

DO in Wine/Beer

Orion 3-Star Dissolved Oxygen Portable Meter

Food & Beverage

The measurement of Dissolved Oxygen is one of the most common analytical techniques used in chemistry laboratories today. Too much oxygen content in wine or beer can deteriorate the taste and quality. For this reason, DO measurement is extremely important for wineries and breweries.

Thermo Electron Corporation offers a wide range of meters, electrodes and consumables to accurately measure DO levels in a variety of samples.



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



Orion 3-Star portable DO meter

In the wine making process, oxygen exposure can cause adverse effects such as browning, aroma and flavor modification, and structural softening.

When brewing beer, dissolved oxygen is of concern because the oxidation of various beer constituents can generate "off flavors" and can also have a negative effect on foam stability.

Many reputable manufacturers use Thermo products everyday for purposes of research & development and quality control. Our DO meters, electrodes and solutions help to ensure product quality and taste.

With the easy-to-use Orion 3-Star DO meter (Cat. No.1214000) and Orion DO electrode (Cat. No. 83010MD) dissolved oxygen measurements are fast and accurate. This rugged meter is waterproof and offers a full complement of GLP-related features. Ten password protected methods can be stored, which is a valuable feature for busy multi-user labs.

Orion products offer top quality meter features with proven electrode technology to provide a complete package needed to meet the quality standards set by wineries and breweries.

Orion 3-Star Dissolved Oxygen

The simple to operate Orion 3-Star DO meter (Cat. No. 1214000) and Orion DO electrode (Cat. No. 83010MD) offer the optimum solution to meet DO measurement needs.

Orion 3-Star DO Specifications:

Specifications		Benefit
DO		
Range / Resolution Concentration	0.00 to 90.0 mg/L / 0.0/0.00	Wide operating range
Range / Resolution % Saturation	0.0 to 600% / 0/0.0	
Relative Accuracy Concentration / % Saturation	± 0.5% ±1 digit	
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	DO (auto); pH (auto/manual)	
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
Display	Custom backlit LCD, for easy viewing	Easy to read
Power	4 x AA batteries, powerless date protection	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	IP67, waterproof and dustproof	
Warranty	36 months (from date of purchase)	Reduces service cost

Above data generated under optimal/controlled circumstances.

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

Description	Orion Cat. No.
DO Application Package (includes all items listed below)	1010138
Star Series Method Note: DO in Wine and Beer	M-1407-E
3-Star portable DO meter	1214000
DO probe	083010MD
DO electrolyte solution, 50 mL	080514
Field Case	1210004
Electrode storage sleeve	1210003