

17



TEST WEIGHTS

Weights yesterday and today

For centuries now, weight pieces have been used in scales for weighing procedures. This original purpose has now almost disappeared. Today, weights are used almost exclusively for adjusting and testing = calibration of electronic balances. They are now named "test weights" as this is their contemporary purpose.

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 norm OIML 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 test weight only becomes an ► **ISO 9000ff**-compliant test instrument when its accuracy has been proven, we offer the appropriate ► **DAkkS Calibration certificate** or verification certificate (in connection with a box) for all KERN test weights. For further details see *DAkkS Calibration Service*.

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**







Classes of accuracy of test weights E, F, M and their general relation to the types of balances.

The appropriate OIML tolerance class for the test weight is selected based on the scale's resolution. The key factor for this is the scale's increment count:

$$\text{Increment count [n]} = \frac{\text{Maximum capacity [Max]}}{\text{Division value [d]}}$$

- 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 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, containers for individual weight sets etc.	on request	

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 measuring instrument. 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.

Note: In our webshop you can conveniently select test weights for your scale that have been calculated and matched to your safety requirements and intended use – with or without calibration. We will be happy to determine the minimum sample quantity according to USP Chapter <41> and recommend a KERN Safety Set especially designed for your scale.



PREMIUM⁺ TEST WEIGHTS

Note: Our highly-accurate OIML test weights are also available as **PREMIUM⁺ test 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⁺ test 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

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 mark your test weights according to your ideas by etching or with impact numbers. 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.





KERN SAFETY SETS

All the security you need!

KERN Safety Sets which have been specially developed, put together and contain the right test weights to test and monitor your balance. They each consist of a test weight for checking the sensitivity, i.e. the correct adjustment of your scale, and another lighter test weight for checking at the lower end of the weighing range, the so-called minimum sample weight. 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.

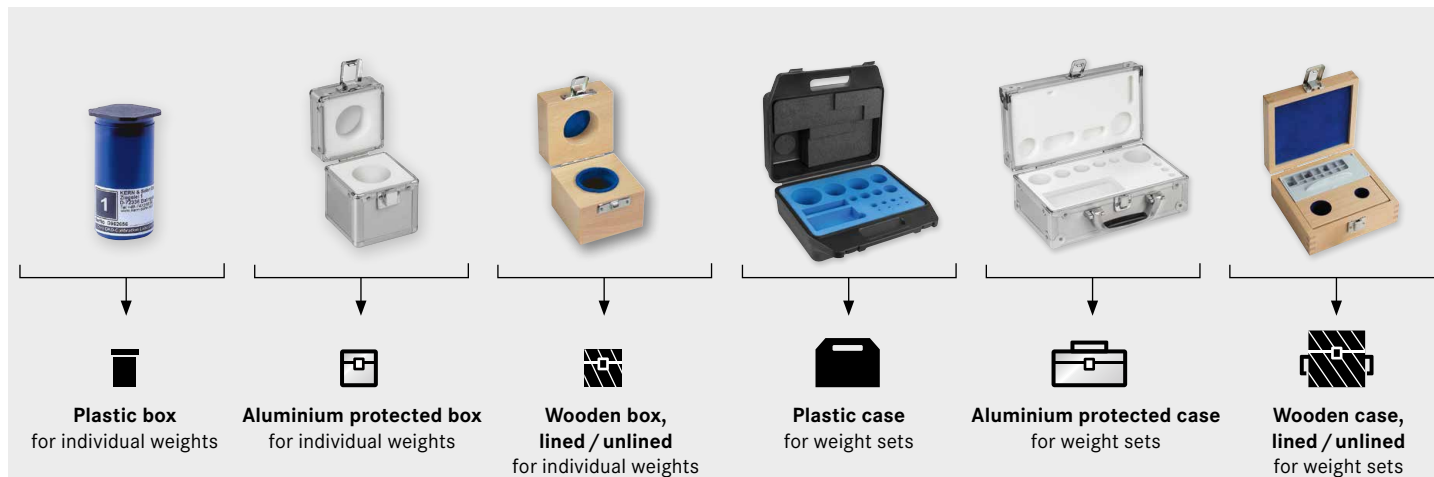
Useful accessories which have been selected to suit that particular KERN Safety Set, such as, for example, special gloves, tweezers, weight grips, brushes, etc., will assist you in handling your test weights properly. Stored in the practical protective case next to your balance, you can check and ensure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

Just ask our test weight product specialist, they 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



Product Specialist
Test Weights
Taras Mikitisin
Tel. +49 7433 9933- 143
mikitisin@kern-sohn.com

Our KERN weight cases at a glance:



It's your choice!

To protect your test weights we can offer you an appropriate weight case. If there are no legal or normative specifications, then you have the choice between plastic, aluminium protected or wood. The available weight cases are shown as a symbol in the test weight tables on the following pages. 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



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 (see page 195/196).

We offer many test 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.

To protect your high-quality test equipment, we offer you cases in various designs. From low-priced plastic weight cases to aluminium protected weight cases to classic, high-quality wooden weight cases.

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 box	
		KERN	KERN	KERN	KERN	KERN	KERN	KERN
1 g	0,03	316-01 36,-	317-01 52,-	317-020-400 4,-	317-010-600 14,-	317-010-100 26,-	962-331	30,-
2 g	0,04	316-02 36,-	317-02 53,-	317-020-400 4,-	317-020-600 14,-	317-020-100 26,-	962-332	30,-
5 g	0,05	316-03 37,-	317-03 56,-	317-030-400 4,-	317-030-600 14,-	317-030-100 26,-	962-333	30,-
10 g	0,06	316-04 38,-	317-04 60,-	317-040-400 4,-	317-040-600 14,-			30,-
20 g	0,08	316-05 43,-	317-05 68,-	317-050-400 4,-				
		316-06 46,-	317-06 73,-	317-060-400 4,-				

1	2	3	4
Weight	Knob shape in plastic case	Knob shape in aluminium protected case	Knob shape in wooden case
	KERN	KERN	KERN
1 mg - 500 mg	338-22 143,-	338-226 183,-	962-450 110,-
1 mg - 50 g	333-024 345,-	333-026 365,-	333-02 370,-
1 mg - 100 g	333-034 385,-	333-036 400,-	333-03 405,-
1 mg - 200 g	333-044 450,-	333-046 465,-	333-04 470,-
1 mg - 500 g	333-054 510,-	333-056 530,-	333-05 540,-
1 mg - 1 kg	333-064 630,-	333-066 650,-	333-06 660,-
1 mg - 2 kg	333-074 890,-	333-076 910,-	333-07 920,-

Selection of the appropriate test weight for your balance

A balance can never be more accurate than the test weight that is 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 more precise.**

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 196.

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 or KERN-No 327-12, see page 203.

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 finely turned to polished stainless steel – the right test weight for every situation

Test weight					
Features	→ 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
Conforms to OIML:R111	yes	yes	yes	yes	yes
Available classes	E1, E2	E2	F1	F1	F2, M1
Upper surface	polished	polished	polished	polished	finely turned
Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Adjusting cavity	no	no	yes	yes, from 50 g, readjustment can only be carried out by KERN	yes, from 20 g
Marking (Milligram weights, generally none)	none	none	Nominal value, etched	Nominal value, etched	F2: Class + nominal value, etched; M1: Class + nominal value, adopted
Verification possible	yes (E2)	yes	yes	no	yes (M1)
Checking equipment for verification purposes	approved (E2)	approved	approved	approved	approved (M1)
Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)	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

Composition table, valid for all KERN test 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					
	mg												g					kg				
1 mg–500 mg	∑ = 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 Métrologie Légale) has established the exact metrological requirements for weights in verified applications in approx. 100 states all over the world.

The OIML guideline 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*

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

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 case
(308-42)



Milligram weight
set in aluminium
protected case,
lined (308-426)



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



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



Wooden case, lined,
for weight sets, knob shape



Class E1 - Milligram weights, wire shape

Test weight material: stainless steel

Weight	Tol +/- mg	Milligram weight, wire shape		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 mg	0,003	308-31	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-251	67,-
2 mg	0,003	308-32	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-252	67,-
5 mg	0,003	308-33	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-253	67,-
10 mg	0,003	308-34	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-254	67,-
20 mg	0,003	308-35	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-255	67,-
50 mg	0,004	308-36	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-256	67,-
100 mg	0,005	308-37	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-257	67,-
200 mg	0,006	308-38	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-258	67,-
500 mg	0,008	308-39	101,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-259	67,-

Class E1 - Individual weights, knob shape

Test weight material: stainless steel polished

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	€	KERN	€
1 g	0,010	307-01	104,-	317-020-400	4,80	317-010-600	14,-	317-010-100	30,-	963-231	245,-	962-231 R	77,-
2 g	0,012	307-02	111,-	317-020-400	4,80	317-020-600	17,-	317-020-100	30,-	963-232	245,-	962-232 R	77,-
5 g	0,016	307-03	119,-	317-030-400	4,80	317-030-600	15,-	317-030-100	32,-	963-233	245,-	962-233 R	77,-
10 g	0,020	307-04	128,-	317-040-400	4,80	317-040-600	15,-	317-040-100	30,-	963-234	245,-	962-234 R	77,-
20 g	0,025	307-05	135,-	317-050-400	4,80	317-050-600	15,-	317-050-100	31,-	963-335	245,-	962-235 R	77,-
50 g	0,030	307-06	155,-	317-060-400	6,10	317-060-600	14,-	317-060-100	32,-	963-236	245,-	962-236 R	77,-
100 g	0,050	307-07	200,-	317-070-400	8,-	317-070-600	14,-	317-070-100	35,-	963-237	245,-	962-237 R	77,-
200 g	0,100	307-08	245,-	317-080-400	7,70	317-080-600	14,-	317-080-100	36,-	963-238	245,-	962-238 R	77,-
500 g	0,250	307-09	325,-	317-090-400	8,60	317-090-600	19,-	317-090-100	46,-	963-239	245,-	962-239 R	77,-
1 kg	0,500	307-11	510,-	317-110-400	10,-	317-110-600	27,-	317-110-100	68,-	963-241	245,-	962-241 R	77,-
2 kg	1,000	307-12	720,-	317-120-400	13,-	317-120-600	32,-	317-120-100	69,-	963-242	550,-	962-242 R	95,-
5 kg	2,500	307-13	1210,-	317-130-400	27,-	317-130-600	53,-	317-130-100	101,-	963-243	550,-	962-243 R	95,-
10 kg	5,000	307-14	1910,-	317-140-400	25,-	317-140-600	75,-	317-140-100	122,-	963-244	550,-	962-244 R	95,-
20 kg	10,000	307-15	4280,-	-	-	317-150-600	105,-	317-150-100	630,-	963-245	1280,-	962-245 R	720,-
50 kg	25,000	307-16	8190,-	-	-	317-160-600	305,-	317-160-100	880,-	963-246	1500,-	962-246 R	800,-

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

Class E1 - Weight sets, knob shape

Test weight material: stainless steel polished

Weight set	Knob shape in plastic case		Knob shape in aluminium protected case		Knob shape in wooden case		DAkkS certificate Initial calibration*		DAkkS certificate Recalibration	
	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 mg - 500 mg	308-42	1200,-	308-426	1200,-			962-250	435,-	962-250 R	465,-
1 mg - 50 g	303-024	1860,-	303-026	1760,-	303-02	1890,-	963-201	1400,-	962-201 R	820,-
1 mg - 100 g	303-034	1950,-	303-036	1910,-	303-03	1960,-	963-202	1520,-	962-202 R	850,-
1 mg - 200 g	303-044	2250,-	303-046	2270,-	303-04	2300,-	963-203	1750,-	962-203 R	930,-
1 mg - 500 g	303-054	2590,-	303-056	2610,-	303-05	2650,-	963-204	1860,-	962-204 R	970,-
1 mg - 1 kg	303-064	3240,-	303-066	3340,-	303-06	3200,-	963-205	1980,-	962-205 R	1050,-
1 mg - 2 kg	303-074	4590,-	303-076	4570,-	303-07	4680,-	963-206	2580,-	962-206 R	1110,-
1 mg - 5 kg	303-084	5850,-	303-086	5890,-	303-08	6060,-	963-207	2890,-	962-207 R	1160,-
1 mg - 10 kg	-	-	303-096	7920,-	303-09	8070,-	963-208	3290,-	962-208 R	1200,-
1 g - 50 g	304-024	940,-	304-026	970,-	304-02	1000,-	963-215	1010,-	962-215 R	365,-
1 g - 100 g	304-034	1120,-	304-036	1140,-	304-03	1180,-	963-216	1100,-	962-216 R	395,-
1 g - 200 g	304-044	1560,-	304-046	1590,-	304-04	1620,-	963-217	1340,-	962-217 R	475,-
1 g - 500 g	304-054	1890,-	304-056	1910,-	304-05	1940,-	963-218	1460,-	962-218 R	520,-
1 g - 1 kg	304-064	2320,-	304-066	2340,-	304-06	2400,-	963-219	1600,-	962-219 R	560,-
1 g - 2 kg	304-074	3750,-	304-076	3770,-	304-07	3830,-	963-220	2240,-	962-220 R	640,-
1 g - 5 kg	304-084	4900,-	304-086	4920,-	304-08	5030,-	963-221	2620,-	962-221 R	660,-
1 g - 10 kg	-	-	304-096	6810,-	304-09	6940,-	963-222	3060,-	962-222 R	720,-

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 case
(318-22)



Milligram weight
set in aluminium
protected case,
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: stainless steel

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	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-351	33,-
2 mg	0,006	318-02	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-352	33,-
5 mg	0,006	318-03	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-353	33,-
10 mg	0,008	318-04	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-354	33,-
20 mg	0,010	318-05	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-355	33,-
50 mg	0,012	318-06	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-356	33,-
100 mg	0,016	318-07	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-357	33,-
200 mg	0,020	318-08	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-358	33,-
500 mg	0,025	318-09	29,-	347-009-400	3,-	317-009-600	14,-	338-090-200	34,-	962-359	33,-

Class E2 - Individual weights, compact shape or knob shape

Test weight material: stainless steel polished

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	41,-	317-01	59,-	317-020-400	4,80	317-010-600	14,-	317-010-100	30,-	962-331	33,-
2 g	0,04	316-02	41,-	317-02	60,-	317-020-400	4,80	317-020-600	17,-	317-020-100	30,-	962-332	33,-
5 g	0,05	316-03	43,-	317-03	63,-	317-030-400	4,80	317-030-600	15,-	317-030-100	32,-	962-333	33,-
10 g	0,06	316-04	44,-	317-04	67,-	317-040-400	4,80	317-040-600	15,-	317-040-100	30,-	962-334	33,-
20 g	0,08	316-05	47,-	317-05	76,-	317-050-400	4,80	317-050-600	15,-	317-050-100	31,-	962-335	33,-
50 g	0,10	316-06	53,-	317-06	80,-	317-060-400	6,10	317-060-600	14,-	317-060-100	32,-	962-336	33,-
100 g	0,16	316-07	59,-	317-07	88,-	317-070-400	8,-	317-070-600	14,-	317-070-100	35,-	962-337	41,-
200 g	0,30	316-08	69,-	317-08	114,-	317-080-400	7,70	317-080-600	14,-	317-080-100	36,-	962-338	41,-
500 g	0,80	316-09	103,-	317-09	193,-	317-090-400	8,60	317-090-600	19,-	317-090-100	46,-	962-339	41,-
1 kg	1,60	316-11	151,-	317-11	285,-	317-110-400	10,-	317-110-600	27,-	317-110-100	68,-	962-341	41,-
2 kg	3,00	316-12	260,-	317-12	440,-	317-120-400	13,-	317-120-600	32,-	317-120-100	69,-	962-342	50,-
5 kg	8,00	316-13	430,-	317-13	630,-	317-130-400	27,-	317-130-600	53,-	317-130-100	101,-	962-343	50,-
10 kg	16,00	316-14	700,-	317-14	940,-	317-140-400	25,-	317-140-600	75,-	317-140-100	122,-	962-344	50,-
20 kg	30,00	-	-	317-15	2330,-	-	-	317-150-600	105,-	317-150-100	630,-	962-345	65,-
50 kg	80,00	-	-	317-16	4810,-	-	-	317-160-600	305,-	317-160-100	880,-	962-346	75,-

Class E2 - Weight sets, compact shape

Test weight material: Milligram weights stainless steel, individual weights: polished stainless steel

Weight sets	Compact shape in plastic case		Compact shape in aluminium protected case		DAkkS certificate	
	KERN	€	KERN	€	KERN	€
1 g - 50 g	312-024	465,-	312-026	440,-	962-315	152,-
1 g - 100 g	312-034	520,-	312-036	500,-	962-316	182,-
1 g - 200 g	312-044	650,-	312-046	630,-	962-317	240,-
1 g - 500 g	312-054	750,-	312-056	730,-	962-318	275,-
1 g - 1 kg	312-064	970,-	312-066	970,-	962-319	305,-
1 g - 2 kg	312-074	1350,-	312-076	1400,-	962-320	375,-
1 g - 5 kg	312-084	1790,-	312-086	1870,-	962-321	425,-
1 g - 10 kg	-	-	312-096	2510,-	962-322	460,-

Note

Our highly-accurate OIML test weights are also available as **PREMIUM+** weights for that extra level of safety. See all details page 194 or on www.kern-lab.com/premium+

Class E2 - Weight sets, knob shape

Test weight material: Milligram weights stainless steel, individual weights: polished stainless steel

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	318-22	370,-	318-226	430,-			962-350	225,-
1 mg - 50 g	313-024	930,-	313-026	950,-	313-02	970,-	962-301	370,-
1 mg - 100 g	313-034	1010,-	313-036	1030,-	313-03	1060,-	962-302	400,-
1 mg - 200 g	313-044	1220,-	313-046	1250,-	313-04	1270,-	962-303	465,-
1 mg - 500 g	313-054	1360,-	313-056	1390,-	313-05	1480,-	962-304	495,-
1 mg - 1 kg	313-064	1690,-	313-066	1730,-	313-06	1790,-	962-305	520,-
1 mg - 2 kg	313-074	2560,-	313-076	2620,-	313-07	2650,-	962-306	580,-
1 mg - 5 kg	313-084	3220,-	313-086	3290,-	313-08	3410,-	962-307	620,-
1 mg - 10 kg	-	-	313-096	4400,-	313-09	4500,-	962-308	660,-
1 g - 50 g	314-024	610,-	314-026	640,-	314-02	650,-	962-315	152,-
1 g - 100 g	314-034	680,-	314-036	710,-	314-03	740,-	962-316	182,-
1 g - 200 g	314-044	870,-	314-046	900,-	314-04	940,-	962-317	240,-
1 g - 500 g	314-054	1070,-	314-056	1100,-	314-05	1160,-	962-318	275,-
1 g - 1 kg	314-064	1370,-	314-066	1400,-	314-06	1470,-	962-319	305,-
1 g - 2 kg	314-074	2250,-	314-076	2300,-	314-07	2340,-	962-320	375,-
1 g - 5 kg	314-084	2910,-	314-086	2980,-	314-08	3100,-	962-321	425,-
1 g - 10 kg	-	-	314-096	4060,-	314-09	4190,-	962-322	460,-

Note

Our highly-accurate OIML test weights are also available as **PREMIUM⁺** weights for that extra level of safety. See all details page 194 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 case
(328-22)



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



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



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



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

Class F1 · Milligram weights, flat polygonal sheet

Test weight material: stainless steel

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	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-451	21,-
2 mg	0,020	328-02	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-452	21,-
5 mg	0,020	328-03	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-453	21,-
10 mg	0,025	328-04	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-454	21,-
20 mg	0,03	328-05	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-455	21,-
50 mg	0,04	328-06	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-456	21,-
100 mg	0,05	328-07	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-457	21,-
200 mg	0,06	328-08	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-458	21,-
500 mg	0,08	328-09	15,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-459	21,-

Class F1 · Individual weights, ECO shape or knob shape

Test weight material: stainless steel polished

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	37,-	327-01	39,-	347-030-400	2,-	317-010-600	14,-	317-010-100	30,-	962-431	21,-
2 g	0,12	326-02	37,-	327-02	39,-	347-030-400	2,-	317-020-600	17,-	317-020-100	30,-	962-432	21,-
5 g	0,16	326-03	39,-	327-03	40,-	347-030-400	2,-	317-030-600	15,-	317-030-100	32,-	962-433	21,-
10 g	0,20	326-04	40,-	327-04	44,-	347-050-400	2,-	317-040-600	15,-	317-040-100	30,-	962-434	21,-
20 g	0,25	326-05	42,-	327-05	50,-	347-050-400	2,-	317-050-600	15,-	317-050-100	31,-	962-435	21,-
50 g	0,30	326-06	51,-	327-06	58,-	347-070-400	2,-	317-060-600	14,-	317-060-100	32,-	962-436	21,-
100 g	0,50	326-07	56,-	327-07	63,-	347-070-400	2,-	317-070-600	14,-	317-070-100	35,-	962-437	23,-
200 g	1,00	326-08	62,-	327-08	81,-	347-080-400	2,10	317-080-600	14,-	317-080-100	36,-	962-438	23,-
500 g	2,50	326-09	98,-	327-09	130,-	347-090-400	3,-	317-090-600	19,-	317-090-100	46,-	962-439	23,-
1 kg	5,00	326-11	130,-	327-11	164,-	347-110-400	3,80	317-110-600	27,-	317-110-100	68,-	962-441	23,-
2 kg	10	326-12	215,-	327-12	255,-	347-120-400	5,-	317-120-600	32,-	317-120-100	69,-	962-442	30,-
5 kg	25	326-13	340,-	327-13	405,-	347-130-400	11,-	317-130-600	53,-	317-130-100	101,-	962-443	30,-
10 kg	50	326-14	560,-	327-14	740,-	347-140-400	16,-	317-140-600	75,-	317-140-100	122,-	962-444	30,-
20 kg	100	-	-	327-15	1830,-	-	-	317-150-600	105,-	317-150-100	630,-	962-445	34,-
50 kg	250	-	-	327-16	3930,-	-	-	317-160-600	305,-	317-160-100	880,-	962-446	46,-

Class F1 · Block weights

Block weight material: stainless steel polished

Weight	Tol +/- mg	Block weight		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
5 kg	25	326-36	960,-	346-060-600	80,-	962-443	30,-
10 kg	50	326-37	1390,-	346-070-600	104,-	962-444	30,-
20 kg	100	326-38	1910,-	346-080-600	152,-	962-445	34,-
50 kg	250	326-39	4720,-	346-090-600	171,-	962-446	46,-

Class F1 · Test weights, stackable

Test weight material: stainless steel polished

Weight	Tol +/- mg	Test weight		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
10 kg	50	327-141	1370,-	337-141-100	340,-	962-444	30,-
20 kg	100	327-151	1700,-	337-151-100	370,-	962-445	34,-
50 kg	250	327-161	3880,-	337-161-100	570,-	962-446	46,-

Class F1 - Weight sets, ECO shape

Test weight material: Milligram weights stainless steel, Individual weights: polished stainless steel

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	194,-	328-226	255,-	-	-	962-450	118,-
1 mg - 50 g	325-024	550,-	325-026	560,-	325-022	600,-	962-401	197,-
1 mg - 100 g	325-034	600,-	325-036	620,-	325-032	650,-	962-402	210,-
1 mg - 200 g	325-044	690,-	325-046	710,-	325-042	740,-	962-403	235,-
1 mg - 500 g	325-054	790,-	325-056	810,-	325-052	910,-	962-404	245,-
1 mg - 1 kg	325-064	1010,-	325-066	1020,-	325-062	1060,-	962-405	255,-
1 mg - 2 kg	325-074	1300,-	325-076	1320,-	325-072	1370,-	962-406	295,-
1 mg - 5 kg	325-084	1580,-	325-086	1620,-	325-082	1780,-	962-407	310,-
1 mg - 10 kg	-	-	325-096	2340,-	325-092	2390,-	962-408	335,-
1 g - 50 g	326-024	375,-	326-026	390,-	326-022	440,-	962-415	79,-
1 g - 100 g	326-034	420,-	326-036	440,-	326-032	490,-	962-416	91,-
1 g - 200 g	326-044	520,-	326-046	540,-	326-042	600,-	962-417	116,-
1 g - 500 g	326-054	610,-	326-056	630,-	326-052	750,-	962-418	128,-
1 g - 1 kg	326-064	830,-	326-066	850,-	326-062	900,-	962-419	141,-
1 g - 2 kg	326-074	1110,-	326-076	1140,-	326-072	1220,-	962-420	177,-
1 g - 5 kg	326-084	1410,-	326-086	1430,-	326-082	1630,-	962-421	196,-
1 g - 10 kg	-	-	326-096	2070,-	326-092	2240,-	962-422	215,-

Class F1 - Weight sets, knob shape

Test weight material: Milligram weights stainless steel, Individual weights: polished stainless steel

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	194,-	328-226	255,-	-	-	962-450	118,-
1 mg - 50 g	323-024	610,-	323-026	600,-	323-02	640,-	962-401	197,-
1 mg - 100 g	323-034	670,-	323-036	660,-	323-03	700,-	962-402	210,-
1 mg - 200 g	323-044	820,-	323-046	800,-	323-04	880,-	962-403	235,-
1 mg - 500 g	323-054	970,-	323-056	940,-	323-05	1090,-	962-404	245,-
1 mg - 1 kg	323-064	1240,-	323-066	1180,-	323-06	1230,-	962-405	255,-
1 mg - 2 kg	323-074	1640,-	323-076	1590,-	323-07	1730,-	962-406	295,-
1 mg - 5 kg	323-084	2020,-	323-086	1960,-	323-08	2200,-	962-407	310,-
1 mg - 10 kg	-	-	323-096	2790,-	323-09	3040,-	962-408	335,-
1 g - 50 g	324-024	430,-	324-026	420,-	324-02	480,-	962-415	79,-
1 g - 100 g	324-034	490,-	324-036	485,-	324-03	560,-	962-416	91,-
1 g - 200 g	324-044	650,-	324-046	640,-	324-04	720,-	962-417	116,-
1 g - 500 g	324-054	780,-	324-056	770,-	324-05	880,-	962-418	128,-
1 g - 1 kg	324-064	1060,-	324-066	1020,-	324-06	1070,-	962-419	141,-
1 g - 2 kg	324-074	1460,-	324-076	1420,-	324-07	1570,-	962-420	177,-
1 g - 5 kg	324-084	1840,-	324-086	1840,-	324-08	2040,-	962-421	196,-
1 g - 10 kg	-	-	324-096	2650,-	324-09	2870,-	962-422	215,-

Test Weights and Boxes

Class F2



Milligram weights,
flat polygonal 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 case
(338-22)



Milligram weight
set in aluminium
protected case,
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




Class F2 - Milligram weights, flat polygonal sheet

Test weight material: stainless steel

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	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-451	21,-
2 mg	0,06	338-02	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-452	21,-
5 mg	0,06	338-03	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-453	21,-
10 mg	0,08	338-04	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-454	21,-
20 mg	0,10	338-05	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-455	21,-
50 mg	0,12	338-06	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-456	21,-
100 mg	0,16	338-07	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-457	21,-
200 mg	0,20	338-08	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-458	21,-
500 mg	0,25	338-09	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-459	21,-


Class F2 - Individual weights, knob shape

Test weight material: 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	23,-	347-030-400	2,-	317-010-600	14,-	337-010-200	21,-	962-431	21,-
2 g	0,4	337-02	24,-	347-030-400	2,-	317-020-600	17,-	337-020-200	17,-	962-432	21,-
5 g	0,5	337-03	26,-	347-030-400	2,-	317-030-600	15,-	337-030-200	18,-	962-433	21,-
10 g	0,6	337-04	28,-	347-050-400	2,-	317-040-600	15,-	337-040-200	18,-	962-434	21,-
20 g	0,8	337-05	29,-	347-050-400	2,-	317-050-600	15,-	337-050-200	18,-	962-435	21,-
50 g	1,0	337-06	32,-	347-070-400	2,-	317-060-600	14,-	337-060-200	20,-	962-436	21,-
100 g	1,6	337-07	36,-	347-070-400	2,-	317-070-600	14,-	337-070-200	24,-	962-437	23,-
200 g	3,0	337-08	48,-	347-080-400	2,10	317-080-600	14,-	337-080-200	25,-	962-438	23,-
500 g	8,0	337-09	71,-	347-090-400	3,-	317-090-600	19,-	337-090-200	29,-	962-439	23,-
1 kg	16	337-11	93,-	347-110-400	3,80	317-110-600	27,-	337-110-200	43,-	962-441	23,-
2 kg	30	337-12	147,-	347-120-400	5,-	317-120-600	32,-	337-120-200	47,-	962-442	30,-
5 kg	80	337-13	265,-	347-130-400	11,-	317-130-600	53,-	337-130-200	92,-	962-443	30,-
10 kg	160	337-14	510,-	347-140-400	16,-	317-140-600	75,-	337-140-200	93,-	962-444	30,-
20 kg	300	337-15	770,-	-	-	317-150-600	105,-	337-150-200	390,-	962-445	34,-
50 kg	800	337-16	1520,-	-	-	317-160-600	305,-	337-160-200	610,-	962-446	46,-


Class F2 - Test weights, stackable

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Test weight		Wooden box		DAkkS certificate	
		KERN	€	KERN 	€	KERN	€
10 kg	160	337-141	650,-	337-141-200	360,-	962-444	30,-
20 kg	300	337-151	830,-	337-151-200	390,-	962-445	34,-
50 kg	800	337-161	2130,-	337-161-200	610,-	962-446	46,-




Class F2 - Block weights

Block weight material: stainless steel glass bead blasted

Weight	Tol +/- mg	Block weight		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN 	€	KERN	€
5 kg	80	336-36	550,-	346-060-600	80,-	962-443	30,-
10 kg	160	336-37	820,-	346-070-600	104,-	962-444	30,-
20 kg	300	336-38	1120,-	346-080-600	152,-	962-445	34,-
50 kg	800	336-39	2300,-	346-090-600	171,-	962-446	46,-

Class F2 · Weight sets, knob shape

Test weight material: Milligram weights stainless steel, individual weights finely turned stainless steel

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	159,-	338-226	200,-	-	-	962-450	118,-
1 mg - 50 g	333-024	390,-	333-026	410,-	333-02	410,-	962-401	197,-
1 mg - 100 g	333-034	435,-	333-036	450,-	333-03	455,-	962-402	210,-
1 mg - 200 g	333-044	510,-	333-046	520,-	333-04	520,-	962-403	235,-
1 mg - 500 g	333-054	580,-	333-056	600,-	333-05	610,-	962-404	245,-
1 mg - 1 kg	333-064	730,-	333-066	750,-	333-06	760,-	962-405	255,-
1 mg - 2 kg	333-074	1030,-	333-076	1050,-	333-07	1060,-	962-406	295,-
1 mg - 5 kg	333-084	1310,-	333-086	1420,-	333-08	1420,-	962-407	310,-
1 mg - 10 kg	-	-	333-096	2060,-	333-09	1980,-	962-408	335,-
1 g - 50 g	334-024	255,-	334-026	275,-	334-02	270,-	962-415	79,-
1 g - 100 g	334-034	300,-	334-036	315,-	334-03	320,-	962-416	91,-
1 g - 200 g	334-044	395,-	334-046	415,-	334-04	415,-	962-417	116,-
1 g - 500 g	334-054	470,-	334-056	490,-	334-05	490,-	962-418	128,-
1 g - 1 kg	334-064	610,-	334-066	620,-	334-06	630,-	962-419	141,-
1 g - 2 kg	334-074	890,-	334-076	940,-	334-07	940,-	962-420	177,-
1 g - 5 kg	334-084	1150,-	334-086	1300,-	334-08	1290,-	962-421	196,-
1 g - 10 kg	-	-	334-096	1750,-	334-09	1810,-	962-422	215,-

Test Weights and Boxes

Class M1



Milligram weights,
flat polygonal sheet



Individual weights/weight sets,
knob shape, finely turned
stainless steel



Hook weights, finely turned
stainless steel



Slotted weights, finely turned
stainless steel



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 case
(348-22)



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



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



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



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



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



Beam bars, aluminium or
stainless steel






Block weights, lacquered cast iron/stainless steel glass bead blasted,
optional: Aluminium protected box, lined






Class M1 · Milligram weights, flat polygonal sheet

Test weight material: stainless steel

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	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-651	17,-
2 mg	0,20	348-02	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-652	17,-
5 mg	0,20	348-03	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-653	17,-
10 mg	0,25	348-04	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-654	17,-
20 mg	0,30	348-05	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-655	17,-
50 mg	0,40	348-06	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-656	17,-
100 mg	0,50	348-07	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-657	17,-
200 mg	0,60	348-08	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-658	17,-
500 mg	0,80	348-09	5,10	347-009-400	2,-	317-009-600	14,-	338-090-200	34,-	962-659	17,-


Class M1 · Individual weights, knob shape

Test weights material: stainless steel

Weight	Tol +/- mg	Individual weight		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 g	1,0	347-01	8,40	347-030-400	2,-	317-010-600	14,-	337-010-200	21,-	962-631	17,-
2 g	1,2	347-02	8,80	347-030-400	2,-	317-020-600	17,-	337-020-200	17,-	962-632	17,-
5 g	1,6	347-03	8,90	347-030-400	2,-	317-030-600	15,-	337-030-200	18,-	962-633	17,-
10 g	2,0	347-04	9,60	347-050-400	2,-	317-040-600	15,-	337-040-200	18,-	962-634	17,-
20 g	2,5	347-05	15,-	347-050-400	2,-	317-050-600	15,-	337-050-200	18,-	962-635	17,-
50 g	3,0	347-06	16,-	347-070-400	2,-	317-060-600	14,-	337-060-200	20,-	962-636	17,-
100 g	5,0	347-07	19,-	347-070-400	2,-	317-070-600	14,-	337-070-200	24,-	962-637	19,-
200 g	10	347-08	24,-	347-080-400	2,10	317-080-600	14,-	337-080-200	25,-	962-638	19,-
500 g	25	347-09	37,-	347-090-400	3,-	317-090-600	19,-	337-090-200	29,-	962-639	19,-
1 kg	50	347-11	60,-	347-110-400	3,80	317-110-600	27,-	337-110-200	43,-	962-641	19,-
2 kg	100	347-12	100,-	347-120-400	5,-	317-120-600	32,-	337-120-200	47,-	962-642	19,-
5 kg	250	347-13	220,-	347-130-400	11,-	317-130-600	53,-	337-130-200	92,-	962-643	20,-
10 kg	500	347-14	420,-	347-140-400	16,-	317-140-600	75,-	337-140-200	93,-	962-644	20,-


Class M1 · Block weights

Block weight material: lacquered cast iron, surface and edges machined or unmachined (ECO)

Weight	Tol +/- g	Block weight		ECO Block weight		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN 	€	KERN	€
5 kg	0,25	346-86	72,-	346-76	61,-	346-060-600	80,-	962-643	20,-
10 kg	0,50	346-87	125,-	346-77	97,-	346-070-600	104,-	962-644	20,-
20 kg	1,00	346-88	235,-	346-78	179,-	346-080-600	152,-	962-645	25,-
50 kg	2,50	346-89	530,-	346-79	455,-	346-090-600	171,-	962-646	28,-


Class M1 · Block weights

Block weight material: stainless steel glass bead blasted

Weight	Tol +/- g	Block weight		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN 	€	KERN	€
5 kg	0,25	346-06	455,-	346-060-600	80,-	962-643	20,-
10 kg	0,50	346-07	590,-	346-070-600	104,-	962-644	20,-
20 kg	1,00	346-08	820,-	346-080-600	152,-	962-645	25,-
50 kg	2,50	346-09	2090,-	346-090-600	171,-	962-646	28,-

Class M1 · Test weights, stackable

Test weight material: finely turned stainless steel

Weight	Tol +/- g	Test weight		Wooden box		DAkkS certificate	
		KERN	€	KERN		€	KERN
10 kg	0,5	347-141	640,-	337-141-200	360,-	962-644	20,-
20 kg	1,0	347-151	810,-	337-151-200	390,-	962-645	25,-
50 kg	2,5	347-161	2050,-	337-161-200	610,-	962-646	28,-

Class M1 · Heavy duty weights, stackable

Heavy duty weight material: lacquered cast iron

Designed to be lifted with forklift trucks or cranes, delivery time is approx. 6-8 weeks

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




Weight	Tol +/- g	Heavy duty weight		DAkkS certificate	
		KERN	€	KERN	€
100 kg	5	346-81	1920,-	962-691	74,-
200 kg	10	346-82	2930,-	962-692	74,-
500 kg	25	346-83	5310,-	962-693	74,-
1000 kg	50	346-84	7550,-	962-694	161,-
2000 kg	100	346-85	14000,-	962-695	295,-

Note

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

Class M1 · Weight sets, knob shape

Test weight material: Milligram weights stainless steel, individual weights finely turned stainless steel

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	348-22	95,-	348-226	159,-	-	-	962-650	74,-
1 mg - 50 g	343-024	285,-	343-026	245,-	343-02	225,-	962-601	125,-
1 mg - 100 g	343-034	305,-	343-036	265,-	343-03	245,-	962-602	131,-
1 mg - 200 g	343-044	350,-	343-046	315,-	343-04	295,-	962-603	148,-
1 mg - 500 g	343-054	390,-	343-056	350,-	343-05	375,-	962-604	154,-
1 mg - 1 kg	343-064	550,-	343-066	450,-	343-06	550,-	962-605	162,-
1 mg - 2 kg	343-074	730,-	343-076	680,-	343-07	740,-	962-606	178,-
1 mg - 5 kg	343-084	920,-	343-086	920,-	343-08	1040,-	962-607	189,-
1 mg - 10 kg	-	-	343-096	1350,-	343-09	1480,-	962-608	197,-
1 g - 50 g	344-024	198,-	344-026	172,-	344-02	153,-	962-615	49,-
1 g - 100 g	344-034	215,-	344-036	191,-	344-03	176,-	962-616	58,-
1 g - 200 g	344-044	265,-	344-046	240,-	344-04	220,-	962-617	71,-
1 g - 500 g	344-054	305,-	344-056	280,-	344-05	295,-	962-618	80,-
1 g - 1 kg	344-064	460,-	344-066	375,-	344-06	435,-	962-619	87,-
1 g - 2 kg	344-074	650,-	344-076	610,-	344-07	640,-	962-620	105,-
1 g - 5 kg	344-084	840,-	344-086	860,-	344-08	930,-	962-621	113,-
1 g - 10 kg	-	-	344-096	1300,-	344-09	1310,-	962-622	122,-

Class M1 · Hook weights

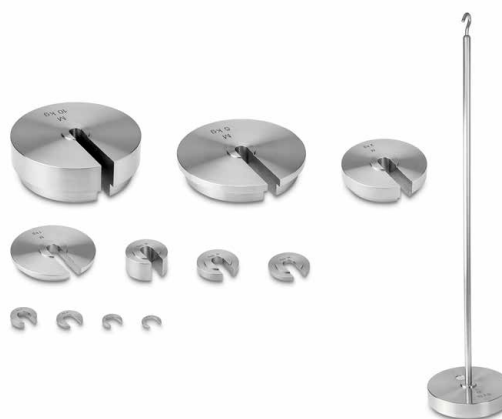
Hook weight material: finely turned stainless steel

Weight	Tol +/- mg	Hook weight		Plastic box, lined		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
1 g	1,0	347-016	26,-	347-030-400	2,-	962-631	17,-
2 g	1,2	347-026	26,-	347-030-400	2,-	962-632	17,-
5 g	1,6	347-036	27,-	347-030-400	2,-	962-633	17,-
10 g	2,0	347-046	27,-	347-050-400	2,-	962-634	17,-
20 g	2,5	347-056	28,-	347-050-400	2,-	962-635	17,-
50 g	3,0	347-066	33,-	347-070-400	2,-	962-636	17,-
100 g	5,0	347-076	37,-	347-090-400	3,-	962-637	19,-
200 g	10,0	347-086	46,-	347-090-400	3,-	962-638	19,-
500 g	25,0	347-096	80,-	347-110-400	3,80	962-639	19,-
1 kg	50,0	347-116	103,-	347-120-400	5,-	962-641	19,-
2 kg	100,0	347-126	168,-	347-130-400	11,-	962-642	20,-
5 kg	250,0	347-136	295,-	347-140-400	16,-	962-643	20,-
10 kg	500,0	347-146	485,-	-	-	962-644	20,-

Class M1 · Slotted weights

Slotted weight material: finely turned stainless steel (only compatible with the 347-...7-100 series supporting bars)

Weight	Tol +/- mg	Slotted weight		DAkkS certificate	
		KERN	€	KERN	€
5 g	1,6	347-037 <small>NEW</small>	27,-	962-633	17,-
10 g	2,0	347-047 <small>NEW</small>	29,-	962-634	17,-
20 g	2,5	347-057 <small>NEW</small>	31,-	962-635	17,-
50 g	3,0	347-067 <small>NEW</small>	36,-	962-636	17,-
100 g	5,0	347-077 <small>NEW</small>	63,-	962-637	19,-
200 g	10	347-087 <small>NEW</small>	70,-	962-638	19,-
500 g	25	347-097 <small>NEW</small>	79,-	962-639	19,-
1 kg	50	347-117 <small>NEW</small>	170,-	962-641	19,-
2 kg	100	347-127 <small>NEW</small>	200,-	962-642	20,-
5 kg	250	347-137 <small>NEW</small>	385,-	962-643	20,-
10 kg	500	347-147 <small>NEW</small>	480,-	962-644	20,-



Class M1 · Beam bars, for fixing slotted weights

Beam bars material: 10 g: aluminium, 100 g-1 kg: finely turned stainless steel (only compatible with the 347-...7 series supporting bars)

Own weight beam bar	Maximum total load ⁽¹⁾	Largest slotted weight possible	Material	Length	Tol +/- mg	Beam bar		DAkkS certificate	
						KERN	€	KERN	€
1 kg	161 kg	10 kg	Stainless steel	300 mm	50	347-117-100 <small>NEW</small>	35,-	962-641	19,-
5 kg	125 kg	10 kg	Stainless steel	600 mm	250	347-137-100 <small>NEW</small>	405,-	962-643	20,-
10 kg	180 kg	10 kg	Stainless steel	800 mm	500	347-147-100 <small>NEW</small>	530,-	962-644	20,-

⁽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 exact location of use of the newton weights (street, postcode, city and country).

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

Class M1 · Slotted weights

Slotted weight material: finely turned stainless steel

Weight	Tol +/- mg	Slotted weight		Plastic box, lined		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
1 g	1,0	347-015	28,-	347-030-400	2,-	962-631	17,-
2 g	1,2	347-025	28,-	347-030-400	2,-	962-632	17,-
5 g	1,6	347-035	30,-	347-030-400	2,-	962-633	17,-
10 g	2,0	347-045	33,-	347-030-400	2,-	962-634	17,-
20 g	2,5	347-055	35,-	347-080-400	2,10	962-635	17,-
50 g	3,0	347-065	37,-	347-080-400	2,10	962-636	17,-
100 g	5,0	347-075	43,-	347-090-400	3,-	962-637	19,-
200 g	10	347-085	53,-	347-090-400	3,-	962-638	19,-
500 g	25	347-095	73,-	347-110-400	3,80	962-639	19,-
1 kg	50	347-115	130,-	347-130-400	11,-	962-641	19,-
2 kg	100	347-125	161,-	347-130-400	11,-	962-642	20,-
5 kg	250	347-135	290,-	347-140-400	16,-	962-643	20,-
10 kg	500	347-145	430,-	347-140-400	16,-	962-644	20,-

Class M1 · Beam bars, for fixing slotted weights

Beam bars material: 10 g: aluminium, 100 g-1 kg: finely turned stainless steel

Own weight beam bar	Maximum total load ⁽¹⁾	Largest slotted weight possible	Material	Length	Beam bar		DAkkS certificate	
					KERN	€	KERN	€
10 g	200 g	100 g	Aluminium	117,5	347-445-100*	56,-	962-634	17,-
100 g	2 kg	1 kg	Stainless steel	238	347-075-100**	77,-	962-637	19,-
500 g	20 kg	10 kg	Stainless steel	639	347-095-100***	127,-	962-639	19,-
1 kg	40 kg	10 kg	Stainless steel	1020	347-115-100***	160,-	962-641	19,-

⁽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 exact location of use of the newton weights (street, postcode, city and country).

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, stainless steel



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



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






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



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


Class M2 · Individual weights, knob shape

Test weight material: 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	3	357-01	8,40	347-030-400	2,-	317-010-600	14,-	337-010-200	21,-	962-631	17,-
2 g	4	357-02	8,80	347-030-400	2,-	317-020-600	17,-	337-020-200	17,-	962-632	17,-
5 g	5	357-03	8,90	347-030-400	2,-	317-030-600	15,-	337-030-200	18,-	962-633	17,-
10 g	6	357-04	9,60	347-050-400	2,-	317-040-600	15,-	337-040-200	18,-	962-634	17,-
20 g	8	357-05	15,-	347-050-400	2,-	317-050-600	15,-	337-050-200	18,-	962-635	17,-
50 g	10	357-06	16,-	347-070-400	2,-	317-060-600	14,-	337-060-200	20,-	962-636	17,-
100 g	16	357-07	19,-	347-070-400	2,-	317-070-600	14,-	337-070-200	24,-	962-637	19,-
200 g	30	357-08	24,-	347-080-400	2,10	317-080-600	14,-	337-080-200	25,-	962-638	19,-
500 g	80	357-09	37,-	347-090-400	3,-	317-090-600	19,-	337-090-200	29,-	962-639	19,-
1 kg	160	357-11	60,-	347-110-400	3,80	317-110-600	27,-	337-110-200	43,-	962-641	19,-
2 kg	300	357-12	100,-	347-120-400	5,-	317-120-600	32,-	337-120-200	47,-	962-642	20,-
5 kg	800	357-13	220,-	347-130-400	11,-	317-130-600	53,-	337-130-200	92,-	962-643	20,-
10 kg	1600	357-14	420,-	347-140-400	16,-	317-140-600	75,-	337-140-200	93,-	962-644	20,-



Class M2 · Block weights

Block weight material: lacquered cast iron, surface and edges machined or unmachined (ECO)

Weight	Tol +/- g	Block weight		ECO block weight		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN 	€	KERN	€
5 kg	0,8	356-86	72,-	356-76	61,-	346-060-600	80,-	962-643	20,-
10 kg	1,6	356-87	125,-	356-77	97,-	346-070-600	104,-	962-644	20,-
20 kg	3,0	356-88	235,-	356-78	179,-	346-080-600	152,-	962-645	25,-
50 kg	8,0	356-89	530,-	356-79	455,-	346-090-600	171,-	962-646	28,-

Class M2 · Weight sets, knob shape

Test weight material: finely turned stainless steel

Weight	Knob shape, in aluminium protected case		Knob shape, in wooden case		DAkkS certificate	
	KERN 	€	KERN 	€	KERN	€
1 g – 50 g	354-026	172,-	354-02	153,-	962-615	49,-
1 g – 100 g	354-036	191,-	354-03	165,-	962-616	58,-
1 g – 200 g	354-046	240,-	354-04	220,-	962-617	71,-
1 g – 500 g	354-056	280,-	354-05	295,-	962-618	80,-
1 g – 1 kg	354-066	375,-	354-06	430,-	962-619	87,-
1 g – 2 kg	354-076	610,-	354-07	630,-	962-620	105,-
1 g – 5 kg	354-086	920,-	354-08	920,-	962-621	113,-
1 g – 10 kg	354-096	1450,-	354-09	1380,-	962-622	122,-

Class M3 · Individual weights, knob shape

Test weight material: 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	10	367-01	8,40	347-030-400	2,-	317-010-600	14,-	337-010-200	21,-	962-631	17,-
2 g	12	367-02	8,80	347-030-400	2,-	317-020-600	17,-	337-020-200	17,-	962-632	17,-
5 g	16	367-03	8,90	347-030-400	2,-	317-030-600	15,-	337-030-200	18,-	962-633	17,-
10 g	20	367-04	9,60	347-050-400	2,-	317-040-600	15,-	337-040-200	18,-	962-634	17,-
20 g	25	367-05	15,-	347-050-400	2,-	317-050-600	15,-	337-050-200	18,-	962-635	17,-
50 g	30	367-06	16,-	347-070-400	2,-	317-060-600	14,-	337-060-200	20,-	962-636	17,-
100 g	50	367-07	19,-	347-070-400	2,-	317-070-600	14,-	337-070-200	24,-	962-637	19,-
200 g	100	367-08	24,-	347-080-400	2,10	317-080-600	14,-	337-080-200	25,-	962-638	19,-
500 g	250	367-09	37,-	347-090-400	3,-	317-090-600	19,-	337-090-200	29,-	962-639	19,-
1 kg	500	367-11	60,-	347-110-400	3,80	317-110-600	27,-	337-110-200	43,-	962-641	19,-
2 kg	1000	367-12	100,-	347-120-400	5,-	317-120-600	32,-	337-120-200	47,-	962-642	20,-

Class M3 · Individual weights, knob and cylindrical shape

Test weight material: lacquered cast iron

Weight	Tol +/- g	Individual weight, knob and cylindrical shape		DAkkS certificate	
		KERN	€	KERN	€
100 g*	0,05	366-91	24,-	962-637	19,-
200 g*	0,10	366-92	28,-	962-638	19,-
500 g**	0,25	366-93	39,-	962-639	19,-
1 kg**	0,50	366-94	47,-	962-641	19,-
2 kg**	1,0	366-95	80,-	962-642	20,-
5 kg**	2,5	366-96	145,-	962-643	20,-
10 kg**	5,0	366-97	255,-	962-644	20,-



Class M3 · Block weights

Block weight material: lacquered cast iron, surface and edges machined or unmachined (ECO)

Weight	Tol +/- g	Block weight		ECO block weight		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€
5 kg	2,5	366-86	72,-	366-76	61,-	346-060-600	80,-	962-643	20,-
10 kg	5,0	366-87	125,-	366-77	97,-	346-070-600	104,-	962-644	20,-
20 kg	10	366-88	235,-	366-78	179,-	346-080-600	152,-	962-645	25,-
50 kg	25	366-89	530,-	366-79	455,-	346-090-600	171,-	962-646	28,-

Class M3 · Weight sets, knob and cylindrical shape

Test weight material: ≤ 50 g stainless steel, ≥ 100 g lacquered cast iron

Weight	Knob and cylindrical shape, in wooden block		DAkkS certificate	
	KERN	€	KERN	€
1 g - 1 kg	362-96	320,-	962-619	87,-
1 g - 2 kg	362-97	495,-	962-620	105,-
1 g - 5 kg	362-98	670,-	962-621	113,-
1 g - 10 kg	362-99	950,-	962-622	122,-



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	20,-
E1 - M3	500 g - 2 kg	250 mm	1 Stainless steel with silicone-coated tips	315-245	65,-
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	36,-
F2 - M3	1 mg - 200 g	100 mm	5 Stainless steel	335-240	18,-
E1 - M3	1 mg - 200 g	100 mm	6 Plastic	315-242	8,70

Weight grip

plastic coated

For class	For knob shaped weights	KERN	€
E1 - M3	2 kg	315-273	32,-
E1 - M3	5 kg	315-274	36,-
E1 - M3	10 kg	315-275	41,-
E1 - M3	20 kg	315-276	61,-



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.
Suitable for test weights up to 2 kg.

KERN	€
317-280	2,60



Gloves

Leather/cotton, 1 pair. Help to protect the test weights when being used daily, from grease from fingers, damp etc.
Ideal for test weights from 2 kg.

KERN	€
317-290	6,60



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.
Ideal for all test weights.

KERN	€
317-281	9,-



Dusting brush

to clean the weights

KERN	€
318-270	7,20



Bellows

for cleaning weights

KERN	€
318-271	9,60



Microfibre cloth

for cleaning weights

KERN	€
318-272	6,90

Boxes for individual weights



For weights ≤ 500 g,
OIML class E1 – F1

For weights ≥ 1 kg,
OIML class E1 – F1

Box material: Wood, lined, suitable for single weights, KERN No. 307, 316, 317, 326, 327



For weights ≤ 500 g,
OIML class F2 – M3

For weights ≥ 1 kg,
OIML class F2 – M3

Box material: Wood, not lined, suitable for single weights, KERN No. 337, 347, 357, 367

❗ not suitable for cast iron weights



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

Box material: Wood, lined/not lined, suitable for single weights, KERN No. 327, 337, 347

❗ not suitable for cast iron weights

Wooden box, lined

for single weights E1 – F1

For weights	KERN	€
-	-	-
1 g	317-010-100	30,-
2 g	317-020-100	30,-
5 g	317-030-100	32,-
10 g	317-040-100	30,-
20 g	317-050-100	31,-
50 g	317-060-100	32,-
100 g	317-070-100	35,-
200 g	317-080-100	36,-
500 g	317-090-100	46,-
1 kg	317-110-100	68,-
2 kg	317-120-100	69,-
5 kg	317-130-100	101,-
10 kg	317-140-100	122,-
20 kg	317-150-100	630,-
50 kg	317-160-100	880,-

Wooden box, not lined

for single weights F2 – M3

For weights	KERN	€
mg	338-090-200	34,-
1 g	337-010-200	21,-
2 g	337-020-200	17,-
5 g	337-030-200	18,-
10 g	337-040-200	18,-
20 g	337-050-200	18,-
50 g	337-060-200	20,-
100 g	337-070-200	24,-
200 g	337-080-200	25,-
500 g	337-090-200	29,-
1 kg	337-110-200	43,-
2 kg	337-120-200	47,-
5 kg	337-130-200	92,-
10 kg	337-140-200	93,-
20 kg	337-150-200	390,-
50 kg	337-160-200	610,-

Wooden box, not lined

for test weights F1 – M1

For weights	KERN	€
10 kg	337-141-200	360,-
20 kg	337-151-200	390,-
50 kg	337-161-200	610,-

Wooden box, lined

for test weights F1 – M1

For weights	KERN	€
10 kg	337-141-100	340,-
20 kg	337-151-100	370,-
50 kg	337-161-100	570,-



For weights ≤ 5 kg, OIML class E1 – M3

Box material: Aluminium protected, lined, suitable for mg and single weights, KERN No. 307, 308, 316, 317, 318, 326, 327, 328, 337, 338, 347, 348, 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	€
mg	317-009-600	14,-
1 g	317-010-600	14,-
2 g	317-020-600	17,-
5 g	317-030-600	15,-
10 g	317-040-600	15,-
20 g	317-050-600	15,-
50 g	317-060-600	14,-
100 g	317-070-600	14,-
200 g	317-080-600	14,-
500 g	317-090-600	19,-
1 kg	317-110-600	27,-
2 kg	317-120-600	32,-
5 kg	317-130-600	53,-



For weights ≤ 10 kg, OIML class E1 – M3

Box material: Aluminium protected, lined, suitable for single weights, KERN No. 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	75,-
20 kg	317-150-600	105,-
50 kg	317-160-600	305,-



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

Box material: Aluminium protected, lined, suitable for block weights, KERN No. 326, 336, 346, 356, 366

Aluminium protected box, lined

for individual weights F1 – M3

For weights	KERN	€
5 kg	346-060-600	80,-
10 kg	346-070-600	104,-
20 kg	346-080-600	152,-
50 kg	346-090-600	171,-

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 (class F1):

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


The correct individual box is **KERN No. 313-080-400** (plastic) or

KERN No. 315-070-100 (wood, lined)




Plastic case

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


Largest possible weight	KERN		€
≤ 500 g	313-050-400		166,-
≤ 5 kg	313-080-400		320,-

Wooden case

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

Largest possible weight	KERN		€
≤ 200 g	315-040-100		235,-
≤ 1 kg	315-060-100		350,-
≤ 2 kg	315-070-100		405,-
≤ 5 kg*	315-080-100		510,-
≤ 10 kg*	315-090-100		560,-

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		154,-
≤ 500 g	335-050-200		154,-
≤ 1 kg	335-060-200		215,-
≤ 2 kg	335-070-200		225,-
≤ 5 kg*	335-080-200		340,-
≤ 10 kg*	335-090-200		330,-

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		102,-
≤ 5 kg	313-082-400		205,-

Aluminium protected case

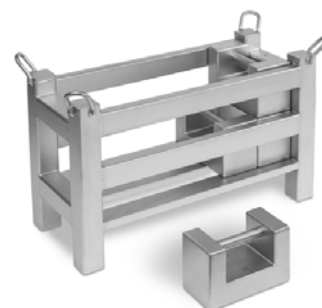
for weight sets with standard denomination classes E1 – M2
*no handle **1 front handle ***2 side handles

For weights	For class	KERN		€
1 mg - 500 mg	E1 - M1	313-010-600*		92,-
1 mg - 50 g	E1 - M1	313-020-600*		94,-
1 mg - 100 g	E1 - M1	313-030-600*		103,-
1 mg - 200 g	E1 - M1	313-040-600*		109,-
1 mg - 500 g	E1 - M1	313-050-600*		132,-
1 mg - 1 kg	E1 - M1	313-060-600*		161,-
1 mg - 2 kg	E1 - M1	313-070-600**		189,-
1 mg - 5 kg	E1 - M1	313-080-600***		250,-
1 mg - 10 kg	E1 - M1	313-090-600***		330,-
1 g - 50 g	E1 - M2	314-020-600*		89,-
1 g - 100 g	E1 - M2	314-030-600*		98,-
1 g - 200 g	E1 - M2	314-040-600*		104,-
1 g - 500 g	E1 - M2	314-050-600*		127,-
1 g - 1 kg	E1 - M2	314-060-600*		156,-
1 g - 2 kg	E1 - M2	314-070-600*		184,-
1 g - 5 kg	E1 - M2	314-080-600***		245,-
1 g - 10 kg	E1 - M2	314-090-600***		330,-

Weight containers for rectangular weights or other test weights, stainless steel glass bead blasted, 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	1610,-
40 kg	1,5	8 × 20 kg	200 kg	346-042-008	2070,-
50 kg	2,5	10 × 20 kg	250 kg	346-052-010	2070,-
50 kg	2,5	4 × 50 kg	250 kg	346-055-004	2070,-
50 kg	2,5	9 × 50 kg	500 kg	346-055-009	2070,-
60 kg	3,0	8 × 50 kg and 2 × 20 kg	500 kg	346-065-009	2250,-



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	1610,-
40 kg	2,0	max. 16 × 10 kg or 8 × 20 kg	200 kg	347-042-008	1890,-
50 kg	2,5	max. 20 × 10 kg or 10 × 20 kg	250 kg	347-052-010	2070,-
60 kg	3,0	max. 22 × 20 kg	500 kg	347-062-022	2250,-



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

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:

3 block weights	each 50 kg, class M1	=	150 kg
1 weight container	each 50 kg, class M1	=	50 kg
Total		=	200 kg

Weight of the weight container, OIML class M1	Price	
	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



Example illustration