



"I need to test the sugar level in my sample."

# Digital Refractometers

## Four Models to Choose From

Designed to meet the requirements of the food and drink industry, our digital refractometers are rugged, portable and water resistant. 4 models allow you to choose to measure either sugar, fructose, glucose or inverted sugar, all with laboratory grade accuracy at a highly competitive price.

## Analyse

- |                 |             |              |
|-----------------|-------------|--------------|
| • Fruits        | • Juices    | • Soups      |
| • Energy drinks | • Jam       | • Jelly      |
| • Puddings      | • Marmalade | • Tofu       |
| • Soy milk      | • Honey     | • Condiments |

## KEY FEATURES

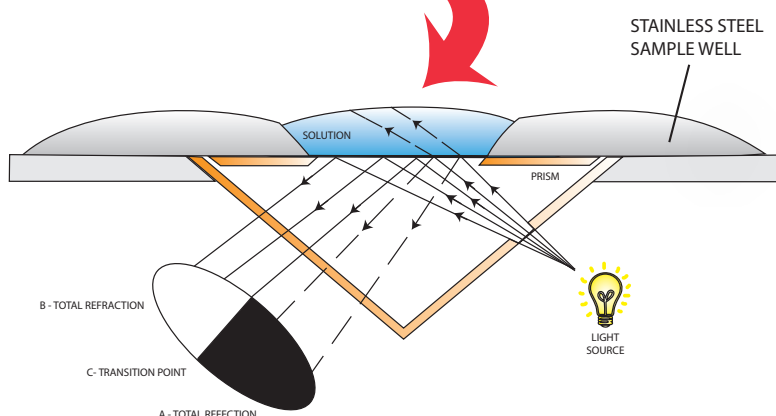
- Dual-level LCD
- Temperature measurement
- Calibrate with water
- Wide range
- Easy measurement
- Battery operated
- ATC
- Small sample size
- IP65 waterproof protection
- Stainless steel sample well
- Automatic shut-off



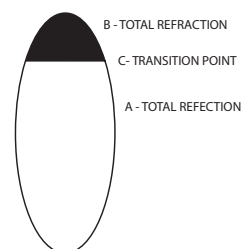
## Principle of a Refractometer

- A sample is placed on a prism
- A light is shone through the prism to the sample
- The critical angle from the shadow line is measured

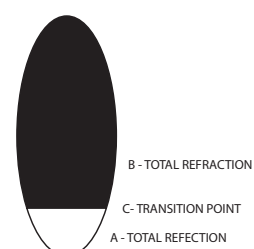
A few drops of food or drink sample are all that is needed



Low Concentration



High Concentration



HI96801, HI96802, HI96803, HI96804

**HANNA**  
instruments  
[www.hannainst.co.uk](http://www.hannainst.co.uk)



## Sugar Level Testing - HANNA has the solution



### How it Works

These precision digital refractometers measure the light refracted from a sample without the need for a separate light source or worry about sample temperatures.

All they need are a couple of drops of the sample on the sample well prism and a single key to be pressed. A yellow LED light is then shone through the prism up through the sample and the light refracted back is focused onto a precision CCD sensor which provides a highly accurate result displayed on the large easy to read LCD display.

### The Digital Advantage at a Mechanical Price

For the same price or less than a traditional analog refractometer our new digital meters provide laboratory grade analysis of sugar content yet are simple and quick to use.

Calibration is easy and does not require the use of special calibration solutions. Simply place a couple of drops of pure water on the sample cell and press a button – the meter will automatically calibrate and be ready to use in less than 2 seconds.

Hanna digital refractometers are designed for either lab, factory or field use and are fully sealed against the ingress of water or dust to make them a real go anywhere meter.

Whichever meter you choose, results are shown directly converted to %sugars by weight concentration (or directly in %Brix on the HI96801) together with the temperature of the sample.

### What is Brix?

Degrees Brix (symbol °Bx) is a measurement of the mass ratio of dissolved sugar to water in a liquid.

A 25 °Bx solution is 25 % (w/w), there is 25 grams of sucrose sugar and 75 grams of water in the 100 grams of solution.

Product specification		HI-96801 % Sugar	HI-96802 % Fructose	HI-96803 % Glucose	HI-96804 % Invert Sugar
Range	Sugar Content	0 to 85% Brix	0 to 85% (by weight)	0 to 85% (by weight)	0 to 85% (by weight)
	Temperature	0 to 80 °C (32 to 176°F)			
Resolution	Sugar Content	± 0.1 % Brix	± 0.1	± 0.1	± 0.1
	Temperature	± 0.1°C (0.1°F)			
Accuracy	Sugar Content	± 0.2 % Brix	± 0.2	± 0.2	± 0.2
	Temperature	±0.1°C (±0.1°F)			
Automatic Temperature Compensation		Automatic between 10 and 40°C (50 - 104°F)			
Measurement Time		Approximately 1.5 seconds			
Minimum Sample Volume		2 metric drops of liquid to cover prism totally			
Light Source		Yellow LED			
Sample Cell		Stainless steel ring and flint glass prism			
Auto-Of		After 3 minutes of non-use			
Enclosure Rating		IP65			
Battery Type / Life		(1) 9V / 5000 readings			
Dimensions/ Weight		19.2(W) x 10.2(D) x 6.7 (H)cm / 420g			

Available from



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