



Hand Held Instrumentation

Portable Refractometers

Precision concentration measurement in the palm of your hand.

What is Refractive Index?

When light passes from one medium to another, the speed at which the light travels will change depending on the parameters of the materials.

The ratio or change in the speed of light is called refractive index and instruments that measure this are called refractometers.

The refractive index of a liquid is uniquely related to its specific density. A refractometer may be used to measure the purity or more importantly the concentration of a sample when mixed with other liquids. Refractometers are therefore commonly used to measure dilution and blend ratios of many different solutions found within food, beverage, environmental, life science and industrial applications including sugars (°Brix, glucose, sucrose, etc.), salts (sodium chloride, seawater, calcium chloride, etc.) and heat transfer fluids (antifreeze, de-icing, heat pump, machine shop lubricants, etc.).

Additionally, refractometers may also be used as part of a more complex multiple parameter experiment such as that required to determine the alcohol content of beer, wine or cider.



Hand Held Instrumentation

OPTi Digital Refractometers



Fill the dish with sample



Press READ



Press ZERO for temperature



Hold ZERO then press READ to change scale
(Duo models only)

Bellingham + Stanley designed OPTi digital hand held refractometers are manufactured in the UK as highly reliable premium quality instruments suitable for use in the harshest of environments across a wide application scope.

OPTi refractometers are constructed using the latest manufacturing techniques including stainless steel injection moulding to construct the easy clean prism dish, ultrasonic welding to bond the housings and a rubberized switch membrane to further protect against moisture ingress and excess wear. The OPTi refractometer may be used to control the dissolved solids or blend ratios of numerous products from fresh fruit to industrial chemicals.

Eclipse Professional Optical Refractometers

Manufactured in the UK using only the highest quality optical components and the most modern manufacturing practices, the Eclipse refractometer is the ultimate optical hand held refractometer on the market today. A comprehensive choice of scale types offers versatility across a wide application scope from testing fruit ripeness in the field to monitoring industrial fluids in harsh machine shop environments. Eclipse refractometers have a number of unique features not available on many other brands of refractometer and are supplied complete with a foam carry case, instruction manual and a Certificate of Calibration showing traceability to International standards.



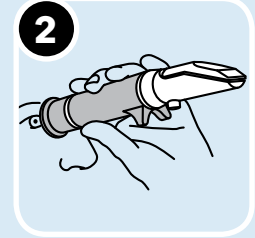
E-line Economy Optical Refractometers

The E-Line Automatic Temperature Compensation (ATC) Range of hand-held refractometers offers versatility at a low price. They are ideal for use in many applications including: fruit, beverage, sugar, food and industrial applications where concentration measurements are required within a light industrial environment.

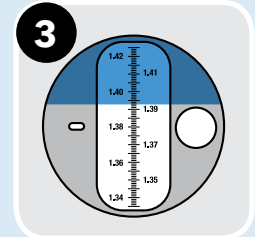
Part Number	Description
38-02	OPTi Brix 0-54
38-75	OPTi Duo Dispense D1 (Bx/PG Vol)
45-02	Eclipse Hand Refractometer: Sugar (°Brix) 0-30%
44-803	Eclipse ATC Hand Refractometer: Sugar (°Brix) 0-32%



Apply the sample.



View the scale



Take the reading



Eclipse refractometers are supplied with a Certificate of Calibration as standard. Eclipse refractometers are verified using UKAS Certified Reference Materials manufactured in accordance with EN ISO IEC 17025:2005.