

Web: http://www.helago-cz.cz

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OPTi Digital Handheld Refractometer Order code: 0507.3801



All the accuracy you need in an easy-to-use handheld device

OPTi® Digital Handheld Refractometer - A high performance refractometer with a vast choice of scales for a wide range of applications – all in the palm of your hand.

Software

- Quick 2 second read time of sample
- Onboard library of 50 scales
- Up to 3 active scales on a single device
- High Ambient Light (HAL) sensor detects and warns of too much light entering the sensor
- Unique "AG Test Mode" that allows the use of long-life non sucrose based certified reference materials
- Programmable read delay for sample temperature stabilisation

Hardware

- Clear digital LCD display
- Ergonomic & durable handheld design
- IP65 rated
- Easy-clean, stainless steel prism dish
- Rapid temperature stabilisation

The OPTi® Digital Handheld Refractometer is a high quality, UK made, simple-to-use, accurate, pocket sized refractometer offering measurement between 0-95 Brix and over 40 other scales.

The OPTi refractometer is constructed using the latest manufacturing techniques. Stainless steel injection moulding to form the easy clean prism dish and ultrasonic welding to bond the housing. Each OPTi displays information to the user via and easy-to-read LCD display, helping to make readings even easier than using a standard optical handheld refractometer.

Full 0-95 Brix Scale

The Brix scale is the most common scale used in refractometry, yet many refractometers cover only a small portion of it. OPTi gives you more, with coverage of the full Brix range (0-95) at no extra cost.

50 Common Refractometer Scales

Each OPTi comes with 3 interchangeable scales pre-loaded from an onboard library of 50 individual choices - meaning there are over 9880 possible OPTi combinations.

A Durable Design For Versatile Use

Thanks to its durable design and vast range of scales, the OPTi is suitable for a wide range of applications; from the clinical laboratory to the harshest of environments. OPTi is the refractometer that fits in your pocket. With a long battery life, true portability, and durable design: OPTi refractometers are ready when you are. Readings from an OPTi refractometer are clear and defined thanks to the bold digital LCD display.

All OPTi refractometers feature a four decimal place LCD display, Temperature Compensation (ATC), robust design with IP65 rating, a choice of three scales in a single device.

Typical Specifications

| Typical Specifications | Sucrose (Brix) | Refractive Index | Specific Gravity (SG) | Concentration % |
|--------------------------------|-------------------|------------------------------|--------------------------|--------------------|
| Range | 0-95 | 1.33-1.53 | 1.000-1.050 | 0-95 |
| Resolution | 0.1 | 0.0001 | 0.001 | 0.1 |
| Accuracy | 0.2 | 0.0003 | 0.003 | 0.2 |
| Temperature Compensation (ATC) | Brix (ICUMSA) | Application Specific or Brix | | |
| Ambient Temperature Range | 5-40°C (Ambient) | 5-95°C (Sample) | | |

Scale List

Complete list of OPTi scales selectable through the onboard library.

| Application | Scale | Units | Range | Resolution | Accuracy | ATC |
|-----------------|---------------------------------------|------------------------------|-------------|-------------|----------|---------|
| Primary | °Brix (ATC) | | 0-95 | 0.1 | ±0.2 | °Brix |
| Primary | °Brix | | 0-95 | 0.1 | ±0.2 | None |
| Primary | Refractive Index (ATC) | | 1.33-1.53 | 0.0001 | ±0.0003 | °Brix |
| Primary | Refractive Index | | 1.33-1.53 | 0.0001 | ±0.0003 | None |
| Automotive | AdBlue®/DEF (NOx reduction) | % Weight / Weight | 0-40 | 0.1 | ±0.2 | AUS32 |
| Automotive | Ethylene Glycol | °C Freezing Point | 0 to -50 | 1 | ±1 | EG |
| Automotive | Ethylene Glycol | °F Freezing Point | 30 to -40 | 1 | ±1 | EG |
| Automotive | Propylene Glycol | °C Freezing Point | 0 to -50 | 1 | ±1 | PG |
| Automotive | Propylene Glycol | °F Freezing Point | 30 to -40 | 1 | ±1 | PG |
| Food & Beverage | °Butyro | | 0-100 | 0.1 | ±0.5 | Butyro |
| Food & Beverage | 42 HFCS (High Fructose Corn Syrup) | % Weight / Weight | 0-95 | 0.1 | ±0.2 | °Brix |
| Food & Beverage | 55 HFCS (High Fructose Corn Syrup) | % Weight / Weight | 0-95 | 0.1 | ±0.2 | °Brix |
| Food & Beverage | 90 HFCS (High Fructose Corn Syrup) | % Weight / Weight | 0-95 | 0.1 | ±0.2 | °Brix |
| Food & Beverage | Fructose | % Weight / Weight | 0-85 | 0.1 | ±0.2 | °Brix |
| Food & Beverage | Glucose | % Weight / Weight | 0-85 | 0.1 | ±0.2 | °Brix |
| Food & Beverage | Invert Sugar | % Weight / Weight | 0-85 | 0.1 | ±0.2 | °Brix |
| Food & Beverage | Maltose | % Weight / Weight | 0-60 | 0.1 | ±0.2 | °Brix |
| Food & Beverage | Salinity (NaCl) | % Weight / Volume | 0-28 | 0.1 | ±0.2 | NaCl |
| Food & Beverage | Total Solids of Waste Milk | % | 5-15 | 0.1 | ±0.5 | °Brix |
| Food & Beverage | Water in Honey | % Weight / Weight | 10-30 | 0.1 | ±0.2 | Honey |
| Industrial | Arbitrary | | 0-95 | 0.1 | ±0.2 | |
| Industrial | Calcium Chloride | % Weight / Weight | 0-40 | 0.1 | ±0.2 | CaCl2 |
| Industrial | Ethanol | % Volume / Volume | 0-20 | 0.5 | ±1 | Ethanol |
| Industrial | Ethylene Glycol | % Volume / Volume | 0-60 | 0.1 | ±0.4 | EG |
| Industrial | Ethylene Glycol | % Weight / Weight | 0-60 | 0.1 | ±0.4 | EG |
| Industrial | FSII DIEGME (ASTM D 5006) | % Volume / Volume | 0.0-0.25 | 0.01 | ±0.02 | °Brix |
| Industrial | Hydrogen Peroxide | % Weight / Weight | 0-50 | 0.2 | ±0.5 | °Brix |
| Industrial | Methanol | % Weight / Weight | 0-40 | 1 | ±0.2 | Meth |
| Industrial | Propylene Glycol | % Volume / Volume | 0-60 | 0.1 | ±0.4 | PG |
| Industrial | Sodium Sulphate | % Weight / Weight | 0-22 | 0.1 | ±0.2 | Na2SO4 |
| Industrial | Starch | % | 0-30 | 0.1 | ±0.2 | °Brix |
| Industrial | Sulphuric Acid (Battery Acid) | Specific Gravity (d20/20) | 1.000-1.501 | 0.001 | ±0.003 | SA |
| Industrial | Urea (CRC data) | % Weight / Weight | 0-40 | 0.1 | ±0.2 | AUS32 |
| Life Science | Colostral Quality | | Poor / PASS | Poor / PASS | ±0.2 | °Brix |
| Life Science | Seawater (Practical Salt Units) | Part Per Thousand | 0-180 | 1 | ±1 | NaCl |

| Life Science | Seawater (Practical Salt Units) | Specific Gravity (d20/20) | 1.000-1.090 | 0.0005 | ±0.001 | NaCl |
|--------------|------------------------------------|------------------------------|-------------|--------|---------|-------|
| Life Science | Serum Protein | g/100ml | 0-30 | 0.1 | ±0.2 | °Brix |
| Life Science | Urine (SG) Human | Specific Gravity (d20/20) | 1.000-1.050 | 0.0005 | ±0.0010 | °Brix |
| Life Science | Urine (SG) Large Mammal | Specific Gravity (d20/20) | 1.000-1.050 | 0.0001 | ±0.0010 | °Brix |
| Life Science | Urine (SG) Small Mammal | Specific Gravity (d20/20) | 1.000-1.050 | 0.0005 | ±0.0010 | °Brix |
| Wine & Beer | °Baumé | | 0-50 | 0.1 | ±0.2 | °Brix |
| Wine & Beer | °Zeiss (ABV) | % Volume / Volume | 10-135 | 0.1 | ±0.5 | °Brix |
| Wine & Beer | Alcohol Probable (AP) | | 0-22 | 0.1 | ±0.2 | °Brix |
| Wine & Beer | KMW (Babo) | | 0-25 | 1 | ±1 | °Brix |
| Wine & Beer | Oechsle (German) | | 30-130 | 1 | ±1 | °Brix |
| Wine & Beer | Oechsle (Swiss) | | 0-130 | 1 | ±1 | °Brix |
| Wine & Beer | °Plato | | 0-30 | 0.1 | ±0.2 | °Brix |
| Wine & Beer | Mass Sugar (°Brix) (ATC) | % Weight / Weight | 0-95 | 0.1 | ±0.2 | °Brix |
| Wine & Beer | Mass Sugar (°Brix) | % Weight / Weight | 0-95 | 0.1 | ±0.2 | None |
| Wine & Beer | Wort (Sucrose Equivalent) | Specific Gravity (d20/20) | 1.000-1.120 | 0.0005 | ±0.001 | °Brix |

| Range0.951.33-1.531.000-1.0500.95Resolution0.10.0010.010.1Accuracy0.20.0030.030.2Temperature Compensation (ATC)Shi'k (ICUMSA)Application Specific or BrixVAmbient Temperature Ranee5-40°C (Ambient)5-95°C (Sample)VSpecial Features-HAL- High Ambient Light - tection, Error messaging, Battery life indicator, AG - Text Mode, Scale library, Delay before reading, *F/°C switz Mode, Scale library, Delay before reading, *F/°C switzVPrism DishMoulded Stainless SteVVPrism SealSiliconeSiliconeVSample IlluminationLED (yellow)VVKey FunctionsREAD, ZEROVVRetargingSilicone rubberVVIn RatingOsilicone rubberVVIn RatingSilicone rubberVVHumidity95% RH (non-condensure)VVIn Rating15 grams (including bacture)VVHumidity25% Silix (including bacture)VVIn RatingSilis Silix (including bacture)VVIn Rating (including bacture)VVVIn Rating (including bacture)Silix (including bacture)VVIn RatingSilix (including bacture)VVVIn Rating (including bacture)Silix (including bacture)VVVIn Rating (including bacture)Silix (including bacture)V <th>Typical Specifications</th> <th>Sucrose (Brix)</th> <th>Refractive Index</th> <th>Specific Gravity (SG)</th> <th>Concentration %</th> | Typical Specifications | Sucrose (Brix) | Refractive Index | Specific Gravity (SG) | Concentration % | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------|--------------------|--|
| Accuracy0.20.0030.0030.030.2Temperature Compensation (ArC)Brix (ICUMSA)Application Specific or BrixAmbient Temperature Rame5-40°C (Ambient)5-95°C (Sample)Special Featuresb-40°C (Ambient)5-95°C (Sample)Special Featuresb-40°C (Ambient)E-95°C (Sample) <td< th=""><td>Range</td><td>0-95</td><td>1.33-1.53</td><td>1.000-1.050</td><td>0-95</td></td<> | Range | 0-95 | 1.33-1.53 | 1.000-1.050 | 0-95 | |
| Temperature Compensation (ATC)Brix (ICUMSA)Application Specific or BrixAmbient Temperature Range5-40°C (Ambient)5-95°C (Sample)Special Features-HAL- High Ambient Light detection, Error messaging, Battery life indicator, AG Test Mode, Scale library, Delay before reading, °F/°C switch, Serial & Version No, PIN controlPrism DishMoulded Stainless SteelPrism SealSiliconePrismBmm optical glassSample IlluminationLED (yellow)Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialSilicone rubberCase MaterialSilicone rubberIP RatingP65Humidity<95% RH (non-condensing)Battery / Battery Life3V, 2 x AAA (LR03) / 10,000 readingsNett Weight115 grams (including batteries)Gross Weight295 gramsDimensions (instrument)22 x 5 x 3.5cm (L x W x H)Dimensions (packed)88:01 | Resolution | 0.1 | 0.0001 | 0.001 | 0.1 | |
| (Arc)S-40°C (Ambient)S-95°C (Sample)Ambient Temperature Range5-40°C (Ambient)S-95°C (Sample)Special FeaturesHAL- High Ambient Light detection, Error messaging, Battery life indicator, AG Test Mode, Scale library, Delay before reading, °F/°C switch, Serial & Version No, PINPrism DishMoulded Stainless SteelPrism SealSiliconePrismBmm optical glassSample IlluminationLED (yellow)Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialSilicone rubberIP RatingIP65Humidity<95% RH (non-condensing)Battery / Battery Life3V, 2 x AAA (LR03) / 10,000 readingsNet Weight115 grams (including batteries)Gross Weight295 gramsDimensions (instrument)22 x 5 x 3.5cm (L x W x H)Dimensions (packed)38:01 | Accuracy | 0.2 | 0.0003 | 0.003 | 0.2 | |
| Special FeaturesHAL- High Ambient Light detection, Error messaging, Battery life indicator, AG Test Mode, Scale library, Delay before reading, "F/°C switch, Serial & Version No, PIN controlPrism DishMoulded Stainless SteelPrism SealSiliconePrismBarm optical glassSample IlluminationLED (yellow)Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialSilicone rubberIP RatingIP65Humidity<95% RH (non-condensing) | | Brix (ICUMSA) | Application Specific or Brix | | | |
| Prism DishBattery life indicator, ÅG Test Mode, Scale library, Délay before reading, *F/°C switch, Serial & Version No, PIN controlPrism DishMoulded Stainless SteelPrism SealSiliconePrismBattery Life indicator, de la sum optical glassSample IlluminationLED (yellow)Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialSilicone rubberIP RatingIP65Humidity<95% RH (non-condensing) | Ambient Temperature Range | 5-40°C (Ambient) | 5-95°C (Sample) | | | |
| Prism SealSiliconePrismSmm optical glassSample IlluminationLED (yellow)Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialAcrylonitrile Butadiene Styrene (ABS)IP RatingIP65Humidity<95% RH (non-condensing) | Special Features | Battery life indicator, AG Test Mode, Scale library, Delay before reading, °F/°C switch, Serial & Version No, PIN | | | | |
| Prism8mm optical glassSample IlluminationLED (yellow)Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialAcrylonitrile Butadiene Styrene (ABS)IP RatingIP65Humidity<95% RH (non-condensing)Battery / Battery Life3V, 2 x AAA (LR03) / 10,000 readingsNett Weight115 grams (including batteries)Gross Weight295 gramsDimensions (instrument)12 x 5.5 x 3.5cm (L x W x H)Dimensions (packed)38-01 | Prism Dish | Moulded Stainless Steel | | | | |
| Sample IlluminationLED (yellow)Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialAcrylonitrile Butadiene Styrene (ABS)IP RatingIP65Humidity<95% RH (non-condensing)Battery / Battery Life3V, 2 x AAA (LRO3) / 10,000 readingsNett Weight115 grams (including batteries)Gross Weight295 gramsDimensions (instrument)12 x 5.5 x 3.5cm (L x W x H)Dimensions (packed)38-01 | Prism Seal | Silicone | | | | |
| Display4 1/2 digital LCDKey FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialAcrylonitrile Butadiene Styrene (ABS)IP RatingIP65Humidity<95% RH (non-condensing) | Prism | 8mm optical glass | | | | |
| Key FunctionsREAD, ZEROKeypad MaterialSilicone rubberCase MaterialAcrylonitrile Butadiene Styrene (ABS)IP RatingIP65Humidity<95% RH (non-condensing) | Sample Illumination | LED (yellow) | | | | |
| Keypad MaterialSilicone rubberCase MaterialAcrylonitrile Butadiene Styrene (ABS)IP RatingIP65Humidity<95% RH (non-condensing) | Display | 4 1/2 digital LCD | | | | |
| Case MaterialAcrylonitrile Butadiene Styrene (ABS)IP RatingIP65Humidity<95% RH (non-condensing) | Key Functions | READ, ZERO | | | | |
| IP RatingIP65Humidity<95% RH (non-condensing) | Keypad Material | Silicone rubber | | | | |
| Fundity<95% RH (non-condensing) | Case Material | Acrylonitrile Butadiene Styrene (ABS) | | | | |
| Battery / Battery Life3V, 2 x AAA (LR03) / 10,000 readingsNett Weight115 grams (including batteries)Gross Weight295 gramsDimensions (instrument)12 x 5.5 x 3.5cm (L x W x H)Dimensions (packed)25 x 10 x 6.5cm (L x W x H)Code No.38-01 | IP Rating | IP65 | | | | |
| Nett Weight 115 grams (including batteries) Gross Weight 295 grams Dimensions (instrument) 12 x 5.5 x 3.5 cm (L x W x H) Dimensions (packed) 25 x 10 x 6.5 cm (L x W x H) Code No. 38-01 | Humidity | <95% RH (non-condensing) | | | | |
| Gross Weight 295 grams Dimensions (instrument) 12 x 5.5 x 3.5 cm (L x W x H) Dimensions (packed) 25 x 10 x 6.5 cm (L x W x H) Code No. 38-01 | Battery / Battery Life | 3V, 2 x AAA (LR03) / 10,000 readings | | | | |
| Dimensions (instrument) 12 x 5.5 x 3.5cm (L x W x H) Dimensions (packed) 25 x 10 x 6.5cm (L x W x H) Code No. 38-01 | Nett Weight | 115 grams (including batteries) | | | | |
| Dimensions (packed) 25 x 10 x 6.5cm (L x W x H) Code No. 38-01 | Gross Weight | 295 grams | | | | |
| Code No. 38-01 | Dimensions (instrument) | 12 x 5.5 x 3.5cm (L x W x H) | | | | |
| | Dimensions (packed) | 25 x 10 x 6.5cm (L x W x H) | | | | |
| EAN 5060322030470 | Code No. | 38-01 | | | | |
| | EAN | 5060322030470 | | | | |