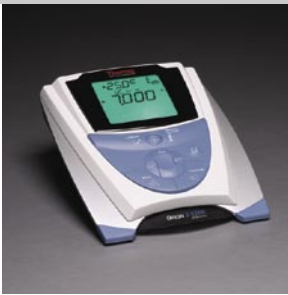


Food & Beverage

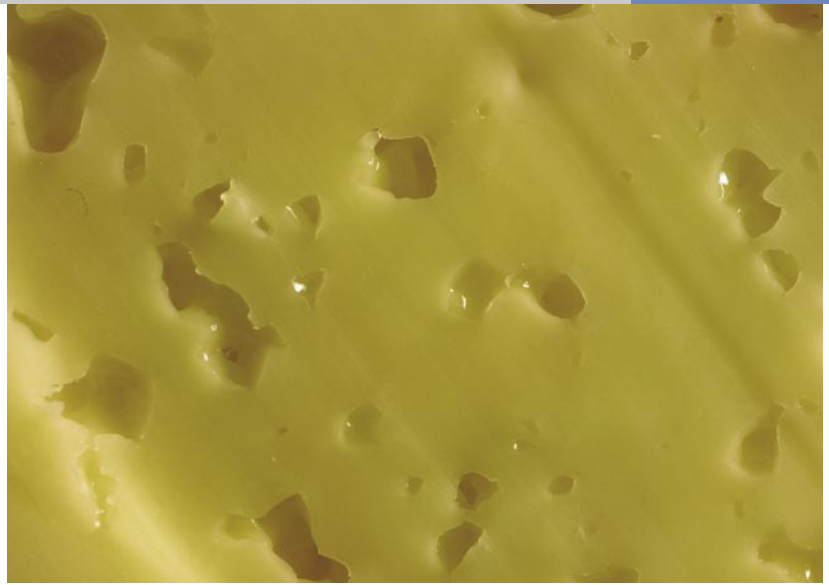
The new Orion 3-Star pH meter and ROSS™ Flat Surface Combination pH electrodes assure cheese and dairy manufacturers the most stable and fast pH measurements for quality assurance purposes.

pH of Cheese

Orion 3-Star pH
Benchtop Meter



For instructions on pH measurements using Orion products, download our Star Series meter information at www.thermo.com/water.



Orion 3-Star pH in Cheese

pH together with temperature, rank as the most important indicators of food quality and safety. The pH of cheese is measured to ensure that the quality standards have been properly met. pH is also monitored at different stages of cheese processing and transformation to guarantee safety, improve production and enhance taste. Along with temperature and water activity, pH is an important determinant in the shelf life of foods.

The pH value of cheese varies not only among types of cheese, but also between batches of the same variety. Typically, the pH of cheese ranges from 5.1 to 5.9 with

a few exceptions such as Camembert, which has a pH of 7.44. The Orion ROSS™ Flat Surface Combination pH electrode is ideal for measuring soft, moist surfaces and both solid and semi-solid samples such as cheese, meats and bread dough.

The Orion 3-Star pH meter has a unique feature set to improve the quality of your pH measurements. The Star Series meters include a convenient, built in Quick-Reference Guide, advanced self-test and diagnostics, GLP electrode verification, and recall of data for 10 previous stored calibrations.

Orion 3-Star pH

The Orion 3-Star pH meter is approved for use in food processing applications as required by the FDA.

Orion 3-Star pH Specifications:

Specifications		Benefit
pH		
Readout Range / Resolution	-2.000 to 19.999 or 0 to 14 in aqueous solutions / 0.1,0.01,0.001	Calibration point flexibility
Relative Accuracy	± 0.002	For exceptional accuracy
SMART STABILITY™ and SMART AVERAGING™	Resolution dependent / automatic	Optimized accuracy, precision & response time
AUTO-CAL™ and/or Manual Calibration	1 to 5 points; US/NIST, DIN, and custom buffers recognized	Protocol compliance
Temperature		
Range / Resolution	-5 to 105 °C / 0.1 up to 99.9 °C, 1.0 over 99.9 °C	Allows for temperature variations
Relative Accuracy	± 0.1 °C	
Temperature Compensation	Auto/Manual	
Display	Custom backlit LCD, for easy viewing	Easy to read
Special GLP Software Features		
# Of Data Logging Points	200 points by time, stability or manual read with time/date stamp	Expanded data storage available
Calibration Log	Last 10 Calibrations	Establish audit trail
User Method Storage	10 Saved	For easy retrieval of routine tests
Power	Universal power adapter and battery power 4 x AA batteries	Data is secure
Regulatory and Safety	CE, CSA, UL, TÜV, FCC Class A limits	Meets all necessary regulations
Environmental Operating Conditions		
Ambient Operating Temperature	5 to 45 °C	
Relative Humidity	5 to 85% Non-Condensing	
IP Rating	IP54, splashproof and dustproof	
Warranty	36 months (from date of purchase)	Reduces service cost

Above data generated under optimal/controlled circumstances.

Equipment needed for pH measurement using the Orion 3-Star pH meter:

Description	Orion Cat. No.
pH in cheese Application Package (includes items listed below)	1010145
Star Series Method Note:	M-1414-E
3-Star benchtop pH meter	1112000
Orion ROSS™ Flat surface combination pH electrode	8135BNUWP or 8135BN
Star ATC stainless steel body probe	927007MD
ROSS pH electrode storage solution	810001
Benchtop stirrer	096019
Benchtop electrode stand	1110001
pH Buffers 4.01, 7.00, and 10.01 475 mL	910104, 910107, 910110

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