

Senz REDOX tester

Why should Redox be monitored?

Redox, or Oxidation Reduction Potential is used to monitor the discharge of waste water and disinfection of water.

The WHO standard suggests that public pools or spas should have levels in excess of 720mV to be in good microbia condition.

In harvesting, post-harvest handling, packing and processing of fresh fruits and vegetables, water disinfection for such processes requires appropriate Redox potential to be monitored. Redox measurement is becoming a standard in industrial, commercial and farming activities.

TRANS Senz Redox tester is specially designed for general application. What differences are there in the Senz Redox tester compared to other testers?

RUGGEDNESS

Its ruggedness is unmatched by any similar pocket size tester. The uniquely re-enforced glass sensor is made to withstand accidental drop and shocks. The tester is also water-resistant and it floats.

ONE-TOUCH CALIBRATION

On activation, the tester calibrates to the 475mV standard solution automatically.

HOLD BUTTON

The tester provide a button to hold the display and freezes it for recording.

BEEP FUNCTION

The tester beeps at every press of the button and beeps on every completed function.

SPECIFICATION

Operating Range	-999 to +999mV
Resolution	1mV
Accuracy	±20mV
Battery	4 x 1.5V Button Cell (Alkaline A76 or equivalent)
Battery Life	Approximately 150 hours (continuous use)
Weight	Approximately 80gm
Size	180 (L) x 32 (W) x 22 (H) mm

TRANS INSTRUMENTS  **ISO 9002 certified firm**

water resistant - float on water - drop shock - simple to use

TRANS INSTRUMENTS



Senz REDOX digital tester

Economical and simple to use
A rugged and reliable tool!

Widely used in:
Laboratories
Industries
Schools
Farms
Pool
Spa



READ THIS INSTRUCTION SHEET BEFORE USE

UNDERSTAND YOUR PRODUCT

Installing Battery Cap:

The unit is shipped with the Battery Cap open, close the Battery Cap by pressing Cap on table top till the latch "click" for a secure lock.



Lift latch here then push cap up to open



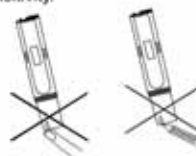
How to open Battery Cap:

1 Use a mini screwdriver to lift latch till it pops up. **DO NOT PULL** latch out completely.



PRECAUTIONS IN HANDLING

Do not touch, rub or scratch the sensor. It is very delicate and might break or loose its sensitivity.



Do not submerge the unit underwater. Though the unit is splash-proof and water resistant, it cannot come under high pressure underwater and is beyond repair if water gets into the unit. If it is dropped into water, retrieve it immediately and wipe dry with a cloth.



Do not store the unit under high temperature or direct sunlight. This will shorten the life span of the unit.



Do not store unit without the protective cap. Chemical in the unit will expire faster, thus shortening its life span.




Do not clean unit with thinner or solvents. This will damage the unit. Use only a damp cloth to clean unit if needed.



SPECIFICATIONS

Range	:	+999 to -999 mV
Resolution	:	1 mV
Accuracy	:	±20 mV
Battery	:	4 x 1.5V Button cell (Alkaline A76 or equivalent)
Battery life	:	Approx. 150 hours (continuous use)
Auto Shut-off	:	Approx. 15 minutes
Product life	:	365 tests
Operating temperature	:	0° to 50°C
Case Material	:	High impact ABS plastic
Size (LxWxH)	:	170 x 32 x 15mm
Weight	:	Approx. 70 gm

MAKING MEASUREMENT

1. Remove protective cap from bottom (See product layout.)
 2. Press the 'ON-OFF / Read' button once to switch on. Digit will appear blinking, indicating continuous measurement in process.
 3. **Always rinse the sensor area with water and shake the tester in the same way you would use a mercury thermometer, before each and every test**
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4. Scoop some sample solutions in a container filled up to 1½ inches or 4cm level.
 5. Dip tester into the sample solution up to the immersion level. Shake the sensor area in solution to remove bubbles and leave it in the container.

6. Depending on the activity of the solution, strong or high oxidizing samples will give a quick stabilised endpoint reading. While weak or low oxidizing samples may require up to 20minutes for a stabilised endpoint reading to establish.
7. If the unit is automatically switched off during measurement, press the 'ON-OFF / Read' button once to switch on again.
8. When the desired stabilised endpoint reading is attained, press the 'ON-OFF / Read' button once will freeze the display. Pressing a second time will release it for another measurement.
9. Always rinse the sensor area with water and blot it dry before and after each test.
10. To switch off the tester, press the 'ON-OFF / Hold' button for 3seconds.
11. Replace protective cap before storing away.

MEASUREMENT NOTES

This tester is designed for general-purpose use and is not intended for difficult test liquid like oil, paint, solvents, high viscosity liquid or high purity water. If these tests were required, then the use of a high-end specialized meter would be recommended.

KNOWN INTERFERENCE

The Redox sensor measures minute milli-volts of oxidation and reductant activities in solution. Solutions with Iron salts and sulfides can influence the net potential which results in erroneous reading.

Avoid measuring in very strong oxidants or reductants as these may poison the platinum sensor and cause a memory effect thus altering the offset value of the sensor.

MEASURING POOL & SPA WATER

Measurement in pool or spa water will require the sample water to have a pH value of between 7.4 to 7.6pH in order to obtain the correct Redox reading.

When the voltage reading is 650 mV, there is sufficient active sanitizing agent in the water to protect swimmers and bathers. Below is a guide for chlorine sanitizing control:

LOW - 600mV

IDEAL - 650mV to 750mV

HIGH - 900mV

CALIBRATION

This tester is factory calibrated. Calibration is not required upon opening this package.

But if the electrode is exposed to very strong oxidant or reductant, a memory effect may alter the electrode offset. When readings are in doubt, calibration should be performed with the following steps:

Calibration should be performed at room temperature at about 25°C or 77°F.

1. Use only 475mV standard solution for offset calibration.

Order Code : 1002 (475mV, 90ml)

2. Remove protective cap. **Always rinse the sensor area with water and shake the tester in the same way you would use a mercury thermometer, before each and every test.**




3. Dip the sensor area into the 475mV calibration solution and shake to remove bubbles.



4. Press and hold down the **CAL** button until CAL appears on the display then release it.
5. When the standard is recognised, 475 will be displayed in a blinking mode.
5. When the display stops blinking and freezes, it indicates that the unit has been standardised.
6. Rinse the sensor area thoroughly with water. Calibration is completed.
7. To make measurement, press the 'ON-OFF / Read' button to exit calibration mode.

MAINTENANCE

- When **Erb** appears during calibration, it means you have used a wrong standard solution. Make sure you have the right solution 475mV before calibration.
- When the battery symbol  appears on the display, this indicates a low battery and only 2 hours of continuous use remain. Though the unit may continue to function, the accuracy of the unit will be affected beyond the 2 hours.
- Change batteries according to instructions on the front page. Replace all four batteries according to polarity.
- Keep in mind that all Redox sensors aged with time and usage. Therefore, recalibration is necessary to maintain accurate reading.
- Note that the Redox sensor has a limited life span of about 365 tests. When the unit fails to calibrate or respond very slowly, it means that the unit should be replaced. It is not possible to repair broken sensor, defective or expired unit.



In the presence of certain radio transmitters, this product may produce erroneous readings. If this occurs then measurements should be repeated at another location.