Product Data Sheet

Digital refractometer

Reference 95200-002

Specifications

4 scales:

-0-50 °Brix - resolution 0.1 - accuracy ± 0.2
-0-28 °Salt - resolution 0.1 - accuracy ± 0.1
-1.3330-1.4200 Refractive Index - resolution 0.0001 - accuracy ± 0.0003

- Temp.calibration: 20°C
- Temperature range: 0+40°C (32+104°F)
- Precision temperature: ±0.5°C (1°F)
- ATC: (0+40°C / 32+104°F)
- Auto-off after 1 minute
- Response time: ± 3 secondes
- Power Supply: AAA x1 - 1.5V
- Dimension: 121x58x25 mm
- Weight: 100 grammes

Buttons

Read	Switch on or measure
Cal	To calibrate the instrument
Scale	To change the scale

Instructions

CONTAINS: A refractometer, a pipette, a removable prism cover.

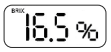
AUTOMATIC TEMPERATURE COMPENSATION (ATC)
Refractive index is temperature dependent. It is well known that most materials expand when heated (become less dense) and contract when cooled (become more dense). The speed of light in a liquid increases as temperature increases, so refractive index, therefore, decreases. Although this thermal effect is minor for solids, the change in density for a liquid is substantial. Automatic Temperature Compensation ensures that concentration readings of aqueous (water-based) solutions will be accurate with respect to the sample's temperature.
The refractometer is temperature compensated for aqueous (water-based) sucrose solutions and can automatically compensate for temperature differences within the range of 0°C +40°C. The temperature of the sample, however, has little bearing on the accuracy of the reading. In most cases, the sample almost immediately assumes the temperature of the refractometer, the ambient temperature, and the fluid should be in equilibrium within the instrument's temperature range.

CALIBRATION
- Make sure the instrument is stable and flat and make sure the sample is at room temperature for optimum results.
- Press "READ" for one second to start the instrument.
- Press "CAL" for 2-3 seconds until CAL flashes.
- Press "CAL" again while CAL flashes to stop the calibration. The value must be 0.0%.

If no operation is performed after 10 seconds the instrument will return to the measurement display.

<u>*The instrument must be calibrated with distilled water.***</u>**

TAKING MEASUREMENTS
After calibrating the instrument, wipe the prism. Drop 4-5 drops of sample to be tested, and press "READ". The measured value appears on the display.
HHH or LLL will appear if the value is greater or less than the temperature range of the refractometer. Pressing the "READ" button for 2 seconds will automatically start a series of 15 consecutive measurements.
At the end, the display will show an average of these 15 measurements.



TROUBLE SHOOTING

A01	Outside the amplitude limits (0+40°C)
A02	During calibration, no incorrect solution or solution
A03	Internal software problem

Low battery indication: replace with new batteries when BAT icon is flashing.

- To ensure that the LCD display works properly, don't expose the instrument to too low or too high temperature or strong sunlight for prolonged periods.
- Treat the instrument with care. Avoid violent shocks.
- Do not disassemble or assemble the instrument or change the inner parts.
- Zero-setting should be implemented strictly according to instruction.
- Be sure to clean the prism surface and window before and after every measurement.
- Be sure to take the measurement immediately after dripping solution into the test bowl.
- Using the instrument with a low battery may result in an incorrect measurement.
- Do not use the instrument in a humid or corrosive environment.
- When storing the instrument for long periods of time, it is advisable to remove the batteries.

CE

Conforms to the directives 89/336/EEC-92/31/EE. - EN 55011/1998 - EN 55082-1/1998
IEC61000-4-2 : 1995, IEC61000-4-3 :1995 (according to the Report ACI-E02001 Jan 15, 2002)

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