

**TRANS INSTRUMENTS**  
for the professionals



**SCIENTIFIC**

Quality control of pH, conductivity, DO in manufacturing and production of all water related industry requires good and reliable instrumentation.

Trans Instruments offers a range of precision pocket testers and handheld meters for full portability as well as dedicated Bench Meters.

The pocket testers are rugged and durable, yet maintaining the accuracy needed for the job.

The handheld and bench top meters offer highest precision for the more demanding controls.

There is always a meter that suits for each application in waste disposal, chemical food processing, printing, paper production and pool management.



## Senz Series

The Senz series testers are specially designed for quick and reliable on-site testing. The tester are made to withstand drop-shocks, splash and even float on water. Its ruggedness make it the most suitable tester for on-site testing as well as secondary assurance check against online meters.

Senz pH and conductivity testers comes with an auto-lock/auto-endpoint function which assures accurate calibration and readings all the time.

## pH & Redox Testing

pH is the measurement of acidity and alkalinity of water. The reading of pH7 is neutral, a reading higher than 7 is alkaline and lower is acidic.

pH measurement is widely used in all industries where water quality control is needed. Depending on the accuracy and resolution, temperature compensation is employed to ensure accuracy of the pH glass sensor. Display resolution of 0.1pH generally do not require temperature compensation as the error is negligible.

Oxidation Reduction Potential (ORP) or Redox in short is the measurement of ion activity in a solution.

When an atom gain or loose an oxygen electron, a minute voltage is register. Redox is measured in the unit of mili-volts (mV), where positive reading represents the solution that is active and has strong oxidising power. Redox is volatile. Therefore, Redox should be measured as a trend by charting results over a period of time.



### Senz pH

Most preferred pH tester for general purpose



### Senz pH Duo

Allows measurement of both temperature and pH levels of the liquid in a single test.



### Senz pH Pro

High accuracy with 2-point calibration with 0.01 resolution.



### Senz Redox

General purpose tester for measurement of Oxidation Reduction Potential (ORP)



### Uni pH Testa

3-in-1 function tester that measures pH, temperature and mV. Hot swap with Redox sensor (optional) to measure ORP.

Order Code	Product	Measuring Range	Resolution	Accuracy	Calibration Point	Temperature Compensation	Battery Type
TP9050	Senz pH	0 to 14pH	0.1pH	±0.2pH	Single	n.a.	4 x 1.5V Button Cell
TP9051	Senz pH Duo	0 to 14pH, 0 to 50°C	0.1pH, 0.1°C	±0.2pH, ±0.5°C	Single	n.a.	4 x 1.5V Button Cell
TP9052	Senz pH Pro	0 to 14pH	0.01pH	±0.05pH	2 point	Automatic	4 x 1.5V Button Cell
TO9057	Senz Redox	+999 to -999mV	1mV	±40mV	Single	Automatic	4 x 1.5V Button Cell
IP2011	Uni-pH Testa	2 to 12pH ±999mV 0 to 90°C	0.01pH 1mV 0.1°C	±0.02pH ±3mV ±0.2°C	3 point	Automatic	DC1.5V x 4 battery (UM-4/AAA)

## Senz Conductivity Series

Conductivity is the measure of liquid concentrations. They are expressed in  $\mu$ Siemens or mSiemen, where 1 mSiemen = 1,0000  $\mu$ Siemen Conductivity readings are widely used for gauging mixture concentrations and chemical compound. It does not measure specific salts but the total combine salts in the liquid, making it a fast, simple and non-destructive test.

Conductivity is also expressed in TDS (Total Dissolved Solid), and the unit of measurement is in ppm (1 mili-gram of solid dissolved in 1 litre of water).

The conversion factor for TDS varies for each type of chemical. In municle water measurement, a factor of 0.5 is generally used to convert readings from conductivity, where 1 ppm equal to 2  $\mu$ Siemen.



### Senz TDS

General purpose TDS meter for most common application with precise display of 1ppm.



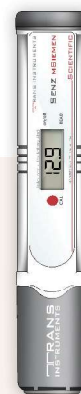
### Senz TDS2

Designed for liquid testing where high concentrations of below 10,000ppm are measured.



### Senz $\mu$ Siemens

Tester to measure water concentrations in precise display of 1 $\mu$ S



### Senz mSiemens

Tester to measure high water concentrations in precise display of 0.1mS

Order Code	Product	Measuring Range	Resolution	Accuracy	Callibration Point	Temperature Compensation	Battery Type
TC9053	Senz TDS	0 to 1990ppm	1ppm	±2% of full scale	Single	Automatic	4 x 1.5V Button Cell
TC9054	Senz TDS2	100 to 10000ppm	100ppm	±2% of full scale	Single	Automatic	4 x 1.5V Button Cell
TC9055	Senz $\mu$ Siemens	0 to 1999 $\mu$ S	1 $\mu$ S	±2% of full scale	Single	Automatic	4 x 1.5V Button Cell
TC9056	Senz mSiemens	0 to 19.9mS	0.1mS	±2% of full scale	Single	Automatic	4 x 1.5V Button Cell



## Portable Handheld meters

Assurance of quality are made easy with Trans Instruments portable meters. Two new meters are sleek in design which enhances the sophistication of laboratory instruments and are fully customizable and with data memory for onsite recording and optional PC connectivity. The latter models are dedicated, reliable and trusted over the years. All meters comes with a carry case along with standard accessories for calibration and for maintenance.



### WalkLAB pH Meter HP9010

- A triple-function meter pH, mV/ORP and temperature
- Auto-lock / auto-end point reading
- 99 data memory with Real time clock and data
- Up to 5 point calibration with NIST, ISO or custom standard
- PC link ready (Optional USB cable required)



### WalkLAB Conductivity Meter HC 9021

- Auto-range range conductivity meter
- Auto-lock / auto-end point reading
- Able to display reading in TDS and salinity
- Adjustable TDS factor
- 99 data memory with real time clock and date
- PC link ready (Optional USB cable required)

Order Code	Product	Measuring Range	Resolution	Accuracy	Calibration	Battery Type	Other Parameters
HP9010	WalkLAB HP9010	-2.00 to 16.00 pH ±700.0mV / 2000mV(Auto Range) 0 to 120 °C	0.01 pH 0.1mV / 1mV 0.1 °C	±0.02 pH ±0.5mV / ±2mV ±0.5 °C with class A PT1000 thermistor	Min 2 points & Max 5 points	4 x AAA Batteries	Offset Recognition : ±70mV at pH7 Slope 70% to 130% at pH 4 and pH10 Electrode status in percentage of slope
HC9021	WalkLAB HC9021	0 to 199.9mS (auto range) 0 to 100ppt 0 to 100°C	0.01/0.1/1µS 0.01/0.1mS 0.1ppt 0.1°C	±1% full scale ±0.5 °C with class A PT1000 thermistor	5 point with 1 point on each range	4 x AAA Batteries	Allow adjustment of TDS factor 0.40 to 1.00 Allow use of probe cell constant 0.1, 1.0, 10



### AquaCombo pH, DO, Salinity, temperature meter HM3070

- Simultaneous display of pH, Salinity/Conductivity, Dissolved Oxygen, temperature (°C/°F)
- Simple operation with easy calibration
- 99 data memory and recall on screen
- 1 meter cable pH and Salinity probe and 3 meter cable DO probe



### WalkLAB Dissolved Oxygen Meter HD9030

- For measuring of dissolved oxygen in water
- Easy calibration in air
- Simple to use
- Optional 3 or 5 meters probe cable available



### Portable Dissolved Oxygen Meter HD3030

- Simultaneous display of DO & temperature
- Automatic Salinity compensation setting
- Automatic Altitude compensation setting
- 99 data memory with Real time clock & date
- Computer link with optional USB cable and software kit
- Button activated back-light display

Order Code	Product	Measuring Range	Resolution	Accuracy	Temperature Compensation	Battery Type	Other Parameters
HM3070	AquaCombo pH, DO, Salinity, Temperature Meter	2 to 12.00 pH	0.1pH	±0.1pH	0~50°C	6 x AAA size battery	3 points pH calibration 5 points Conductivity Calibration
		0 to 200.0% 0 to 30.0ppm (D.O.)	0.1% 0.1ppm	±0.3% ±1ppm			
		0.0 to 1,999µS (Conductivity) 2.00 to 69.9mS	0.1/1µS, 0.01/0.1mS	±1.5% each Range full scale			
		0 to 42ppt (Salinity)	0.01 / 0.1ppt	±0.5ppt			
		0 to 60°C	0.1°C	±0.5°C			
HD9030	WalkLAB Dissolved Oxygen Meter	0 to 20.0ppm(mg/L)	0.1ppm(mg/L)	±0.4ppm(mg/L)	0 to 40°C	DC 9 volt (1604A, 6LF22 or equivalent)	Manual zero adjustment Manual Calibration with probe in air @20.9%
HD3030	Professional Dissolved Oxygen Meter	0.0 -199.9% 0.00 -19.99ppm 0 to 50°C	0.1% 0.01ppm 0.1°C	±1.5% full scale ±0.3°C	0 to 50°C	4 x AAA Batteries	Salinity Adjustment (0 to 50.0ppt) Pressure Adjustment (500 to 1499mmHg)

## Light Series

Light measurement are mostly neglected because our eyes are adaptable to various lighting conditions. We can only perceive vast difference only when we change a light bulb. These degradation in lighting fixtures can often reduce our working productivity, causes eye stress.

For plants which relies on photosynthesis to create food are all the more demanding on the sufficiency of light intensity. Therefore, regular checks on lighting fixture at our work place or artificial lighting for plants is a necessity. Prevention is better than cure!



### Litecheck

Litecheck is the simplest pocket size light intensity meter



### WalkLAB Lux Meter HL9040

Professional Lux Meter is portable and easy to use. Remote sensor allows measurement in all angle.

Order Code	Product	Measuring Range	Resolution	Accuracy	Battery Type
TL9080	Litecheck	0 to 50,000 Lux 0 to 5000 fc	100 Lux 10 fc	±8% of full scale	4 x 1.5V Button Cell
HL9040	WalkLAB Lux Meter	0 to 50,000 Lux at 3 ranges	1 Lux (0 to 2000 Lux) 10 Lux (10 to 20,000 Lux) 100 Lux (10-50,000 Lux )	±5% of full scale	DC 9 Volt (1604A, 6LF22 or equivalent)

## Professional Bench Top Series

The bench-top meters offer high precision measurement for laboratory standards. All meters come with standard electrode stand, probe and electrode and PC link software.



### Professional Bench Top pH Meter BP3001

3-in-1 function: pH, mV & temperature. Simultaneous pH-temperature display. Up to 5 calibration points with NIST, ISO or custom standard. 99 data memory with Real time clock & date. Computer link with USB cable and software kit.



### Professional Bench Top Conductivity Meter BC3020

Large LCD with simultaneous display of conductivity and temperature. Up to 5 calibration points ( at 1 point per range). 99 data memory with Real time clock & date. Computer link with USB cable and software kit.

Order Code	Product	Measuring Range	Resolution	Accuracy	Temperature Compensation	Power Supply	Other Parameters
BP3001	Professional Bench Top pH Meter BP3001	0 to 14pH ±1999mV  0 to 80°C	0.01pH 0.1mV (-200 to +200mV) 1mV (Full Scale) 0.1°C	±0.02pH ±0.2mV (-200 to +200mV) ±2mV (Full Scale) ±0.5°C	0 to 80°C	AC-DC adapter 110 / 230VAC – 12 VDC equivalent	Offset Recognition: ±60mV at pH7 Slope 75% to 115%
BP3020	Professional Bench Top Conductivity Meter BC3020	0 to 19.99µS 0 to 199.9µS 0 to 1999µS 0 to 19.99mS 0 to 199.9mS	0.01µS 0.1µS 1µS 0.01mS 0.1mS	±1% full scale +1 digit	0 to 80°C	AC-DC adapter 110 / 230VAC – 12 VDC equivalent	Single cell constant K = 1.0

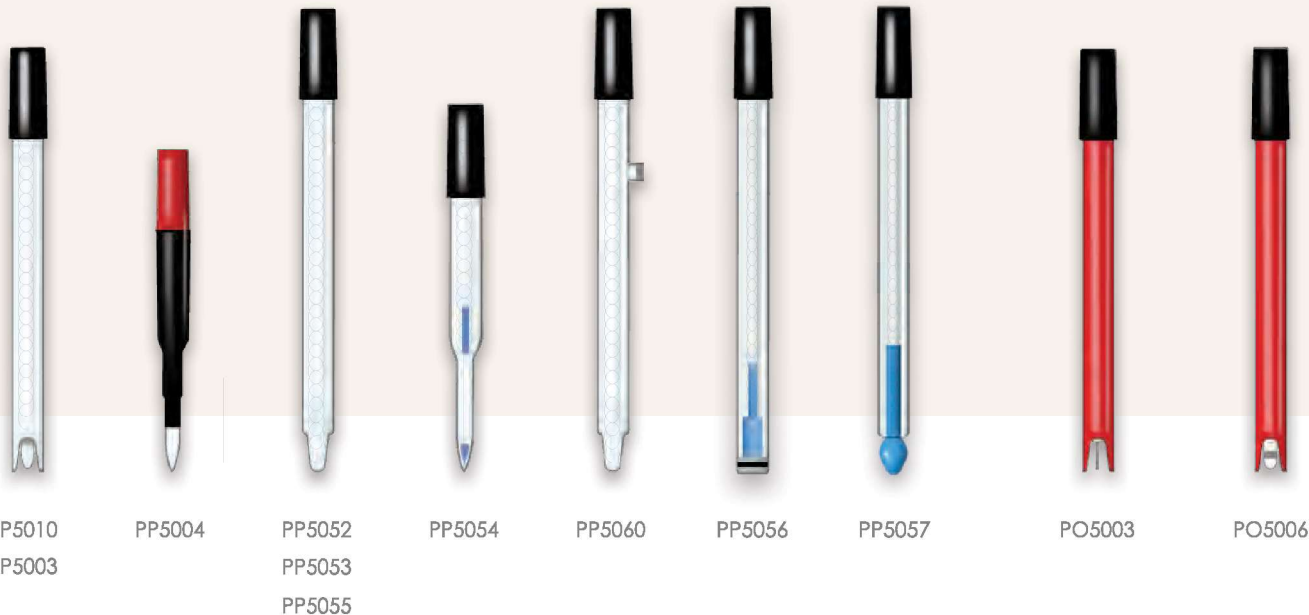
## Electrodes

Careful selection on the right type of electrode for specific application will give full extend of usage on the electrode's life. All electrodes comes with 1 meter cable and regular BNC connector and delivered in soaker bottle ready for instant use.



### pH Electrodes

### ORP Electrodes



Model	Purpose / Usage	Recommended Usage												Range	Operating Temperature	Max Pressure	Applications
		High Viscosity	Cream / Cheese	Semi Solid / Soil	Meat / Fish	Polluted Waste	Poor Ion Solution	Oil base liquid	Solvent, Thinner	Enamel Paint	Strong Acid	Alcohol base	Emission point	Ink			
<b>pH Electrodes</b>																	
PP5003	Plastic body combination pH electrode, General purpose														0 to 14pH	0 to 70 °C	General Purpose
PP5004	Plastic body combination pH electrode with Pointed Tip and Polymer Reference	•	•	•	•	•		•						•	2 to 14pH	0 to 60 °C	For semi-solid and soil measurement
PP5010	Plastic body combination pH electrode with build-in Temperature Sensor for BP3001 & HP3040														0 to 14pH	0 to 80 °C	General Purpose use with BP3001 / HP3040
PP5052	Glass body combination pH electrode, General purpose										•				0 to 14pH	0 to 80 °C	General Purpose
PP5053	Glass body combination pH electrode with polymer reference for Viscous liquid	•	•	•	•	•		•						•	2 to 14pH	0 to 80 °C	For semi-solid or high viscosity sample
PP5054	Glass body combination pH electrode with Pointed-Tip and Polymer Reference	•	•	•	•	•								•	2 to 14pH	0 to 60 °C	For semi-solid or food sample
PP5055	Glass body combination pH electrode -5 to 130 °C	•	•	•	•	•		•						•	0 to 14pH	-5 to 130 °C	For high temperature sample
PP5056	Glass body combination pH electrode with flat tip		•		•										0 - 14pH	0 to 80 °C	Skin, surface, small sample
PP5057	Glass body combination pH electrode for low-ion liquid						•								0 to 14pH	0 to 80 °C	For high purity liquid below 1µS and of poor ionic strength
PP5060	Glass body combination pH electrode with Re-fillable Reference						•				•				0 to 14pH	-5 to 100 °C	For strong acid sample
<b>ORP Electrodes</b>																	
PO5103	Plastic body combination platinum wire ORP electrode														±2000mV	0 to 80 °C	Economical general purpose
PO5106	Plastic body combination platinum ring ORP electrode														±2000mV	0 to 80 °C	General Purpose





## Refractometer

Trans Handheld refractometers are useful for the measurement of Sugar, prediction of Alcohol and Salinity. They are widely used in food industry, winery and breweries, syrup and mixture processes. These meters are self contain and made of precision prism and optics. Most meters come with bi-metal automatic temperature compensator which increases accuracy. The design utilizes natural light source and does not require any battery to operate.



Model	Description	Range	Scale division/Resolution	Accuracy
Brix Refractometer (general purpose gauging of sugar concentration in juices etc..)				
RBX0010	Brix Refractormeter 0~10% ATC	Brix: 0-10%	Brix: 0.1%	Brix: ±0.10%
RBX0018	Brix Refractormeter 0~18% ATC	Brix: 0-18%	Brix: 0.1%	Brix: ±0.10%
RBX0032	Brix Refractormeter 0~32% ATC	Brix: 0-32%	Brix: 0.2%	Brix: ±0.20%
RBX2826	Brix Refractormeter 28~62% ATC	Brix: 28-62%	Brix: 0.2%	Brix: ±0.2%
RBX4582	Brix Refractormeter 45~82% ATC	Brix: 45-82%	Brix: 0.5%	Brix: ±0.5%
RBX0080	Brix Refractormeter 0~80%	Brix: 0-80%	Brix: 0.5%	Brix: ±2%
Salinity (for gauging concentration of salt in liquid)				
RSA0100	Salinity / SG Refractometer 0~100ppt / 1~1.070sg ATC	Salinity: 0-100ppt	Salinity: 1ppt	Salinity: ±1ppt
		Specific Gravity: 1.000-1.070	Specific Gravity: 0.001	Specific Gravity: ±0.001
RSA0028	Salinity Refractometer 0~28% ATC	Salinity: 0-28%	Salinity: 0.2%	Salinity: ±0.2%
		Refractive Index: 1.30-1.81	Refractive Index: 0.01	
Grape - Alcohol Refractometer (for gauging grape juice sugar concentration and prediction of potential Alcohol)				
RW2025	Euro Wine Refractometer 0~20 Baume / 0~25 Alcohol prediction ATC	Alcohol : 0-25%	Alcohol : 0.2%	Alcohol : ±0.2%
		Baume: 0-20be°	Baume: 0.2 be°	Baume: ±0.2 be°
RW0025	Grape Alcohol Refractometer 0~25% Alcohol prediction ATC	Alcohol : 0-25%	Alcohol : 0.2%	Alcohol : ±0.2%
RW4025	US Grape Refractometer 0~40 Brix / 0~25% Alcohol prediction ATC	Alcohol : 0-25%	Alcohol : 0.2%	Alcohol : ±0.2%
		Brix: 0-40%	Brix: 0.2%	Brix: ±0.2%
Grape Refractometer (for gauging grape juice sugar concentration)				
RW3230	US-German Grape Refractometer 0~32 Brix / 30~140°Oe ATC	Brix: 0-32%	Brix: 0.2%	Brix: ±0.2%
		Oechsle: 30-140°Oe	Oechsle: 1.0°Oe	Oechsle: ±1.0°Oe
RW3225	US-Euro Grape Refractometer 0~32 Brix / 0~140°Oe / 0~25°KMW ATC	Brix: 0-32%	Brix: 0.2%	Brix: ±0.2%
		Oechsle: 0-140°Oe	Oechsle: 1.0°Oe	Oechsle: ±1.0°Oe
		KMW: 0-25°	KMW: 0.2°	KMW: ±0.2°
RW4440	US-Euro Grape Refractometer 0~44 Brix / 0~190°Oe / 0~40°KMW	Brix: 0-44%	Brix: 0.5%	Brix: ±0.5%
		Oechsle: 0-190°Oe	Oechsle: 2.0°Oe	Oechsle: ±2.0°Oe
		KMW: 0-40°	KMW: 0.5°	KMW: ±0.5°
Honey Refractometer (for gauging honey moisture and sugar concentration)				
RH5890	US-Euro Honey Refractormeter 58~90 Brix / 38~43 Baume ATC	Brix: 58-90%	Brix: 0.5%	Brix: ±0.5%
		Baume: 38-43Be'	Baume: 0.5Be'	Baume: ±0.5Be'
		water: 12-27%	water: 1%	water: ±1%
Alcohol Refractometer (for gauging percentage of Alcohol in water)				
RAL0080	Alcohol Refractometer 0~80% v/v Alcohol	0-80%	1%	±1%

## CAL calibration standards

CAL calibration standard solutions comes in two bottle sizes as well as in single satchels. These standards are made with precision. The reference meter that qualifies them are calibrated against solutions that are traceable to the ASTM standards.

Redox standard solution in bottle	Order Code	
	90ml	500ml
CAL 475mV Standard Redox Solution	SO0475N	SO0475F
Conductivity Standard solution in bottle	90ml	500ml
CAL 1413µS Standard Conductivity Solution	SC1413N	SC1413F
CAL 990ppm Standard TDS Solution	ST0990N	ST0990F
CAL 1382ppm Standard TDS Solution	ST1382N	ST1382F
CAL 2.76EC / 27.6cF / 1935ppm Standard Solution	SC0276N	SC0276F
CAL 6.7EC / 67cF / 4700ppm Standard Solution	SC0067N	SC0067F
CAL 12.88mS Standard Conductivity Solution	SC1288N	SC1288F
CAL 6440ppm Standard TDS Solution	ST6440N	ST6440F
CAL 0.5% / 5 ppt Standard Salinity Solution	SS0005N	SS0005F
CAL 30ppt Standard Salinity Solution	SS0030N	SS0030F
CAL 74µS Standard Conductivity Solution	SC0074N	SC0074F
CAL 70ppm Standard TDS Solution	ST0070N	ST0070F
CAL 650ppm Standard TDS Solution	ST0650N	ST0650F
pH Buffer Solution in bottle	90ml	500ml
CAL pH 7.00 Standard pH buffer Solution	SP0700N	SP0700F
CAL pH 4.01 Standard pH buffer Solution	SP0401N	SP0401F
CAL pH 10.01 Standard pH buffer Solution	SP1001N	SP1001F
pH Buffer Solution in single satchels	18ml Satchel	
CAL pH7.00 Satchel 10pcs/Box	SP0700S	
CAL pH4.01 Satchel 10pcs/Box	SP0401S	
CAL pH10.01 Satchel 10pcs/Box	SP1001S	
Electrode Storage Solution	90ml	
Storage Solution - pH Electrode	SPKSS	
Electrode Filling Solution	90ml	
Filling Solution - pH Electrode 3.0M KCL	SPKM0	
Filling Solution - pH Electrode 3.5M KCL	SPK3M5	
Filling Solution - pH Electrode 4.0M KCL	SPK4M0	
Electrode Filling Solution	50ml	
Filling Solution - D.O. electrolyte	SDK9030	



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