

MA871/MA872/MA873/MA881 Digital Refractometers for Brix, Fructose, Glucose and Invert Sugar Measurements

The digital refractometers are optical instruments that employ the measurement of refractive index to determine the % Brix of sugar (MA871), % Fructose (MA872), % Glucose (MA873) and % Invert Sugar (MA881) in aqueous solutions.

The method is both simple and quick. Samples are measured after a simple user calibration with deionized or distilled water. Within seconds the instruments measure the refractive index of the sample and convert it to % Brix or % by weight concentration units.

The digital refractometers eliminate the uncertainty associated with mechanical refractometers and are easily portable for measurements in the field.

The measurement technique and temperature compensation employ methodology recommended in the ICUMSA Methods Book (Internationally recognized body for Sugar Analysis). Temperature (in °C or °F) is displayed simultaneously with the measurement on the large dual level display along with icons for Low Power and other helpful message codes.

Key features include:

- Dual-level LCD
- Automatic Temperature Compensation (ATC)
- Easy setup and storage
- Battery operation with Low Power indicator (BEPS)
- Automatically turns off after 3 minutes of non-use







Years warranty
2

ATC

Dual Display

Self diagnostics

CE

| Specifications |  MA871 Brix |  MA872 Fructose |  MA873 Glucose |  MA881 Invert Sugar |
|--------------------------|--|--|--|--|
| Range | 0 to 85% Brix 0 to 80°C / 32 to 176°F | 0 to 85% mass 0 to 80°C / 32 to 176°F | 0 to 85% mass 0 to 80°C / 32 to 176°F | 0 to 85% mass 0 to 80°C / 32 to 176°F |
| Resolution | 0.1% Brix 0.1°C / 0.1°F | 0.1% 0.1°C / 0.1°F | 0.1% 0.1°C / 0.1°F | 0.1% 0.1°C / 0.1°F |
| Accuracy | ±0.2% Brix ±0.3°C / ±0.5°F | ±0.2% ±0.3°C / ±0.5°F | ±0.2% ±0.3°C / ±0.5°F | ±0.2% ±0.3°C / ±0.5°F |
| Light Source | yellow LED | yellow LED | yellow LED | yellow LED |
| Measurement Time | approximately 1.5 seconds | approximately 1.5 seconds | approximately 1.5 seconds | approximately 1.5 seconds |
| Minimum Sample Volume | 100 µL (cover prism totally) | 100 µL (cover prism totally) | 100 µL (cover prism totally) | 100 µL (cover prism totally) |
| Sample Cell | SS ring and flint glass prism | SS ring and flint glass prism | SS ring and flint glass prism | SS ring and flint glass prism |
| Temperature Compensation | automatic between 10 and 40°C / 50 to 104°F | automatic between 10 and 40°C / 50 to 104°F | automatic between 10 and 40°C / 50 to 104°F | automatic between 10 and 40°C / 50 to 104°F |
| Case Material | ABS | ABS | ABS | ABS |
| Enclosure Rating | IP 65 | IP 65 | IP 65 | IP 65 |
| Battery Type | 1 x 9V AA (included) | 1 x 9V AA (included) | 1 x 9V AA (included) | 1 x 9V AA (included) |
| Battery Life | 5000 reading | 5000 reading | 5000 reading | 5000 reading |
| Auto-shut off | after 3 minutes of non-use | after 3 minutes of non-use | after 3 minutes of non-use | after 3 minutes of non-use |
| Dimensions | 192 x 102 x 67 mm | 192 x 102 x 67 mm | 192 x 102 x 67 mm | 192 x 102 x 67 mm |
| Weight | 420 g | 420 g | 420 g | 420 g |

Ordering Information

MA871, MA872, MA873 and MA881 are supplied complete with Mi0005 9V battery and instruction manual.



Stainless Steel Sample Well and Prism

Place a few drops of the sample in the well and press the READ key.

