








































TEST WEIGHTS

PROFESSIONAL
MEASURING



2020

KERN Pictograms

 Internal adjusting: Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	 KERN Communication Protocol (KCP): It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems	 Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram. For details see page 62
 Adjusting program CAL: For quick setting up of the balance's accuracy. External adjusting weight required	 GLP/ISO log: The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	 Stainless steel: The balance is protected against corrosion
 Easy Touch: Suitable for the connection, data transmission and control through PC, tablet or smartphone	 GLP/ISO log: With weight, date and time. Only with KERN printers, see page 171-173	 Suspended weighing: Load support with hook on the underside of the balance
 Memory: Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	 Piece counting: Reference quantities selectable. Display can be switched from piece to weight	 Battery operation: Ready for battery operation. The battery type is specified for each device
 Alibi memory: Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard. For details see page 223	 Recipe level A: The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	 Rechargeable battery pack: Rechargeable set
 Data interface RS-232: To connect the balance to a printer, PC or network	 Recipe level B: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	 Universal mains adapter: with universal input and optional input socket adapters for A) EU, CH, GB B) EU, CH, GB, USA C) EU, CH, GB, USA, AUS
 RS-485 data interface: To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	 Recipe level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition	 Mains adapter: 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
 USB data interface: To connect the balance to a printer, PC or other peripherals	 Totalising level A: The weights of similar items can be added together and the total can be printed out	 Power supply: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
 Bluetooth* data interface: To transfer data from the balance to a printer, PC or other peripherals	 Percentage determination: Determining the deviation in % from the target value (100 %)	 Weighing principle: Strain gauges Electrical resistor on an elastic deforming body
 WLAN data interface: To transfer data from the balance to a printer, PC or other peripherals	 Weighing units: Can be switched to e.g. nonmetric units at the touch of a key. See balance model. Please refer to KERN's website for more details	 Weighing principle: Tuning fork A resonating body is electromagnetically excited, causing it to oscillate
 Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.	 Weighing with tolerance range: (Checkweighing) Upper and lower limiting can be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model	 Weighing principle: Electromagnetic force compensation Coil inside a permanent magnet. For the most accurate weighings
 Analogue interface: to connect a suitable peripheral device for analogue processing of the measurements	 Hold function: (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	 Weighing principle: Single cell technology: Advanced version of the force compensation principle with the highest level of precision
 Interface for second balance: For direct connection of a second balance	 Package shipment: The time required for internal shipping preparations is shown in days in the pictogram	 Verification possible: The time required for verification is specified in the pictogram
 Network interface: For connecting the scale to an Ethernet network	 Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram	 DAkkS calibration possible (DKD): The time required for DAkkS calibration is shown in days in the pictogram
 Wireless data transfer: between the weighing unit and the evaluation unit using an integrated radio module		

KERN – measuring technology and testing services from a single source



Balances & Test service catalogue

Provides a complete overview of the KERN line of balances, test weights, and services such as verification, calibration, etc.



Medical scales catalogue

Complete line of medical scales, from infant scales to patient scales, chair scales and adiposity scales, as well as hand grip dynamometers, chemist's balances and veterinary scales.



Microscopes & refractometers catalogue

Extensive range in the area of optical instruments, such as, for example, biological microscopes, stereo microscopes, metallurgical microscopes, polarisation microscopes as well as analogue and digital refractometers.



SAUTER measuring equipment catalogue

Test instruments for industry and commerce, such as force, coating thickness, material thickness and calibration service.



DAkkS calibration service brochure

Detailed information on topics pertaining to the calibration and verification of balances, test weights, and force measuring devices.

Your advantages

fast

- 24 hours delivery service for products in stock – ordered today, on its way tomorrow
- Sales & service hotline available from 8:00 am to 6:00 pm

reliable

- Up to 3 years warranty
- Precision in weighing technology for more than 175 years

competent

- DAkkS accreditation DIN EN ISO/IEC 17025
- Certified QM system DIN EN ISO 9001
- Authorisation for initial verification by the manufacturer 2014/31/EU
- Medical certifications DIN EN ISO 13485 and 93/42/EWG

versatile

- One-stop shopping: from pocket balances through to 15 t crane balance – everything from one supplier
- Find the product you want at lightning speed with the “Balance Quick-Finder” at www.kern-sohn.com



Order hotline
+49 7433 9933-0



Online Shop
www.kern-sohn.com



Service hotline
+49 7433 9933-199



E-mail order
info@kern-sohn.com



Calibration hotline
+49 7433 9933-196



Fax order
+49 7433 9933-146



Our team of consultants will assist you
from Monday to Friday
from 8:00 am to 6:00 pm



www.kern-sohn.com

Information on current product availability, product data sheets, user instructions, useful knowledge, technical glossary, images and much for you to download, practical topic areas, which will guide you to the right product in your industry as well as a clever test weight and balance search engine.

Test weights

Weights yesterday and today

Weights have always been used to carry out weighing procedures. This original purpose has almost disappeared. Today, weights are used almost exclusively for adjusting and testing = calibration of electronic balances. We therefore call them "Test weights" as this is their purpose of use.

Adjustment or calibration?

► **Adjusting** a balance means that you are intervening in the weighing system, to make sure that the display is set to show the correct nominal value. With ► **calibration** on the other hand, there is no intervention, you are testing whether the display is correct and documenting any deviation.

Testing, the right way!

The internationally valid OIML norm R111:2004 classifies test weights hierarchically in accuracy classes, where E1 is the most accurate and M3 is the least accurate weight class. With KERN you get the whole test weight range in all OIML accuracy classes E1, E2, F1, F2, M1, M2, M3.

As the appropriate test weight is only classed as checking equipment according to ► **ISO 9000ff** if it has the relevant proof of accuracy, all KERN test weights come with an appropriate ► **DAkkS-calibration certificate**. For further details, see the calibration service section on page 210.

KERN offers you the appropriate test weight package for your balance, consisting of the test weight, box and DAkkS-calibration certificate, as proof of its accuracy.







The best prerequisite for a correct adjustment or checking of your scales.

► **See the glossary on page 223-225**

Test weights: classes of accuracy E, F, M and their general relation to the types of balances:

- E1 Test weights for customers who require a high degree of accuracy for the most demanding applications. For high-resolution balances with $d > 1,000,000$ Use recommended with DAkkS calibration certificate only.
- E2 Most accurate test weights for high resolution analytical balances of verification class I $\geq 100,000$ e
- F1 Test weights for analytical balances/precision balances for verification class I/II $\leq 100,000$ e
- F2 Test weights for precision balances of verification class II $\leq 30,000$ e
- M1 Test weights for industrial and commercial scales of verification class III $\leq 10,000$ e

The appropriate test or adjustment weight for your new KERN balance can also be found directly in the accessories of the balance in our webshop

KERN DAkkS delivery times & shipping type	Total weight ≤ 30 kg (gross weight, incl. packaging)	Total weight > 30 kg (gross weight, incl. packaging)
DAkkS standard service Class E2 - M3	 4 DAYS	 4 DAYS
DAkkS standard service Class E1, 1 mg - 500 mg and recalibration 1 g - 10 kg with a known volume	 10 DAYS	 10 DAYS
Class E1, ≥ 1 g, incl. volume determination (new weights)	 15 DAYS	 15 DAYS
Special weights, Newton weights, heavy duty weights, weight carriers, wooden boxes for individual weight sets etc.	on request	



Taras Mikitisin
Product specialist Test weights

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Fax +49 7433 9933-29143
mikitisin@kern-sohn.com

Just lean back – we have just the right test weight for your measuring device

KERN offers you a large range of OIML test weights, which you can use at any time to quickly and reliably check your balance, force-measuring device, etc.. From milligram weights to tonne weights, from the classic OIML design to special weights which are specifically manufactured to your specifications, we can offer you just the right test weight, and naturally the weights have the relevant DAkkS calibration certificate or factory calibration certificate.

On the following pages you will see a selection of standard test weights for OIML error limit classes E1, E2, F1, F2, M1, M2, M3.

We will be happy to manufacture special (large) weights, weight containers, Newton weights or weights with special weight values for you on request. Our test weights product specialist will be happy to give you expert, comprehensive advice.



All the security you need!

„KERN Safety Sets“ which have been specially developed and put together and contain the right test weights to test and monitor your balance. This “KERN Safety Set” contains one test weight for testing the upper end of the weighing range of your balance and one test weight for testing the lower end. As an option, the “KERN Safety Set”

has space for another test weight, for testing your balance at a weight which is relevant for you. Useful accessories which have been selected to suit that particular “KERN Safety Set”, such as, for example, special gloves, tweezers, weight grips, brushes, etc. will assist you in handling your test weights properly. Stored in the practical protective case next to your balance, you can check and ensure the high precision of your balance at any time.

Just ask our test weight product specialist, he will be happy to recommend the right “KERN Safety Set” for your balance. You can also find the matching “KERN Safety Set” for each model on the Internet at www.kern-sohn.com



Marking – never lose track again!

With the large variety of test equipment used then it is essential that they are identified accurately. We can help you with this and can mark or etch your weights to your specifications. Whether it's letters, numbers, your logo, barcodes or something else - it's your choice. Our product specialist "Test weights" will gladly help you with any questions about this service, prices, etc.



Our KERN weight cases at a glance:



It's your choice!

To protect your test weights we can offer you an appropriate box. If there are no legal or normative specifications, then you have the choice between plastic, aluminium protected or wood. The available boxes are shown as a symbol in the test weight tables on the following pages. In this way you have all the materials, versions, sizes and prices at a glance, listed in a concise way.

It's so easy to order your suitable test weight

1. According to your safety requirements or the specifications of your QM system, you select the test weight with the appropriate weight value and the required tolerance.
2. We offer many weights in different designs, giving you complete freedom to decide which test weights you want to use for your application. It goes without saying that all our test weights comply with the OIML R111:2004 directive.
3. To protect your high-quality test equipment, we offer you cases in various designs. From low-priced plastic cases to aluminium protected boxes to classic, high-quality wooden cases.
4. A DAkkS calibration certificate - the auditor's favourite! With this certificate you provide the standard-compliant proof of all important values of your test equipment and are on the safe side when operating and testing your measuring equipment.

1.		2.				3.			4.				
Weight	Tol +/- mg	Individual weights, compact shape		Individual weights, knob shape		Plastic box	Aluminium protected box	Wooden box	DAkkS certificate				
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 g	0,03	316-01	31,-	317-01	45,-	317-020-400	4,50	317-010-600	14,-	317-010-100	26,-	962-331	26,-
2 g	0,04	316-02	33,-	317-02	48,-	317-020-400	4,50	317-020-600	14,-	317-020-100	26,-	962-332	26,-
5 g	0,05	316-03	35,-	317-03	51,-	317-030-400	4,50	317-030-600	14,-	317-030-100	26,-	962-333	26,-
10 g	0,06	316-04	37,-	317-04	54,-	317-040-400	4,50	317-040-600	14,-	317-040-100	26,-	962-334	26,-
20 g	0,08	316-05	42,-	317-05	62,-	317-050-400	4,50	317-050-600	14,-	317-050-100	26,-	962-335	26,-
50 g	0,10	316-06	45,-	317-06	72,-	317-060-400	4,50	317-060-600	14,-	317-060-100	26,-	962-336	26,-

1.	2.	3.	4.
Weight sets	ECO shape in plastic case	ECO shape in aluminium protected case	ECO shape in wooden case
	KERN	€	KERN
1 mg - 500 mg	328-22*	175,-	328-226**
			€
1 mg - 50 g	325-024	395,-	325-026
			€
1 mg - 100 g	325-034	430,-	325-036
			€
1 mg - 200 g	325-044	520,-	325-046
			€
500 g	325-054	580,-	325-056
			€

Selection of the appropriate test weight for your balance

A balance can never be more accurate than the test weight used to adjust it, it all depends on its tolerance. The accuracy of the test weight should correspond to the readout [d] of the balance, or rather be better. Nominal weight value is shown in adjust mode "CAL" in the balance display. Given a choice, the heaviest weight is the most suitable for accurate measurement.

Once accuracy and nominal weight value are specified, the suitable test weight is selected according to the tolerances "Tol" of the individual accuracy classes E2 - M3, see column "Tol ± mg" at the respective weight and table at page 188.

Example:

Balance with weighing range [Max] 2000 g = 2 kg
and readout [d] = 0,01 g = 10 mg

- The accuracy of the required test weight is determined by readout [d]: max. tolerance ± 10 mg.
- Displayed weight size on "CAL" mode: 1000 g or 2000 g. The required test weight has a 2 kg weight size.
- Suitable test weights with ± 10 mg tolerance and 2 kg weight size, can be found in accuracy class F1. KERN-No 326-12, see page 194.

Exception, analytical balances (readout [d] ≤ 0,1 mg):

E1 test weights are recommended. Depending on the safety requirements, E2 test weights with a DAkkS calibration certificate will also be sufficient.

From brass to stainless steel - the right test weight for every situation



Test weight →	Knob shape with lifting knob, polished stainless steel	Compact shape with carrying grip, polished stainless steel	Knob shape with lifting knob, polished stainless steel	ECO shape, polished stainless steel	Knob shape with lifting knob, finely turned stainless steel	Knob shape with lifting knob, finely turned brass
Features ↓						
Conforms to OIML:R111	yes	yes	yes	yes	yes	yes
Available classes	E1, E2	E2	F1	F1	F2, M1	M1, M2, M3
Upper surface	polished	polished	polished	polished	finely turned	finely turned
Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Brass
Adjusting cavity	no	no	yes	yes, from 50 g, readjustment can only be carried out by KERN	yes, from 20 g	yes, from 20 g
Marking (Milligram weights, generally none)	no	E2: None	Nominal value, etched	Nominal value, etched	F2: Class + nominal value, etched; M1: Class + nominal value, adopted	Class + nominal value, adopted
Verification possible	yes	yes	yes	no	yes	yes, M1 only
Checking equipment for verification purposes	approved	approved	approved	approved	approved	approved, M1 only
Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)	yes	yes	yes	yes	yes	yes
Benefits	<ul style="list-style-type: none"> • High-quality test weight for analytical and precision balances • Highly-refined surface • Ideal shape of the top for good grip 	<ul style="list-style-type: none"> • Affordable test weight for analytical and precision balances • Highly refined surface 	<ul style="list-style-type: none"> • Ideal, high-quality test weight for precision balances • No visible adjustment chamber • High long-term stability • Ideal shape of the top for good grip 	<ul style="list-style-type: none"> • Affordable test weight for analytical and precision balances • Highly refined surface • Optimum shape of the top for good grip 	<ul style="list-style-type: none"> • Ideal test weight for commercial and industrial scales • Ideal shape of the top for good grip 	<ul style="list-style-type: none"> • Affordable test weight for commercial and industrial scales • Ideal shape of the top for good grip

Composition table, valid for all KERN weight sets from 1 mg

Individual weights per set →	1	2	2	5	10	20	20	50	100	200	200	500	1	2	2	5	10	20	20	50	100	200	200	500	1	2	2	5	10	
Weight set ↓	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	g	g	g	g	g	g	g	g	g	g	g	g	g	kg	kg	kg	kg	kg
1 mg-500 mg	Total weight												1,11 g																	
1 mg-50 g													111,11 g																	
1 mg-100 g													211,11 g																	
1 mg-200 g													611,11 g																	
1 mg-500 g													1.111,11 g																	
1 mg-1 kg													2.111,11 g																	
1 mg-2 kg													6.111,11 g																	
1 mg-5 kg													11.111,11 g																	
1 mg-10 kg													21.111,11 g																	

The key points from the OIML norm R111:2004

OIML (Organisation Internationale de Metrologie Legale) has established the exact metrological requirements for weights in verified applications in approx. 100 states all over the world. The OIML recommendation R111 (2004 Edition) for weights relates to sizes 1 mg – 5000 kg. Statements are made on the accuracy, materials, geometric shape, marking and storage of the weights.

Error limits for weights of classes E1 to M3

The error limit classes are in fixed hierarchical levels in the proportion of 1:3, where E1 is the most accurate and M3 is the least accurate weight class. When testing weights with other weights, the correct test class is the next highest class.

Error limit classes (= tolerances)

The values given in the table below (tolerances ± ... mg) are the respective permitted fabrication tolerances. They are to be equal to the ► **measuring uncertainty** of the weight, if no ► **DAkkS calibration certificate** is available.

Conventional mass

The problem is the air buoyancy, which makes the weight appear lighter. In order to avoid this “distortion” in daily use, all weights are adjusted to the unit specifications as given in R111, e.g. it is accepted that: material density of the weights is 8000 kg/m³, air density is 1.2 kg/m³ and measuring temperature is 20 °C.

KERN test weights: Unless otherwise specified, they conform to OIML R111:2004 in every detail.

► *See the glossary, page 223–225*

Nominal value ↓	OIML R111:2004 Maximum permissible errors for weights = permissible tolerances “Tol ± mg”						
	E1	E2	F1	F2	M1	M2	M3
1 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
2 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
5 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
10 mg	± 0,003 mg	± 0,008 mg	± 0,025 mg	± 0,08 mg	± 0,25 mg	-	-
20 mg	± 0,003 mg	± 0,010 mg	± 0,03 mg	± 0,10 mg	± 0,3 mg	-	-
50 mg	± 0,004 mg	± 0,012 mg	± 0,04 mg	± 0,12 mg	± 0,4 mg	-	-
100 mg	± 0,005 mg	± 0,016 mg	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	-
200 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	± 0,6 mg	± 2,0 mg	-
500 mg	± 0,008 mg	± 0,025 mg	± 0,08 mg	± 0,25 mg	± 0,8 mg	± 2,5 mg	-
1 g	± 0,010 mg	± 0,03 mg	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg
2 g	± 0,012 mg	± 0,04 mg	± 0,12 mg	± 0,4 mg	± 1,2 mg	± 4,0 mg	± 12 mg
5 g	± 0,016 mg	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg
10 g	± 0,020 mg	± 0,06 mg	± 0,20 mg	± 0,6 mg	± 2,0 mg	± 6,0 mg	± 20 mg
20 g	± 0,025 mg	± 0,08 mg	± 0,25 mg	± 0,8 mg	± 2,5 mg	± 8,0 mg	± 25 mg
50 g	± 0,03 mg	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg
100 g	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg	± 50 mg
200 g	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg	± 100 mg
500 g	± 0,25 mg	± 0,8 mg	± 2,5 mg	± 8,0 mg	± 25 mg	± 80 mg	± 250 mg
1 kg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg
2 kg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	± 1 000 mg
5 kg	± 2,5 mg	± 8,0 mg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	± 2 500 mg
10 kg	± 5,0 mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg	± 1 600 mg	± 5 000 mg
20 kg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	± 1 000 mg	± 3 000 mg	± 10 g
50 kg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	± 2 500 mg	± 8 000 mg	± 25 g
100 kg	-	± 160 mg	± 500 mg	± 1 600 mg	± 5 000 mg	± 16 g	± 50 g
200 kg	-	± 300 mg	± 1 000 mg	± 3 000 mg	± 10 g	± 30 g	± 100 g
500 kg	-	± 800 mg	± 2 500 mg	± 8 000 mg	± 25 g	± 80 g	± 250 g
1 000 kg	-	± 1 600 mg	± 5 000 mg	± 16 g	± 50 g	± 160 g	± 500 g
2 000 kg	-	-	± 10 g	± 30 g	± 100 g	± 300 g	± 1 000 g
5 000 kg	-	-	± 25 g	± 80 g	± 250 g	± 800 g	± 2 500 g



PREMIUM⁺ WEIGHTS

Note: Our highly-accurate OIML test weights are also available **PREMIUM⁺ weights** for that extra level of safety. Thanks to the most modern manufacturing technology, these test weights can also be adjusted within the specified error limit classes (= tolerances).

I.e. this means that these **PREMIUM⁺ weights** have a significantly longer service life, thanks this guaranteed positive tolerance. This is of particular benefit with intensive use of the test weights.

For all the details on this **PREMIUM⁺ service** please see www.kern-lab.com/premium+ or look at the weight you want in our online shop at www.kern-sohn.com

Test weights and boxes

Class E1



Milligram weights, wire shape



Individual weights, knob shape



Wooden box, for milligram weights



Plastic box, lined,
for individual weights
≤ 50 g



Plastic box, lined,
for individual weights
≥ 100 g



Wooden box, lined,
for individual weights ≤ 500 g



Wooden box, lined,
for individual weights ≥ 1 kg



Milligram weight set
in plastic box (308-
22)



Milligram weight
set in aluminium
protected box, lined
(308-226)






Aluminium protected case, lined, for weight
sets, knob shape






Wooden case, lined, for weight sets,
knob shape

Class E1 · Milligram weights, wire shape, stainless steel

Weight	Tol +/- mg	Milligram weight, wire shape		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate		
		KERN	€	KERN		€	KERN		€	KERN		€
1 mg	0,003	308-31	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-251	52,-	
2 mg	0,003	308-32	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-252	52,-	
5 mg	0,003	308-33	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-253	52,-	
10 mg	0,003	308-34	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-254	52,-	
20 mg	0,003	308-35	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-255	52,-	
50 mg	0,004	308-36	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-256	52,-	
100 mg	0,005	308-37	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-257	52,-	
200 mg	0,006	308-38	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-258	52,-	
500 mg	0,008	308-39	58,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-259	52,-	

Class E1 · Individual weights, knob shape, polished stainless steel

Weight	Tol +/- mg	Individual weight, knob shape		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate Initial calibration*		DAkkS certificate Recalibration	
		KERN	€	KERN		€	KERN		€	KERN		€	KERN
1 g	0,010	307-01	83,-	317-020-400	4,-	317-010-600	14,-	317-010-100	26,-	963-231	193,-	962-231 R	52,-
2 g	0,012	307-02	89,-	317-020-400	4,-	317-020-600	14,-	317-020-100	26,-	963-232	193,-	962-232 R	52,-
5 g	0,016	307-03	96,-	317-030-400	4,-	317-030-600	14,-	317-030-100	26,-	963-233	193,-	962-233 R	52,-
10 g	0,020	307-04	104,-	317-040-400	4,-	317-040-600	14,-	317-040-100	26,-	963-234	193,-	962-234 R	52,-
20 g	0,025	307-05	113,-	317-050-400	4,-	317-050-600	14,-	317-050-100	26,-	963-335	193,-	962-235 R	52,-
50 g	0,030	307-06	135,-	317-060-400	5,-	317-060-600	14,-	317-060-100	27,-	963-236	193,-	962-236 R	52,-
100 g	0,050	307-07	162,-	317-070-400	5,-	317-070-600	14,-	317-070-100	28,-	963-237	193,-	962-237 R	52,-
200 g	0,100	307-08	194,-	317-080-400	5,50	317-080-600	14,-	317-080-100	28,-	963-238	193,-	962-238 R	52,-
500 g	0,250	307-09	280,-	317-090-400	7,-	317-090-600	14,-	317-090-100	29,-	963-239	193,-	962-239 R	52,-
1 kg	0,500	307-11	425,-	317-110-400	8,-	317-110-600	20,-	317-110-100	45,-	963-241	193,-	962-241 R	52,-
2 kg	1,000	307-12	630,-	317-120-400	12,-	317-120-600	25,-	317-120-100	51,-	963-242	465,-	962-242 R	64,-
5 kg	2,500	307-13	1060,-	317-130-400	18,-	317-130-600	40,-	317-130-100	75,-	963-243	465,-	962-243 R	64,-
10 kg	5,000	307-14	1530,-	317-140-400	20,-	317-140-600	57,-	317-140-100	89,-	963-244	465,-	962-244 R	64,-
20 kg	10,000	307-15	3900,-	-	-	317-150-600	130,-	317-150-100	500,-	963-245	1160,-	962-245 R	590,-
50 kg	25,000	307-16	7900,-	-	-	317-160-600	200,-	317-160-100	610,-	963-246	1360,-	962-246 R	660,-

* For E1 weights > 1g at the point of initial calibration, a volume determination will be carried out in accordance with OIML:R111. When recalibrating, this is not required.

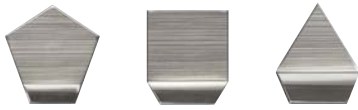
Class E1 · Weight sets, knob shape, polished stainless steel

Plastic case *Aluminium protected case

Weight set	Aluminium protected case, knob shape		Wooden case, knob shape		DAkkS certificate Initial calibration*		DAkkS certificate Recalibration	
	KERN	€	KERN	€	KERN	€	KERN	€
1 mg - 500 mg	308-426***	795,-	308-42**	795,-	962-250	350,-	962-250 R	350,-
1 mg - 50 g	303-026	1510,-	303-02	1540,-	963-201	1070,-	962-201 R	560,-
1 mg - 100 g	303-036	1670,-	303-03	1700,-	963-202	1170,-	962-202 R	580,-
1 mg - 200 g	303-046	2060,-	303-04	2090,-	963-203	1350,-	962-203 R	630,-
1 mg - 500 g	303-056	2390,-	303-05	2420,-	963-204	1440,-	962-204 R	660,-
1 mg - 1 kg	303-066	2780,-	303-06	2840,-	963-205	1530,-	962-205 R	700,-
1 mg - 2 kg	303-076	4090,-	303-07	4150,-	963-206	2000,-	962-206 R	750,-
1 mg - 5 kg	303-086	5200,-	303-08	5300,-	963-207	2450,-	962-207 R	770,-
1 mg - 10 kg	303-096	6790,-	303-09	6890,-	963-208	2900,-	962-208 R	800,-
1 g - 50 g	304-026	880,-	304-02	910,-	963-215	770,-	962-215 R	245,-
1 g - 100 g	304-036	1040,-	304-03	1070,-	963-216	860,-	962-216 R	270,-
1 g - 200 g	304-046	1430,-	304-04	1460,-	963-217	1040,-	962-217 R	320,-
1 g - 500 g	304-056	1760,-	304-05	1790,-	963-218	1130,-	962-218 R	350,-
1 g - 1 kg	304-066	2150,-	304-06	2210,-	963-219	1230,-	962-219 R	375,-
1 g - 2 kg	304-076	3460,-	304-07	3520,-	963-220	1780,-	962-220 R	425,-
1 g - 5 kg	304-086	4570,-	304-08	4670,-	963-221	2230,-	962-221 R	450,-
1 g - 10 kg	304-096	6160,-	304-09	6260,-	963-222	2690,-	962-222 R	485,-

Test weights and boxes

Class E2



Milligram weights, flat polygonal sheet



Individual weights, compact shape



Individual weights, knob shape



Plastic box, lined, for individual weights ≤ 50 g



Plastic box, lined, for individual weights ≥ 100 g



Aluminium protected box, lined, for individual weights



Wooden box, lined, for individual weights ≤ 500 g



Wooden box, lined, for individual weights ≥ 1 kg



Milligram weight set in plastic box (318-22)



Milligram weight set in aluminium protected box, lined (318-226)



Plastic case, lined, for weight sets, compact shape/knob shape






Aluminium protected case, lined, for weight sets, compact shape/knob shape






Wooden case, lined, for weight sets, compact shape/knob shape

Class E2 · Milligram weights, flat polygonal sheet

Test weight material: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg

Weight	Tol +/- mg	Milligram weight, flat polygonal sheet		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 mg	0,006	318-01	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-351	26,-
2 mg	0,006	318-02	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-352	26,-
5 mg	0,006	318-03	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-353	26,-
10 mg	0,008	318-04	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-354	26,-
20 mg	0,010	318-05	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-355	26,-
50 mg	0,012	318-06	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-356	26,-
100 mg	0,016	318-07	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-357	26,-
200 mg	0,020	318-08	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-358	26,-
500 mg	0,025	318-09	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-359	26,-





Class E2 · Individual weights, compact shape or knob shape, polished stainless steel

Weight	Tol +/- mg	Individual weights, compact shape		Individual weights, knob shape		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 g	0,03	316-01	31,-	317-01	45,-	317-020-400	4,-	317-010-600	14,-	317-010-100	26,-	962-331	26,-
2 g	0,04	316-02	33,-	317-02	48,-	317-020-400	4,-	317-020-600	14,-	317-020-100	26,-	962-332	26,-
5 g	0,05	316-03	35,-	317-03	51,-	317-030-400	4,-	317-030-600	14,-	317-030-100	26,-	962-333	26,-
10 g	0,06	316-04	37,-	317-04	54,-	317-040-400	4,-	317-040-600	14,-	317-040-100	26,-	962-334	26,-
20 g	0,08	316-05	42,-	317-05	62,-	317-050-400	4,-	317-050-600	14,-	317-050-100	26,-	962-335	26,-
50 g	0,10	316-06	45,-	317-06	73,-	317-060-400	5,-	317-060-600	14,-	317-060-100	27,-	962-336	26,-
100 g	0,16	316-07	49,-	317-07	80,-	317-070-400	5,-	317-070-600	14,-	317-070-100	28,-	962-337	33,-
200 g	0,30	316-08	62,-	317-08	101,-	317-080-400	5,50	317-080-600	14,-	317-080-100	28,-	962-338	33,-
500 g	0,80	316-09	93,-	317-09	168,-	317-090-400	7,-	317-090-600	14,-	317-090-100	29,-	962-339	33,-
1 kg	1,60	316-11	135,-	317-11	245,-	317-110-400	8,-	317-110-600	20,-	317-110-100	45,-	962-341	33,-
2 kg	3,00	316-12	230,-	317-12	380,-	317-120-400	12,-	317-120-600	25,-	317-120-100	51,-	962-342	41,-
5 kg	8,00	316-13	360,-	317-13	550,-	317-130-400	18,-	317-130-600	40,-	317-130-100	75,-	962-343	41,-
10 kg	16,00	316-14	530,-	317-14	800,-	317-140-400	20,-	317-140-600	57,-	317-140-100	89,-	962-344	41,-
20 kg	30,00	-	-	317-15	1680,-	-	-	317-150-600	130,-	317-150-100	500,-	962-345	52,-
50 kg	80,00	-	-	317-16	3500,-	-	-	317-160-600	200,-	317-160-100	610,-	962-346	64,-

Class E2 · Weight sets, compact shape or knob shape, polished stainless steel

Test weight material: Polished stainless steel/German Silver, Individual weights: polished stainless steel.

*Plastic case **Aluminium protected case

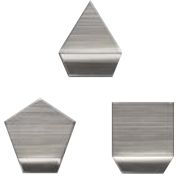
Weight sets	Compact shape in plastic case		Knob shape in plastic case		Knob shape in aluminium protected case		Knob shape in wooden case		DAkkS certificate	
	KERN 	€	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 mg - 500 mg	318-22*	320,-	-	-	318-226**	330,-	-	-	962-350	190,-
1 mg - 50 g	-	-	313-024	790,-	313-026	810,-	313-02	840,-	962-301	315,-
1 mg - 100 g	-	-	313-034	860,-	313-036	880,-	313-03	910,-	962-302	340,-
1 mg - 200 g	-	-	313-044	1070,-	313-046	1090,-	313-04	1120,-	962-303	385,-
1 mg - 500 g	-	-	313-054	1230,-	313-056	1250,-	313-05	1340,-	962-304	410,-
1 mg - 1 kg	-	-	313-064	1520,-	313-066	1540,-	313-06	1600,-	962-305	435,-
1 mg - 2 kg	-	-	313-074	2330,-	313-076	2350,-	313-07	2410,-	962-306	495,-
1 mg - 5 kg	-	-	313-084	2880,-	313-086	2900,-	313-08	3060,-	962-307	530,-
1 mg - 10 kg	-	-	-	-	313-096	3800,-	313-09	3950,-	962-308	560,-
1 g - 50 g	312-024	340,-	314-024	520,-	314-026	540,-	314-02	560,-	962-315	127,-
1 g - 100 g	312-034	380,-	314-034	590,-	314-036	610,-	314-03	640,-	962-316	150,-
1 g - 200 g	312-044	480,-	314-044	790,-	314-046	810,-	314-04	840,-	962-317	196,-
1 g - 500 g	312-054	570,-	314-054	970,-	314-056	990,-	314-05	1050,-	962-318	220,-
1 g - 1 kg	312-064	750,-	314-064	1230,-	314-066	1250,-	314-06	1310,-	962-319	245,-
1 g - 2 kg	312-074	1160,-	314-074	2050,-	314-076	2070,-	314-07	2130,-	962-320	305,-
1 g - 5 kg	312-084	1490,-	314-084	2600,-	314-086	2620,-	314-08	2780,-	962-321	340,-
1 g - 10 kg	-	-	-	-	314-096	3490,-	314-09	3670,-	962-322	370,-

Note

Our highly-accurate OIML test weights are also available as **Premium⁺ weights** for that extra level of safety, see all details page 188 or on www.kern-lab.com/premium+

Test weights and boxes

Class F1



Milligram weights,
flat polygonal sheet



Individual weights/
Weight sets,
ECO shape



Individual weights/
Weight sets,
knob shape



Test weights (10 – 50 kg),
polished stainless steel, KERN
327-141 ff, optional: Wooden box



Block weight,
polished stainless steel



Plastic box,
lined, for
individual
weights
≤ 200 g



Plastic box,
lined, for
individual
weights
≥ 500 g



Aluminium protected box, lined,
for individual weights



Wooden box, lined,
for individual weights ≤ 500 g



Wooden box, lined,
for individual weights ≥ 1 kg



Milligram weight
set in plastic box
(328-22)



Milligram weight
set in aluminium
protected box,
lined
(328-226)



Plastic case, lined
for weight sets, compact shape/
knob shape



Aluminium protected case, lined,
for weight sets ECO shape/
knob shape



Wooden case, lined,
for weight sets ECO shape/
knob shape

Test weights class F1

Class F1 · Milligram weights, flat polygonal sheet

Test weight material: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg

Weight	Tol +/- mg	Milligram weight, flat polygonal sheet		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 mg	0,020	328-01	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-451	18,-
2 mg	0,020	328-02	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-452	18,-
5 mg	0,020	328-03	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-453	18,-
10 mg	0,025	328-04	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-454	18,-
20 mg	0,03	328-05	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-455	18,-
50 mg	0,04	328-06	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-456	18,-
100 mg	0,05	328-07	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-457	18,-
200 mg	0,06	328-08	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-458	18,-
500 mg	0,08	328-09	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-459	18,-

Class F1 · Individual weights, ECO shape or knob shape, polished stainless steel

Weight	Tol +/- mg	Individual weight, ECO shape		Individual weight, knob shape		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 g	0,10	326-01	22,-	327-01	29,-	347-030-400	2,-	317-010-600	14,-	317-010-100	26,-	962-431	18,-
2 g	0,12	326-02	23,-	327-02	29,-	347-030-400	2,-	317-020-600	14,-	317-020-100	26,-	962-432	18,-
5 g	0,16	326-03	25,-	327-03	31,-	347-030-400	2,-	317-030-600	14,-	317-030-100	26,-	962-433	18,-
10 g	0,20	326-04	28,-	327-04	35,-	347-050-400	2,-	317-040-600	14,-	317-040-100	26,-	962-434	18,-
20 g	0,25	326-05	29,-	327-05	39,-	347-050-400	2,-	317-050-600	14,-	317-050-100	26,-	962-435	18,-
50 g	0,30	326-06	32,-	327-06	42,-	347-070-400	2,-	317-060-600	14,-	317-060-100	27,-	962-436	18,-
100 g	0,50	326-07	36,-	327-07	52,-	347-070-400	2,-	317-070-600	14,-	317-070-100	28,-	962-437	20,-
200 g	1,00	326-08	49,-	327-08	68,-	347-080-400	2,-	317-080-600	14,-	317-080-100	28,-	962-438	20,-
500 g	2,50	326-09	79,-	327-09	111,-	347-090-400	3,-	317-090-600	14,-	317-090-100	29,-	962-439	20,-
1 kg	5,00	326-11	104,-	327-11	154,-	347-110-400	3,-	317-110-600	20,-	317-110-100	45,-	962-441	20,-
2 kg	10	326-12	179,-	327-12	240,-	347-120-400	3,-	317-120-600	25,-	317-120-100	51,-	962-442	25,-
5 kg	25	326-13	260,-	327-13	355,-	347-130-400	9,-	317-130-600	40,-	317-130-100	75,-	962-443	25,-
10 kg	50	326-14	485,-	327-14	650,-	347-140-400	9,-	317-140-600	57,-	317-140-100	89,-	962-444	25,-
20 kg	100	-	-	327-15	1350,-	-	-	317-150-600	130,-	317-150-100	500,-	962-445	28,-
50 kg	250	-	-	327-16	2900,-	-	-	317-160-600	200,-	317-160-100	200,-	962-446	39,-

Class F1 · Block weights, stainless steel polished

Block weight material: stainless steel polished

Weight	Tol +/- mg	Dimensions ø × H	Block weight, stainless steel		Aluminium protected case		DAkkS certificate	
			KERN	€	KERN	€	KERN	€
5 kg	25	145×68×96	326-36	830,-	346-060-600	180,-	962-443	25,-
10 kg	50	193×96×117	326-37	1190,-	346-070-600	180,-	962-444	25,-
20 kg	100	233×115×145	326-38	1580,-	346-080-600	220,-	962-445	28,-
50 kg	250	295×158×191	326-39	3890,-	346-090-600	180,-	962-446	39,-

Class F1 · Test weights, stainless steel polished, stackable

Test weight material: stainless steel polished

Weight	Tol +/- mg	Test weight, stainless steel		Wooden case		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
10 kg	50	327-141	570,-	337-141-100	325,-	962-444	25,-
20 kg	100	327-151	715,-	337-151-100	350,-	962-445	28,-
50 kg	250	327-161	1820,-	337-161-100	535,-	962-446	39,-

Class F1 · Weight sets, ECO shape, polished stainless steel

Test weight material: Polished stainless steel/German Silver, Individual weights: polished stainless steel.

*Plastic case **Aluminium protected case

Weight sets	ECO shape in plastic case		ECO shape in aluminium protected case		ECO shape in wooden case		DAkkS certificate	
	KERN	€	KERN	€	KERN	€	KERN	€
1 mg - 500 mg	328-22*	175,-	328-226**	195,-	328-22*	175,-	962-450	100,-
1 mg - 50 g	325-024	395,-	325-026	405,-	325-022	450,-	962-401	167,-
1 mg - 100 g	325-034	430,-	325-036	410,-	325-032	480,-	962-402	178,-
1 mg - 200 g	325-044	520,-	325-046	530,-	325-042	570,-	962-403	199,-
1 mg - 500 g	325-054	580,-	325-056	610,-	325-052	690,-	962-404	210,-
1 mg - 1 kg	325-064	760,-	325-066	770,-	325-062	780,-	962-405	220,-
1 mg - 2 kg	325-074	1010,-	325-076	1080,-	325-072	1110,-	962-406	250,-
1 mg - 5 kg	325-084	1250,-	325-086	1350,-	325-082	1460,-	962-407	265,-
1 mg - 10 kg	-	-	325-096	1950,-	325-092	1980,-	962-408	285,-
1 g - 50 g	326-024	235,-	326-026	260,-	326-022	290,-	962-415	67,-
1 g - 100 g	326-034	270,-	326-036	290,-	326-032	330,-	962-416	77,-
1 g - 200 g	326-044	355,-	326-046	390,-	326-042	425,-	962-417	98,-
1 g - 500 g	326-054	420,-	326-056	490,-	326-052	550,-	962-418	109,-
1 g - 1 kg	326-064	600,-	326-066	620,-	326-062	660,-	962-419	119,-
1 g - 2 kg	326-074	850,-	326-076	920,-	326-072	1020,-	962-420	151,-
1 g - 5 kg	326-084	1090,-	326-086	1190,-	326-082	1400,-	962-421	166,-
1 g - 10 kg	-	-	326-096	1790,-	326-092	1840,-	962-422	182,-

Class F1 · Weight sets, knob shape, polished stainless steel

Test weight material: Polished stainless steel/German Silver, Individual weights: polished stainless steel.

*Plastic case **Aluminium protected case

Weight sets	Knob shape in plastic case		Knob shape in aluminium protected case		Knob shape in wooden case		DAkkS certificate	
	KERN	€	KERN	€	KERN	€	KERN	€
1 mg - 500 mg	328-22*	175,-	328-226**	195,-	328-22*	175,-	962-450	100,-
1 mg - 50 g	323-024	480,-	323-026	500,-	323-02	520,-	962-401	167,-
1 mg - 100 g	323-034	530,-	323-036	550,-	323-03	570,-	962-402	178,-
1 mg - 200 g	323-044	670,-	323-046	690,-	323-04	710,-	962-403	199,-
1 mg - 500 g	323-054	780,-	323-056	830,-	323-05	880,-	962-404	210,-
1 mg - 1 kg	323-064	1000,-	323-066	1020,-	323-06	1040,-	962-405	220,-
1 mg - 2 kg	323-074	1490,-	323-076	1510,-	323-07	1570,-	962-406	250,-
1 mg - 5 kg	323-084	1830,-	323-086	1870,-	323-08	2010,-	962-407	265,-
1 mg - 10 kg	-	-	323-096	2650,-	323-09	2750,-	962-408	285,-
1 g - 50 g	324-024	330,-	324-026	350,-	324-02	380,-	962-415	67,-
1 g - 100 g	324-034	385,-	324-036	405,-	324-03	435,-	962-416	77,-
1 g - 200 g	324-044	520,-	324-046	540,-	324-04	570,-	962-417	98,-
1 g - 500 g	324-054	630,-	324-056	670,-	324-05	720,-	962-418	109,-
1 g - 1 kg	324-064	850,-	324-066	870,-	324-06	890,-	962-419	119,-
1 g - 2 kg	324-074	1340,-	324-076	1370,-	324-07	1410,-	962-420	151,-
1 g - 5 kg	324-084	1680,-	324-086	1760,-	324-08	1870,-	962-421	166,-
1 g - 10 kg	-	-	324-096	2510,-	324-09	2600,-	962-422	182,-

Test weights and boxes

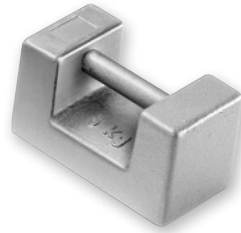
Class F2



Milligram weights, flat polyagonal sheet



Individual weights/Weight sets, knob shape



Block weight, stainless steel



Test weights (10 – 50 kg), finely turned stainless steel KERN 337-141 ff, optional: Wooden box



Plastic box, lined, for individual weights ≤ 200 g



Plastic box, lined, for individual weights ≥ 500 g



Aluminium protected box, lined, for individual weights



Wooden box, not lined for individual weights ≤ 500 g



Wooden box, not lined, for individual weights ≥ 1 kg



Milligram weight set in plastic box (338-22)



Milligram weight set in aluminium protected box, lined (338-226)



Plastic case, lined, for weight sets knob shape



Aluminium protected case, lined, for weight sets knob shape






Wooden case, for weight sets knob shape




Test weights class F2

Class F2 · Milligram weights, flat polygonal sheet

Test weight material: Aluminium 1 mg – 5 mg/German Silver 10 mg – 500 mg



Weight	Tol +/- mg	Milligram weight, flat polygonal sheet		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 mg	0,06	338-01	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-451	18,-
2 mg	0,06	338-02	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-452	18,-
5 mg	0,06	338-03	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-453	18,-
10 mg	0,08	338-04	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-454	18,-
20 mg	0,10	338-05	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-455	18,-
50 mg	0,12	338-06	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-456	18,-
100 mg	0,16	338-07	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-457	18,-
200 mg	0,20	338-08	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-458	18,-
500 mg	0,25	338-09	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-459	18,-

Class F2 · Individual weights, knob shape, finely turned stainless steel

Weight	Tol +/- mg	Individual weight, knob shape		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 g	0,3	337-01	18,-	347-030-400	2,-	317-010-600	14,-	337-010-200	16,-	962-431	18,-
2 g	0,4	337-02	19,-	347-030-400	2,-	317-020-600	14,-	337-020-200	16,-	962-432	18,-
5 g	0,5	337-03	20,-	347-030-400	2,-	317-030-600	14,-	337-030-200	17,-	962-433	18,-
10 g	0,6	337-04	22,-	347-050-400	2,-	317-040-600	14,-	337-040-200	17,-	962-434	18,-
20 g	0,8	337-05	25,-	347-050-400	2,-	317-050-600	14,-	337-050-200	17,-	962-435	18,-
50 g	1,0	337-06	27,-	347-070-400	2,-	317-060-600	14,-	337-060-200	17,-	962-436	18,-
100 g	1,6	337-07	30,-	347-070-400	2,-	317-070-600	14,-	337-070-200	17,-	962-437	20,-
200 g	3,0	337-08	40,-	347-080-400	2,-	317-080-600	14,-	337-080-200	17,-	962-438	20,-
500 g	8,0	337-09	57,-	347-090-400	3,-	317-090-600	14,-	337-090-200	19,-	962-439	20,-
1 kg	16	337-11	80,-	347-110-400	3,-	317-110-600	20,-	337-110-200	32,-	962-441	20,-
2 kg	30	337-12	120,-	347-120-400	3,-	317-120-600	25,-	337-120-200	33,-	962-442	25,-
5 kg	80	337-13	205,-	347-130-400	9,-	317-130-600	40,-	337-130-200	53,-	962-443	25,-
10 kg	160	337-14	395,-	347-140-400	9,-	317-140-600	57,-	337-140-200	60,-	962-444	25,-
20 kg	300	337-15	690,-	-	-	317-150-600	130,-	337-150-200	325,-	962-445	28,-
50 kg	800	337-16	1240,-	-	-	317-160-600	200,-	337-160-200	510,-	962-446	39,-

Class F2 · Test weights, finely turned stainless steel

Test weight material: Finely turned stainless steel

Weight	Tol +/- mg	Test weight, stainless steel		Aluminium protected box		Wooden box	
		KERN	€	KERN 	€	KERN 	€
10 kg	300	337-141	550,-	346-070-600	180,-	337-141-200	300,-
20 kg	800	337-151	670,-	346-080-600	220,-	337-151-200	325,-
50 kg	250	337-161	1790,-	346-090-600	180,-	337-161-200	510,-

Class F2 · Block weights, stainless steel glass bead blasted

Block weight material: stainless steel glass bead blasted




Weight	Tol +/- mg	Block weight, stainless steel		Aluminium protected case		Wooden case	
		KERN	€	KERN 	€	KERN 	€
5 kg	80	336-36	460,-	346-060-600	180,-	-	-
10 kg	300	336-37	620,-	346-070-600	180,-	337-141-200	300,-
20 kg	800	336-38	780,-	346-080-600	220,-	337-151-200	325,-
50 kg	250	336-39	2070,-	346-090-600	180,-	337-161-200	510,-

Class F2 · Weight sets, knob shape, finely turned stainless steel

Test weight material: Milligramm weights Aluminium/German Silver, individual weights stainless steel.

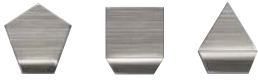
*Plastic case

**Aluminium protected case

Weight	Knob shape in plastic case		Knob shape in aluminium protected case		Knob shape in wooden case		DAkkS certificate	
	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 mg - 500 mg	338-22*	143,-	338-226**	183,-	338-22*	143,-	962-450	100,-
1 mg - 50 g	333-024	330,-	333-026	335,-	333-02	350,-	962-401	167,-
1 mg - 100 g	333-034	365,-	333-036	370,-	333-03	385,-	962-402	178,-
1 mg - 200 g	333-044	450,-	333-046	455,-	333-04	470,-	962-403	199,-
1 mg - 500 g	333-054	510,-	333-056	520,-	333-05	540,-	962-404	210,-
1 mg - 1 kg	333-064	630,-	333-066	640,-	333-06	660,-	962-405	220,-
1 mg - 2 kg	333-074	890,-	333-076	900,-	333-07	920,-	962-406	250,-
1 mg - 5 kg	333-084	1150,-	333-086	1160,-	333-08	1190,-	962-407	265,-
1 mg - 10 kg	-	-	333-096	1590,-	333-09	1650,-	962-408	285,-
1 g - 50 g	334-024	210,-	334-026	215,-	334-02	230,-	962-415	67,-
1 g - 100 g	334-034	250,-	334-036	255,-	334-03	260,-	962-416	77,-
1 g - 200 g	334-044	330,-	334-046	335,-	334-04	350,-	962-417	98,-
1 g - 500 g	334-054	390,-	334-056	395,-	334-05	410,-	962-418	109,-
1 g - 1 kg	334-064	520,-	334-066	530,-	334-06	540,-	962-419	119,-
1 g - 2 kg	334-074	760,-	334-076	780,-	334-07	810,-	962-420	151,-
1 g - 5 kg	334-084	990,-	334-086	1010,-	334-08	1070,-	962-421	166,-
1 g - 10 kg	-	-	334-096	1490,-	334-09	1530,-	962-422	182,-

Test weights and boxes

Class M1



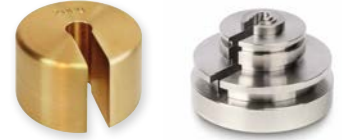
Milligram weights, flat polygonal sheet



Individual weights/Weight sets, knob shape, finely turned stainless steel or finely turned brass



Hook weights, finely turned brass (stainless steel, on request)



Slotted weights, finely turned brass or finely turned stainless steel (on request)



Plastic box, for individual weights ≤ 200 g, for hook weights and slotted weights ≤ 50 g



Plastic box, lined, for individual weights ≥ 500 g, for hook weights and slotted weights ≥ 100 g



Aluminium protected box, lined, for individual weights



Wooden box, not lined, for individual weights ≤ 500 g



Wooden box, not lined, for individual weights ≥ 1 kg



Milligram weight set in plastic box (348-22)



Milligram weight set in aluminium protected box, lined (348-226)



Plastic case, lined, for weight sets, knob shape, stainless steel or finely turned brass



Aluminium protected case, lined, for weight sets, knob shape, stainless steel or finely turned brass



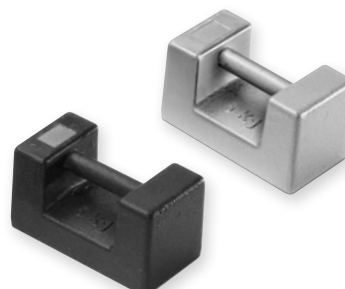
Wooden case, for weight sets, knob shape, stainless steel or finely turned brass



Test weights (10 - 50 kg), finely turned stainless steel KERN 347-141 ff, optional: Wooden box



Beam bars, for fixing slotted weights, aluminium or finely turned brass



Block weights, lacquered cast iron/stainless steel, optional: Aluminium protected case, lined



Test weights class M1

Class M1 · Milligram weights, flat polygonal sheet

Test weight material: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg

Weight	Tol +/- mg	Milligram weight, flat polygonal sheet		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 mg	0,20	348-01	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-651	15,-
2 mg	0,20	348-02	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-652	15,-
5 mg	0,20	348-03	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-653	15,-
10 mg	0,25	348-04	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-654	15,-
20 mg	0,30	348-05	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-655	15,-
50 mg	0,40	348-06	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-656	15,-
100 mg	0,50	348-07	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-657	15,-
200 mg	0,60	348-08	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-658	15,-
500 mg	0,80	348-09	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	17,-	962-659	15,-

Class M1 · Individual weights, knob shape, finely turned brass or stainless steel

Weight	Tol +/- mg	Individual weight, brass		Individual weight, stainless steel		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 g	1,0	347-41	4,60	347-01	4,60	347-030-400	2,-	317-010-600	14,-	337-010-200	16,-	962-631	15,-
2 g	1,2	347-42	4,80	347-02	4,80	347-030-400	2,-	317-020-600	14,-	337-020-200	16,-	962-632	15,-
5 g	1,6	347-43	5,20	347-03	5,20	347-030-400	2,-	317-030-600	14,-	337-030-200	17,-	962-633	15,-
10 g	2,0	347-44	5,60	347-04	5,60	347-050-400	2,-	317-040-600	14,-	337-040-200	17,-	962-634	15,-
20 g	2,5	347-45	7,10	347-05	6,40	347-050-400	2,-	317-050-600	14,-	337-050-200	17,-	962-635	15,-
50 g	3,0	347-46	8,40	347-06	8,-	347-070-400	2,-	317-060-600	14,-	337-060-200	17,-	962-636	15,-
100 g	5,0	347-47	11,-	347-07	9,60	347-070-400	2,-	317-070-600	14,-	337-070-200	17,-	962-637	16,-
200 g	10	347-48	15,-	347-08	14,-	347-080-400	2,-	317-080-600	28,-	337-080-200	17,-	962-638	16,-
500 g	25	347-49	28,-	347-09	28,-	347-090-400	3,-	317-090-600	29,-	337-090-200	19,-	962-639	16,-
1 kg	50	347-51	45,-	347-11	45,-	347-110-400	3,-	317-110-600	35,-	337-110-200	32,-	962-641	16,-
2 kg	100	347-52	77,-	347-12	77,-	347-120-400	3,-	317-120-600	44,-	337-120-200	33,-	962-642	17,-
5 kg	250	347-53	170,-	347-13	170,-	347-130-400	9,-	317-130-600	66,-	337-130-200	53,-	962-643	17,-
10 kg	500	347-54	330,-	347-14	330,-	347-140-400	9,-	317-140-600	89,-	337-140-200	60,-	962-644	17,-

Class M1 · Block weights, lacquered cast iron or stainless steel

Block weight material: cast iron or stainless steel, surface and edges refined

Weight	Tol +/- g	Block weight, cast iron		Block weight, stainless steel		Aluminium protected case		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€
5 kg	0,25	346-86	50,-	346-06	340,-	346-060-600	180,-	962-643	17,-
10 kg	0,50	346-87	82,-	346-07	460,-	346-070-600	180,-	962-644	17,-
20 kg	1,00	346-88	145,-	346-08	620,-	346-080-600	220,-	962-645	22,-
50 kg	2,50	346-89	360,-	346-09	1660,-	346-090-600	180,-	962-646	24,-

Class M1 · ECO Block weights, lacquered cast iron

ECO Block weight material: cast iron, surface and edges machined

Weight	Tol +/- g	ECO Block weight, cast iron		Aluminium protected case		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
5 kg	0,25	346-76	42,-	346-060-600	180,-	962-643	17,-
10 kg	0,50	346-77	70,-	346-070-600	180,-	962-644	17,-
20 kg	1,00	346-78	115,-	346-080-600	220,-	962-645	22,-
50 kg	2,50	346-79	280,-	346-090-600	180,-	962-646	24,-

Test weights class M1

Class M1 · Test weights, stainless steel, stackable

Test weight material: finely turned stainless steel

Weight	Tol +/- g	Test weight, stainless steel		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
10 kg	0,5	347-141	500,-	337-141-200	300,-	962-644	17,-
20 kg	1,0	347-151	610,-	337-151-200	325,-	962-645	22,-
50 kg	2,5	347-161	1650,-	337-161-200	510,-	962-646	24,-

Class M1 · Heavy duty weights, lacquered cast iron, stackable

Designed to be lifted with forklift trucks or cranes, delivery time is approx. 4 weeks

Dimensions: see internet on www.kern-sohn.com

Weight	Tol +/- g	Heavy duty weight, cast iron		DAkkS certificate	
		KERN	€	KERN	€
100 kg	5	346-81	1620,-	962-691	63,-
200 kg	10	346-82	2070,-	962-692	63,-
500 kg	25	346-83	4100,-	962-693	63,-
1000 kg	50	346-84	6880,-	962-694	136,-
2000 kg	100	346-85	12770,-	962-695	250,-



Note

We also offer a large range of heavy-duty weights in other materials, for example, stainless steel and in other forms, for example, discs or individual weight containers, please ask for details.

Class M1 · Weight sets, knob shape, finely turned brass or stainless steel

Test weight material: Milligramm weights Aluminium/German silver, individual weights finely turned brass or stainless steel.

*Plastic case

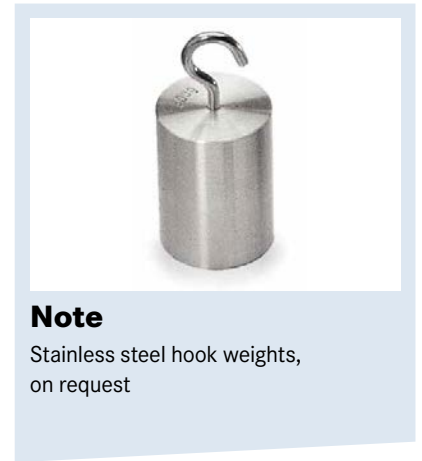
**Aluminium protected case

Weight	Knob shape, finely turned brass, in plastic case		Knob shape, finely turned stainless steel, in plastic case		Knob shape, finely turned brass, in wooden case		Knob shape, finely turned stainless steel, in wooden case		Knob shape, finely turned, brass, in aluminium protected case		Knob shape, finely turned stainless steel, in aluminium protected case		DAkkS certificate	
	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 mg - 500 mg	348-22*	83,-	348-22*	83,-	348-22*	83,-	348-22*	83,-	348-226**	119,-	348-226**	119,-	962-650	63,-
1 mg - 50 g	343-424	173,-	343-024	172,-	343-42	160,-	343-02	159,-	343-426	158,-	343-026	157,-	962-601	106,-
1 mg - 100 g	343-434	184,-	343-034	183,-	343-43	174,-	343-03	173,-	343-436	168,-	343-036	167,-	962-602	112,-
1 mg - 200 g	343-444	220,-	343-044	215,-	343-44	205,-	343-04	200,-	343-446	198,-	343-046	197,-	962-603	125,-
1 mg - 500 g	343-454	245,-	343-054	240,-	343-45	240,-	343-05	235,-	343-456	225,-	343-056	225,-	962-604	131,-
1 mg - 1 kg	343-464	390,-	343-064	380,-	343-46	350,-	343-06	340,-	343-466	330,-	343-066	320,-	962-605	137,-
1 mg - 2 kg	343-474	540,-	343-074	520,-	343-47	520,-	343-07	510,-	343-476	485,-	343-076	480,-	962-606	152,-
1 mg - 5 kg	343-484	710,-	343-084	690,-	343-48	720,-	343-08	710,-	343-486	690,-	343-086	680,-	962-607	160,-
1 mg - 10 kg	-	-	-	-	343-49	1100,-	343-09	1090,-	343-496	1080,-	343-096	1070,-	962-608	167,-
1 g - 50 g	344-424	111,-	344-024	111,-	344-42	109,-	344-02	109,-	344-426	107,-	344-026	107,-	962-615	42,-
1 g - 100 g	344-434	122,-	344-034	122,-	344-43	119,-	344-03	119,-	344-436	117,-	344-036	117,-	962-616	49,-
1 g - 200 g	344-444	151,-	344-044	150,-	344-44	149,-	344-04	148,-	344-446	147,-	344-046	146,-	962-617	61,-
1 g - 500 g	344-454	180,-	344-054	178,-	344-45	178,-	344-05	177,-	344-456	176,-	344-056	174,-	962-618	68,-
1 g - 1 kg	344-464	315,-	344-064	310,-	344-46	275,-	344-06	270,-	344-466	250,-	344-066	235,-	962-619	74,-
1 g - 2 kg	344-474	465,-	344-074	455,-	344-47	445,-	344-07	435,-	344-476	440,-	344-076	430,-	962-620	89,-
1 g - 5 kg	344-484	630,-	344-084	620,-	344-48	660,-	344-08	650,-	344-486	620,-	344-086	610,-	962-621	96,-
1 g - 10 kg	-	-	-	-	344-49	1040,-	344-09	1020,-	344-496	1030,-	344-096	1010,-	962-622	104,-

Test weights class M1

Class M1 · Hook weights, finely turned brass

Weight	Tol +/- mg	Hook weight, brass		Plastic box, lined		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
1 g	1,0	347-416	16,-	347-030-400	2,-	962-631	15,-
2 g	1,2	347-426	17,-	347-030-400	2,-	962-632	15,-
5 g	1,6	347-436	17,-	347-030-400	2,-	962-633	15,-
10 g	2,0	347-446	17,-	347-050-400	2,-	962-634	15,-
20 g	2,5	347-456	18,-	347-050-400	2,-	962-635	15,-
50 g	3,0	347-466	20,-	347-070-400	2,-	962-636	15,-
100 g	5,0	347-476	24,-	347-090-400	3,-	962-637	16,-
200 g	10,0	347-486	31,-	347-090-400	3,-	962-638	16,-
500 g	25,0	347-496	51,-	347-110-400	3,-	962-639	16,-
1 kg	50,0	347-516	74,-	347-120-400	3,-	962-641	16,-
2 kg	100,0	347-526	119,-	347-130-400	9,-	962-642	17,-
5 kg	250,0	347-536	220,-	347-140-400	9,-	962-643	17,-
10 kg	500,0	347-546	350,-	-	-	962-644	17,-



Class M1 · Slotted weights, finely turned brass

Weight	Tol +/- mg	Slotted weight, brass		Plastic box, lined		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
1 g	1,0	347-415	14,-	347-030-400	2,-	962-631	15,-
2 g	1,2	347-425	14,-	347-030-400	2,-	962-632	15,-
5 g	1,6	347-435	15,-	347-030-400	2,-	962-633	15,-
10 g	2,0	347-445	17,-	347-030-400	2,-	962-634	15,-
20 g	2,5	347-455	20,-	347-080-400	2,-	962-635	15,-
50 g	3,0	347-465	22,-	347-080-400	2,-	962-636	15,-
100 g	5,0	347-475	25,-	347-090-400	3,-	962-637	16,-
200 g	10	347-485	33,-	347-090-400	3,-	962-638	16,-
500 g	25	347-495	52,-	347-110-400	3,-	962-639	16,-
1 kg	50	347-515	81,-	347-130-400	9,-	962-641	16,-
2 kg	100	347-525	132,-	347-130-400	9,-	962-642	17,-
5 kg	250	347-535	210,-	347-140-400	9,-	962-643	17,-
10 kg	500	347-545	385,-	347-140-400	9,-	962-644	17,-

Class M1 · Beam bars, for fixing slotted weights

Own weight beam bar	Maximum total load ⁽¹⁾	Largest slotted weight possible	Material	Beam bar		DAkkS certificate	
				KERN	€	KERN	€
10 g	200 g	100 g	Aluminium	347-445-100*	30,-	962-634	15,-
100 g	2 kg	1 kg	Brass	347-475-100**	50,-	962-637	16,-
500 g	20 kg	10 kg	Brass	347-495-100***	77,-	962-639	16,-
1 kg	40 kg	10 kg	Brass	347-515-100***	114,-	962-641	16,-

⁽¹⁾ is exclusive of the own weight of the beam bar, e.g. the maximum possible total weight is calculated from "Maximum total load" + "own weight beam bar"

Newton weights (N)

All hook and slotted weights as well as beam bars are available with N adjustment according to M1 tolerances, additional price € 8,-/pc. We need to know the location of use and postal code.

DAkkS calibration certificate for N weights: identical to DAkkS prices for individual weights M1, additional price € 8,-.

Test weights and boxes

Classes M2 · M3



Individual weights/Weight sets, knob shape, finely turned brass



Individual weights/Weight sets, knob shape, lacquered cast iron



Block weights, lacquered cast iron



Plastic box, lined, for individual weights



Aluminium protected box, lined, for individual weights



Wooden box, not lined, for individual weights ≤ 500 g, *not appropriate for cast iron weights



Wooden box, not lined, for individual weights ≥ 1 kg, *not appropriate for cast iron weights



Aluminium protected case, lined, for block weights



Plastic case, lined, for weight sets knob shape, stainless steel or finely turned brass



Aluminium protected case, lined, for weight sets knob shape, finely turned brass, *not appropriate for cast iron weights



Wooden case, for weight sets knob shape, finely turned brass



Wooden block, for weight sets knob shape, lacquered cast iron

Class M2 · Individual weights, knob shape, finely turned brass

Weight	Tol +/- mg	Individual weight, knob shape		Plastic box, lined		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 g	3	357-41	3,50	347-030-400	2,-	317-010-600	14,-	337-010-200	17,-	962-631	15,-
2 g	4	357-42	3,70	347-030-400	2,-	317-020-600	14,-	337-020-200	17,-	962-632	15,-
5 g	5	357-43	4,10	347-030-400	2,-	317-030-600	14,-	337-030-200	17,-	962-633	15,-
10 g	6	357-44	4,40	347-050-400	2,-	317-040-600	14,-	337-040-200	17,-	962-634	15,-
20 g	8	357-45	7,10	347-050-400	2,-	317-050-600	14,-	337-050-200	17,-	962-635	15,-
50 g	10	357-46	8,40	347-070-400	2,-	317-060-600	14,-	337-060-200	17,-	962-636	15,-
100 g	16	357-47	11,-	347-070-400	2,-	317-070-600	14,-	337-070-200	17,-	962-637	16,-
200 g	30	357-48	15,-	347-080-400	2,-	317-080-600	14,-	337-080-200	17,-	962-638	16,-
500 g	80	357-49	28,-	347-090-400	3,-	317-090-600	14,-	337-090-200	19,-	962-639	16,-
1 kg	160	357-51	41,-	347-110-400	3,-	317-110-600	20,-	337-110-200	32,-	962-641	16,-
2 kg	300	357-52	76,-	347-120-400	3,-	317-120-600	25,-	337-120-200	33,-	962-642	17,-
5 kg	800	357-53	166,-	347-130-400	9,-	317-130-600	40,-	337-130-200	53,-	962-643	17,-
10 kg	1600	357-54	330,-	347-140-400	9,-	317-140-600	57,-	337-140-200	60,-	962-644	17,-

Class M2 · Block weights, lacquered cast iron

Block weight material: cast iron, surface and edges refined

Weight	Tol +/- g	Block weight, cast iron		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
5 kg	0,8	356-86	50,-	346-060-600	180,-	962-643	17,-
10 kg	1,6	356-87	82,-	346-070-600	180,-	962-644	17,-
20 kg	3,0	356-88	145,-	346-080-600	220,-	962-645	22,-
50 kg	8,0	356-89	360,-	346-090-600	180,-	962-646	24,-

Class M2 · ECO Block weights, lacquered cast iron

ECO Block weight material: lacquered cast iron

Weight	Tol +/- g	ECO block weight, cast iron		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
5 kg	0,8	356-76	42,-	346-060-600	180,-	962-643	17,-
10 kg	1,6	356-77	70,-	346-070-600	180,-	962-644	17,-
20 kg	3,0	356-78	115,-	346-080-600	220,-	962-645	22,-
50 kg	8,0	356-79	280,-	346-090-600	180,-	962-646	24,-

Class M2 · Weight sets, knob shape, finely turned brass

Weight	Knob shape, in aluminium protected case		Knob shape, in wooden case		DAkkS certificate	
	KERN	€	KERN	€	KERN	€
1 g - 50 g	354-426	105,-	354-42	82,-	962-615	42,-
1 g - 100 g	354-436	116,-	354-43	100,-	962-616	49,-
1 g - 200 g	354-446	147,-	354-44	140,-	962-617	61,-
1 g - 500 g	354-456	176,-	354-45	173,-	962-618	68,-
1 g - 1 kg	354-466	265,-	354-46	265,-	962-619	74,-
1 g - 2 kg	354-476	440,-	354-47	440,-	962-620	89,-
1 g - 5 kg	354-486	650,-	354-48	650,-	962-621	96,-
1 g - 10 kg	354-496	1020,-	354-49	1020,-	962-622	104,-

Class M3 · Individual weights, knob shape, finely turned brass

Weight	Tol +/- mg	Individual weight, knob shape		Plastic box, lined		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 g	10	367-41	3,30	347-030-400	2,-	317-010-600	14,-	337-010-200	16,-	962-631	15,-
2 g	12	367-42	3,40	347-030-400	2,-	317-020-600	14,-	337-020-200	16,-	962-632	15,-
5 g	16	367-43	3,90	347-030-400	2,-	317-030-600	14,-	337-030-200	17,-	962-633	15,-
10 g	20	367-44	4,10	347-050-400	2,-	317-040-600	14,-	337-040-200	17,-	962-634	15,-
20 g	25	367-45	6,30	347-050-400	2,-	317-050-600	14,-	337-050-200	17,-	962-635	15,-
50 g	30	367-46	7,60	347-070-400	2,-	317-060-600	14,-	337-060-200	17,-	962-636	15,-
100 g	50	367-47	9,90	347-070-400	2,-	317-070-600	14,-	337-070-200	17,-	962-637	16,-
200 g	100	367-48	14,-	347-080-400	2,-	317-080-600	14,-	337-080-200	17,-	962-638	16,-
500 g	250	367-49	28,-	347-090-400	3,-	317-090-600	14,-	337-090-200	19,-	962-639	16,-
1 kg	500	367-51	42,-	347-110-400	3,-	317-110-600	20,-	337-110-200	32,-	962-641	16,-
2 kg	1000	367-52	76,-	347-120-400	3,-	317-120-600	25,-	337-120-200	53,-	962-642	17,-

Class M3 · Individual weights, knob and cylindrical shape, lacquered cast iron

Weight	Tol +/- g	Individual weight, knob and cylindrical shape		DAkkS certificate	
		KERN	€	KERN	€
100 g*	0,05	366-91	15,-	962-637	16,-
200 g*	0,10	366-92	16,-	962-638	16,-
500 g**	0,25	366-93	23,-	962-639	16,-
1 kg**	0,50	366-94	30,-	962-641	16,-
2 kg**	1,0	366-95	53,-	962-642	17,-
5 kg**	2,5	366-96	93,-	962-643	17,-
10 kg**	5,0	366-97	164,-	962-644	17,-



Class M3 · Block weights, lacquered cast iron

Block weight material: cast iron, surface and edges refined

Weight	Tol +/- g	Block weight, cast iron		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
5 kg	2,5	366-86	50,-	346-060-600	180,-	962-643	17,-
10 kg	5,0	366-87	82,-	346-070-600	180,-	962-644	17,-
20 kg	10	366-88	145,-	346-080-600	220,-	962-645	22,-
50 kg	25	366-89	360,-	346-090-600	180,-	962-646	24,-

Class M3 · ECO Block weights, lacquered cast iron

ECO Block weight material: lacquered cast iron

Weight	Tol +/- g	ECO block weight, cast iron		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
5 kg	2,5	366-76	42,-	346-060-600	180,-	962-643	17,-
10 kg	5,0	366-77	70,-	346-070-600	180,-	962-644	17,-
20 kg	10	366-78	115,-	346-080-600	220,-	962-645	22,-
50 kg	25	366-79	280,-	346-090-600	180,-	962-646	24,-

Class M3 · Weight sets, knob and cylindrical shape, brass and lacquered cast iron

Weight	Knob and cylindrical shape, in wooden block		DAkkS certificate	
	KERN	€	KERN	€
1 g - 1 kg	362-96	180,-	962-619	74,-
1 g - 2 kg	362-97	295,-	962-620	89,-
1 g - 5 kg	362-98	390,-	962-621	96,-
1 g - 10 kg	362-99	570,-	962-622	104,-



Individual weights ≤ 50 g



Individual weights 100 g and 200 g



Individual weights ≥ 500 g

Tweezers, weight grips, gloves, dusting brush



Tweezers
to be able to safely grip small test weights

For class	For weight	Length	Version	KERN	€
E1 - M3	1 mg - 200 g	105 mm	1 Stainless steel with silicone-coated tips	315-243	14,-
E1 - M3	500 g - 2 kg	250 mm	1 Stainless steel with silicone-coated tips	315-245	39,-
E1 - M3	≤ 5 g	130 mm	2 Stainless steel, curved, high-quality plastic tips	315-246	22,-
E1 - M3	≤ 5 g	136 mm	3 Stainless steel, straight, high quality plastic tips	315-247	22,-
E1 - M3	≤ 200 g	225 mm	4 Stainless steel, straight, high-quality plastic tips, with a special shape for gripping weights of various shapes and sizes	315-248	35,-
F2 - M3	1 mg - 200 g	100 mm	5 Stainless steel	335-240	8,00
E1 - M3	1 mg - 200 g	100 mm	6 Plastic	315-242	6,20

Weight grip
plastic coated

For class	for knob shaped weights	KERN	€
E1 - M3	2 kg	315-273	26,-
E1 - M3	5 kg	315-274	30,-
E1 - M3	10 kg	315-275	35,-
E1 - M3	20 kg	315-276	49,-



1 not appropriate for cast iron weights



Gloves
cotton, 1 pair. Help to protect the test weights when being used daily, from grease from fingers, damp etc.

KERN €
317-280 2,50



Gloves
leather/cotton, 1 pair. Help to protect the test weights when being used daily, from grease from fingers, damp etc.

KERN €
317-290 6,90



Premium gloves
Nylon, 1 pair. Particularly elastic, one size fits all, with special fingertip coating to ensure a safe grip. Helps to protect the test weights in everyday use from grease from fingers, damp etc.

KERN €
317-281 11,-



Dusting brush
to clean the weights

KERN €
318-270 2,50



Bellows
for cleaning weights

KERN €
318-271 7,-



Microfibre cloth
for cleaning weights

KERN €
318-272 3,50

Boxes for individual weights



For weights ≤ 500 g, OIML class E1 - F1
For weights ≥ 1 kg, OIML class E1 - F1

Case material: Wood, lined, suitable for single weights, KERN-Nr. 307, 316, 317, 326, 327



For weights ≤ 500 g, OIML class F2 - M3
For weights ≥ 1 kg, OIML class F2 - M3

Case material: Wood, suitable for single weights, KERN-Nr. 337, 347, 357, 367
*not suitable for cast iron weights



For test weights ≥ 10 kg, OIML class F1 - M1

Case material: Wood, suitable for single weights, KERN-Nr. 327, 337, 347
*not suitable for cast iron weights

Wooden box, lined
for single weights E1 - F1

For weights	KERN	€
mg	338-090-200	17,-
1 g	317-010-100	26,-
2 g	317-020-100	26,-
5 g	317-030-100	26,-
10 g	317-040-100	26,-
20 g	317-050-100	26,-
50 g	317-060-100	27,-
100 g	317-070-100	28,-
200 g	317-080-100	28,-
500 g	317-090-100	29,-
1 kg	317-110-100	45,-
2 kg	317-120-100	51,-
5 kg	317-130-100	75,-
10 kg	317-140-100	89,-
20 kg	317-150-100	500,-
50 kg	317-160-100	610,-

Wooden box,
for single weights F2 - M3

For weights	KERN	€
mg	338-090-200	17,-
1 g	337-010-200	16,-
2 g	337-020-200	16,-
5 g	337-030-200	17,-
10 g	337-040-200	17,-
20 g	337-050-200	17,-
50 g	337-060-200	17,-
100 g	337-070-200	17,-
200 g	337-080-200	17,-
500 g	337-090-200	19,-
1 kg	337-110-200	32,-
2 kg	337-120-200	33,-
5 kg	337-130-200	53,-
10 kg	337-140-200	60,-
20 kg	337-150-200	325,-
50 kg	337-160-200	510,-

Wooden box
for test weights F1 - M1

For weights	KERN	€
10 kg	337-141-200	300,-
20 kg	337-151-200	325,-
50 kg	337-161-200	510,-



For weights ≤ 5 kg, OIML class E1 - M3

Case material: Aluminium protected, lined, suitable for single weights, KERN-Nr. 307, 316, 317, 326, 327, 337, 347, 357, 367
*not suitable for cast iron weights

Aluminium protected box, lined
for individual weights, knob and compact shape, class E1 - M3

For weights	KERN	€
Individual weight, mg	317-009-600	14,-
1 g	317-010-600	14,-
2 g	317-020-600	14,-
5 g	317-030-600	14,-
10 g	317-040-600	14,-
20 g	317-050-600	14,-
50 g	317-060-600	14,-
100 g	317-070-600	14,-
200 g	317-080-600	14,-
500 g	317-090-600	14,-
1 kg	317-110-600	20,-
2 kg	317-120-600	25,-
5 kg	317-130-600	40,-



For weights ≤ 10 kg, OIML class E1 - M3

Case material: Aluminium protected, lined, suitable for single weights, KERN-Nr. 307, 316, 317, 326, 327, 337, 347, 357, 367
*not suitable for cast iron weights

Aluminium protected box, lined
for individual weights, knob and compact shape, class E1 - M3

For weights	KERN	€
10 kg	317-140-600	57,-
20 kg	317-150-600	130,-
50 kg	317-160-600	200,-



For block weight ≥ 5 kg, OIML class F1 - M3

Case material: Aluminium protected, lined, suitable for block weights, KERN-Nr. 346, 356, 366

Aluminium protected case, lined
for individual weights F1 - M3

For weights	KERN	€
5 kg	346-060-600	180,-
10 kg	346-070-600	180,-
20 kg	346-080-600	180,-

Carrying cases/boxes for individual weight sets

Individual weight sets:

You can create your own "tailor-made" individual weight sets yourself. KERN will customise your own personal wooden box/plastic carrying case. The largest individual weight which will fit is given in the table.

Sample order:

Your individual weight set:


1 × 50 g, 2 × 100 g, 1 × 500 g, 2 × 1 kg, 1 × 2 kg.

The correct individual box is **KERN-Nr. 313-080-400** (plastic) or **KERN-Nr. 315-070-100** (wood)




Plastic case

for individual weight sets classes E1 - M3, not appropriate for cast iron weights


Largest possible weight	KERN		€
≤ 500 g	313-050-400		92,-
≤ 5 kg	313-080-400		190,-

Wooden case

lined, for individual weight sets classes E1 - F1
* with side handles

Largest possible weight	KERN		€
≤ 200 g	315-040-100		129,-
≤ 1 kg	315-060-100		205,-
≤ 2 kg	315-070-100		250,-
≤ 5 kg*	315-080-100		350,-
≤ 10 kg*	315-090-100		465,-

Wooden case not lined, for individual weight set classes F2 - M3, not appropriate for cast iron weights
* with side handles

Largest possible weight	KERN		€
≤ 200 g	335-040-200		65,-
≤ 500 g	335-050-200		65,-
≤ 1 kg	335-060-200		115,-
≤ 2 kg	335-070-200		136,-
≤ 5 kg*	335-080-200		210,-
≤ 10 kg*	335-090-200		300,-

Carrying cases for standard weight sets




Fig. shows
313-010-600

Aluminium protected case for safe storage and transportation under harsh industrial conditions.


Plastic case for weight sets

with standard denomination classes E1 - M3, not appropriate for cast iron weights

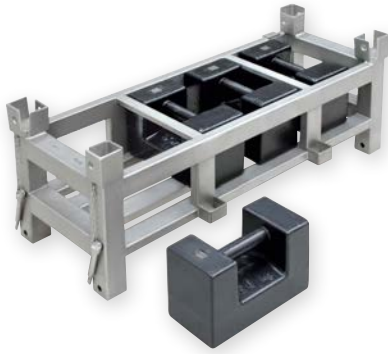
Largest possible weight	KERN		€
≤ 500 g	313-052-400		65,-
≤ 5 kg	313-082-400		154,-

Aluminium protected case

for weight sets with standard denomination classes E1 - M2

For weights	For class	KERN		€
1 mg - 500 mg	E1 - M1	313-010-600		75,-
1 mg - 50 g	E1 - M1	313-020-600		99,-
1 mg - 100 g	E1 - M1	313-030-600		108,-
1 mg - 200 g	E1 - M1	313-040-600		115,-
1 mg - 500 g	E1 - M1	313-050-600		139,-
1 mg - 1 kg	E1 - M1	313-060-600		169,-
1 mg - 2 kg	E1 - M1	313-070-600		199,-
1 mg - 5 kg	E1 - M1	313-080-600		265,-
1 mg - 10 kg	E1 - M1	313-090-600		340,-
1 g - 50 g	E1 - M2	314-020-600		94,-
1 g - 100 g	E1 - M2	314-030-600		103,-
1 g - 200 g	E1 - M2	314-040-600		110,-
1 g - 500 g	E1 - M2	314-050-600		134,-
1 g - 1 kg	E1 - M2	314-060-600		164,-
1 g - 2 kg	E1 - M2	314-070-600		194,-
1 g - 5 kg	E1 - M2	314-080-600		260,-
1 g - 10 kg	E1 - M2	314-090-600		335,-

Weight carriers for block weights or other test weights



Individual weight carriers for testing high capacity floor scales, pallet scales, pallet truck scales, crane scales, etc. This can also be used for storing the weights. This means the weight container and the weights can be placed on the scale in one go, saving time and money.

The weight container can be calibrated to OIML accuracy classes M1 – M3. On request, KERN will make you a “tailor-made” weight carrier to your specifications.

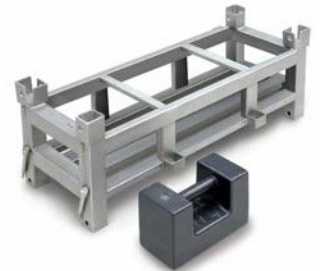
Example:

9 block weights	each 50 kg, class M1 =	450 kg
1 weight container	each 50 kg, class M1 =	50 kg
Total		= 500 kg

Weight containers for rectangular weights or other test weights, adjusted to OIML class M1

Preconfigured weight containers for testing high-load floor scales, pallet scales, pallet truck scales, crane scales, etc. This can also be used for storing the weights. This means the weight container and the weights can be placed on the balance in one go, saving you time and money. The weight container is adjusted to OIML accuracy class M1. Other OIML accuracy classes are also available, please ask.

Weight of the weight container, OIML class M1	Tol +/- g	Possible equipment, rectangular weights, OIML class M1	Maximum total weight (weight container incl. weights)	Price (weight container excluding weights)	
				KERN	€
20 kg	1,0	5 × 20 kg	120 kg	346-022-005	1420,-
40 kg	1,5	8 × 20 kg	200 kg	346-042-008	1910,-
50 kg	2,5	10 × 20 kg	250 kg	346-052-010	1840,-
50 kg	2,5	4 × 50 kg	250 kg	346-055-004	1840,-
50 kg	2,5	9 × 50 kg	500 kg	346-055-009	1840,-
60 kg	3,0	8 × 50 kg and 2 × 20 kg	500 kg	346-065-009	1990,-



Weight of the weight container, OIML class M1	Tol +/- g	Possible equipment, test weights, OIML class M1	Maximum total weight (weight container incl. weights)	Price (weight container excluding weights)	
				KERN	€
20 kg	1,0	max. 10 × 10 kg or 5 × 20 kg	120 kg	347-022-005	1460,-
40 kg	2,0	max. 16 × 10 kg or 8 × 20 kg	200 kg	347-042-008	1740,-
50 kg	2,5	max. 20 × 10 kg or 10 × 20 kg	250 kg	347-052-010	1890,-
60 kg	3,0	max. 22 × 20 kg	500 kg	347-062-022	1990,-



Individual weight containers for rectangular weights or other test weights, calibrated to OIML class M1

Weight of the weight container, OIML class M1	Price (weight container excluding weights)	
	KERN	€
Individual weight container for rectangular weights	346-000-000	Price on request
Individual weight container for test weights	347-000-000	Price on request

KERN & SOHN GmbH
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DAkkS calibration laboratory

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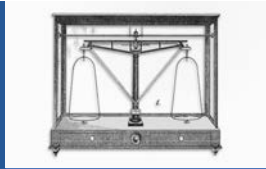
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1769

Ancestor Johann Jakob Sauter built the Hahn inclination scale out of iron, a foundation stone for weighing for the balance industry in Southern Germany



1844

KERN is founded – precision balances are produced



1863

A proud Gottlieb Kern with his staff



1880

Pharmaceutical balance with Aesculap



1923

Inflation – KERN wages are paid with self printed currency



1980

The electronic balance ousts mechanical devices



1994

Accredited DKD laboratory (ISO 17025)



2000

New premises in Balingen



2002

Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards



2007

Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)



2008

Authorisation for initial verification by the manufacturer (2009/23/EC)



2009

Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)



2012

Verification point for non-automatic balances and test weights.

New customer portal www.kern-sohn.com goes live



2014

Expansion of the product range to include optical instruments (microscopes and refractometers)



2015

Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse



2017

Come with KERN into the digital future: Expansion of the model ranges compatible with Industry 4.0, as well as the related services



2019

Significant anniversary year! 25 years of accredited DKD laboratory 175 years of KERN & SOHN 250 years of balance manufacture in the Sauter family-owned company



2020

Construction of Ziegelei 3.0, extension of administration building