit of HANNA'S unsurpassed customer service and post-sale technical support.

## Specialized Meat pH Electrode, Stainless Steel Blade & Starter Solutions Included!



Shown with HI 710021 protective boot (optional)



- **Protective Rubber Boot**

The optional protective rubber boot helps protect your meter



## FC 232D PRE-AMPLIFIED pH ELECTRODE

The pre-amplified FC 232D electrode features a stainless steel blade tip that penetrates meat easily without being overly intrusive.

the FC 232D's built-in temperature sensor allows simultaneous pH and temperature readings and a mini pre-amplifier renders measurements impervious to noise and electrical interferences.



- **2 Blade Lengths available**

Use the optional FC 098 (20 mm) or the included FC 099 (35 mm) stainless steel meat penetration blades for meat processing applications

- **Easy to Clean**

The specialized conic tip and stainless steel blades are easy to clean and keep clean

SPECIFICATIONS		HI 99163
Range*	pH	-2.00 to 16.00 pH
	Temperature	-5.0 to 105.0°C; 23.0 to 221.0°F
Resolution	pH	0.01 pH
	Temperature	0.1°C/0.1°F
Accuracy (@20°C)	pH	±0.02 pH
	Temperature	±0.5°C up to 60°C; ±1°C outside; ±1°F up to 140°F; ±2°F outside
Temperature Compensation	Automatic	
pH Calibration	Automatic 1 or 2 point calibration with 2 sets of memorized buffers (4.01, 7.01, 10.01 or 4.01, 6.86, 9.18)	
Electrode (included)	FC 232D pre-amplified pH/temperature electrode with DIN connector and 1 m (3.3' cable)	
Battery Type	(3) 1.2V AAA	
Battery Life	Approximately 200 hours of continuous use	
Auto-off	After 8 minutes of non-use	
Environment	0 to 50°C (32 to 122°F); RH max. 100%	
Dimensions	150 x 58 x 29 mm (5.9 x 2.8 x 1.1")	
Weight	205g (7.2 oz.)	

## ORDERING INFORMATION

**HI 99163** is supplied with FC 232D amplified pH/ temperature electrode with DIN connector and 1 m (3.3') cable, stainless steel blade tip for FC 232D, starter set of calibration & electrode cleaning and disinfection solution sachets, (3) 1.2V AAA batteries, 12 Vdc power adapter/charger and instructions.

## ELECTRODES

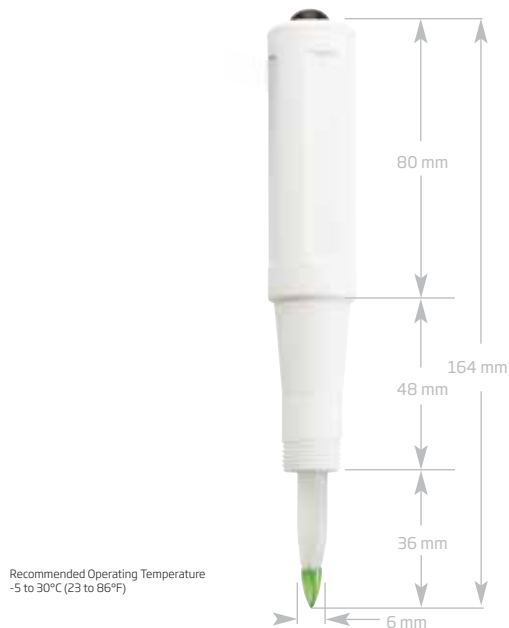
<b>FC 232D</b>	Amplified pH probe with stainless steel blade tip, built-in temperature sensor, DIN connector and 1 m (3.3') cable
<b>FC 098</b>	20 mm stainless steel blade for FC 232D
<b>FC 099</b>	35 mm stainless steel blade for FC 232D

## SOLUTIONS

<b>HI 5004L</b>	pH 4.01 buffer solution, 500 mL
<b>HI 5068L</b>	pH 6.86 buffer solution, 500 mL
<b>HI 5007L</b>	pH 7.01 buffer solution, 500 mL
<b>HI 5010L</b>	pH 10.01 buffer solution, 500 mL
<b>HI 70300L</b>	Electrode storage solution, 500 mL
<b>HI 700630P</b>	Acid cleaning solution for meat, grease and fats, (25) 20 mL sachets
<b>HI 70631L</b>	Alkaline cleaning solution for meat grease and fats, 500 mL
<b>HI 70632L</b>	Cleaning & disinfection solution for blood products, 500 mL

## ACCESSORIES

<b>HI 710020</b>	Orange protective rubber boot
<b>HI 710021</b>	Blue protective rubber boot



SPECIFICATIONS	FC 232D
<b>Description</b>	pH electrode
<b>Reference</b>	Single, Ag/AgCl
<b>Junction / Flow Rate</b>	Open
<b>Electrolyte</b>	Viscolene
<b>Max Pressure</b>	0.1 bar
<b>Range</b>	pH: 0 to 12; T: 0 to 50°C (32 to 122°F)
<b>Tip /Shape</b>	Conic (6 x 10 mm)
<b>Temperature Sensor</b>	Yes
<b>Amplifier</b>	Yes
<b>Body Material</b>	PVDF
<b>Connection/Cable</b>	DIN/7-pole; 1 m (3.3')
<b>Recommended Use</b>	Meat

  
With Great Products, Come Great Results™