



The digital refractometers are optical instruments that employ the measurement of refractive index to determine the Brix of sugar (MA871), % Brix, °Oechsle and °KMW in Grape Juice Must (MA885), Sodium chloride concentration (MA886), Salinity (MA887), in aqueous solutions.

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

**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

Specifications	MA871 Brix of sugar	MA885 Grape Juice Must	MA886 Sodium chloride	MA887 Salinity
<b>Range</b>	0 to 85% Brix 0 to 80°C / 32 to 176°F	0 to 50% Brix 0 to 230 °Oechsle 0 to 42 °KMW 0 to 80°C / 32 to 176°F	0 to 28 g/100 g 0 to 34 g/100 ml 1.000 to 1.216 Specific Gravity 0 to 26 °Baumé 0 to 80°C / 32 to 176°F	0 to 50 PSU 0 to 150 ppt 1.000 to 1.114 S.G. (20/20) 0 to 80°C / 32 to 176°F
<b>Accuracy</b>	±0.2% Brix ±0.3°C / ±0.5°F	±0.2% Brix ±1 °Oechsle ±0.2 °KMW ±0.3°C / ±0.5°F	±0.2 g/100 g; 100 ml ±0.002 Specific Gravity ±0.2 °Baumé ±0.3°C / ±0.5°F	±2 PSU ±2 ppt ±0.002 S.G. (20/20) ±0.3°C / 0.5°F
<b>Light source</b>	yellow LED			
<b>Measurement time</b>	approx. 1.5 seconds			
<b>Minimum sample vol.</b>	100 µL (cover prism totally)			
<b>Sample cell</b>	SS ring and flint glass prism			
<b>Temp. compensation</b>	automatic			
<b>Case material</b>	ABS			
<b>Battery type</b>	1 x 9V AA (included)			
<b>Auto-shut off</b>	after 3 minutes of non-use			
<b>Dimensions / Weight</b>	192 x 102 x 67 mm / 420 g			

Turbidity refers to the concentration of undissolved, suspended particles present in a liquid. Turbidity is a measure of the clarity of a sample. For potable water applications turbidity is a good indicator of water quality. Turbidity measurement is achieved by analyzing the amount of light refracted from suspended particles such as clay, silt and organic material. By measuring turbidity, by photometric or tube methods, it is possible to estimate suspended solids content.

MI415 has two operating ranges; 0.00 to 50.00 FNU, and 50 to 1000 FNU that can accommodate the most turbid condition you may encounter.

MI415 is supplied in a hard carrying case, complete with calibration solutions.



Specification	MI415 PRO
<b>Range</b>	0.00 to 50.00 FNU; 50 to 1000 FNU
<b>Resolution</b>	0.01 FNU; 1 FNU
<b>Accuracy</b>	±0.5 FNU or ±5% of reading (whichever is greater)
<b>Method</b>	detection of scattered light
<b>Light source</b>	infrared LED
<b>Light detector</b>	silicon photocell
<b>Environment</b>	0 to 50°C; max RH 100%
<b>Battery Type</b>	1 x 9V
<b>Auto off</b>	after 5 minutes of non use
<b>Dimensions</b>	192 x 104 x 52 mm
<b>Weight</b>	380 g

The revolutionary new range of Milwaukee handy photometers are compact and easy to use. Within a few minutes you can get the required result on the LCD and the meter automatically turns off after 2 minutes in order to save battery life.

- MW10:** Free chlorine photometer, 0.00 to 2.50 ppm range.
- MW11:** Total chlorine photometer, 0.00 to 3.50 ppm range.
- MW12:** Phosphate photometer, 0.00 to 2.50 ppm range.
- MW13:** Iodine photometer, 0.0 to 12.5 ppm range.
- MW14:** Iron photometer, 0.00 to 5.00 ppm range.



The latest laboratory grade microprocessor photometers have an excellent repeatability and are ideal for field measurements. Chlorine is the most commonly used water disinfectant.

Applications vary from treatment of drinking water and wastewater to pool and spa sanitization and food processing to sterilization.

All photometers come complete in hard carrying case and reagents for 100 tests, making it ideal for field measurements.



Specification	MI404 PRO	MI405 PRO	MI411 PRO	MI412 PRO	MI414 PRO
<b>Range</b>	0.00 to 5.00 mg/l (Cl <sub>2</sub> )	0.00 to 9.99 mg/l (NH <sub>3</sub> -N)	0.00 to 5.00 mg/l (Cl <sub>2</sub> ) 6.5 to 8.0 pH	0.00 to 20.00 mg/l	0.00 to 20.00 mg/l (Cl <sub>2</sub> )
<b>Accuracy</b>	±0.06 mg/l @1.50 mg/l	±0.30 mg/l u@5.00 mg/l	±0.06 mg/l @1.50 mg/l ±0.1 pH @7.2 pH	±0.07 mg/l @1.00 mg/l	±1.0 mg/l @10.0 mg/l
<b>Method</b>	Standard	Nessler	Standard	Standard	Standard
<b>Reagents (included)</b>	Mi504-100	Mi505-100	Mi511-100	Mi512-100	Mi514-100
<b>Light source</b>	tungsten lamp	LED 466 nm	tungsten lamp	tungsten lamp	LED 466 nm
<b>Calibration</b>	automatic	automatic	automatic	automatic	automatic
<b>Auto off</b>	after 10 minutes of non use	after 10 minutes of non use	after 10 minutes of non use	after 10 minutes of non use	after 10 minutes of non use
<b>Dimensions / Weight</b>	192 x 104 x 52 / 380 g	192 x 104 x 52 / 380 g	192 x 104 x 52 / 380 g	192 x 104 x 52 / 380 g	192 x 104 x 52 / 380 g

Milwaukee has a wide assortment of pH, ORP, Conductivity and other specialty sensors and calibration, maintenance and cleaning solutions, to meet all your specific requirements. Finding the right electrode for a specific application is a very important task and in order to solve this selection problem it is important to consider the following: electrode body, reference construction and junction.

**Electrodes and Probes**

<b>MA815D/1</b>	4-ring Conductivity/TDS/NaCl/Temperature probe with DIN connector and 1meter cable
<b>MA840</b>	Polarographic D.O. probe with 3 meter cable
<b>MA906BR/1</b>	pH/Temp. Amplified Probe with 1 meter cable
<b>MA814DB/1</b>	4-ring Conductivity/TDS/NaCl/Temperature probe with DIN connector and 1meter cable
<b>SE220</b>	Double junction pH electrode with 1 meter cable and gel filled electrolyte solution
<b>MA916B/1</b>	pH Glass Electrode with BNC Connector and 1m cable
<b>MA917B/1</b>	Refillable Combined Glass pH Electrode with Double Junction and 1 meter cable
<b>MA918B/1</b>	Combined Glass pH Electrode with 3 Diaphragms, Double Junction and 1 meter cable
<b>MA921B/1</b>	Double junction Platinum ORP electrode with BNC Connector and 1 m cable

**Calibration, Maintenance & Cleaning Solutions**

<b>MA9001</b>	pH 1.68 calibration buffer solution 230 ml
<b>MA9004</b>	pH 4.01 calibration buffer solution 230 ml
<b>MA9006</b>	pH 6.86 calibration buffer solution 230 ml
<b>MA9007</b>	pH 7.01 calibration buffer solution 230 ml
<b>MA9009</b>	pH 9.18 calibration buffer solution 230 ml
<b>MA9010</b>	pH 10.01 calibration buffer solution 230 ml
<b>MA9011</b>	Refilling electrolyte solution 3.5M KCl 230 ml
<b>MA9015</b>	Storage solution for pH/ORP electrodes 230 ml
<b>MA9016</b>	Cleaning solution 230 ml
<b>MA9020</b>	200-275 mV ORP solution 230 ml
<b>MA9061</b>	1413 µS/cm conductivity calibration solution 230 ml
<b>MA9071</b>	Electrolyte solution for D.O. probes 230 ml



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