

Measuring pH of Semi-Solid, High-Protein & Small Volume Samples? Eutech Has The Solution.

pHSpear & pH Spear Tip Electrode In The Food Industry

pH is an important indicator of food freshness, product quality, process efficiency and ingredient suitability in the food industry. The pH of meat, for instance, helps to determine the quality and water retention of meat-type when measured an hour after slaughter; cheese manufacturing is also highly dependent on pH control during fermentation and ripening in order to produce cheese of high-quality.

Because most samples in the industry are semi-solid, specialty pH electrodes such as the Eutech pHSpear and Eutech pH spear tip electrode are commonly used for quick, direct pH measurements. Tough and robust, these two electrodes are shaped to easily penetrate samples such as meat and fruits for immediate pH measurements without the need for sample processing (such as chopping up the sample and mixing in distilled water to form an emulsion before pH measurement).



An Increasing Trend Of Use In Laboratories

Although the pHSpear and pH Spear tip electrode are designed for the food industry, there has been an increasing number of laboratory applications with these two electrodes, especially for protein-rich samples and tests which involve small sample volumes.

Protein-rich samples with large protein molecules tend to clog electrolyte diaphragms of conventional pH electrodes. The pHSpear and the pH Spear tip electrode resolve this problem with their open pore reference junction which minimises clogging, and comes with double junction sensors to prevent sample contamination by the reference electrolyte.

The unique shape of these electrodes, first designed to aid penetration into semi-solids, also fit conveniently into standard microtubes with sample volumes as little as 20 µl. Made of glass, these electrodes are easy to clean and maintain after use, preventing sample contamination by electrodes, even after multiple uses.



	pHSpear	pH Spear Tip Electrode <i>(Specifications are dependent on the meter used)</i>
		
pH range	-1.00 to 15.00 pH	2.00 to 11.00 pH
Temperature Range	0.0 to 50.0°C / 32.0 to 122.0 °F	0.0 to 60.0°C/ 32.0 to 140 °F
Length	28 mm	80 mm
Diameter	8 mm	6 mm
Minimum Sample Volume	120 µl	20 µl
Order Code (Part Number)	PHSPEAR (01X366919)	EC620133 (01X218975)

For more information on our pHSpear and pH Spear Tip electrode, visit our website at <http://www.eutechinst.com> or email us eutech@thermofisher.com.