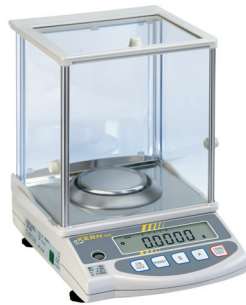


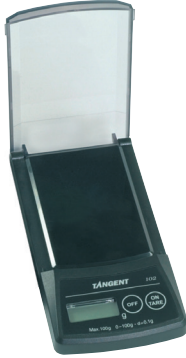
# 42



POCKET SCALES.....42 2

KERN® BALANCES.....42 4

» **TANITA® and TANGENT® digital pocket scales easy to use with LCD screen for clear reading. The precision and capacity values are displayed in grams (g). Tare function, high precision, calibration possible and display for low battery. All the scales delivered with batteries, user's manual and synthetic pouch.**



MSA	Model	Colour	Size mm	Kg
42.105	Tangent 102	Black	67 x 137 x 19	0.202

TANGENT® pocket scale.

Weighing unit	Capacity	Graduation
Gram (g)	100	0.100



MSA	Model	Colour	Size mm	Kg
42.101	Tangent KP-103	Black	90 x 113 x 20	0.156

TANGENT® pocket scale.

Weighing unit	Capacity	Graduation
Gram (g)	120	0.100
Ounce (oz)	4.235	0.005
Troy Ounce (ozt)	3.86	0.005
Penny weight (dwt)	77.2	0.100



MSA	Model	Colour	Size mm	Kg
42.102 (1)	Tangent KP-104	Black	60 x 135 x 16	0.140
42.103 (2)	Tangent KP-104	Silver	60 x 135 x 16	0.140

TANGENT® pocket scale.

Weighing unit	Capacity	Graduation
Gram (g)	(1) 200 (2) 300	0.100 0.100
Ounce (oz)	(1) 7.055 (2) 10.58	0.005 0.005
Troy Ounce (ozt)	(1) 6.43 (2) 9.645	0.005 0.005
Penny weight (dwt)	(1) 126.6 (2) 192.9	0.100 0.100



MSA	Model	Colour	Size mm	Kg
42.110	1479V	Black	155 x 75 x 15	0.203

TANITA® pocket scale.

Weighing unit	Capacity	Graduation
Gram (g)	120	0.100

ON BALANCE® scales.



MSA	Model	Size mm	Kg
42.098	NV-500	105 x 125 x 17	0.312

ON BALANCE® scale.

- 2 trays/lids
- Large platform 100 x 100 mm
- Green LCD display
- Functions : Tare, Auto-off (180 seconds)
- Power : 2 AAA batteries (included).

Weighing unit	Capacity	Graduation
Gram (g)	500	0.01

Other weighing units : oz - ozt - dwt - ct - gn



MSA	Model	Size mm	Kg
42.099	DZT-100	130 x 75 x 18	0.177

ON BALANCE® scale.

- Platform 75 x 64 mm
- Blue LCD display
- Functions : Tare, Auto-off
- Power : 2 AAA batteries (included).

Weighing unit	Capacity	Graduation
Gram (g)	100	0.01

Autres unités de mesure : oz - ozt - dwt - gn - ct



**Internal adjusting program :** quick setting of the balance's accuracy with internal adjusting weight (motor-driven).



**External adjusting program (CAL) :** for quick setting of the balance's accuracy. External adjusting weight required.



**Data interface RS-232 :** to connect the balance to a printer, PC or network.



**GLP/ISO log :** the balance displays the weight, date and time, regardless of printer connected.



**GLP/ISO log :** with weight, date and time. Only with KERN printers.



**Piece counting :** reference quantities selectable. Display can be switched from piece to weight.



**Summation level :** weight values of similar goods can be aggregated and the sum printed.



**Formula :** separate memory for the weight of the tare container and the recipe ingredients (net total).



**Percentage determination :** displays the deviation from the reference weight (100%) in % instead of grams.



**Weighing units :** can be switched to e.g. nonmetric units at the touch of a key.



**Weighing with tolerance range :** upper and lower limiting can be programmed individually, e.g. sorting and portioning.



**Vibration-free weighing :** (animal weighing program) Vibrations are filtered out so that a stable weight is obtained.



**Suspended weighing :** load support with hook on the underside of the balance.



**Battery operation :** prepared to function on battery. The battery type is specified for each device.



**Rechargeable battery pack :** rechargeable set.



**universal network adapter :** external, with universal input and optional input adapters.  
A) UE, GB  
B) UE, GB, CH, USA  
C) UE, GB, CH, USA, AUS



**Mains adapter :** 230V/50Hz in standard. On request GB, AUS or USA version.



**Strain gauge :** electrical resistor on an elastic deforming body.



**Tuning fork principle :** a resonating body (like a tuning fork) is electromagnetically excited, causing it to oscillate.



**Electromagnetic force compensation :** coil in a permanent magnet. For the most accurate weighings.



**Single cell technology :** advanced version of the force compensation principle with the highest level of precision.



**Verification possible :** the time required for verification is specified in the pictogram.



**DAkKS calibration :** the time required for DAkKS calibration is shown in the pictogram.

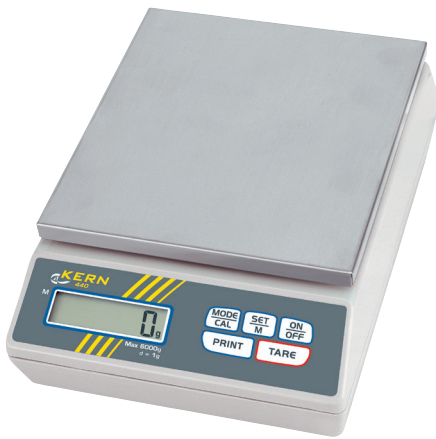


**Warranty :** the warranty period is shown in the pictogram (2 years).



**Shipment :** the time required to manufacture the product internally is shown in days in the pictogram.

» KERN® balances and scales are worldwide renowned for being precise and reliable. The capacity and precision values are displayed in grams (g). Tare function, parts counting, memory, percentage determination and internal or external adjusting are possible. All balances and scales are delivered with user's manual. Numerous of other models are available according to your needs. Please contact our sales department.



MSA	Model	Voltage	Size mm	Kg
42.160	440-53N	220-240 V	165 x 230 x 80	1.600

KERN® compact laboratory scale.

- Compact size, practical for small spaces
- Percentage determination: makes it possible to store a given weight value (100%) and to determine deviations from this target value

**Technical features :**

- LCD backlight display, digit height 15 mm
  - Stainless steel weighing plate, size 150 x 170 mm
  - Function with batteries possible, 9 V block, not included. Operation time up to 12 hours. Auto-off function to save battery
  - Permissible ambient temperature 5° C / 35° C.
- Delivered with 1 weight control of 1 kg and protective cover for keypad and housing.

Weighing unit	Capacity	Graduation
Gram	6000 g	1 g
Other weighing units : dwt - lb - mo - oz - ozt - tl (HK) - tl (TW) - tol		

STANDARD



OPTION



MSA	Model	Voltage	Size mm	Kg
42.169	ABT 100-5M	110-230 V	217 x 356 x 338	12.650

The premium KERN® analytical balance with single-cell weighing system.

- Automatic internal adjustment in the case of a change in temperature > 0,5 °C and time-controlled every 4 hours
- Dosage aid : High-stability mode and other filter settings can be selected
- Simple recipe weighing and documenting with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- Identification number : 4 digits, printed on calibration

STANDARD



OPTION FACTORY



- protocol freely programmable
- Automatic data output to the PC/printer each time the balance is steady
- Large glass draught shield with 3 sliding doors for a comfortable access to the weighing.

**Technical features :**

- Large LCD display, digit height 14 mm
  - Weighing plate, size Ø 80 mm
  - Weighing space 168 x 172 x 223 mm
  - Permissible ambient temperature 10° C / 30° C.
- Delivered with 1 weight control of 1 kg and protective cover for keypad and housing.*

**NOTE : Verification of the balance to be specified when ordering. Initial verification at a later date is not possible.**

Weighing unit	Capacity	Graduation
Gram	101 g	0.01 mg
Other weighing unit : ct		



MSA	Model	Voltage	Size mm	Kg
42.184	ALJ 160-4AM	110-240 V	215 x 345 x 345	9.200

KERN® analytical balance with large weighing ranges.

- Ergonomically optimised keypad for left and right-handed users
- Large glass draught shield with 3 sliding doors for easy access to the items being weighed
- Compact size, practical for small spaces
- Percentage determination : makes it possible to store

STANDARD



OPTION FACTORY



- a given weight value (100%) and to determine deviations from this target value.

**Technical features :**

- LCD backlight display, digit height 17 mm
- Stainless steel weighing plate, size Ø 80 mm
- Weighing space 160 x 140 x 205 mm
- Permissible ambient temperature 5° C / 35° C.

**NOTE : Verification of the balance to be specified when ordering. Initial verification at a later date is not possible.**

Weighing unit	Capacity	Graduation
Gram	160 g	0.1 mg
Other weighing unit : ct		



MSA	Model	Power	Size mm	Kg
42.141	EMB 1000-2	1 pile 9 V	170 x 240 x 54	1.300

Entry-level KERN® laboratory balance with tremendous weighing performance.

- Simple and convenient 2-key operation, making them ideal for use in schools and universities
- Tare function facilitates formulation work
- Particularly flat design
- Ready for use: batteries included.

**Technical features :**

- Large LCD display, digit height 15 mm
- Plastic weighing plate, size Ø 150 mm
- Permissible ambient temperature 5° C / 35° C.

Delivered with 1 hook for weighing of suspended loads.

STANDARD



OPTION

Weighing unit	Capacity	Graduation
Gram	1000 g	0.01 g

Other weighing units : dwt - oz - ozt



STANDARD



OPTION

FACTORY



opening, weighing space 158 x 130 x 78 mm

**Technical features :**

- Large LCD display, digit height 17 mm
- Stainless steel weighing plate, size Ø 118 mm
- Permissible ambient temperature 10° C / 30° C.

Delivered with 1 protective cover for keypad and housing.

**NOTE : Verification of the balance to be specified when ordering. Initial verification at a later date is not possible.**

MSA	Model	Voltage	Size mm	Kg
42.332	EW 620-3NM	220-240 V	182 x 235 x 75	2.960

KERN® precision balance.

- Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- Capacity display : a bar lights up to show how much of the weighing range is still available
- Precise counting : the automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Totalising of pieces when counting
- Standard draught shield. Removable cover with pipette

Weighing unit	Capacity	Graduation
Gram	620 g	0.001 g

Other weighing units : ct - dwt - lb - mo - oz - ozt - tl (HK) - tl (SG, MY) - tl (TW) - tol



MSA	Model	Voltage	Size mm	Kg
42.186	GAB 12K0.1N	110-230 V	320 x 330 x 125	4.200

Check-weighing and portioning KERN® balance.

- Compact size, practical for small spaces
- High mobility : thanks to battery operation (optional)
- Weighing with tolerance range (Check-weighing) : input of an upper/lower limit value. A visual signal assists with portioning, dispensing or grading
- Totalising of pieces when counting.

**Technical features :**

- Large LCD backlight display, digit height 24 mm
- Stainless steel weighing plate, size 294 x 225 mm
- Permissible ambient temperature 0° C / 40° C.

**NOTE : Verification of the balance to be specified when ordering. Initial verification at a later date is not possible.**

STANDARD



OPTION      FACTORY



Weighing unit	Capacity	Graduation
Gram	12 Kg	0.1 g



STANDARD



OPTION



deviations from this target value.

**Technical features :**

- LCD backlight display, digit height 15 mm
  - Stainless steel weighing plate, size 130 x 130 mm
  - Function with batteries possible, 9 V block, not included. Operation time up to 12 hours. Auto-off function to save battery, disconnectable
  - Permissible ambient temperature 5° C / 35° C.
- Delivered with 1 protective cover and 1 hook for weighing of suspended loads.*

MSA	Model	Voltage	Size mm	Kg
42.185	PCB 2500-2	220-240 V	163 x 245 x 79	1.800

KERN® compact laboratory balance.

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paperweight g/m2, etc.
- Percentage determination : makes it possible to store a given weight value (100%) and to determine

Weighing unit	Capacity	Graduation
Gram	2500 g	0.01 g
<i>Other weighing units : ct - dwt - ffa - lb - mo - oz - ozt - t - tl (HK) - tl (SG/MY) - tl (TW) - to</i>		





(1)

MSA	Model	Voltage	Size mm	Kg
42.174 (1)	PFB 200-3	220-240 V	198 x 257 x 87	2.340
42.137 (2)	PFB 1200-2	110-230 V	200 x 260 x 87	3.350

Quick-displaying KERN® precision balance with user-friendly operation modes.

- Easy to use: all primary functions have their own key on the keypad
- Compact size, practical for small spaces
- Capacity display : a bar lights up to show how much of the weighing range is still available
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing results
- Standard draught shield
- Weighing space 158 x 143 x 64 mm

**Technical features :**

- LCD backlight display, digit height 15 mm
- Stainless steel weighing plate, size Ø 80 mm (1) or Ø 120 mm (2)
- Permissible ambient temperature 5° C / 35° C.

**NOTE : Verification of the balance to be specified when ordering. Initial verification at a later date is not possible.**

STANDARD



OPTION FACTORY



Weighing unit	Capacity	Graduation
Gram	(1) 200 g	0.001 g
	(2) 1200 g	0.01 g

Other weighing units : bat - ct - dot - dwt - lb - mo - N - oz - ozt - t - tl (Cn) - tl (HK) - tl (TW)



MSA	Size mm	Kg
42.316	Ø 57 x 16	0.022

Stainless steel KERN® tare pan.



A series of horizontal dotted lines spanning the width of the page, providing a template for handwritten notes.