HI 84181

ISE Potassium Meter

with Electrode Holder and Built-in Stirrer

Compact, Dedicated Wine Meter with a built-in Stirrer

The HI 84181 is a low cost, easy to use, potassium ISE instrument that performs automatic analysis with all the necessary calculations to assure the user simple and effective operation.

The instrument comes with a powerful built-in algorithm to analyze the shape of the ISE electrode response and to determine the reaction completion.

By simply pressing the Start key, the instrument performs automatic analysis, all the necessary calculations and verifications. The result is immediately displayed in convenient units, then the instrument is ready for another measurement.

Significance of Use

Potassium ion (K^+) is absorbed by the vine from soil. Unlike other essential nutrients potassium remains in ionic form and passes to the grapes.

Potassium ion is by far the most important ion that can be found in wine with concentrations between 0.7-2 g/L (ppt) and is mostly deriving from grapes.

Potassium ion greatly influences the taste of wine. With its absence wine will have a sour taste.

The alcohol content and low temperatures can cause potassium to precipitate as potassium bitartrate. Red wines have an increased content of potassium compared to white wines because the phenols found in red wine inhibit the precipitation of potassium bitartrate.

The HI 84181 ISE Potassium meter measures the potassium content in wine using an ion selective electrode. The method used is the double standard addition which is a simple and rapid method of analysis. The result is readily displayed in g/L K^+ (ppt).

- *Compact unit designed for wine analysis*
- *Log up to 50 Samples*
- *Twist-on electrode holder and built-in 500 rpm stirrer*

SPECIFICATIONS	HI 84181
Range	0.0 to 5.0 g/L (ppt) K^+
Resolution	0.1 g/L (ppt) K^+
Accuracy (@20°C)	±5% of reading
Sample Volume	50 mL
Temp. Compensation	Automatic from 0 to 80 °C
Electrode	HI 61014 Potassium half cell ; HI 5315 Reference half cell
Temperature Probe	HI 7662-T (included)
Log Feature	50 samples
Stirring Speed	500 rpm
Power	115V/230 Vac; 50-60Hz; 10VA
Environment	0 to 50 °C (32 to 122 °F); max 95% RH non-condensing
Dimensions	208 x 214 x 163 mm (8.2 x 8.4 x 6.4") (with beaker)
Weight	2200 g (77.6 oz.)

Note: Above 2.5 g/L the instrument provides information about the approximate potassium content.

ORDERING INFORMATION

HI 84181-01 (115V) and **HI 84181-02** (230V) is supplied with reagent set for 20 tests, 2000 µL automatic pipette, plastic tips for 2000 µL automatic pipette (6), 50 mL beakers (2), HI 61014 Potassium half cell, HI 5315 Reference half cell, HI 7662-T temperature probe, Stir bars (2), HI 7076 refilling solution, 30 mL (4), 1 mL syringe, 1 mL pipette, instruction sheet, power cable and instruction manual.

ELECTRODES

HI 61014 Potassium half cell
HI 5315 Reference half cell
HI 7662-T Temperature probe

SOLUTIONS and REAGENTS

HI 7076 Electrode filling solution
HI 84181-20 Reagent set (20 tests)
HI 84181-0 ISA for Potassium electrode (500 mL)
HI 84181-1 Standard No. 1 for Potassium electrode (500 mL)
HI 84181-2 Standard No. 2 for Potassium electrode (500 mL)

ACCESSORIES

HI 731316 Stir bars (5)
HI 731342 Automatic pipette 2000 µL
HI 731352 Tips for 2000 µL automatic pipette (25)
HI 740036P Beakers, 50 mL (10 pcs.)
HI 740143 Syringe, 1mL (6 pcs.)
HI 740144 Syringe tips (6 pcs.)
HI 741355P Capillary pipette