Measuring

Belt Chain

Field Ranger Metric

Heavy duty hipchain featuring a replaceable 6000m thread spool for taking accurate hands free distance measurements in rough and uneven terrain. Bright red high impact resin case. 5 digit counter with rotary reset and bronze bearings. External counter reset.

- Dimensions: 175 x 130 x 100mm
- Weight: 900g
- Stainless steel belt clip for easy carrying
- Accuracy better than 0.5% (typically 0.2%)

SKU	DESCRIPTION	SIZE
1141-00174	Chaining Device	6000m
1141-00175	Replacement Thread	6000m

Hand Counter

Hand Tally Counter Zero Reset

Hand held for easy operation. Counts up to 9999 and can be restarted at any time via the resetting knob. Durable chrome plated steel casing. Can be hung.

SKU
1141-00176

Laser Distance Meter

Leica Disto D2

7 measurement mode laser distance measurer. Has an intuitive back-lit LCD display in a 4oz package; pocket-sized. Use Bluetooth® to send measurements into apps running on mobile devices. Measures from its base by default and can be configured to measure from the front.

SKU	SIZE
1141-00312	100m

Leica Disto X3

Perfect for tough construction being dust-tight and protected against water jets to IP 65. In addition, it passes drop tests of up to 2m height. Thanks to the integrated tilt sensor, it can take indirect distance absolutely precisely. It incorporates Bluetooth Smart connectivity to your smart device and Leica Apps.

SKU	SIZE
1141-00323	150m

Leica Disto D510

The Leica DISTO™ D510 features Bluetooth Smart 4.0, enabling communication to the latest Apple iPhone and iPad devices. This is a major step in improving the workflow of anyone that needs to document and exchange data wirelessly from the work site to office. Dust and waterproof.

SKU	SIZE
1141-00305	200m

Lightning Meter

SkyScan Model P5-3 lightning detector

This is the newest high technology weather monitoring product available anywhere in the world.

A hand-held instrument with an electronic system to detect the presence of lightning/thunderstorm activity occurring within 40 miles of your location.

It uses patented technology (Full digital microprocessor insuring accuracy and reliability) to determine the distance to the detected stroke. The distances are indicated in four ranges: 0-3 miles (0-5 km), 3-8 miles (5-13 km), 8-20 miles (13-32 km) and 20-40 miles (32-64 km).

SKU
1141-05006

ThunderBolt 2™

This detector uses a proprietary technology to detect and determine the distance to remote lightning activity.

It detects, identifies and tracks "Cloud to Ground" lightning activity within 100 kilometers of the users location.

Important: Hand held detectors, detect the unique radio frequency signatures associated with already active lightning. These devices cannot predict a first strike or monitor any of the measurable conditions leading up to a first strike. Those who may look to use the benefits of hand held detection technology, must do so knowing that the devices have these limitations, and in every instance when the detector alerts, that certain safety procedures must be immediately enacted, such as communicating the lightning warning to those who may be at risk, and direct those at risk immediately find a safe area, until such time as threat has seen to have passed.

It is recommended that the use of any Lightning Warning or detection systems be used strictly under a Lightning safety policy which describes the known safe locations where persons should wait out the threat, and highlights those unsafe locations where persons should seek to avoid.

Standard Configuration
- Main unit
- Hard carry case
- AC charger & battery

SKU
1141-05004

The use of lightning detection equipment should be in conjunction with the 30/30 rule.

Since this SkyScan lightning detector allows you to know the level of activity of the storm, it determines if it is moving towards, away or parallel to your position. Each time the SkyScan P5-3 portable lightning detector detects a lightning stroke, it emits an audible warning tone (if this feature has been turned on by the user) and lights the Range Indicator column. The full column stays lit for approximately 3 seconds. This feature allows you to see the distance to the last, closest, detected stroke without waiting for the SkyScan detector to detect a new stroke.

SkyScan P5-3 Lightning Detector Features:
- Dimensions: 6.5"x3"x2" Weight approx. 2lb.
- Accuracy: State-of-the-art electronics and full digital microprocessor insures accuracy and reliability.
- **Power:** The SkyScan P5-3 detector can be powered by:
- (6) "AA" batteries (not included)
- Detector will operate approximately 75 continuous hours with full use and approximately 100 continuous hours on battery save mode.
- 120V AC adaptor (optional)
- 220V AC adaptor (optional)
- 12V cigarette lighter adapter (optional)
- Unit has AUTOMATIC SHUT-OFF after five hours of continuous operation for extended battery life.

Status LED

2X16 Text LCD

Enter Button
Menu Scroll
Power On/Off

Tone On/Off

Speaker
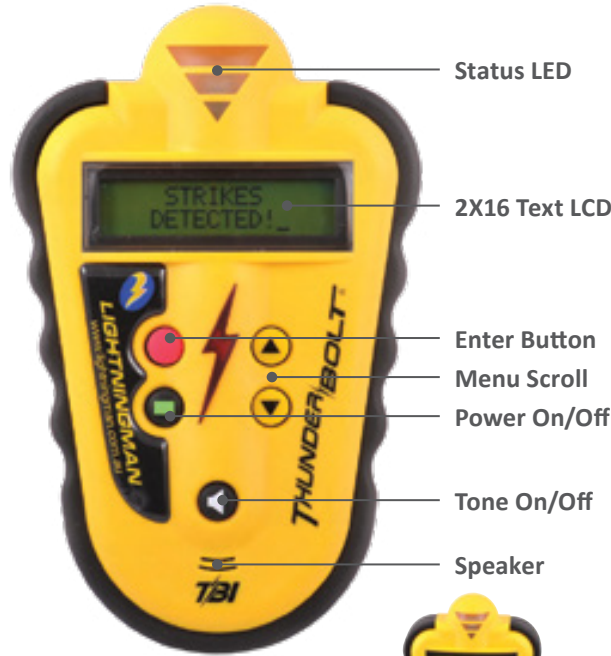
Optional Extras
- DC charger
- Belt pouch
- Wall mount
- Desk mount

Magnetic Susceptibility & Conductivity

KT-10 Magnetic Susceptibility and Conductivity Meters

The KT-10 meters are a line of handheld instruments that measure the magnetic susceptibility and/or conductivity of a geological sample or core. The meters are available in circular and rectangular coil designs to measure large or small sized samples, respectively. The KT-10 meters produce repeatable results, and include features such as corrections for split and full cores, the ability to input information to correlate measurements to their appropriate depths, a built-in microphone to record voice notes, and the GeoView data management/visualization software. With its compact and rugged design, the KT-10 meters are ideal instruments for use in the field, core shack, or lab.

- Stand-alone units with display and data storage.
- High sensitivity for magnetic susceptibility (10-7 SI units with KT-10H models) and conductivity (1 S/m).
- Three modes of operation: discrete measurements, continuous scanning (20 readings per second), or borehole (correlate measurements to their depth in the borehole).
- Measure core split and full drill core, rock samples, outcrop, chips or powdered samples.
- Split and full core corrections for standard drill rod diameters (AQ, BQ, HQ, NQ and PQ) and non-standard sizes (2.4 to 12 cm).
- Data running average and standard deviation values displayed during discrete measurements; data averages and maximum values provided during scanning.
- Pin mode to measure samples with uneven surfaces (available with circular coil designs only).
- Built-in microphone to record voice notes with measurements.
- GeoView software to organize and visualize data on a PC.
- Compatible with Geobank Software (available from Micromine, *www.micromine.com*).
- Upgrades and support available via the internet.

KT-10 v2 Magnetic Susceptibility Meter (Circular Coil)

KT-10R v2 (Rectangular Coil)

KT-10R S/C Magnetic Susceptibility/Conductivity Meter (Rectangular Coil)
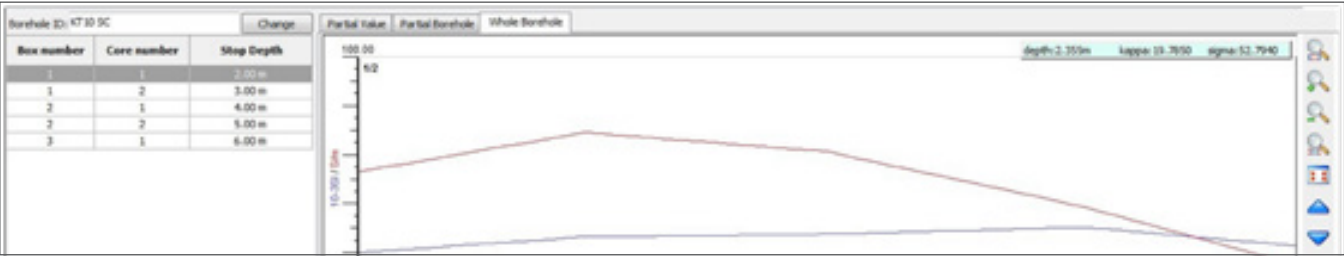
KT-10 S/C (Circular Coil)

Magnetic Susceptibility & Conductivity

GeoView Software

GeoView is an easy-to-use data management and visualization software program that is compatible with all Windows operating systems. It enables users to download, store and view a KT-10 meter's data on a PC and export it to Excel. Data is organized by date or by instrument serial number, when there are data from multiple meters. Averaged readings, voice notes, and GPS positions (when paired with a Bluetooth GPS unit) can also be reviewed. The software can also be used as a data visualization tool. Numerical values from discrete measurements are displayed in a table format; data from scanned measurements are displayed as a graph.

Data Organization

Data Visualization

Magnetic Susceptibility & Conductivity
Order Guide for KT-10 Consoles, Upgrades & Accessories

Dedicated Magnetic Susceptibility Meters

KT-10 v2	KT-10R v2	KT-10H
SKU: 1141-00501-C	SKU: 1141-00501-R	SKU: 1141-00526-C
• Circular coil design • Sensitivity: 10-6 SI units • Measurement range: 0.001 x 10-3 to 1999.99 x 10-3 SI units • Pin mode available for measuring uneven surfaces • KT-10 Plus (optional) [SKU: 1141-00531-A]	• Rectangular coil design • Sensitivity: 10-6 SI units • Measurement range: 0.001 x 10-3 to 1999.99 x 10-3 SI units • KT-10R Plus (optional) [SKU: 1141-00531-A]	• Circular coil design only • Sensitivity: 10-7 SI units • Measurement range: 0.0001 x 10-3 to 1999.99 x 10-3 SI units • Pin mode available for measuring uneven surfaces • KT-10 Plus (optional) [SKU: 1141-00531-A]

SKU	DESCRIPTION
1141-00501-C	KT-10 v2 Magnetic Susceptibility Meter (Circular Coil)
1141-00526-C	KT-10H v2 Magnetic Susceptibility Meter (Circular Coil)
1141-00501-R	KT-10R v2 Magnetic Susceptibility Meter (Rectangular Coil)
UPGRADES	
1141-00531-A	PLUS OPTION - Increases magnetic susceptibility measurement range from 2 to 10 SI units
1141-00531-C	S/C OPTION - To enable the KT-10 console to simultaneously measure magnetic susceptibility and conductivity
1141-00531-D	Upgrade fee (Applicable for each upgrade performed on a previously purchased unit)
ACCESSORIES	
Flat Magnetic Susceptibility Calibration Pads **To be used with the KT-10 / KT-20 Magnetic Susceptibility and S/C Meters**	
1141-00514	Low Susceptibility Values (Typically 34 x 10-3 SI Units)
1141-00503	High Susceptibility Values (Typically 2,500 x 10-3 SI Units) (to be used with the Plus Option only)

Dedicated Conductivity Meters

KT-10 C	KT-10R C
SKU: 1141-00508-C	SKU: 1141-00508-R
• Circular coil design • Absolute conductivity meter, calibrated using multi-point algorithm • Sensitivity: 1 S/m • Measurement range: 1 to 100,000 S/m • Pin mode available for measuring uneven surfaces • KT-10 Cx (optional) [SKU: 1141-00531-B]	• Rectangular coil design • Absolute conductivity meter, calibrated using multi-point algorithm • Sensitivity: 1 S/ m • Measurement range: 1 to 100,000 S/m • KT-10R Cx (optional) [SKU: 1141-00531-B]

SKU	DESCRIPTION
1141-00508-C	KT-10C Conductivity Meter (Circular Coil)
1141-00508-R	KT-10R C Conductivity Meter (Rectangular Coil)
UPGRADES	
1141-00531-B	Cx OPTION - Increases conductivity measurement range from 100,000 to 200,000 S/m
1141-00531-C	S/C OPTION - To enable the KT-10 console to simultaneously measure magnetic susceptibility and conductivity
1141-00531-D	Upgrade fee (Applicable for each upgrade performed on a previously purchased unit)
ACCESSORIES	
Flat Conductivity Reference Pads to be used with the KT-10 C / KT-20 C Conductivity and S/C Meters	
1141-00532-A	Low Conductivity Value (Typically 9 S/m)
1141-00532-B	Medium Conductivity Value (Typically 700 S/m)
1141-00532-C	High Conductivity Value (Typically 85,000 S/m)

Magnetic Susceptibility & Conductivity

Combined Magnetic Susceptibility/Conductivity Meters

KT-10 S/C	KT-10R S/C	KT-10H S/C
SKU: 1141-00525-C	SKU: 1141-00525-R	SKU: 1141-00527-C

• Circular coil design
• Sensitivity: Magnetic susceptibility 10-6 SI units
• Conductivity: 1 S/m
• Measurement range:
  Magnetic susceptibility: 0.001 x 10-3 to 1999.99 x 10-3 SI units
• Conductivity: 1 to 100,000 S/m
• Pin mode available for measuring uneven surfaces
• KT-10 Plus S/C (optional)
• KT-10 S/Cx (optional)
• KT-10 Plus S/Cx (optional)
	• Rectangular coil design
	• Sensitivity:
	  Magnetic susceptibility 10-6 SI units
	• Conductivity: 1 S/m
	• Measurement range:
	  Magnetic susceptibility: 0.001 x 10-3 to 1999.99 x 10-3 SI units
	• Conductivity: 1 to 100,000 S/m
	• KT-10 Plus S/C (optional)
	• KT-10R S/Cx (optional)
	• KT-10R Plus S/Cx (optional)
		• Circular coil design only
		• Sensitivity:
		  Magnetic susceptibility 10-7 SI units
		  Conductivity: 1 S/m
		• Measurement range:
		  Magnetic susceptibility: 0.0001 x 10-3 to 1999.99 x 10-3 SI units
		• Conductivity: 1 to 100,000 S/m
		• Pin mode available for measuring uneven surfaces
		• KT-10H Plus S/C (optional)
		• KT-10H S/Cx (optional)
		• KT-10H Plus S/Cx (optional)

SKU	DESCRIPTION
1141-00525-C	KT-10 S/C Magnetic Susceptibility/Conductivity Meter (Circular Coil)
1141-00525-R	KT-10R S/C Magnetic Susceptibility/Conductivity Meter (Rectangular Coil)
1141-00527-C	KT-10H S/C Magnetic Susceptibility/Conductivity Meter (Circular Coil)
UPGRADES	
1141-00531-A	PLUS OPTION - Increases magnetic susceptibility measurement range from 2 to 10 SI units
1141-00531-B	Cx OPTION - Increases conductivity measurement range from 100,00 to 200,000 S/m
1141-00531-D	Upgrade fee (Applicable for each upgrade performed on a previously purchased unit)
ACCESSORIES	
Flat Magnetic Susceptibility Calibration Pads To be used with the KT-10 / KT-20 Magnetic Susceptibility and S/C Meters	
1141-00514	Low Susceptibility Values (Typically 34 x 10-3 SI Units)
1141-00503	High Susceptibility Values (Typically 2,500 x 10-3 SI Units) (to be used with the Plus Option only)
Flat Conductivity Reference Pads to be used with the KT-10 C / KT-20 C Conductivity and S/C Meters	
1141-00532-A	Low Conductivity Value (Typically 9 S/m)
1141-00532-B	Medium Conductivity Value (Typically 700 S/m)
1141-00532-C	High Conductivity Value (Typically 85,000 S/m)

Magnetic Susceptibility & Conductivity

KT-20 Scan Mode   3F-32 Large Diameter Sensor   IP/Resistivity Module with Small Sample Holder   Outcrop Measurements

KT-20 Physical Property Measuring System

The KT-20 is a handheld console with different modules for measuring the magnetic susceptibility, conductivity, chargeability and resistivity, and density of a sample. Its modular design allows the KT-20 to be available in many configurations of measurement capabilities, and new modules or upgrades can be added at anytime. A range of sensors with different shapes and frequencies are available for the KT-20. Users can interchange the sensors on the console, allowing the KT-20 to be adapted to different sizes and types of samples, or used in various applications. The KT-20 console includes a number of built-in features to increase the amount of information that can be added to a measurement record. These features include a GPS receiver to obtain coordinates of the measurement, digital camera to photograph the sample, a microphone to record voice notes, and a virtual keyboard to enter text notes.

Benefits

- Three modes of operation: single measurement, continuous scanner, and borehole to correlate measurement results to their depth in the borehole.
- Multiple sensor frequencies and shapes to measure magnetic susceptibility and conductivity. Sensors are interchangeable to adapt the KT-20 to different samples or applications.
- Curved sensors dedicated for core logging.
- IP/Resistivity Module enables the KT-20 to measure the chargeability and resistivity of geological samples. The module comes with either a Small or Large Sample Holder to facilitate measurements for various sample sizes.
- 3F-32 Large Diameter Sensor for soil investigations, mapping, and detecting shallow anomalies.
- View data in real-time on the KT-20's large LCD screen. Stored records can also be reviewed directly on the console.
- Split and full core corrections for standard drill rod diameters (AQ, BQ, HQ, NQ and PQ) and non-standard sizes (2.4 cm to 12 cm) for circular and rectangular sensors.
- KT-20 console features built-in GPS receiver, digital camera, microphone and virtual keyboard for users to include additional information with measurement results.

Interchangeable Sensor

Transflective ColourDisplay

Microphone

Multi-Direction Button

Light Sensor

Digital Camera (on reverse side)

Speaker

Bracket for Density Scale Tensiometer

Battery, DC Input, and USB Communication

Magnetic Susceptibility & Conductivity

Applications

A modular design and interchangeable sensors give the KT-20 the flexibility to measure a wide variety of types and sizes of samples, or adapt the console for different applications.

▪ Drill Core – Curved sensors for measuring cylindrical core. Their unique shape permits the entire surface area of the sensor to make contact with the core sample, improving both the sensitivity and repeatability of the measurements. Use the IP/Resistivity Module to measure the sample's chargeability and resistivity.

▪ Prospecting – Use the KT-20 in the field for prospecting. Circular sensors are utilized for measuring large samples, like outcrop. The 10 kHz single-frequency circular sensor features a pin mode that aids in measuring samples with uneven, rough surfaces.

▪ Powders and Chips Samples – Use any circular or rectangular sensor to collect measurements on powders, rock chips and other loose samples. These types of samples should be formed into a bulk mass, with a surface area larger than the sensor, and at least 2-inches thick.

▪ Environmental Investigations – The 3F-32 large diameter sensor has a greater depth penetration than the single- and dual-frequency sensors. Use the 3F-32 to map soils, or in agricultural applications.

▪ Archaeology – The 3F-32 large diameter sensor is able to map the magnetic susceptibility and conductivity of soils, or detect shallow targets. Smaller sensors can be used to collect additional information on artifacts.

GeoView 2 Software

GeoView 2 is an easy-to-use data management and visualization software program that is compatible with all Windows operating systems.

It enables users to download, store and view a KT-20's data on a PC and export it to Excel. Data is organized by date, or by instrument serial number when there are data from multiple instruments. Additional information collected can be viewed in GeoView 2, including averaged readings, standard deviation, text and voice notes, pictures and GPS coordinates.

GeoView 2 is also a data visualization tool. Numerical values from discrete measurements are displayed in a table format; data from scanned and borehole mode measurements are displayed as a graph. Data from the borehole mode will show measurements from specific depths.

Curved Sensor Measuring Core Sample

IP/Resistivity Module with Small Sample Holder

Small and Large Sample Holders for IP/Resistivity Module


Borehole Mode Data in GeoView 2

Magnetic Susceptibility & Conductivity

Measurement Modules

The KT-20 has four modules to measure magnetic susceptibility, conductivity, induced polarization (IP)/resistivity, and density. Magnetic susceptibility and conductivity can be measured simultaneously with circular or rectangular sensors, when both modules are activated. The KT-20 is available in any configuration, and all modules can be added to the console at a later date. Most upgrades can be completed through the internet, although a new sensor may be required. Sensitivities of the magnetic susceptibility and conductivity modules are dependent on sensor frequency and shape.
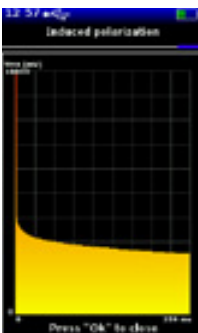

Discrete Magnetic Susceptibility Measurement
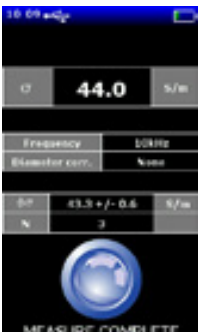
Discrete Conductivity Measurement

IP/Resistivity Measurement   IP Decay Curve

Density Measurement Result

Magnetic Susceptibility

▪ Measurement Range from 1 x 10-7 to 10 SI Units with Plus upgrade.
▪ Plus upgrade for iron ore applications (see options section for details).
▪ Applicable sensors include 1/10 kHz dual-frequency sensors, 10 kHz circular sensor, 10 kHz curved sensors, and 3F-32 large diameter sensor. Sensitivity is dependent on sensor frequency and shape (see sensor section for details).

Conductivity

▪ Measurement Range: Dependent on sensor frequency and shape (see sensor section for details)
▪ Absolute conductivity meter, sensors are calibrated using multi-point algorithm
▪ Cx upgrade to increase conductivity measuring range (see options section for details)
▪ Applicable sensors include 10/100 kHz dual-frequency sensors, 10 kHz circular sensor, 100 kHz curved sensors, and 3F-32 large diameter sensor. Sensitivity is dependent on sensor frequency and shape (see sensor section for details).

Induced Polarization / Resistivity

▪ Calculates chargeability using 20 standard windows, with arithmetic, logarithmic, semi-logarithmic and Cole-Cole plotting options.
▪ Mx Fit calculation: an algorithm that calculates chargeability over several thousand data points increasing accuracy.
▪ Resistivity and resistance measured.
▪ Automatic voltage and current calibration.
▪ Total Tau.
▪ Pro upgrade to record full waveform analysis, raw data and more (see options section for details).
▪ Operators can choose between two sample holder sizes, Small or Large, dependent on the length and width of the samples being measured.

Density

Enables the KT-20 to measure the density of a sample through water displacement. Includes a tensiometer, sample holder and water containment bag.

Magnetic Susceptibility & Conductivity

Sensors

The KT-20 has a range of interchangeable sensors with different shapes and frequencies. Each shape and frequency has its own benefit or application.
Users can swap sensors on the KT-20 to adapt the console to different sizes and types of samples, or for different applications.

Sensor Shapes

- Circular Sensors: Ideal for measuring large, flat samples. 10 kHz single-frequency sensor features a pin mode to measure samples with uneven surfaces. Dimensions: 66 mm diameter.
- Rectangular Sensors: Used for measuring small, flat samples or split core. Dimensions: 65 mm x 38 mm
- Curved Sensors: Designed to measure drill core samples. Their curved shape allows users to achieve a higher sensitivity for magnetic susceptibility or conductivity, while producing consistent, repeatable measurements. Dedicated curved sensors for BQ, HQ, NQ and PQ sizes.

Individual Frequencies

- 1 kHz: For measuring magnetic susceptibility on conductive samples. This frequency reduces the impact of conductivity on magnetic susceptibility measurements. This frequency is not suitable for measuring conductivity.
- 10 kHz: Ideal frequency for measuring both magnetic susceptibility and conductivity simultaneously. Single-frequency 10 kHz sensors offer highest sensitivity for measuring susceptibility.
- 100 kHz: Provides the highest sensitivity for conductivity measurements in low ranges. This frequency is not suitable for measuring magnetic susceptibility.

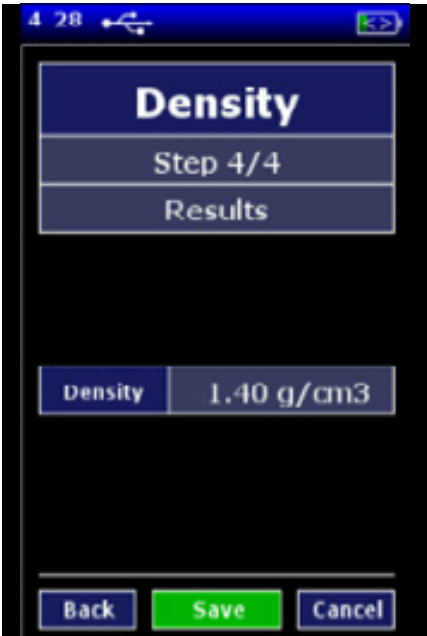*Rectangular, Curved and Circular Sensor Shapes*

3F-32 Large Diameter Sensor

Sample in Air

Sample Submerged in Water

Density Measurement Result

Magnetic Susceptibility & Conductivity

Order Guide for KT-20 Consoles, Upgrades & Accessories

Dedicated Conductivity Meters

SKU	DESCRIPTION
1141-00522	KT-20 Console
METHODS	
1141-00522-S	S option - To enable the KT-20 console to measure magnetic susceptibility (Sensor required) [The KT-20 Console includes either the magnetic susceptibility (S option) OR conductivity (C option) firmware free of charge]
SENSORS	
1141-00536	10 kHz Single-Frequency Sensor (Available in Circular design only)
1141-00539-C	1/10 kHz Dual-Frequency Sensor (Available in Circular designs)
1141-00539-R	1/10 kHz Dual-Frequency Sensor (Available in Rectangular designs)
1141-00537-BQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated BQ,diameters)
1141-00537-HQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated NQ)
1141-00537-NQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated HQ)
1141-00537-PQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated PQ diameters)
UPGRADES	
1141-00541-A	PLUS OPTION - Increases magnetic susceptibility measurement range from 2 to 10 SI units.
1141-00541-C	S/C OPTION - To enable the KT-20 console to simultaneously measure magnetic susceptibility and conductivity.
1141-00541-E	DENSITY SCALE ASSEMBLY - To enable the KT-20 console to measure density. Includes scale with built-in USB Cable, wire to hold sample, hooks, and water containment bag with 3 leg stands.
1141-00541-F	BAR CODE READER OPTION - To enable the KT-20 camera to read bar codes (Must be selected at the time of purchase) Requires an example of the exact bar code to be used so that the KT-20 camera can be tuned specifically to that bar code.
1141-00541-G	Upgrade fee (Applicable for the following upgrades performed on a previously purchased unit: 11-13, A-E)
ACCESSORIES	
Flat Magnetic Susceptibility Calibration Pads	
1141-00514	Low Susceptibility Values (Typically 34 x 10-3 SI Units)
1141-00503	High Susceptibility Values (Typically 2,500 x 10-3 SI Units) (to be used with the Plus Option only)
Curved Magnetic Susceptibility Calibration Pads	
1141-00535-BQ	Dedicated BQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)
1141-00535-NQ	Dedicated NQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)
1141-00535-HQ	Dedicated HQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)
1141-00535-PQ	Dedicated PQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)

Magnetic Susceptibility & Conductivity

Order Guide for KT-20 Consoles, Upgrades & Accessories

Dedicated Conductivity Meters

SKU	DESCRIPTION
1141-00522	KT-20 Console
METHODS	
1141-00522-C	C option - To enable the KT-20 console to measure conductivity (Sensor required) [The KT-20 Console includes either the magnetic susceptibility (S option) OR conductivity (C option) firmware free of charge].
SENSORS	
1141-00536	10 kHz Single-Frequency Sensor (Available in Circular design only)
1141-00540-C	10/100 kHz Dual-Frequency Sensor (Available in Circular designs)
1141-00540-R	10/100 kHz Dual-Frequency Sensor (Available in Rectangular designs)
1141-00537-BQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated BQ,diameters)
1141-00537-HQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated NQ)
1141-00537-NQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated HQ)
1141-00537-PQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated PQ diameters)
UPGRADES	
1141-00541-B	Cx OPTION - Increases conductivity measurement range from 100,000 to 200,000 S/m
1141-00541-C	S/C OPTION - To enable the KT-20 console to simultaneously measure magnetic susceptibility and conductivity
1141-00541-E	DENSITY SCALE ASSEMBLY - To enable the KT-20 console to measure density. Includes scale with built-in USB Cable, wire to hold sample, hooks, and water containment bag with 3 leg stands.
1141-00541-F	BAR CODE READER OPTION - To enable the KT-20 camera to read bar codes (Must be selected at the time of purchase) Requires an example of the exact bar code to be used so that the KT-20 camera can be tuned specifically to that bar code
1141-00541-G	Upgrade fee (Applicable for the following upgrades performed on a previously purchased unit: 11-13, A-E)
ACCESSORIES	
Flat Conductivity Reference Pads	
1141-00532-A	Low Conductivity Value (Typically 9 S/m)
1141-00532-B	Medium Conductivity Value (Typically 700 S/m)
1141-00532-C	High Conductivity Value (Typically 85,000 S/m)
Curved Conductivity Reference Pads	
1141-00533-BQ	Dedicated BQ Diameter - Low Conductivity Values (Typically 18 S/m)
1141-00533-NQ	Dedicated NQ Diameter - Low Conductivity Values (Typically 18 S/m)
1141-00533-HQ	Dedicated HQ Diameter - Low Conductivity Values (Typically 18 S/m)
1141-00533-PQ	Dedicated PQ Diameter - Low Conductivity Values (Typically 18 S/m)
OTHER ACCESSORIES	
1141-00529	KT-20 Carrying Pouch

Combined Magnetic Susceptibility/Conductivity Meters

SKU	DESCRIPTION
1141-00522	KT-20 Console
METHODS	
1141-00522-SC	S/C option - To enable the KT-20 console to simultaneously measure magnetic susceptibility and conductivity (Sensor required)
SENSORS	
1141-00536	10 kHz Single-Frequency Sensor (Available in Circular design only)
1141-00539-C	1/10 kHz Dual-Frequency Sensor (Available in Circular designs)
1141-00539-R	1/10 kHz Dual-Frequency Sensor (Available in Rectangular designs)
1141-00540-C	10/100 kHz Dual-Frequency Sensor (Available in Circular designs)
1141-00540-R	10/100 kHz Dual-Frequency Sensor (Available in Rectangular designs)
1141-00537-BQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated BQ,diameters)
1141-00537-HQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated NQ)
1141-00537-NQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated HQ)
1141-00537-PQ	10 kHz Single-Frequency Curved Sensor for Magnetic Susceptibility Measurements ONLY (Available only in dedicated PQ diameters)
1141-00538-BQ	100 kHz Single-Frequency Curved Sensor for Conductivity Measurements ONLY (Available only in dedicated BQ, diameters)
1141-00538-HQ	100 kHz Single-Frequency Curved Sensor for Conductivity Measurements ONLY (Available only in dedicated NQ)
1141-00538-NQ	100 kHz Single-Frequency Curved Sensor for Conductivity Measurements ONLY (Available only in dedicated, HQ)
1141-00538-PQ	100 kHz Single-Frequency Curved Sensor for Conductivity Measurements ONLY (Available only in dedicated PQ diameters)
UPGRADES	
1141-00541-A	PLUS OPTION - Increases magnetic susceptibility measurement range from 2 to 10 SI units
1141-00541-B	Cx OPTION - Increases conductivity measurement range from 100,000 to 200,000 S/m
1141-00541-E	DENSITY SCALE ASSEMBLY - To enable the KT-20 console to measure density. Includes scale with built-in USB Cable, wire to hold sample, hooks, and water containment bag with 3 leg stands
1141-00541-F	BAR CODE READER OPTION - To enable the KT-20 camera to read bar codes (Must be selected at the time of purchase) Requires an example of the exact bar code to be used so that the KT-20 camera can be tuned specifically to that bar code
1141-00541-G	Upgrade fee (Applicable for the following upgrades performed on a previously purchased unit: 11-13, A-E)
ACCESSORIES	
Flat Magnetic Susceptibility Calibration Pads	
1141-00514	Low Susceptibility Values (Typically 34 x 10-3 SI Units)
1141-00503	High Susceptibility Values (Typically 2,500 x 10-3 SI Units) (to be used with the Plus Option only)
Curved Magnetic Susceptibility Calibration Pads	
1141-00535-BQ	Dedicated BQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)
1141-00535-NQ	Dedicated NQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)
1141-00535-HQ	Dedicated HQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)
1141-00535-PQ	Dedicated PQ Diameter - Low Susceptibility Values (Typically 95 x 10-3 SI Units)
Flat Conductivity Reference Pads	
1141-00532-A	Low Conductivity Value (Typically 9 S/m)
1141-00532-B	Medium Conductivity Value (Typically 700 S/m)
1141-00532-C	High Conductivity Value (Typically 85,000 S/m)
Curved Conductivity Reference Pads	
1141-00533-BQ	Dedicated BQ Diameter - Low Conductivity Values (Typically 18 S/m)
1141-00533-NQ	Dedicated NQ Diameter - Low Conductivity Values (Typically 18 S/m)
1141-00533-HQ	Dedicated HQ Diameter - Low Conductivity Values (Typically 18 S/m)
1141-00533-PQ	Dedicated PQ Diameter - Low Conductivity Values (Typically 18 S/m)
OTHER ACCESSORIES	
1141-00529	KT-20 Carrying Pouch

Magnetic Susceptibility & Conductivity - Additional Modules

KT-20 IP Module

SKU	DESCRIPTION
1141-00522	KT-20 Console
METHODS	
The KT-20 Console includes either the magnetic susceptibility (S option) OR conductivity (C option) firmware free of charge	
SENSORS	
1141-00522-IRS	IP Induced Polarization/Resistivity Sensor with IP/Resistivity Electronics, Cables, and Small Sample Holder
1141-00522-IRL	IP Induced Polarization/Resistivity Sensor with IP/Resistivity Electronics, Cables, and Large Sample Holder
UPGRADES	
1141-00541-D	PRO OPTION - To increase the capabilities of the IP sensor (with Small or Large Sample Holder). The Pro Option includes: Full waveform analysis up to 16,000 windows; initial chargeability (M_ip) calculated; decay analysis starting 2ms after switch off; chargeability calculations from user defined time intervals; 3 time constants (Tau) calculated; 3 exponential decay models; and Raw data recording.
1141-00541-E	DENSITY SCALE ASSEMBLY - To enable the KT-20 console to measure density. Includes scale with built-in USB Cable, wire to hold sample, hooks, and water containment bag with 3 leg stands.
1141-00541-F	BAR CODE READER OPTION - To enable the KT-20 camera to read bar codes (Must be selected at the time of purchase) Requires an example of the exact bar code to be used so that the KT-20 camera can be tuned specifically to that bar code.
1141-00541-G	Upgrade fee (Applicable for the following upgrades performed on a previously purchased unit: 11-13, A-E)
OTHER ACCESSORIES	
1141-00529	KT-20 Carrying Pouch
KT-20 IP ACCESSORIES	
1141-00534-A	IP-T10 IP Reference Pad (to be used with either the Small or Large Sample Holder)
1141-00534-B	Stand-alone IP/Resistivity Sensor with IP/Resistivity Electronics and Cables (to be used with either the Small or Large Sample Holder)
1141-00534-C	Stand-alone Small Sample Holder (to be used with the IP/Resistivity Sensor, Electronics, and Cables)
1141-00534-D	Stand-alone Large Sample Holder (to be used with the IP/Resistivity Sensor, Electronics, and Cables)

KT-20 3F-32 Module

SKU	DESCRIPTION
1141-00522	KT-20 Console
METHODS	
The KT-20 Console includes either the magnetic susceptibility (S option) OR conductivity (C option) firmware free of charge	
SENSORS	
1141-00523	3-Frequency (1/10/100 kHz), 32cm Diameter (3F-32) Sensor with Pole, Arm Support, Cable, and Rugged Transportation Case
UPGRADES	
1141-00541-A	PLUS OPTION - Increases magnetic susceptibility measurement range from 2 to 10 SI units
1141-00541-B	Cx OPTION - Increases conductivity measurement range from 100,000 to 200,000 S/m
1141-00541-C	S/C OPTION - To enable the KT-20 console to simultaneously measure magnetic susceptibility and conductivity
1141-00541-E	DENSITY SCALE ASSEMBLY - To enable the KT-20 console to measure density. Includes scale with built-in USB Cable, wire to hold sample, hooks, and water containment bag with 3 leg stands.
1141-00541-F	BAR CODE READER OPTION - To enable the KT-20 camera to read bar codes (Must be selected at the time of purchase) Requires an example of the exact bar code to be used so that the KT-20 camera can be tuned specifically to that bar code
1141-00541-G	Upgrade fee (Applicable for the following upgrades performed on a previously purchased unit: 11-13, A-E)

Magnetic Susceptibility & Conductivity Technical Specifications for KT-20 Sensors

10 kHz Single-Frequency Curved Sensors for Magnetic Susceptibility

Sensor Sizes	BQ, NQ, HQ & PQ
Operating Frequency	10 kHz
Magnetic Susceptibility Sensitivity	$6 \times 10\text{-}7$ SI
Magnetic Susceptibility Measurement Range	$0.0006 \times 10\text{-}3$ to $1999.99 \times 10\text{-}3$ SI
Extended Range (Plus Option)	$0.0006 \times 10\text{-}3$ to $9999.99 \times 10\text{-}3$ SI

100 kHz Single-Frequency Curved Sensors for Conductivity

Sensor Sizes	BQ	NQ & HQ	PQ
Operating Frequencies	100 kHz	100 kHz	100 kHz
Conductivity Sensitivity	0.07 S/m	0.05 S/m	0.04 S/m
Conductivity Measurement Range	0.07 to 100 S/m	0.05 to 100 S/m	0.04 to 100 S/m

10 kHz Single-Frequency Circular Sensor

	Without Pin	With Pin
Operating Frequency	10 kHz	10 kHz
Magnetic Susceptibility Sensitivity	$1 \times 10\text{-}7$ SI	$1 \times 10\text{-}6$ SI
Conductivity Sensitivity	1 S/m	10 S/m
Magnetic Susceptibility Measurement Range	$0.0001 \times 10\text{-}3$ to $1999.99 \times 10\text{-}3$ SI	$0.001 \times 10\text{-}3$ to $1999.99 \times 10\text{-}3$ SI
Extended Range (Plus Option)	$0.0001 \times 10\text{-}3$ to $9999.99 \times 10\text{-}3$ SI	$0.001 \times 10\text{-}3$ to $9999.99 \times 10\text{-}3$ SI
Conductivity Measurement Range	1 to 100,000 S/m	10 to 100,000 S/m

1 / 10 kHz Dual-Frequency Sensors

	Circular/Regular	
Operating Frequencies	1 kHz	10 kHz
Magnetic Susceptibility Sensitivity	$1 \times 10\text{-}5$ SI	$1 \times 10\text{-}6$ SI
Conductivity Sensitivity	21.3 S/m	1 S/m
Magnetic Susceptibility Measurement Range	$0.01 \times 10\text{-}3$ to $1999.99 \times 10\text{-}3$ SI	$0.001 \times 10\text{-}3$ to $1999.99 \times 10\text{-}3$ SI
Extended Range (Plus Upgrade)	$0.01 \times 10\text{-}3$ to $9999.99 \times 10\text{-}3$ SI	$0.001 \times 10\text{-}3$ to $9999.99 \times 10\text{-}3$ SI
Conductivity Measurement Range	21.3 to 100,000 S/m	1 to 100,000 S/m
Extended Range (Cx Upgrade)	21.3 to 200,000 S/m	1 to 200,000 S/m

Magnetic Susceptibility & Conductivity

10 / 100 kHz Dual-Frequency Sensors

Circular/Regular		
Operating Frequencies	10 kHz	100 kHz
Magnetic Susceptibility Sensitivity	1 x 10-6 SI	-
Conductivity Sensitivity	1 S/m	0.1 S/m
Magnetic Susceptibility Measurement Range	0.001 x 10-3 to 1999.99 x 10-3 SI	-
Extended Range (Plus Option)	0.001 x 10-3 to 9999.99 x 10-3 SI	-
Conductivity Measurement Range	1 to 100,000 S/m	0.1 to 15,000 S/m
Extended Range (Cx Option)	1 to 200,000 S/m	-

3F-32 Large Diameter Sensor

	1 kHz	10 kHz	100 kHz
Magnetic Susceptibility Sensitivity	1 x 10-5 SI	1 x 10-6 SI	1 x 10-5 SI
Conductivity Sensitivity	1 S/m	0.1 S/m	0.05 S/m
Magnetic Susceptibility Measurement Range	0.01 x 10-3 to 1999.99 x 10-3 SI	0.001 x 10-3 to 1999.99 x 10-33223333333 SI	0.01 x 10-3 to 1999.99 x 10-3 SI
Conductivity Measurement Range	1 to 10,000 S/m	0.1 to 10,000 S/m	0.05 to 10,000 S/m
Measurement Frequency	▪ 4 readings per second, in stationary mode ▪ 10 readings per second, in scan mode		

Induced Polarization (IP) / Resistivity Sensor

| Parameters Calculated and Displayed	Chargeability, Error, Apparent Resistivity, Current, Voltage, Resistance
Chargeability Resolution	10 µV/V
Chargeability Precision	0.2%
Voltage Resolution	10 µV
Current Sensitivity	10 µA
TRANSMITTER	
Signal Waveform	Time Doman (ON+, OFF, ON-, OFF)
Pulse Duration	0.5, 1, 2, 4 and 8 seconds
Current	Maximum 150 mA (electronically fused)
Voltage	6V and 15V DC
Contact Resistance	50Ω to 5MΩ 50Ω to 2MΩ @ 6V DC 100Ω to 5MΩ @ 15V DC
Voltage and Current Calibration	Automatic
RECEIVER	
Voltage Resolution	10 µA
Current Resolution	10 mA
Early Delay Time	2 ms (Pro upgrade only)
SAMPLE HOLDERS	
Size	Small	Large
Length of Core/Sample	40 - 140 mm	50 - 350 mm
Diameter of Electrodes	70 mm	90 mm

Magnetic Susceptibility & Conductivity

Instrument Upgrades

Plus Upgrade (KT10 & KT 20) for magnetic susceptibility module
- ▪ Increase measurement range to 10 SI units
- ▪ Iron ore concentration estimates (%) directly from the display for magnetite ore.

Cx Upgrade (KT10 & KT 20) for conductivity module
(only available with 1 kHz and 10 KHz frequencies)
- ▪ Increase measurement range to 200,000 S/m

Pro Upgrade (KT20) for IP/resistivity module
- ▪ Full waveform decay curve analysis using 16,000 data points
- ▪ Initial chargeability (M ip) calculated
- ▪ Decay analysis starting 2ms after switch off
- ▪ Chargeability calculations from user defined time intervals (M User)
- ▪ 3 time constants (Tau) calculated and 3 exponential decay models
- ▪ Raw data recording

Bar code option (KT20)
Camera can be specifically tuned to read a variety of bar codes to facilitate archiving.
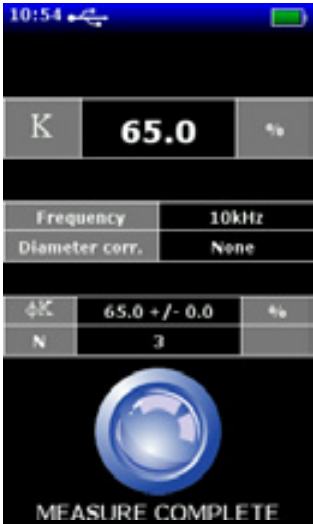
Plus Option

Magnetic Susceptibility Calibration Pads

Three calibration pads are available to recalibrate magnetic susceptibility measurements, or as a check source to confirm the readings - two for flat sensors and one for curved sensors. The curved calibration pad is available in BQ, NQ, HQ, or PQ diameters. The flat calibration pad with high values is only suitable for consoles with the Plus upgrade.

	Flat (KT-10 & KT-20)		Curved (KT-20)
Approx. Nominal Susceptibility Values: (values will vary between pads)	Low Range	High Range	Low Range
	34 x 10-3 SI	2500 x 10-3 SI	95 x 10-3 SI

Conductivity Reference Pads

Four reference pads are available to verify the console's conductivity measurements - three for flat sensors and one for curved sensors. The curved reference pad is available in BQ, NQ, HQ, or PQ diameters. Each pad is independently tested using different methods for measuring conductivity (AC, DC and impedance bridges).

	Flat (KT-10 & KT-20)			Curved (KT-20)
Approx. Nominal Susceptibility Values: (values will vary between pads)	Low Range	Medium Range	High Range	Low Range
	9 S/m	700 S/m	85,000 S/m	18 S/m

Magnetic Susceptibility & Conductivity

IP-T10 Reference Pad (KT20)

The IP-T10 is a dedicated reference pad to verify the IP/Resistivity Module's various measurement parameters and can be used with either the Small or Large Sample Holder. Shaped like a core sample, its housing is made from polished granite to minimize the influence of any surface contamination.

SM30 Magnetic Susceptibility Meter

The SM30 is a small magnetic susceptibility meter. Thanks to the high sensitivity we can measure sediments and rocks with extremely low level of magnetic susceptibility.
In addition, we can distinctly measure diamagnetic materials such as limestone, quartz and also water.

- High sensitivity 1×10-7 SI units - the sensitivity is 10 times better than that of the competitive instruments
- Small size and low weight.
- Thanks to sophisticated signal processing the noise induced in pick - up coil is suppressed well under the resolution 1×10-7 SI units.
- The sensor design enables to get 90% of its signal from the first 20 mm of the rock. This feature allows more accurate readings on uneven surfaces of all rock types.
- Auto-ranging and three-button control makes the meter the easiest to operate by one hand only.
- Internal memory can store 250 readings.
- 6 measuring modes - four from six measuring modes suppress linear part of the thermal drift.
- Sensitivity: 1×10-7 SI Units
- Operating frequency: 8kHz
- Measurement time: Less than 5s
- Digital display: 4 digits LCD
- Controls: 3 push buttons
- Pick-up coil: 56 mm in diameter
- Operating temperature: -20 °C to 50 °C
- Battery: 2 lithium CR2430
- Battery life: Approx 80 hrs
- PC interface: RS232C
- Standard accessories: Operating manual, RS232 cable, PC software for data transmission and external control.
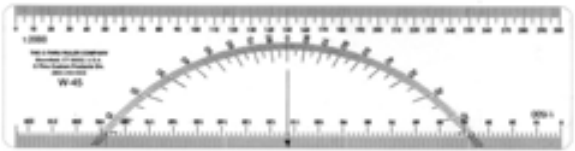
SKU	SIZE	WEIGHT
1141-00550	100 × 65 × 25mm	0.18kg

Protractor Rule

C-Thru Protractor Ruler

- Transparent 180° protractor ruler
- Metric only
- Laminated for durability
- 15cm/6"

SKU
CTRW45

C-Thru Protractor Ruler

- Transparent 180° protractor with scales 1:3000 and 1:6000 metres
- Laminated for durability
- Size: 15cm

SKU
CTRW46

C-Thru Protractor Ruler Plain Scale

- 15cm/6" transparent 180° protractor ruler with 45° and 60° triangle cut outs plus French curve symbol
- Scales are in 16ths to the inch and centimeters

SKU
CTRW5

C-Thru Protractor Ruler Plain Scale

- 15cm/6" transparent 180° protractor ruler with 1:500 and 1:1000 meter scales.
- Laminated for durability.

SKU
CTRW43

C-Thru Protractor Ruler Imprinted Engineer Scale

1.5 x 6" engineers' protractor ruler with centimeter scale and inch calibrations in tenths

SKU
CTRW8

C-Thru Protractor Ruler

- 15cm/6" transparent 180° protractor ruler
- Imperial only
- Laminated for durability
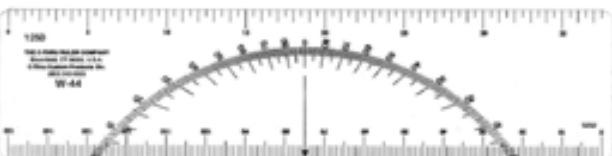
SKU
CTRW44

C-Thru Protractor Ruler

- Transparent 180° protractor ruler
- 45° and 60° triangle cut outs plus French curve symbol
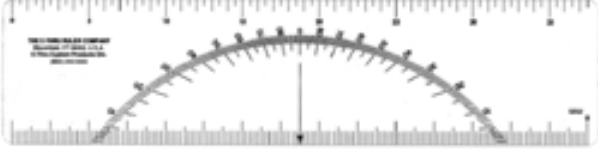- Calibrated 16ths to the inch and centimeters

SKU
CTRW51

C-Thru Protractor Ruler

- 6"/15cm 32ths to the inch protractor laminated ruler
- Transparent 180° protractor ruler featuring 8ths graph, 16ths to the inch, and centimeter scales

SKU
CTRW42

Protractor Rule

Douglas Protractor

Douglas-type square pattern navigational protractor. Can also be used as a simple parallel rule and plotter. Available in Protractor 130mm/5" & 250mm/10".

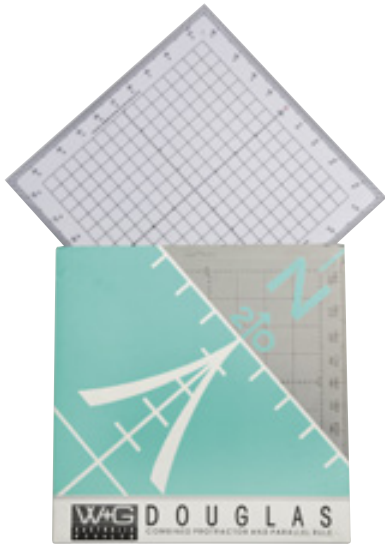| SKU	SIZE
1141-01501-IMP	250mm - Imperial
1141-01500-IMP	125mm - Imperial
1141-01500-GEO	125mm - Geologist
1141-01501-MET	125mm - Metric

# Scale Ruler

Triangle Scale Rule

Triangular scales in ABS plastic. Colour coded centre strip. Comes in a hard plastic carry case. 300mm.

SKU	SIZE
1141-00260	Engineering 1: 2.5, 5, 10, 20, 50, 100
1141-00261	Architects 1: 20, 25, 50, 75, 100, 125
1141-00262	Architects 1: 100, 200, 250, 300, 400, 500
1141-00263	Survey 1: 400, 600, 800, 900, 1500, 3000
1141-00264	Building & Civil Eng. 1: 20, 33.3, 40, 50, 80, 100
1141-00265	General Purpose 1: 1, 2, 5, 10, 20, 50
1141-00266	Engineering & Trade 1: 20, 25, 33.3, 50, 75, 100
1141-00267	Survey 1: 500, 1000, 1250, 2000, 2500

Allen Scales Metric

Designed specially for use on maps drawn to a proportional scale such as 1:1000, 1:250,000 etc. Government agencies use this system in drawing quadrangle sheets, aeronautical charts etc. Sold only in complete sets. Never Individual leaves.

SKU
AS
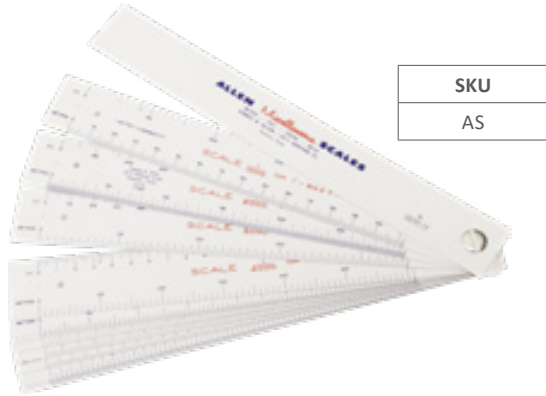
Ruler

Clino 4-Fold Rule 1m

ABS 1m, 4 fold clino rule with angle indicator. Accurate and reliable. Spirit level vial.

SKU	SIZE
CFR	1m

Rule 4-Fold Yellow Square 1m

Sturdy folding rules available with square edge. Clear markings.

SKU	SIZE
YFR	1m

Ruler Stainless Steel Metric

Premium quality stainless steel. Easy read numerals. Heavy duty acid etched blade.

SKU	SIZE
1141-00100-300	300mm
1141-00100-1000	1000mm

Westernex also supplies a wide range of core orientators and core measuring devices. Please see our *Core Storage & Handling* section for more information.

Scales & Balances

## SG Station - Medium and Large

Scale not Included, as we have a number of different options available.

Procedure

1. Dry the sample at 110°C for a period of 24 hours ± 4 hours. This will remove any trapped moisture from the interior of the sample and ensure that a true dry bulk density is achieved. After drying, allow the samples to return to room temperature prior to testing.

2. Determine the dry weight of the sample and record this weight as W.

3. Fill the water tub and set up the scale to be bottom loading. The water level in the tub should be deep enough to fully cover the sample in the basket. Allow the water to come to room temperature and then check that the water is at 20-23°C and at a specific gravity of approximately 1.

4. Attach the sample basket to the bottom of the scale as shown in the diagram below. Make sure to tare the scale out prior to starting testing.

5. Place the sample into the basket and record the weight as the suspended weight (S).

6. Calculate the volume (V) as the difference between the original dry weight (W) and the suspended weight, S.

7. Calculate the bulk density by dividing the dry weight (W) by the volume (V).

	SKU	DESCRIPTION	SIZE
A	1150-04001	SG Station + Medium SS Hanging Basket	Medium
B	1150-04002	SG Station + Medium V Style Double Basket	Medium
C	1150-04000	SG Station + Large SS Hanging Basket	Large
D	1150-04003	SG Station + Large V Style Double Basket	Large
E	1150-04004	SG Station + X-Large Square Double Basket	X Large

$$\text{Specific Gravity} = \frac{\text{Mass of the Object}}{\text{Mass of the Water}} = \frac{M_{Object}}{M_{H^2O}}$$

X-Large Square Double Basket

A
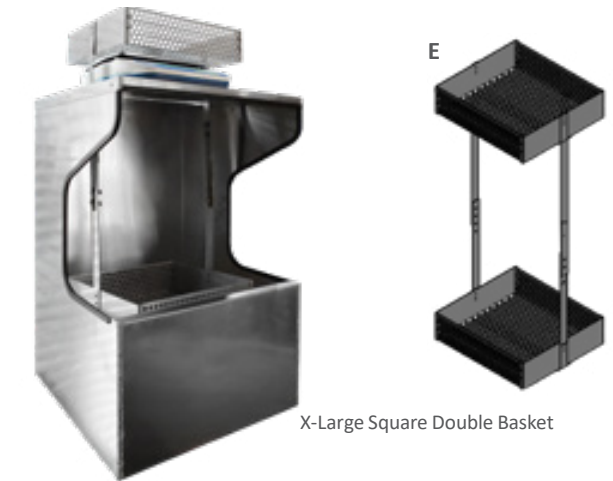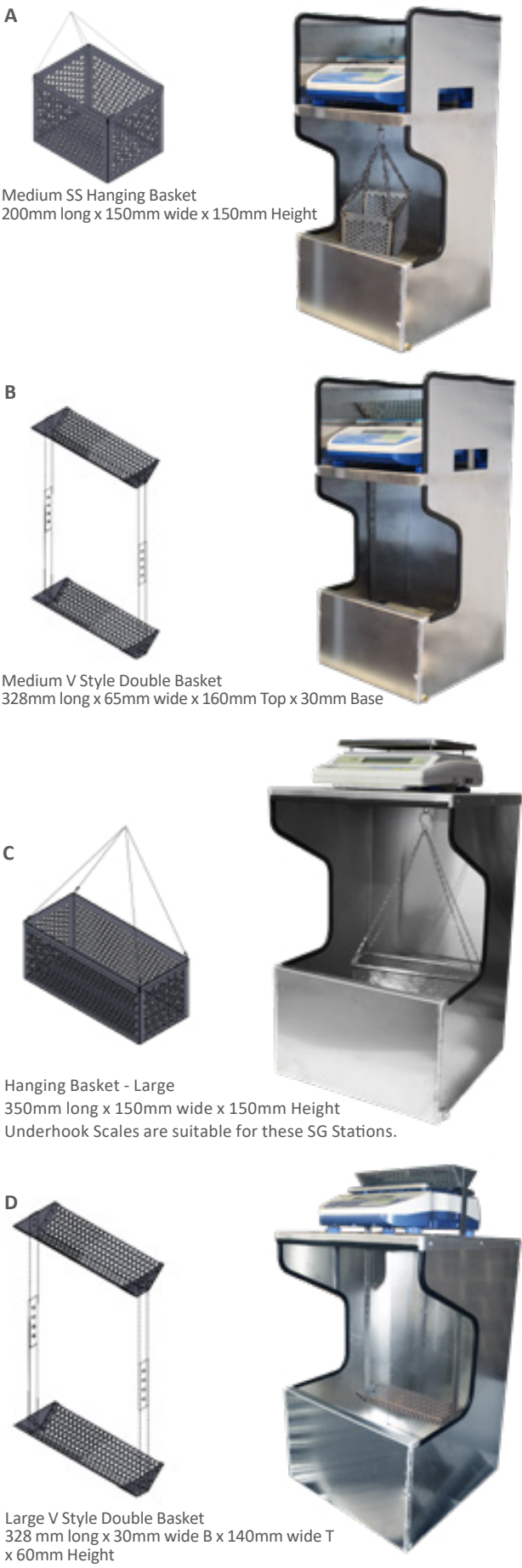
Medium SS Hanging Basket
200mm long x 150mm wide x 150mm Height

B

Medium V Style Double Basket
328mm long x 65mm wide x 160mm Top x 30mm Base

C

Hanging Basket - Large
350mm long x 150mm wide x 150mm Height
Underhook Scales are suitable for these SG Stations.

E

D

Large V Style Double Basket
328 mm long x 30mm wide B x 140mm wide T
x 60mm Height

Scales & Balances

Cruiser (CKT) Bench Checkweighing Scales

Scales are available in two Styles, <u>Scales with Under Hook</u> and <u>Scales without Under Hook.</u>
Note: Under Hook scales are suitable to be ordered for SG Stations with Hanging baskets.

Ideal for use in warehouses, manufacturing processes, and production facilities, Cruiser CCT counting scales are practical for any counting application. Quickly check the number of pieces in a carton or container to reduce waste when filling orders or packing shipments.
Intuitive software is user-friendly and keeps track of the count, automatically optimising the unit weight for greater accuracy. For fast configuration and easy operation, the CCT stores up to 140 PLUs in memory. The programmable backlit display can be customised to be"always on," "always off" or to light only when weighing.

- Applications: parts counting, checkweighing, check counting, accumulation of weight, percentage weighing, net total weighing
- Backlit display changes colour for quick notification of checkweighing limits
- Colour-coded keys facilitate quick recognition of the most frequently used buttons
- Large, grade 304 stainless steel pan allows easy cleaning
- RS-232 interface is available to provide speedy connection to computers and printers
- Optional USB interface simplifies data communication
- The sealed keypad protects against dirt and spills
- Solid ABS housing is durable for industrial use
- Adjustable levelling feet help optimise setup
- Drip channels help divert spills away from the scale internal components
- Checkweighing with audible alarm
- Internal counting resolution of 1:600,000 for precise results
- Parts counting optimisation automatically refines piece weight as parts are added
- Parts counting with freely selectable sample sizes
- Preset tare function speeds the process of repetitive weighing
- Programmable auto power-off to save energy
- Rechargeable battery included for operation almost anywhere

SKU	CAPACITY
With Under Hook - To Use With Hanging Baskets	
1150-00011-KT4H	4000g x 0.1g CKT 4-UNDERHOOK
1150-00011-KT8HH	8000g x 0.2g CKT 8-UNDERHOOK.
1150-00011-KT8H	8000g x 0.1g CKT 8H-UNDERHOOK
1150-00112-KT16H	16kg x 0.5g CKT 16-UNDERHOOK
1150-00011-KT32H	32kg x 1g CKT 32-UNDERHOOK
1150-00011-KT48H	48kg x 2g CKT 48-UNDERHOOK
No Under Hook - To Use With V Baskets	
1150-00014-08UH	8kg x 0.05g CKT 8UH
1150-00014-UH16	16kg x 0.1g CKT 16UH
1150-00014-32UH	32kg x 0.2g CKT 32UH
1150-00014-48UH	48kg x 0.5g CKT 48UH
1150-00012-CKT04	4000g x 0.1g CKT 4
1150-00012-CKT08	8000g x 0.2g CKT 8
1150-00012-CKT8H	8000g x 0.1g CKT 8H
1150-00112-CKT16	16kg x 0.5g CKT 16
1150-00112-CKT32	32kg x 1g CKT 32
1150-00112-CKT48	32kg x 1g CKT 48

Check our website for the Cruiser (CKT) Bench Checkweighing Scales comparison table.

Scales - Scout Portable Balance

- Stabilisation Time: 1s
- Linearity: 0.2g
- Pan Construction: Stainless Steel
- Operating Temperature: 50°F – 104°F, 80%RH, non-condensing (10°C – 40°C, 80%RH, non-condensing)
- Dimensions Overall: 54mm h x 224mm l x 202mm w
- Battery Life: 80 Hours with disposable batteries

SKU	READABILITY	PAN SIZE	CAPACITY
1141-00411	0.1g	224 x 202mm	6.2kg

Used on the SG Station.

Scales & Balances

Aqua Washdown Scales

Built to withstand the harshest working conditions, Aqua washdown scales are rated IP67 and feature a large removable stainless steel weighing pan. Ideal for industrial environments, precision load technology enables improved performance and greater efficiency during weighing and counting tasks.

The dual 20mm-high digit front and rear displays enhance visibility and productivity for the user. Checkweighing is simple, with separate high, OK and low coloured LED indicators that change colour to alert the operator if a sample is under, over or within preset limits. Power is supplied by AC adapter or rechargeable battery, and auto power-off conserves battery life.

SKU	CAPACITY
1150-00902-ABW4	4kg x 0.1g AQUA ABW 4S
1150-00902-ABW8	8kg x 0.5g AQUA ABW 8S
1150-00902-ABW16	16kg x 1g AQUA ABW 16S
1150-00902-ABW32	32kg x 2g AQUA ABW 32S

Get the Aqua scales wet without worry, the IP67 scale performs effortlessly and accurately no matter how rigorous the application.

- Application: weighing, parts counting, percentage weighing, checkweighing
- IP67-rated for protection against water and dust
- External calibration allows for verification and adjustment with weights
- The sealed keypad protects against dirt and spills
- Overload protection helps prevent damage to internal components
- Solid ABS housing is durable for industrial use
- Heavy-duty rubber feet ensure the stability of the unit
- Bright LED display for easy viewing in most environments
- Checkweighing LEDs clearly show under, over and within acceptable limits
- Front and rear 20mm LED displays to allow for dual use
- Zero-tracking feature ensures the display returns to zero reading
- The auto power-off feature conserves battery life
- Rechargeable battery included for operation almost anywhere
- The stabilisation time of within 1 second
- AC adapter included

Model	ABW 4	ABW 8	ABW 16	ABW 32
SKU	1150-00902-ABW4	1150-00902-ABW8	1150-00902-ABW16	1150-00902-ABW32
Capacity	4kg	8kg	16kg	32kg
Readability	0.5g	1g	2g	5g
Repeatability	1g	2g	5g	10g
Linearity	1g	2g	5g	10g
Pan Size	245x180mm			300x210mm
Weighing Units	g, kg, lb, oz, lb:oz			
Stabilisation Time (sec)	1			
Calibration	External			
Display	Dual-display LED with 20mm-high digits			
Power Supply	12VDC 800mA adapter, Internal rechargeable battery			
Operating Temperature	0° to 40°C			
Housing	ABS plastic			
Overall Dimensions	255x290x105mm		300x310x105mm	
Net Weight	2.5kg			

Scales & Balances

Aqua Washdown Stainless Steel Scales

For ultimate dependability, the Aqua ABW-S boasts IP68 washdown protection, meaning it's suitable for weighing messy or dusty materials in demanding environments. In addition to the easy-to-clean grade 304 stainless steel housing and platform, the pan is removable for hygienic maintenance. Overload protection helps safeguard the scale against accidental overloads for a reliable, long-lasting weighing solution. Well-suited for food processing, batching and packaging, the Aqua offers features designed to improve productivity.

The bright LED displays clearly show results in the front and rear of the scale, allowing multiple users to use the same scale, while hidden colour-changing indicators light up during checkweighing to show if results are over, under or within preset limits. Percentage weighing makes baking and recipe batching effortless, while part counting speeds up packaging tasks. Take advantage of the internal rechargeable battery for operation anywhere, including areas where access to power is limited. The Aqua's quick stabilisation time means weighing tasks are faster and more efficient.

Complete protection whatever the application. With grade 304 stainless steel, this IP68 bench scale looks the part.

- Applications: weighing, checkweighing, percentage weighing, parts counting
- IP68-rated for protection against water and dust
- Grade 304 stainless steel casing for a premium, professional look, easy cleaning and ultimate durability
- The sealed keypad protects against dirt and spills
- Clear, hidden-until-needed function indicators keep the focus where it's needed
- Heavy-duty rubber feet for stability when weighing
- Front and rear 20mm LED displays allow for dual use
- Bright LED displays front and rear for easy viewing in most environments
- External calibration allows for verification and adjustment with weights
- Overload protection helps prevent damage to internal components
- Auto power-off feature conserves battery life
- Rechargeable battery for operation almost anywhere
- AC adaptor included
- Stabilisation time of within 1 second

SKU	CAPACITY
1150-00115-BW4S	4kg x 0.1g ABW 4S
1150-00115-BW8S	8kg x 0.5g ABW 8S
1150-00115-BW16S	16kg x 1g ABW 16S
1150-00115-BW32S	32kg x 2g ABW 32S

Model	ABW 4S	ABW 8S	ABW 16S	ABW 32S
SKU	1150-00115-BW4S	1150-00115-BW8S	1150-00115-BW16S	1150-00115-BW32S
Capacity	4kg	8kg	16kg	32kg
Readability	0.1g	0.5g	1g	2g
Repeatability	0.2g	1g	2g	5g
Linearity	0.2g	1g	2g	5g
Pan Size	245x180mm			300x210mm
Weighing Units	g, kg, lb, oz, lb:oz			
Stabilisation Time (sec)	1			
Calibration	External			
Display	Dual-display LED with 20mm-high digits			
Power Supply	12VDC 50/60Hz 800mA adapter, Internal rechargeable battery			
Operating Temperature	0° to 40°C			
Housing	Stainless steel top housing with ABS plastic base			
Battery Life	55 hours			
Overall Dimensions	255x290x105mm		300x310x105mm	
Net Weight	2.5kg			

Scales & Balances

Gladiator Washdown Scale

Combining durability and performance, Gladiator scales achieve washdown weighing tasks in the most demanding industrial and pharmaceutical applications. With an IP67 rating for washdown capabilities, Gladiator features easy-to-clean stainless steel construction that is ideal for wet and dusty environments.

Connectors on the bottom are IP67-rated for thorough protection. Gladiator expedites checkweighing with a large, back-lit display that changes colour to show if the weight is over, under or within the set limit. Designed for maximum efficiency, Gladiator features a tactile keypad with large, colour-coded keys for easy operation.

- Applications: weighing, parts counting, percentage weighing. checkweighing, check counting, display hold, peak hold, dynamic weighing, net/gross
- Back-lit display changes colour for quick notification of checkweighing limits
- Large, grade 304 stainless steel pan allows easy cleaning
- Rugged stainless steel housing for ultimate durability
- Heavy-duty rubber feet ensure the stability of the unit
- The sealed keypad protects against dirt and spills
- Colour-coded keys facilitate quick recognition of the most frequently used buttons
- RS-232 interface is available to provide speedy connection to computers and printers
- External calibration allows for verification and adjustment with weights
- Hold function freezes the displayed weight, allowing time to elapse without losing the result
- Parts counting with preset sample sizes
- Selectable digital filtering for animal/dynamic weighing enables consistent results for moving subjects
- IP67-rated for protection against water and dust
- Rechargeable battery included for operation almost anywhere
- Programmable auto power-off to save energy

SKU	CAPACITY
1150-00905-GS8	8kg x 0.2g GGS 8
1150-00905-GS16	16kg x 0.5g GGS 16
1150-00905-GS35	35kg x 1g GGS 35
1150-00905-GB35	35kg x 1g GGB 35
1150-00905-GB75	75kg x 2g GGB 75
1150-00905-GF150	150kg x 5g GGF 150
1150-00905-GF75	75kg x 2g GGF 75
1150-00905-GL150	150kg x 5g GGL 150
1150-00905-GL300	300kg x 0.01g GGL 300
1150-00905-GF75H	75kg x 1g GGF 75H

Check our website for the Gladiator Washdown Scales comparison table.

Scales & Balances

Analytical Luna Lab Scales

Luna analytical balances are designed with an array of features and functions that accommodate most lab applications. The Luna range offers improved performance for faster, more accurate readings. With stylish, modern back-lighting, Luna's impressive display gives an aura of smart sophistication. The LCD features large, readily discernible 24mm digits in white on a black background. Multilingual text and display capability make Luna well-suited for users in various regions.
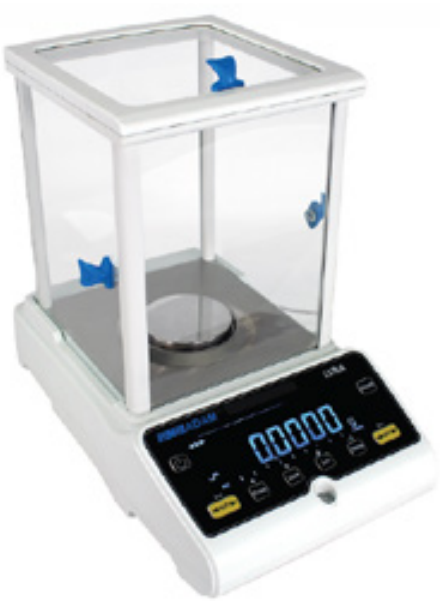
For simple operation, navigation buttons are colour-coded, helping users perform functions with minimal training. Luna provides USB and RS-232 interfaces to facilitate data collection and transmission to computers or printers. ABS plastic construction and rugged grade 304 stainless steel pan mean Luna is easy to clean and can withstand demanding lab use. Available in four models with capacities up to 250g, Luna offers readability of 0.0001g and can perform basic and detailed measuring tasks.

- Available as a set which includes scale, plastic beaker and a full set of charts.
- Requires no reference to separate charts or tables, saves time and prevents errors in calculations.
- Simply hang the filled container on the scale hook, read the information directly from the scale.
- High quality internal parts ensure trouble-free operation and long life.
- A majority of the internal components are manufactured in stainless steel or advanced polymers.
- The scales correlates the specific gravity of the ore with the percent solids of the pulp.
- This information is displayed on a circular scale for several specific gravities by use of a simple weigh scale.

SKU	CAPACITY
1150-00900-124E	120g x 0.0001g 124e
1150-00900-124I	120g x 0.0001g 124i
1150-00900-214E	210g x 0.0001g 214e
1150-00900-214I	210g x 0.0001g 214i
1150-00900-254E	250g x 0.0001g 254e
1150-00900-254I	250g x 0.0001g 254i
1150-00900-84E	80g x 0.0001g 84e
1150-00900-84I	80g x 0.0001g 84i

Check our website for Analytical Luna Lab Scales comparison table.

Scales & Balances

Luna Precision Scales

Featuring a wide selection of capacities and readabilities, Luna precision balances can meet the diverse weighing needs in a variety of labs. The Luna range offers improved performance for faster, more accurate readings. Luna combines durability and performance in a stylish design, with an LCD that delivers results in large 24mm digits in white on a black background. Suitable for international use, Luna provides a useful multilingual text and display capability. RS-232 and USB connections allow speedy connection with computers and printers to transmit results. Designed to tolerate demanding lab tasks, Luna is constructed with easy-to-clean ABS plastic construction and a durable grade 304 stainless steel pan.

- Applications: weighing, parts counting, percentage weighing, dynamic weighing, density determination, checkweighing, net total weighing
- Vivid, backlit LCD easily visible in any lighting conditions
- Colour-coded keys facilitate quick recognition of the most frequently used buttons
- Easy setup with level indicator and adjustable feet ensure optimum weighing results
- Security slot for optional Kensington-type lock and cable to help prevent theft
- Large, grade 304 stainless steel pan allows swift cleaning
- The sealed keypad protects against dirt and spills
- USB and RS-232 interfaces provide speedy communication with computers and printers
- External calibration allows for verification and adjustment with weights
- Multilingual display permits use in various regions
- Parts counting with preset sample sizes
- Printouts include the date and time for data tracking within Good Laboratory Practices (GLP) guidelines
- Selectable digital filtering for animal/dynamic weighing enables consistent results for moving subjects
- Auto power-off to save energy
- AC adapter included

Check our website for Luna Precision Scales comparison table.

SKU	CAPACITY
1150-00901-6001E	6000g x 0.1g LBB 6001e
1150-00901-8001E	8000g x 0.1g LBB 8001e
1150-00901-1201E	1200g x 0.1g LBB 12001e
1150-00901-1501E	1500g x 0.1g LBB 15001e
1150-00901-B223E	220g x 0.001g LPB 223e
1150-00901-B223I	220g x 0.001g LPB 223i
1150-00901-B423E	420g x 0.001g LPB 423e
1150-00901-B423I	420g x 0.001g LPB 423i
1150-00901-B623E	620g x 0.001g LPB 623e
1150-00901-B623I	620g x 0.001g LPB 623i
1150-00901-B823E	820g x 0.001g LPB 823e
1150-00901-B823I	820g x 0.001g LPB 823i
1150-00901-2602E	2600g x 0.01g LTB 2602e
1150-00901-2602I	2600g x 0.01g LTB 2602i
1150-00901-3602E	3600g x 0.01g LTB 3602e
1150-00901-3602I	3600g x 0.01g LTB 3602i
1150-00901-4602E	4600g x 0.01g LTB 4602e
1150-00901-4602I	4600g x 0.01g LTB 4602i
11150-00901-6002E	6000g x 0.01g LTB 6002e
1150-00901-6002I	6000g x 0.01g LTB 6002i

Scales & Balances

PTT Pallet Truck Scale - 2000kg x 0.5kg

Offering an all-in-one solution, the PTT Pallet Truck Scale combines the power of a 2000kg capacity heavy-duty pallet truck scale with the convenience of a built-in label printer. The PTT features solid steel pallet forks, wheels that swivel for easy movement and an audible alarm that indicates when capacity is exceeded. A versatile and practical choice, PTT is ideal for transporting heavy objects and goods on pallets, as well as recordkeeping and inventory. An internal rechargeable battery allows long periods of continual use, while colour-coded keys and a large LCD display with 34mm digits provide visibility under even the poorest of lighting conditions.

The PTT also features a range of integrated applications, including accumulation, hold, parts counting and checkweighing. The PTT includes easy-to-use PC software that allows the 50mm-wide printed labels to be quickly tailored to any requirement with the addition of custom logos, images, barcodes and QR codes.

- Applications: weighing, parts counting, percentage weighing, checkweighing, dynamic weighing, accumulation, display hold, peak hold, barcode/label printing
- The built-in printer can print weight, QR codes, bar codes and labels in numerous languages
- Vivid, backlit LCD easily visible in any lighting conditions
- Programmable backlight can be set to "always on," "always off" or "light only when weighing"
- Colour-coded keys facilitate quick recognition of the most frequently used buttons
- RS-232 interface provides a speedy connection to computers and printers
- Rugged construction stands up to industrial use
- The sealed keypad protects against dirt and spills
- Checkweighing with audible alarm
- Parts counting optimisation automatically refines piece weight as parts are added
- Rechargeable battery included for operation almost anywhere
- AC adapter included
- Wheels swivel, allowing easy movement
- Zero-tracking feature ensures the display returns to zero reading

SKU
1150-00903-PTT

| Model	PTTplus 2000
SKU	1150-00903-PTT
Maximum Capacity	2000kg
Readability	0.5g
Repeatability (S.D.)	1kg
Linearity (+/-)	1kg
Fork Size	1150x160mm
Weighing Units	kg,lb, lb:oz, oz, ct, dr, mm, T, tonne
Stabilisation Time (sec)	2
Interface	RS-232
Calibration	External calibration
Display	Backlit LCD with 34mm-high digits
Power Supply	Hard wired mains cable/Internal rechargeable battery
Operating Temperature	-10° to 40°C
Housing	Mild steel base / ABS plastic
Overall Dim.	550x1525x1175mm (wxdxh)
Net Weight	125kg

Scales & Balances

Heavy Duty Scales

- Applications: Weighing, parts counting, percentage and dynamic weighing, checkweighing, checkcounting
- Rugged construction stands up to industrial use
- Chequered plate surface for added grip
- Approximately three-meter shielded cable
- Four load cell construction
- Overload protection
- Mild steel construction
- Standard with GK Indicator (Compatible also with AE402, GK-M or GC indicators)
- Mains and rechargeable battery power

SKU	CAPACITY
1150-00751	1000kg x0.2kg WITH GK INDICATOR
1150-00752	3000kg x0.5kg WITH GK INDICATOR
1150-00073-AE	PALLET WEIGHT BEAMS 2000kg x 0.5kg WITH AE402 INDICATOR
1150-00073-GK	PALLET WEIGHT BEAMS 2000kg x 0.5kg WITH GK INDICATOR
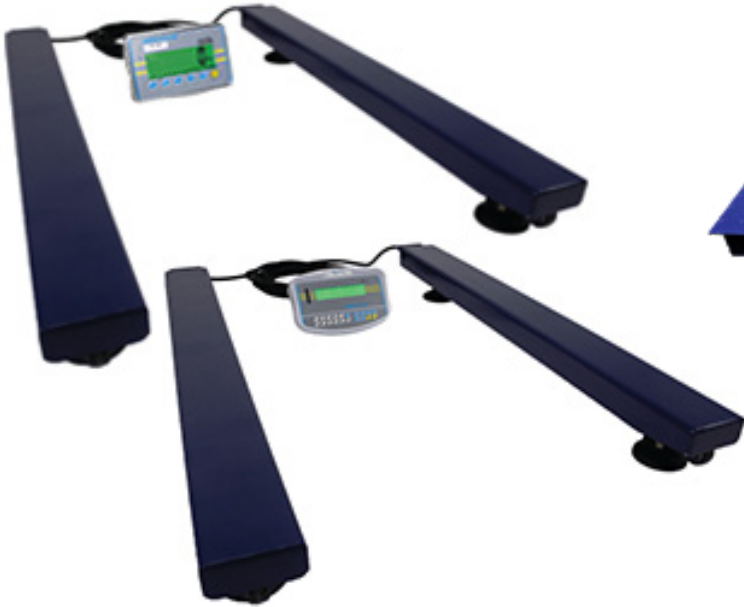
Indicators AE402

SKU
1150-00057-AE

Indicators GK

SKU
1150-00057-GK

Scales & Balances

PTS Pallet Truck Scale 2000kg x 0.5kg

Offering an all-in-one solution, the PTT Pallet Truck Scale combines the power of a 2000kg capacity heavy-duty pallet truck scale with the convenience of a built-in label printer. The PTT features solid steel pallet forks, wheels that swivel for easy movement and an audible alarm that indicates when capacity is exceeded.

A versatile and practical choice, PTT is ideal for transporting heavy objects and goods on pallets, as well as recordkeeping and inventory. An internal rechargeable battery allows long periods of continual use, while colour-coded keys and a large LCD display with 34mm digits provide visibility under even the poorest of lighting conditions.

SKU
1150-00903-PTS

The PTT also features a range of integrated applications, including accumulation, hold, parts counting and checkweighing. The PTT includes easy-to-use PC software that allows the 50mm-wide printed labels to be quickly tailored to any requirement with the addition of custom logos, images, barcodes and QR codes.

- Applications: weighing, parts counting, percentage weighing, checkweighing, dynamic weighing, accumulation, display hold, peak hold, barcode/label printing
- The built-in printer can print weight, QR codes, bar codes and labels in numerous languages
- Vivid, backlit LCD easily visible in any lighting conditions
- Programmable backlight can be set to "always on," "always off" or "light only when weighing"
- Colour-coded keys facilitate quick recognition of the most frequently used buttons
- RS-232 interface provides a speedy connection to computers and printers
- Rugged construction stands up to industrial use
- The sealed keypad protects against dirt and spills
- Checkweighing with audible alarm
- Parts counting optimisation automatically refines piece weight as parts are added
- Rechargeable battery included for operation almost anywhere
- AC adapter included
- Wheels swivel, allowing easy movement
- Zero-tracking feature ensures the display returns to zero reading

Model	PTSplus 2000
SKU	1150-00903-PTS
Maximum Capacity	2000kg
Readability	0.5g
Repeatability (S.D.)	1kg
Linearity (+/-)	1kg
Fork Size	1150x160mm
Weighing Units	kg, lb, lb:oz
Stabilisation Time (sec)	2
Interface	RS-232
Calibration	External calibration
Display	Backlit LCD with 40mm-high digits
Power Supply	Hard wired mains cable/Internal rechargeable battery
Operating Temperature	-10° to 40°C
Housing	Mild steel base, IP67 rated indicator
Overall Dim.	550x1525x1175mm (wxdxh)
Net Weight	125kg

Scales & Balances

Pulp Density Scales

- Available as a set which includes scale, plastic beaker and a full set of charts.
- Requires no reference to separate charts or tables, saves time and prevents errors in calculations.
- Simply hang the filled container on the scale hook, read the information directly from the scale.
- High quality internal parts ensure trouble-free operation and long life.
- A majority of the internal components are manufactured in stainless steel or advanced polymers.
- The scales correlates the specific gravity of the ore with the percent solids of the pulp.
- This information is displayed on a circular scale for several specific gravities by use of a simple weigh scale.

- The simplicity of the scale along with its many applications have made this a common feature at concentrators throughout the world.
- The scale can be used for fast, accurate percent solids determinations at various points through-out a concentrator, enabling adjustments to be made to keep, for example, a grinding circuit running effectively.
- A full inventory of spare parts and accessories is always available including buckets and charts.
- All our charts and buckets are interchangeable with the Marcy Brand Pulp Density Scale Pulp Density Scales are often referred to as Pulp Density Balance, Specific Gravity Scale, Density Balance, Density Scale, Marcy Scale.

SKU
1150-02000-R

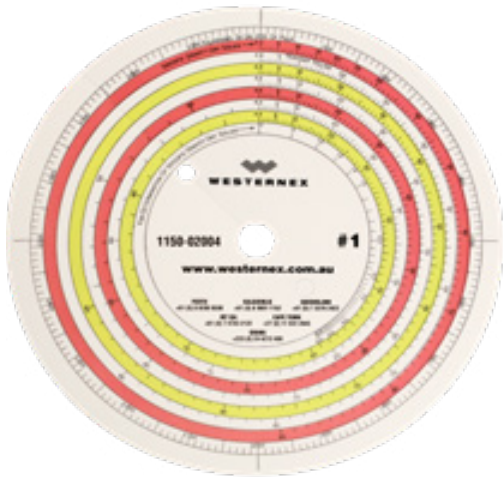| Dial face numbers listed below are provided with your scale							
Chart #1	S.G 2.2	2.6	2.8	3.2	3.6	4	4.4
Chart #2	1.2	1.3	1.4	1.5	1.6	1.7	1.8
Chart #3	1.7	1.8	1.9	2	2.1	2.2	2.3
Chart #4	2.2	2.3	2.4	2.5	2.6	2.7	2.8
Chart #5	2.6	2.7	2.8	2.9	3	3.1	3.2
Chart #6	3	3.1	3.2	3.3	3.4	3.5	3.6
Chart #7	3.4	3.5	3.6	3.7	3.8	3.9	4
Chart #8	3.8	3.9	4	4.1	4.2	4.3	4.4
Chart #9	4.2	4.3	4.4	4.5	4.6	4.7	4.8
Chart #10	4.6	4.8	5	5.2	5.4	5.6	5.8
Chart #11	5.6	5.8	6	6.2	6.4	6.5	6.6
Chart #12	6.6	6.8	7	7.2	7.4	7.6	7.8

Density Charts

The chart sets are applicable of a wide range of solids, light or heavy density. Interchangeable are provided to cover the range in small specific gravity increments.

- Full Set No 1-12
- No 1 - Gravity Range (2.2 - 4.4)
- No 2 - Gravity Range (1.2 - 1.8)
- No 3 - Gravity Range (1.7 - 1.3)
- No 4 - Gravity Range (2.2 - 2.8)
- No 5 - Gravity Range (2.6 - 3.2)
- No 6 - Gravity Range (3.0 - 3.6)
- No 7 - Gravity Range (3.4 - 4.0)
- No 8 - Gravity Range (3.8 - 4.4)
- No 9 - Gravity Range (4.2 - 4.8)
- No 10 - Gravity Range (4.6 - 5.8)
- No 11 - Gravity Range (5.6 - 6.8)
- No 12 - Gravity Range (6.6 - 7.8)

SKU	DESCRIPTION
1150-02003	Full Set No 1-12

Scales & Balances

Determining the Specific Gravity of Dry Solids

The desired sample should be dry and between 10 mesh and 100 mesh (Tyler). Hang the dry, empty container on the scale and pour in the dry sample of dry material until the pointer indicates 1.000 Kilograms on the outer ring of the dial (the container now has 1.000 Kg of material in it). Pour the sample onto a rolling cloth or sheet of paper. Fill the container one third full with clear water and gradually stir in the dry sample. Insure that the sample is thoroughly wet and that air bubbles are eliminated. Hang the container on the scale and add clear water up to the overflow holes. Read the dry solids specific gravity on the innermost ring of the dial chart.

Density Bucket

- Manufactured from strong and durable plastics, one litre container with overflow holes and handle
- The plastic container resists the action of Alkalis and acids, and is easy to keep clean
- It is difficult to break and will not dent, assuring constant volume measurement
- Slotted overflow openings permit easy and accurate filling to exactly 1000cc

SKU	MATERIAL	SIZE
1150-02001	Plastic	1 Litre
1150-02002	Stainless Steel	1 Litre

Determining Percent Solids

If you know the specific gravity of the dry solids in the pulp (see determining the specific gravity of dry solids), you can directly read the percentage in the pulp on the dial chart. Select the correct dial face for the particular dry solid specific gravity in the pulp. Hang the filled container on the scale. The percent solids in the pulp read clockwise from the specific gravity number on the green, white and red rings of the dial chart.

Example:
A reading of 44% solids at 2.2 specific gravity also reads 39% solids at 2.6 specific gravity and 35% solids at 3.2 specific gravity.

Calibration Weight Set 1g - 200g

OIML weight sets include a complete group of test weights that can meet requirements for testing to OIML standards. E2 weight sets provide a high level of accuracy and are ideal for calibrating analytical and precision balances. M1 weight sets offer a lower level of accuracy, but are affordable and ideal for calibrating compact portable balances and bench scales.

- Weights included: 1g, 2g(2), 5g, 10g, 20g(2), 50g, 100g, 200g
- Density: 7.96g/cm³
- Susceptibility: 0.01 - 0.005

SKU	DENSITY	SUSCEPTIBILITY
1150-00003	7.96g/cm³	0.01 - 0.005

Spring Balance

The spring balance scales are traditional type brass face-plate quality scales made in Germany. Ring at the top and a hook at the bottom.

| SKU	SIZE
SB-12KG	12kg
SB-25KG	25kg
SB-50KG	50kg
SB-100KG	100kg

Scales & Balances

Dial Face Hanging Scale

- High-quality spring mechanism
- Heavy duty, stainless steel hooks
- Easy zero adjustment
- Powder-coated steel housing
- Quality perspex protective cover
- Easy to read 152mm dial

SKU	SIZE
1150-00505-5	5kg x 20g
1150-00505-10	10kg x 50g
1150-00505-25	25kg x 100g
1150-00505-50	50kg x 200g

Stainless Steel Hooks
Heavy duty, stainless steel hooks

Zero adjustment
Easy zero adjustment

Spring Mechanism
Quality spring mechanism

Steel Housing
Powder coated steel housing

Large Dial Face
Easy to read 152mm dial

Protective Cover
Quality perspex protective cover

152mm
400mm
85mm
172mm
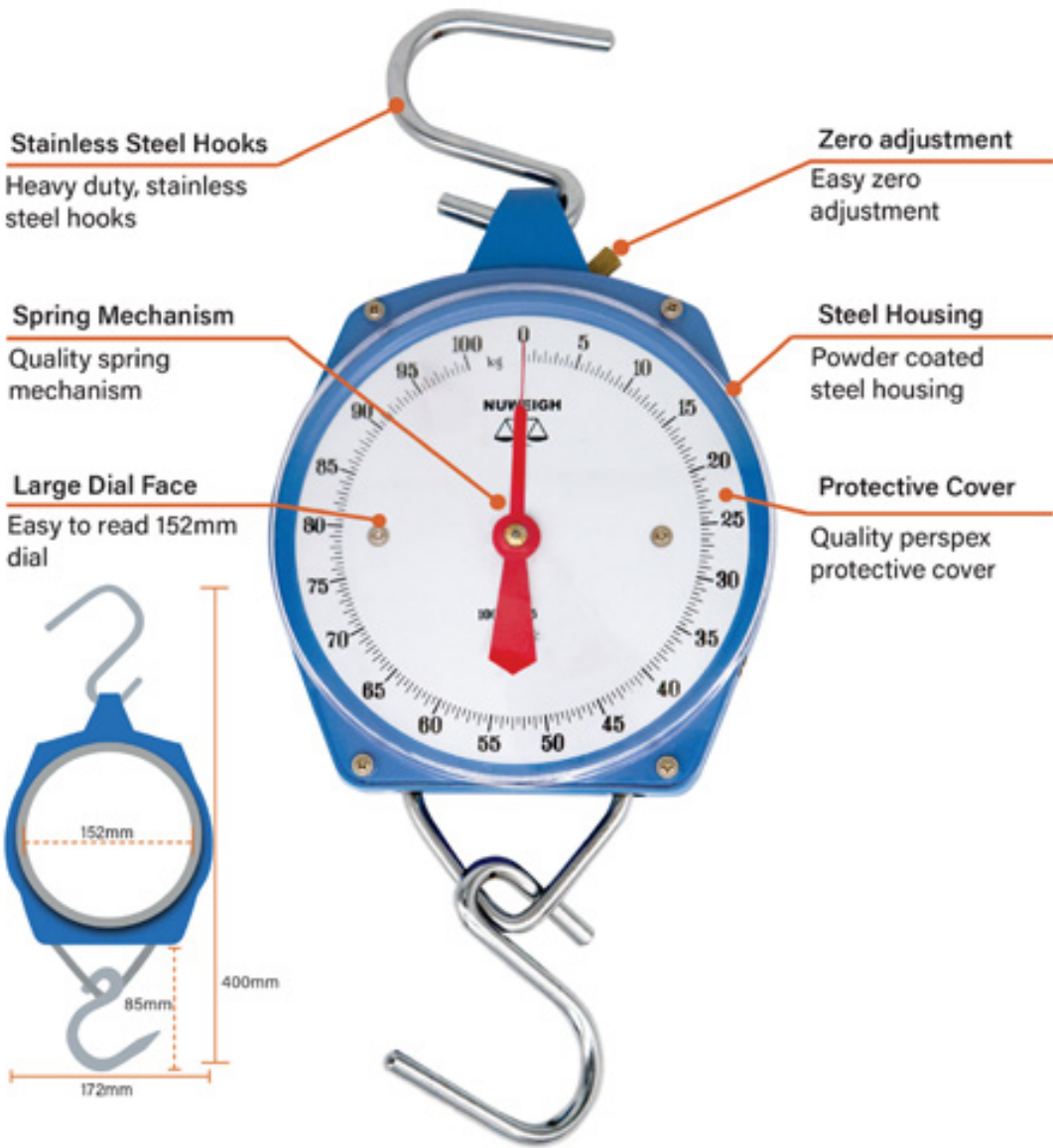
Tape Measure

Polychain Yellow

The Kinglong Polychain is a circular section rope type tape measure. It was originally designed for use in the mining and drilling industries.The Kinglon Polychain's tough construction also makes it suitable for use in a range of other industries including construction, surveying, forestry, forensics and environmental field work.

The Kinglon Polychain's circular construction and high tensile strength make it particularly suitable for high strain applications. It is a free from Bromines, Lead, Mercury, Cadmium and Chromium and is approved by ISO 9001,9002,14001-2004.

Specifications:
- Tensile Strength: 70Kg
- Elongation Tolerance: Min 92.5mm/loaded with 5Kg for 100 Metre Polychain
- Length Tolerance: Less than 50mm/loaded with 2Kg for 100 Metre Polychain
- Material: Fiberglass coated with PVC
- Graduations: Consecutively numbered per metre with contrasting markings every 50cm. 10cm markings for first metre.

SKU	SIZE
YP30M	30m
YP50M	50m
YP100M	100m
YP250M	250m

Polychain (Stainless Steel Core)

The Stainless Steel Inner Core is the industry leading measuring tool designed for use in Drill & Blast. These are made to withstand the harshest mining environments by featuring a thick protective coating.

The core is designed to not stretch under load and to handle the substantial requirements of Drill & Blast dipping and measuring. These does not tangle, knot, and are easy to wind up and slips effortlessly along wet ground. These have 0.5m markings, and have loops at both ends.

SKU	SIZE
1141-00247-50	50m
1141-00247-100	100m

Surveyor's Rope

Makes an ideal drag chain for rough surveying measurements. Numbers are graduated from the handle to the end of the rope. Tough, flexible and lightweight with graduations printed on both sides. White with black and red markings.

SKU	SIZE
1141-00003	30m
1141-00002	50m
1141-00001	100m

Tape Measure

Tape Measure Fibreglass Tape Open Reel

Double coated fiberglass tape. Fiberglass withstands highest tensile strength. Shock absorbing rubber bumpers.

SKU	SIZE
FO30	30m
FO50	50m
FO100M	100m

Polychain Canvas Winder

A convenient method for carrying the surveyor's rope, polychain or surveyor's chain.

SKU
YP-WINDER

Lufkin Tape Measure 8mx 5mm Ezy-Read

▪ Clear, Easy to Read Markings - Each Marking is Distinct from the Other Markings
▪ Ideal for Measuring Applications Where the Tape Extends Away From the Operator e.g. Vertical Measurements or Long Objects
▪ Compatible with Left or right Hand Operation
▪ Strong ABS Plastic Case
▪ Accurate Measurement - Each Tape Individually Checked for Accuracy
▪ Sliding End Hook, Automatically Adjusts to Inside and Outside Measurements.
▪ Positive Non-Slip Blade Lock
▪ Proudly Australian Made

SKU
LUFKINEZYREAD

Komelon Lock Tapes

These Komelon pocket tapes are concealed in an ergonomically designed ABS case. They feature an Auto Stop locking system and a comfortable rubber grip. It's Class II accuracy printed steel blade is nylon coated and controlled by precise equipment.
▪ Impact absorbing rubber protects case and button
▪ Great to work with under hot or cold weather conditions
▪ Built-in shock absorber to protect blade and tip
▪ Ergonomically designed

SKU	LENGTH
1141-00280	5m (5m x 19mm Lock Tape)
1141-00281	8m (8m x 25mm Lock Tape)

Time Measuring

Alliance Digital Stop Watch

▪ 10 lap split and divisible memories with 1/100 second precision.
▪ 2 row display
▪ Calendar + Time (12 or 24 hour format)
▪ Daily alarm
▪ Stopwatch range up to 9hr 59mins 59seconds
▪ Shock proof structure
▪ Lanyard included

SKU
1141-01215

Brannan Digital Stop Watch

▪ Timer Count: 1/100 second
▪ Battery: 1 x LR44 - Supplied
▪ Ingress Protection: IP65
▪ CE & RoHS/WEEE: Compliant
▪ LCD Dimensions: 17mm x 35mm
▪ Product Dimensions: 65mm x 80mm x 18mm
▪ Product Weight: 50.5g

SKU
1141-00009

Water Meter

Water Level Indicator Richter

- For measuring the water level in wells and bore holes even in noisy conditions.
- When the probe touches the water the LED on the winding device lights up.
- At the same time as the LED lights, a buzzer sounds
- Refined steel probe with electrode and insulation
- Millimeter graduations, meters marked in red

SKU	SIZE
1141-02050-50	50m
1141-02050-100	100m
1141-02050-200	200m

Water Level Indicator Slope

- Probe: Stainless steel body and tip, polyethylene insulator 10 x 170 mm (3/8" x 6.6").
- 3.2 mm (1/8") diameter polyurethane jacket with two copper-clad, steel conductors inside.
- Graduations are marked with laser and cannot be rubbed off.
- Clean cable with laboratory grade detergent.

SKU	SIZE
1141-02060-30	30m
1141-02060-100	100m
1141-02060-150	150m
1141-02060-200	200m
1141-02060-300	300m

Ground Water Sampling

- Available in clear PVC or weighted PE (polyethylene)
- Lab tested and verified
- Only starts to biodegrade when discarded in a landfill
- Sealed in biodegradable packaging for cleanliness
- Comes with free biodegradable emptying device
- Standard BioBailers™ are 38mm diameter for standard 50mm monitoring wells
- Narrow BioBailers™ (19mm) are ideal for small diameter wells
- Hydrocarbon only Biobailer™ makes sampling LNAPL/ PSH easy
- Other plastic bailers can take up to 500 years to decompose in a landfill
- BioBailers™ will biodegrade to form humus (plant food). Estimated to take around 5 years in a typical landfill

SKU	DESCRIPTION	SIZE
1101-00400	PVC Clear	38 x 900mm, 1025ml
1101-00400-H	Hydrocarbon Only	38 x 920mm
1101-00400-W	PVC Clear, Weighted	38 x 900mm, 1025ml
1101-00403	PVC Clear, Narrow	19 x 920mm

Weather Monitoring

Rain Gauge 1000

Measures up to 250mm of rainfall. Remove the guesswork when monitoring various garden watering systems, avoiding over-watering and waste. Ideal on farms, vineyards, nurseries, gardens, parks and schools. Easy to read and accurate. Simple to install.

SKU	SIZE
1141-01218	250mm

Thermometer Min/Max Digital

One display that shows both the inside and outside temperatures simultaneously. It will also record the minimum and maximum temperatures. The outside temperature sensor is waterproof and is on a 3 metre cable. It also has a tilting bail for standing as well as a keyhole for wall mounting and large digits for easy reading.

SKU	SIZE
1141-01216	95 x 140 x 22mm

Thermometer Min/Max Reset Mercury Free

Thermometer max/min R/S -30°C to 50°C quickset plastic. Mercury free.

SKU
1141-01217

Thermometer Min/Max Reset Mercury

Manufactured according to European directive for commercial application only. -30°C to 50°C, plastic, white, with push-button and contains mercury.

SKU
1141-00145

Weather Monitoring

Kestrel Meter Comparison Chart

	1141-01223	1141-01205	1141-01202	1141-01201	1141-01213	1141-01221	1141-01207	1141-01220
Model	Kestrel 1000	Kestrel 2000	Kestrel 3000	Kestrel 3550AG	Kestrel 5000	Kestrel 5100	Kestrel 5200	Kestrel 5400
Wind speed	✓	✓	✓	✓	✓	✓	✓	✓
Max. wind gust	✓	✓	✓	✓	✓	✓	✓	✓
Ave. wind speed	✓	✓	✓	✓	✓	✓	✓	✓
Backlit display	X	✓	✓	✓	✓	✓	✓	✓
Temperature	X	✓	✓	✓	✓	✓	✓	✓
Clock	X	X	X	✓	✓	✓	✓	✓
Wind chill	X	✓	✓	✓	✓	✓	✓	✓
Altitude	X	X	X	✓	✓	✓	✓	✓
Pressure trend	X	X	X	✓	✓	✓	✓	✓
Baro pressure	X	X	X	✓	✓	✓	✓	✓
Relative humidity	X	X	✓	✓	✓	✓	✓	✓
Heat stress index	X	X	✓	✓	✓	✓	✓	✓
Dewpoint temp	X	X	✓	✓	✓	✓	✓	✓
Wet bulb temp	X	X	X	✓	✓	X	X	✓
Data storage	X	X	X	✓	✓	✓	✓	✓
Density altitude	X	X	X	X	✓	✓	✓	✓
Humidity ratio	X	X	X	X	X	X	X	X
Digital compass	X	X	X	X	X	X	X	X
Wind direction	X	X	X	X	X	X	X	X
Crosswind	X	X	X	X	X	X	X	X
Head/tailwind	X	X	X	X	X	X	X	X
Delta T	X	X	X	✓	X	X	✓	X
Vol. air flow (CFM)	X	X	X	X	X	X	✓	X
Rel. air density	X	X	X	X	X	✓	✓	X
Absolute pressure	X	X	X	X	X	X	X	X
Evaporation rate	X	X	X	X	X	X	✓	X
Wet bulb globe temp	X	X	X	✓	✓	✓	✓	✓
Water-proof/floats	✓	✓	✓	✓	✓	✓	✓	✓

Weather Monitoring

Kestrel 1000 Pocket Wind Meter

The Kestrel 1000 was the original meter of this type, and it is still going strong. Users will receive accurate current wind speed, average wind speed and maximum wind gust reports while on the go. The only thing that has changed about this reliable model over the years is the aesthetics of the unit. Can easily be switched between mph, km/h, ft/min, m/s, knots and Beaufort measurements.

Specifications:
- Measures current wind speed, maximum wind gust, average wind speed.
- Protective cover with sure-grip overmolding
- Data hold function
- Large easy-to-read display
- Waterproof and floats
- Patented user-replaceable impeller
- Wide range of wind speeds and low startup speed
- Reliable, portable, and easy to use

Comes with:
- Kestrel 1000 unit
- Slip-on protective cover
- Neck lanyard
- CR2032 coin cell battery (Average life 300 hours)
- Kestrel Certificate of Conformity

SKU	SIZE
1141-01223	122 x 42 x 18 mm

Kestrel 2000 Pocket Wind Meter

The Kestrel 2000 enables users to get up to the minute information about wind speed, wind gusts, wind chill and the current air, water and snow temperatures. It is the most basic temperature and wind meter in the Kestrel collection, combining a user-friendly interface with highly accurate atmospheric data readings.

Specifications:
- Measures current wind speed, maximum wind gust, average wind speed, air, water & snow temperature, wind chill.
- Protective cover with sure-grip overmolding.
- Waterproof and floats
- Large easy-to-read display with backlight
- Data hold function
- Quick-response, external thermistor
- Innovative design for stability and accuracy in abrupt condition changes.
- Patented user-replaceable impeller
- Reliable, portable and easy to use

Comes with:
- Kestrel 2000 unit
- A slip-on protective cover
- Neck lanyard
- CR2032 coin cell battery (Average life 300 hours)
- Kestrel Certificate of Conformity

SKU	SIZE
1141-01205	122 x 42 x 18 mm

Weather Monitoring

Kestrel 3000 Pocket Wind Meter

Targeted toward and practically required for wildland firefighters in both fighting fires and controlled burn situations. This was a principle factor that changed firefighting equipment standards from the previous standard, the belt weather kit. It cut the weight of dated weather packs, confusion, and time, to this minimalist approach that was revolutionary in firefighting, where users live literally depend on the accurate weather data the device provides.

Specifications:

- Measures current wind speed, maximum wind gust, average wind speed, air, water & snow temperature, wind chill, relative humidity, heat stress index, dewpoint
- Protective cover with sure-grip overmolding
- Data hold function
- Large easy-to-read display with backlight
- Waterproof and floats
- The humidity sensor can be recalibrated in the field with our Relative Humidity Calibration Kit.
- User-replaceable impeller
- External temperature sensor
- Patented Quick-Response RH Sensor

Comes with:

- Kestrel 3000 unit
- A slip-on protective cover
- Neck lanyard
- CR2032 coin cell battery (Average life 300 hours)
- Kestrel Certificate of Conformity

SKU	SIZE
1141-01202	122 x 42 x 18 mm

Kestrel 3550AG Pocket Weather Meter

Spray drift is a real concern that can cause harm to other plants, livestock, and nearby people. Use the new Kestrel 3550AG to make sure your crop-spraying of your pesticides or herbicides are on-target. Easily log and monitor your data using your smartphone, ensuring safety and saving time and resources.

It is critical to measure relative humidity, wind speed and wind direction at field-level to minimize waste and maximize safety when spraying. The on-site weather at time of application has a significant impact on the risk of drift. Best management practices include checking weather at the site of application to ensure safe and effective spraying. With a built-in digital compass, the 3550AG measures all relevant environmental conditions for spraying including wind direction.

Pocket sized, rugged, waterproof, affordable, easy-to-use and equipped with on-unit data logging and wireless data retrieval for monitoring and reporting, the Kestrel 3550AG is your trusted weather guide for spraying and farming.

Comes with:

- Weather Meter
- Slide Cover
- Neck lanyard
- CR2032 coin cell battery (Average life 300 hours)
- Kestrel Certificate of Conformity

SKU	SIZE
1141-01201	122 x 42 x 18 mm

Weather Monitoring

Kestrel 5000 Pocket Environmental Meter

This is the baseline wind and weather meter in the Kestrel 5000 series. Includes data storage, graphing functions and computer interface technology. It has the capacity to store up to 10,000 data points of weather data, enabling you to track changes in the environment over time, view these changes as graphs on your Kestrel 5000's display, and even upload the data to your PC or Mac.

Specifications:

- Measures barometric pressure, altitude, relative humidity, heat stress index, dew point, temperature, and wind speed
- Easy to read, backlit screen with high resolution for even bright sunny conditions
- Time and date stamping on recorded measurements
- Exterior temperature, humidity, and pressure sensors for fast and accurate readings
- Automatically store measurements, even when the unit is turned off
- Manually store measurements with the press of a button
- Graph and recall trends
- Waterproof, dust proof, with scratch and break resistant glass screen

Comes with:

- Kestrel 5000 unit
- Neck Lanyard
- AA Lithium Battery (Average Life 400 Hours)
- Protective Drawstring Pouch
- Certificate of Conformity
- Instruction Manual

SKU	SIZE
1141-01213	127 x 42 x 28 mm

Kestrel 5100 Pocket Racing Weather Meter with Link

The Kestrel 5100 Pocket Weather Meter is Kestrel's racing pit meter. Kestrel has been trusted for years for last minute tuning decisions. Get readings where it counts, on the track, not the trailer. With the new LINK technology, you can get readings right to your smartphone up to 100 feet away.

Specifications:

- Measures moisture content (water grains), air density, relative air density (rad), altitude, pressure trend, barometric pressure, wet bulb temperature, relative humidity, heat stress index, dewpoint, density altitude, wind chill, air, water, and snow temperature, current, average, and maximum air velocity
- Waterproof and floats
- Easy- to-read backlit display
- Data Logger (automatic and manual)
- Customisable data storage - 2900 data points
- Exterior temperature, humidity, and pressure sensors for fast and accurate readings
- Graph and recall trends

Comes with:

- Kestrel 5100 unit
- Neck Lanyard
- AA Lithium Battery (Average Life 400 Hours)
- Protective Drawstring Pouch
- Certificate of Conformity
- Instruction Manual

SKU	SIZE
1141-01221	127 x 42 x 28 mm

Weather Monitoring

Kestrel 5200 Pocket Professional Environmental Meter

With its complete suite of environmental measurements plus special features designed to aid HVAC technicians, construction and agriculture professionals, the Kestrel 5200 outperforms the competition as the most compact and complete environmental meter and data logger for all professional uses.

Specifications:
- Measures air density, air flow, air velocity, altitude, barometric pressure, density altitude, delta t, dew point temperature, evaporation rate, heat stress index, humidity ratio (grains), relative air density, relative humidity, station pressure (absolute pressure), temperature, wet bulb temperature (psychrometric), wind chill.
- Easy- to-read backlit display.
- Customisable data storage with 10,000 data points
- Multi-Function 3-line display.
- Humidity sensor can be recalibrated in the field with our relative humidity calibration kit
- Exterior temperature, humidity, and pressure sensors for fast and accurate readings.
- Graph and recall trends
- Flip-top impeller cover allows use of other functions while protecting the impeller.

Comes with:
- Kestrel 5200 unit
- Neck Lanyard
- AA Lithium Battery (Average Life 400 Hours)
- Protective Drawstring Pouch
- Certificate of Conformity
- Instruction Manual

SKU	SIZE
1141-01207	127 x 42 x 28 mm

Kestrel 5400 Heat Stress WBGT Meter

The Kestrel 5400 uses a 1-inch black globe to gather information about the environment, which isn't possible with current Kestrels. As is true with the original Wet Bulb Globe Temperature apparatus, a temperature sensor is installed inside the globe that will measure the temperature inside.

Specifications:
- Measures globe temperature, naturally aspirated wet bulb temperature, wind speed, altitude, pressure trend, barometric pressure, relative humidity, heat stress index, dewpoint, wet bulb, temperature, density altitude, wind chill, air, water, and snow temperature.
- Waterproof and floats
- Easy- to-read backlit display
- Customisable data storage - 2900 data points
- Customise screens to display user-selected measurements.
- Graph and recall trends
- User-replaceable impeller

Comes with:
- Kestrel 5400 unit
- Neck Lanyard
- AA Lithium Battery (Average Life 400 Hours)
- Protective Drawstring Pouch
- Certificate of Conformity
- Instruction Manual

SKU	SIZE
1141-01220	127 x 42 x 28 mm

Weather Monitoring

Vantage Vue Wireless Weather Station

This weather station includes two components: the Integrated Sensor Suite (ISS) which houses and manages the external sensor array, and the console which provides the user interface, data display, and calculations.
The Vantage Vue ISS and console communicate via an FCC-certified, license-free frequency-hopping transmitter and receiver. Frequency-hopping spread-spectrum (FHSS) technology provides greater communication strength over longer distances and areas of weaker reception. User-selectable transmitter ID codes allow up to eight stations to coexist in the same geographic area. (It can also receive and display data from any Vantage Pro2 or Vantage Pro2 Plus ISS. The Vantage Pro2 Plus includes two additional sensors: the UV sensor and the solar radiation sensor).

Specifications:
- Size: 190 x 146 x 114mm
- Measures temperature, barometric pressure, dew point, heat index, humidity, rainfall, rain rate, wind chill, wind direction, wind speed.
- 22 configurable weather alarms
- Forecast icons
- Select between C° and F°
- Displays eight moon phases
- Variables are updated every 10 seconds
- Uses a solar panel to reduce battery consumption
- Tracks weather changes over a 24 hour period
- A radiation shield and a weather-proof cover for sensors.
- Measures 10 different weather variables
- 300m wireless range

SKU
1141-00050

Vantage Pro 2 with Standard Radiation Shield

This Weather Stations include two components: the Integrated Sensor Suite (ISS) which houses and manages the external sensor array, and the console which provides the user interface, data display, and calculations. The ISS and Vantage Pro2 console communicate via an FCC-certified, license-free, spread-spectrum frequency-hopping (FHSS) transmitter and receiver. User-selectable transmitter ID codes allow up to eight stations to coexist in the same geographic area. The frequency hopping spread spectrum technology provides greater communication strength over longer distances and areas of weaker reception.

Specifications:
- Size: 190 x 146 x 114mm
- Measures temperature, barometric pressure, dew point, heat index, humidity, rainfall, rain rate, wind chill, wind direction, wind speed.
- Weather-resistant shelter for outdoor sensors
- Solar Panel
- Select between C° and F°
- Expandable
- Mounting hardware
- Daily, monthly and yearly data retention
- Weather Alarms
- 300m wireless range

SKU
1141-00061

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supply@westernex.com.au