

## TEST WEIGHTS & TEST WEIGHT ACCESSORIES

Test weights for scales and force gauges in all OIML error limit classes, accessories for test weights as well as DAkkS and factory calibration certificates

PROFESSIONAL MEASURING



# 175

KERN & SOHN

Balance manufacture in the Sauter family-owned company

# 250

# 2019

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- 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/EEC

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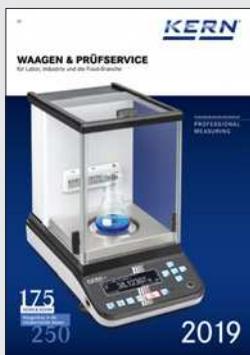
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[info@kern-sohn.com](mailto:info@kern-sohn.com)

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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.

## Sales conditions

- The prices are valid from 01.01.2019 – 31.12.2019. In Europe, all prices do not include the applicable V.A.T.
- Delivery conditions: We supply ex works from Balingen, i. e. the transport costs are invoiced separately. Delivery is usually via parcel service
- Sale or return: within 14 days of purchase
- You can find our full terms and conditions on the internet at [www.kern-sohn.com/en/kern/general\\_terms.html](http://www.kern-sohn.com/en/kern/general_terms.html)

We weigh almost everything ... and that's not all!



Balances & Test service catalogue



Medical scales catalogue



Microscopes & refractometers catalogue



SAUTER measuring equipment catalogue



DAkkS calibration service brochure

## 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.

## 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 4.

### 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 11.

### 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"> <li>• High-quality test weight for analytical and precision balances</li> <li>• Highly-refined surface</li> <li>• Ideal shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable test weight for analytical and precision balances</li> <li>• Highly refined surface</li> </ul>	<ul style="list-style-type: none"> <li>• Ideal, high-quality test weight for precision balances</li> <li>• no visible adjustment chamber</li> <li>• high long-term stability</li> <li>• Ideal shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable test weight for analytical and precision balances</li> <li>• Highly refined surface</li> <li>• Optimum shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>• Ideal test weight for commercial and industrial scales</li> <li>• Ideal shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable test weight for commercial and industrial scales</li> <li>• Ideal shape of the top for good grip</li> </ul>

**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.

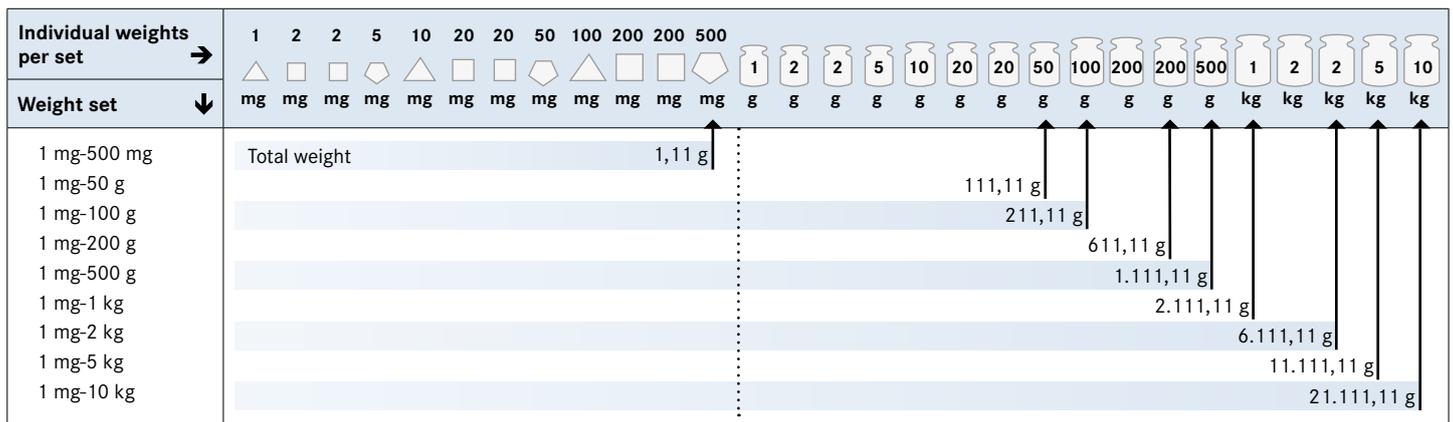
**Conventional mass**

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/m<sup>3</sup>, air density is 1.2 kg/m<sup>3</sup> and measuring temperature is 20 °C.

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

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

**Tip:** In addition to individual weights, we also offer complete sets of weights with which you can test your measuring equipment at several test points or several different scales.



## 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 box 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.

## 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.



## 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.

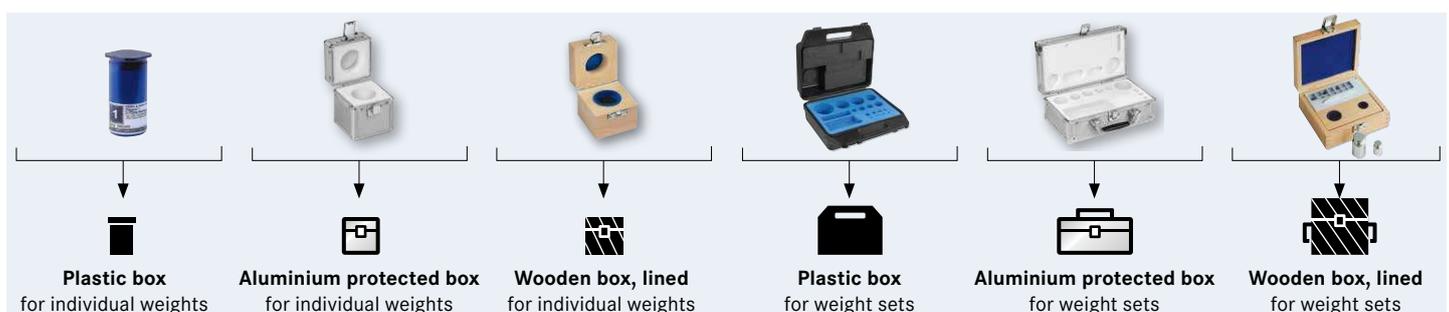
For all the details on this **PREMIUM+** service please see [www.kern-lab.com/premium+](http://www.kern-lab.com/premium+) or look at the weight you want in our online shop at [www.kern-sohn.com](http://www.kern-sohn.com)

## 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 boxes in various designs. From low-priced plastic boxes to aluminium protected boxes to classic, high-quality wooden boxes.
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,-		
5 g	0,05	316-03	35,-	317-03	51,-	317-030-400	4,50	317-030-600	14,-	317-030-100	26,-		

## Our KERN weight boxes 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.

# 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 box, lined, for weight  
sets, knob shape



Wooden box, 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,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-251	52,-
2 mg	0,003	308-32	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-252	52,-
5 mg	0,003	308-33	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-253	52,-
10 mg	0,003	308-34	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-254	52,-
20 mg	0,003	308-35	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-255	52,-
50 mg	0,004	308-36	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-256	52,-
100 mg	0,005	308-37	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-257	52,-
200 mg	0,006	308-38	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-258	52,-
500 mg	0,008	308-39	58,-	317-009-400	2,-	317-009-600	14,-	338-090-200	16,-	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	4,50	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	4,50	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	4,50	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	4,50	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	4,50	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	6,-	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	24,-	317-110-100	35,-	963-241	193,-	962-241 R	52,-
2 kg	1,000	307-12	630,-	317-120-400	12,-	317-120-600	27,-	317-120-100	44,-	963-242	465,-	962-242 R	64,-
5 kg	2,500	307-13	1060,-	317-130-400	16,-	317-130-600	47,-	317-130-100	66,-	963-243	465,-	962-243 R	64,-
10 kg	5,000	307-14	1530,-	317-140-400	20,-	317-140-600	65,-	317-140-100	89,-	963-244	465,-	962-244 R	64,-
20 kg	10,000	307-15	3900,-	-	-	317-150-600	205,-	317-150-100	340,-	963-245	1160,-	962-245 R	590,-
50 kg	25,000	307-16	7900,-	-	-	317-160-600	250,-	317-160-100	415,-	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 box      \*\* Aluminium protected box

Weight set	Knob shape in aluminium protected box		Knob shape in wooden box		DAkkS certificate Initial calibration*		DAkkS certificate Recalibration	
	KERN	€	KERN	€	KERN	€	KERN	€
1 mg - 500 mg	308-426**	810,-	308-42*	780,-	962-250	350,-	962-250 R	350,-
1 mg - 50 g	303-026	1530,-	303-02	1540,-	963-201	1070,-	962-201 R	560,-
1 mg - 100 g	303-036	1690,-	303-03	1700,-	963-202	1170,-	962-202 R	580,-
1 mg - 200 g	303-046	2080,-	303-04	2090,-	963-203	1350,-	962-203 R	630,-
1 mg - 500 g	303-056	2410,-	303-05	2420,-	963-204	1440,-	962-204 R	660,-
1 mg - 1 kg	303-066	2830,-	303-06	2840,-	963-205	1530,-	962-205 R	700,-
1 mg - 2 kg	303-076	4140,-	303-07	4150,-	963-206	2000,-	962-206 R	750,-
1 mg - 5 kg	303-086	5290,-	303-08	5300,-	963-207	2450,-	962-207 R	770,-
1 mg - 10 kg	303-096	6880,-	303-09	6890,-	963-208	2900,-	962-208 R	800,-
1 g - 50 g	304-026	900,-	304-02	910,-	963-215	770,-	962-215 R	245,-
1 g - 100 g	304-036	1060,-	304-03	1070,-	963-216	860,-	962-216 R	270,-
1 g - 200 g	304-046	1450,-	304-04	1460,-	963-217	1040,-	962-217 R	320,-
1 g - 500 g	304-056	1780,-	304-05	1790,-	963-218	1130,-	962-218 R	350,-
1 g - 1 kg	304-066	2200,-	304-06	2210,-	963-219	1230,-	962-219 R	375,-
1 g - 2 kg	304-076	3510,-	304-07	3520,-	963-220	1780,-	962-220 R	425,-
1 g - 5 kg	304-086	4660,-	304-08	4670,-	963-221	2230,-	962-221 R	450,-
1 g - 10 kg	304-096	6250,-	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  $\leq 50$  g



Plastic box, lined, for individual weights  $\geq 100$  g



Aluminium protected box, lined, for individual weights



Wooden box, lined, for individual weights  $\leq 500$  g



Wooden box, lined, for individual weights  $\geq 1$  kg



Milligram weight set in plastic box (318-22)



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



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



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



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

Test weights class E2

**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	16,-	962-351	26,-
2 mg	0,006	318-02	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-352	26,-
5 mg	0,006	318-03	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-353	26,-
10 mg	0,008	318-04	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-354	26,-
20 mg	0,010	318-05	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-355	26,-
50 mg	0,012	318-06	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-356	26,-
100 mg	0,016	318-07	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-357	26,-
200 mg	0,020	318-08	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-358	26,-
500 mg	0,025	318-09	23,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-359	26,-

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

Weight	Tol +/- mg	Individual weight, compact shape		Individual weight, 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	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	6,-	317-080-600	14,-	317-080-100	28,-	962-338	33,-
500 g	0,80	316-09	103,-	317-09	168,-	317-090-400	7,-	317-090-600	14,-	317-090-100	29,-	962-339	33,-
1 kg	1,60	316-11	149,-	317-11	245,-	317-110-400	8,-	317-110-600	24,-	317-110-100	35,-	962-341	33,-
2 kg	3,00	316-12	245,-	317-12	380,-	317-120-400	12,-	317-120-600	27,-	317-120-100	44,-	962-342	41,-
5 kg	8,00	316-13	360,-	317-13	550,-	317-130-400	16,-	317-130-600	47,-	317-130-100	66,-	962-343	41,-
10 kg	16,00	316-14	530,-	317-14	800,-	317-140-400	20,-	317-140-600	65,-	317-140-100	89,-	962-344	41,-
20 kg	30,00	-	-	317-15	1680,-	-	-	317-150-600	205,-	317-150-100	340,-	962-345	52,-
50 kg	80,00	-	-	317-16	3500,-	-	-	317-160-600	250,-	317-160-100	415,-	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 box      \*\*Aluminium protected box

Weight sets	Compact shape in plastic box		Knob shape in plastic box		Knob shape in aluminium protected box		Knob shape in wooden box		DAkkS certificate	
	KERN 	€	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 mg - 500 mg	318-22*	320,-	318-22*	320,-	318-226**	330,-	318-22*	320,-	962-350	190,-
1 mg - 50 g	-	-	313-024	790,-	313-026	830,-	313-02	840,-	962-301	315,-
1 mg - 100 g	-	-	313-034	880,-	313-036	900,-	313-03	910,-	962-302	340,-
1 mg - 200 g	-	-	313-044	1070,-	313-046	1110,-	313-04	1120,-	962-303	385,-
1 mg - 500 g	-	-	313-054	1230,-	313-056	1330,-	313-05	1340,-	962-304	410,-
1 mg - 1 kg	-	-	313-064	1560,-	313-066	1590,-	313-06	1600,-	962-305	435,-
1 mg - 2 kg	-	-	313-074	2330,-	313-076	2400,-	313-07	2410,-	962-306	495,-
1 mg - 5 kg	-	-	313-084	2880,-	313-086	3050,-	313-08	3060,-	962-307	530,-
1 mg - 10 kg	-	-	-	-	313-096	3940,-	313-09	3950,-	962-308	560,-
1 g - 50 g	312-024	340,-	314-024	520,-	314-026	550,-	314-02	560,-	962-315	127,-
1 g - 100 g	312-034	380,-	314-034	590,-	314-036	630,-	314-03	640,-	962-316	150,-
1 g - 200 g	312-044	480,-	314-044	790,-	314-046	830,-	314-04	840,-	962-317	196,-
1 g - 500 g	312-054	570,-	314-054	970,-	314-056	1050,-	314-05	1060,-	962-318	220,-
1 g - 1 kg	312-064	750,-	314-064	1280,-	314-066	1300,-	314-06	1310,-	962-319	245,-
1 g - 2 kg	312-074	1160,-	314-074	2050,-	314-076	2120,-	314-07	2130,-	962-320	305,-
1 g - 5 kg	312-084	1490,-	314-084	2600,-	314-086	2770,-	314-08	2780,-	962-321	340,-
1 g - 10 kg	-	-	-	-	314-096	3660,-	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 5 or on [www.kern-lab.com/premium+](http://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



Plastic box,  
lined, for  
individual  
weights  
 $\leq 200$  g

Plastic box,  
lined, for  
individual  
weights  
 $\geq 500$  g



Aluminium protected box, lined,  
for individual weights



Wooden box, lined,  
for individual weights  $\leq 500$  g



Wooden box, lined,  
for individual weights  $\geq 1$  kg



Milligram weight  
set in plastic box  
(328-22)

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



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



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



Wooden box, 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	16,-	962-451	18,-
2 mg	0,020	328-02	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-452	18,-
5 mg	0,020	328-03	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-453	18,-
10 mg	0,025	328-04	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-454	18,-
20 mg	0,03	328-05	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-455	18,-
50 mg	0,04	328-06	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-456	18,-
100 mg	0,05	328-07	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-457	18,-
200 mg	0,06	328-08	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-458	18,-
500 mg	0,08	328-09	11,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	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	24,-	317-110-100	35,-	962-441	20,-
2 kg	10	326-12	179,-	327-12	240,-	347-120-400	3,-	317-120-600	27,-	317-120-100	44,-	962-442	25,-
5 kg	25	326-13	260,-	327-13	355,-	347-130-400	9,-	317-130-600	47,-	317-130-100	66,-	962-443	25,-
10 kg	50	326-14	485,-	327-14	650,-	347-140-400	9,-	317-140-600	65,-	317-140-100	89,-	962-444	25,-
20 kg	100	-	-	327-15	1350,-	-	-	317-150-600	205,-	317-150-100	340,-	962-445	28,-
50 kg	250	-	-	327-16	2900,-	-	-	317-160-600	250,-	317-160-100	415,-	962-446	39,-

### Class F1 · Test weights, polished stainless steel, stackable

Test weight material: Polished stainless steel

Weight	Tol +/- mg	Test weight, stainless steel		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
10 kg	50	327-141	570,-	337-141-200	190,-	962-444	25,-
20 kg	100	327-151	715,-	337-151-200	235,-	962-445	28,-
50 kg	250	327-161	1820,-	337-161-200	345,-	962-446	39,-

#### Note

Our highly-accurate OIML test weights are also available as **Premium+** weights for that extra level of safety, see all details page 5 or on [www.kern-lab.com/premium+](http://www.kern-lab.com/premium+)

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

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

\*Plastic box      \*\*Aluminium protected box

Weight sets	ECO shape in plastic box		ECO shape in aluminium protected box		ECO shape in wooden box		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	445,-	325-022	450,-	962-401	167,-
1 mg - 100 g	325-034	430,-	325-036	475,-	325-032	480,-	962-402	178,-
1 mg - 200 g	325-044	520,-	325-046	560,-	325-042	570,-	962-403	199,-
1 mg - 500 g	325-054	580,-	325-056	680,-	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	1100,-	325-072	1110,-	962-406	250,-
1 mg - 5 kg	325-084	1250,-	325-086	1450,-	325-082	1460,-	962-407	265,-
1 mg - 10 kg	-	-	325-096	1970,-	325-092	1980,-	962-408	285,-
1 g - 50 g	326-024	235,-	326-026	280,-	326-022	290,-	962-415	67,-
1 g - 100 g	326-034	270,-	326-036	320,-	326-032	330,-	962-416	77,-
1 g - 200 g	326-044	355,-	326-046	420,-	326-042	425,-	962-417	98,-
1 g - 500 g	326-054	420,-	326-056	540,-	326-052	550,-	962-418	109,-
1 g - 1 kg	326-064	600,-	326-066	650,-	326-062	660,-	962-419	119,-
1 g - 2 kg	326-074	850,-	326-076	1010,-	326-072	1020,-	962-420	151,-
1 g - 5 kg	326-084	1090,-	326-086	1390,-	326-082	1400,-	962-421	166,-
1 g - 10 kg	-	-	326-096	1830,-	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 box      \*\*Aluminium protected box

Weight sets	Knob shape in plastic box		Knob shape in aluminium protected box		Knob shape in wooden box		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	510,-	323-02	520,-	962-401	167,-
1 mg - 100 g	323-034	530,-	323-036	560,-	323-03	570,-	962-402	178,-
1 mg - 200 g	323-044	670,-	323-046	700,-	323-04	710,-	962-403	199,-
1 mg - 500 g	323-054	780,-	323-056	870,-	323-05	880,-	962-404	210,-
1 mg - 1 kg	323-064	1010,-	323-066	1030,-	323-06	1040,-	962-405	220,-
1 mg - 2 kg	323-074	1490,-	323-076	1560,-	323-07	1570,-	962-406	250,-
1 mg - 5 kg	323-084	1830,-	323-086	2000,-	323-08	2010,-	962-407	265,-
1 mg - 10 kg	-	-	323-096	2740,-	323-09	2750,-	962-408	285,-
1 g - 50 g	324-024	330,-	324-026	375,-	324-02	380,-	962-415	67,-
1 g - 100 g	324-034	385,-	324-036	430,-	324-03	435,-	962-416	77,-
1 g - 200 g	324-044	520,-	324-046	560,-	324-04	570,-	962-417	98,-
1 g - 500 g	324-054	630,-	324-056	710,-	324-05	720,-	962-418	109,-
1 g - 1 kg	324-064	850,-	324-066	880,-	324-06	890,-	962-419	119,-
1 g - 2 kg	324-074	1340,-	324-076	1400,-	324-07	1410,-	962-420	151,-
1 g - 5 kg	324-084	1680,-	324-086	1860,-	324-08	1870,-	962-421	166,-
1 g - 10 kg	-	-	324-096	2590,-	324-09	2600,-	962-422	182,-

**Note**

Our highly-accurate OIML test weights are also available as **Premium<sup>+</sup> weights** for that extra level of safety, see all details page 5 or on [www.kern-lab.com/premium+](http://www.kern-lab.com/premium+)

# 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  $\leq 200$  g



Plastic box, lined, for individual weights  $\geq 500$  g



Aluminium protected box, lined, for individual weights



Wooden box, not lined for individual weights  $\leq 500$  g



Wooden box, not lined, for individual weights  $\geq 1$  kg



Milligram weight set in plastic box (338-22)



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



Plastic box, lined, for weight sets knob shape



Aluminium protected box, lined, for weight sets knob shape



Wooden box, 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	16,-	962-451	18,-
2 mg	0,06	338-02	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-452	18,-
5 mg	0,06	338-03	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-453	18,-
10 mg	0,08	338-04	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-454	18,-
20 mg	0,10	338-05	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-455	18,-
50 mg	0,12	338-06	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-456	18,-
100 mg	0,16	338-07	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-457	18,-
200 mg	0,20	338-08	9,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-458	18,-
500 mg	0,25	338-09	10,-	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	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	14,-	962-431	18,-
2 g	0,4	337-02	19,-	347-030-400	2,-	317-020-600	14,-	337-020-200	14,-	962-432	18,-
5 g	0,5	337-03	20,-	347-030-400	2,-	317-030-600	14,-	337-030-200	14,-	962-433	18,-
10 g	0,6	337-04	20,-	347-050-400	2,-	317-040-600	14,-	337-040-200	14,-	962-434	18,-
20 g	0,8	337-05	25,-	347-050-400	2,-	317-050-600	14,-	337-050-200	14,-	962-435	18,-
50 g	1,0	337-06	27,-	347-070-400	2,-	317-060-600	14,-	337-060-200	15,-	962-436	18,-
100 g	1,6	337-07	30,-	347-070-400	2,-	317-070-600	14,-	337-070-200	15,-	962-437	20,-
200 g	3,0	337-08	40,-	347-080-400	2,-	317-080-600	14,-	337-080-200	16,-	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	24,-	337-110-200	24,-	962-441	20,-
2 kg	30	337-12	120,-	347-120-400	3,-	317-120-600	27,-	337-120-200	27,-	962-442	25,-
5 kg	80	337-13	205,-	347-130-400	9,-	317-130-600	47,-	337-130-200	47,-	962-443	25,-
10 kg	160	337-14	395,-	347-140-400	9,-	317-140-600	65,-	337-140-200	60,-	962-444	25,-
20 kg	300	337-15	690,-	-	-	317-150-600	205,-	337-150-200	220,-	962-445	28,-
50 kg	800	337-16	1240,-	-	-	317-160-600	250,-	337-160-200	345,-	962-446	39,-

### Class F2 · Test weights, polished stainless steel, stackable

Test weight material: Polished stainless steel, stackable

Weight	Tol +/- mg	Test weight, finely turned stainless steel		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN 	€	KERN 	€	KERN	€
10 kg	50	337-141	550,-	346-070-600	180,-	337-141-200	190,-	962-444	25,-
20 kg	100	337-151	670,-	346-080-600	220,-	337-151-200	235,-	962-445	28,-
50 kg	250	337-161	1790,-	346-090-600	345,-	337-161-200	345,-	962-446	39,-

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

Test weight material: Milligram weights Aluminium/German Silver, individual weights finely turned stainless steel.

\*Plastic box      \*\*Aluminium protected box

Weight	Knob shape in plastic box		Knob shape in aluminium protected box		Knob shape in wooden box		DAkkS certificate	
	KERN 	€	KERN 	€	KERN 	€	KERN	€
1 mg - 500 mg	338-22*	143,-	338-22**	183,-	338-22*	143,-	962-450	100,-
1 mg - 50 g	333-024	340,-	334-026	345,-	333-02	350,-	962-401	167,-
1 mg - 100 g	333-034	375,-	334-036	380,-	333-03	385,-	962-402	178,-
1 mg - 200 g	333-044	460,-	334-046	465,-	333-04	470,-	962-403	199,-
1 mg - 500 g	333-054	520,-	334-056	530,-	333-05	540,-	962-404	210,-
1 mg - 1 kg	333-064	640,-	334-066	650,-	333-06	660,-	962-405	220,-
1 mg - 2 kg	333-074	900,-	334-076	910,-	333-07	920,-	962-406	250,-
1 mg - 5 kg	333-084	1150,-	334-086	1180,-	333-08	1190,-	962-407	265,-
1 mg - 10 kg	-	-	334-096	1640,-	333-09	1650,-	962-408	285,-
1 g - 50 g	334-024	210,-	334-026	280,-	334-02	220,-	962-415	67,-
1 g - 100 g	334-034	250,-	334-036	320,-	334-03	260,-	962-416	77,-
1 g - 200 g	334-044	340,-	334-046	420,-	334-04	350,-	962-417	98,-
1 g - 500 g	334-054	400,-	334-056	540,-	334-05	410,-	962-418	109,-
1 g - 1 kg	334-064	520,-	334-066	650,-	334-06	540,-	962-419	119,-
1 g - 2 kg	334-074	790,-	334-076	1010,-	334-07	810,-	962-420	151,-
1 g - 5 kg	334-084	1030,-	334-086	1390,-	334-08	1070,-	962-421	166,-
1 g - 10 kg	-	-	334-096	1830,-	334-09	1530,-	962-422	182,-

# Test weights and boxes

## Class M1



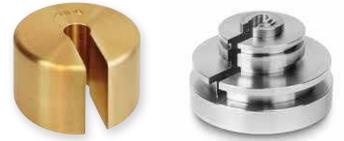
Milligram weights, flat polygonal sheet



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  $\leq 200$  g, for hook weights and slotted weights  $\leq 50$  g



Plastic box, lined, for individual weights  $\geq 500$  g, for hook weights and slotted weights  $\geq 100$  g



Aluminium protected box, lined, for individual weights



Wooden box, not lined, for individual weights  $\leq 500$  g



Wooden box, not lined, for individual weights  $\geq 1$  kg



Milligram weight set in plastic box (348-22)



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



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



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



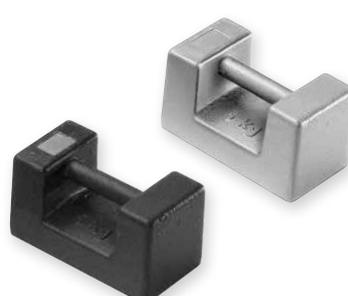
Wooden box, for weight sets, knob shape, stainless steel or finely turned brass



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 box, 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	16,-	962-651	18,-
2 mg	0,20	348-02	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-652	18,-
5 mg	0,20	348-03	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-653	18,-
10 mg	0,25	348-04	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-654	18,-
20 mg	0,30	348-05	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-655	18,-
50 mg	0,40	348-06	3,90	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-656	18,-
100 mg	0,50	348-07	4,00	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-657	18,-
200 mg	0,60	348-08	4,00	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-658	18,-
500 mg	0,80	348-09	4,20	347-009-400	2,-	317-009-600	14,-	338-090-200	16,-	962-659	18,-

### 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,-	347-01	4,60	347-030-400	2,-	317-010-600	14,-	337-010-200	14,-	962-631	15,-
2 g	1,2	347-42	4,20	347-02	4,90	347-030-400	2,-	317-020-600	14,-	337-020-200	14,-	962-632	15,-
5 g	1,6	347-43	4,60	347-03	5,40	347-030-400	2,-	317-030-600	14,-	337-030-200	14,-	962-633	15,-
10 g	2,0	347-44	5,10	347-04	5,60	347-050-400	2,-	317-040-600	14,-	337-040-200	14,-	962-634	15,-
20 g	2,5	347-45	6,30	347-05	6,50	347-050-400	2,-	317-050-600	14,-	337-050-200	14,-	962-635	15,-
50 g	3,0	347-46	7,50	347-06	8,20	347-070-400	2,-	317-060-600	14,-	337-060-200	15,-	962-636	15,-
100 g	5,0	347-47	9,50	347-07	11,-	347-070-400	2,-	317-070-600	14,-	337-070-200	15,-	962-637	16,-
200 g	10	347-48	13,-	347-08	15,-	347-080-400	2,-	317-080-600	28,-	337-080-200	16,-	962-638	16,-
500 g	25	347-49	28,-	347-09	31,-	347-090-400	3,-	317-090-600	29,-	337-090-200	19,-	962-639	16,-
1 kg	50	347-51	43,-	347-11	51,-	347-110-400	3,-	317-110-600	35,-	337-110-200	24,-	962-641	16,-
2 kg	100	347-52	77,-	347-12	85,-	347-120-400	3,-	317-120-600	44,-	337-120-200	27,-	962-642	17,-
5 kg	250	347-53	165,-	347-13	188,-	347-130-400	9,-	317-130-600	66,-	337-130-200	47,-	962-643	17,-
10 kg	500	347-54	310,-	347-14	365,-	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 box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€
5 kg	0,25	346-86	71,-	346-06	315,-	346-060-600	180,-	962-643	17,-
10 kg	0,50	346-87	95,-	346-07	455,-	346-070-600	180,-	962-644	17,-
20 kg	1,00	346-88	118,-	346-08	580,-	346-080-600	220,-	962-645	22,-
50 kg	2,50	346-89	400,-	346-09	1490,-	346-090-600	345,-	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	0,50	347-141	490,-	337-141-200	190,-	962-644	17,-
20 kg	1,00	347-151	590,-	337-151-200	235,-	962-645	22,-
50 kg	2,50	347-161	1600,-	337-161-200	345,-	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](http://www.kern-sohn.com)

Weight	Tol +/- g	Heavy duty weight, cast iron		DAkkS certificate	
		KERN	€	KERN	€
100 kg	5	346-81	1390,-	962-691	63,-
200 kg	10	346-82	1800,-	962-692	63,-
500 kg	25	346-83	3350,-	962-693	63,-
1000 kg	50	346-84	5500,-	962-694	136,-
2000 kg	100	346-85	10300,-	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 box

\*\*Aluminium protected box

Weight	Knob shape, finely turned brass, in plastic box		Knob shape, finely turned stainless steel, in plastic box		Knob shape, finely turned brass, in wooden box		Knob shape, shape, finely turned stainless steel, in wooden box		Knob shape, finely turned, brass, in aluminium protected box		Knob shape, finely turned stainless steel, in aluminium protected box		DAkkS certificate	
	KERN	 €	KERN	 €	KERN	 €	KERN	 €	KERN	 €	KERN	 €	KERN	€
1 mg - 500 mg	348-22*	69,-	348-22*	69,-	348-22*	69,-	348-22*	69,-	348-226**	134,-	348-226**	134,-	962-650	63,-
1 mg - 50 g	343-424	149,-	343-024	160,-	343-42	149,-	343-02	155,-	343-426	149,-	343-026	160,-	962-601	106,-
1 mg - 100 g	343-434	162,-	343-034	170,-	343-43	162,-	343-03	170,-	343-436	162,-	343-036	170,-	962-602	112,-
1 mg - 200 g	343-444	191,-	343-044	205,-	343-44	191,-	343-04	205,-	343-446	191,-	343-046	205,-	962-603	125,-
1 mg - 500 g	343-454	220,-	343-054	245,-	343-45	220,-	343-05	245,-	343-456	220,-	343-056	240,-	962-604	131,-
1 mg - 1 kg	343-464	330,-	343-064	335,-	343-46	330,-	343-06	335,-	343-466	330,-	343-066	330,-	962-605	137,-
1 mg - 2 kg	343-474	485,-	343-074	540,-	343-47	485,-	343-07	540,-	343-476	485,-	343-076	530,-	962-606	152,-
1 mg - 5 kg	343-484	710,-	343-084	740,-	343-48	710,-	343-08	800,-	343-486	710,-	343-086	730,-	962-607	160,-
1 mg - 10 kg	-	-	-	-	343-49	1090,-	343-09	1250,-	343-496	1090,-	343-096	1180,-	962-608	167,-
1 g - 50 g	344-424	94,-	344-024	95,-	344-42	94,-	344-02	92,-	344-426	104,-	344-026	125,-	962-615	42,-
1 g - 100 g	344-434	100,-	344-034	107,-	344-43	100,-	344-03	102,-	344-436	110,-	344-036	135,-	962-616	49,-
1 g - 200 g	344-444	126,-	344-044	139,-	344-44	126,-	344-04	139,-	344-446	136,-	344-046	155,-	962-617	61,-
1 g - 500 g	344-454	158,-	344-054	179,-	344-45	158,-	344-05	179,-	344-456	168,-	344-056	185,-	962-618	68,-
1 g - 1 kg	344-464	280,-	344-064	285,-	344-46	280,-	344-06	285,-	344-466	280,-	344-066	285,-	962-619	74,-
1 g - 2 kg	344-474	430,-	344-074	465,-	344-47	430,-	344-07	490,-	344-476	430,-	344-076	465,-	962-620	89,-
1 g - 5 kg	344-484	650,-	344-084	720,-	344-48	650,-	344-08	750,-	344-486	650,-	344-086	720,-	962-621	96,-
1 g - 10 kg	-	-	-	-	344-49	1020,-	344-09	1190,-	344-496	1020,-	344-096	1140,-	962-622	104,-

**Class M1 · Hook weights, finely turned brass**

Weight	Tol +/- mg	Hook weight, brass		Plastic box, lined		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
1 g	1	347-416	14,-	347-030-400	2,-	962-631	15,-
2 g	1,2	347-426	15,-	347-030-400	2,-	962-632	15,-
5 g	1,6	347-436	15,-	347-030-400	2,-	962-633	15,-
10 g	2	347-446	15,-	347-050-400	2,-	962-634	15,-
20 g	2,5	347-456	16,-	347-050-400	2,-	962-635	15,-
50 g	3	347-466	20,-	347-070-400	2,-	962-636	15,-
100 g	5	347-476	23,-	347-090-400	3,-	962-637	16,-
200 g	10	347-486	31,-	347-090-400	3,-	962-638	16,-
500 g	25	347-496	46,-	347-110-400	3,-	962-639	16,-
1 kg	50	347-516	66,-	347-120-400	3,-	962-641	16,-
2 kg	100	347-526	107,-	347-130-400	9,-	962-642	17,-
5 kg	250	347-536	200,-	347-140-400	9,-	962-643	17,-
10 kg	500	347-546	350,-	-	-	962-644	17,-



**Note**

Stainless steel hook weights, on request

**Class M1 · Slotted weights, finely turned brass**

Weight	Tol +/- mg	Slotted weight, brass		Plastic box, lined		DAkkS certificate	
		KERN	€	KERN	€	KERN	€
1 g	1	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	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	347-465	22,-	347-080-400	2,-	962-636	15,-
100 g	5	347-475	25,-	347-090-400	3,-	962-637	16,-
200 g	10	347-485	30,-	347-090-400	3,-	962-638	16,-
500 g	25	347-495	48,-	347-110-400	3,-	962-639	16,-
1 kg	50	347-515	77,-	347-130-400	9,-	962-641	16,-
2 kg	100	347-525	118,-	347-130-400	9,-	962-642	17,-
5 kg	250	347-535	215,-	347-140-400	9,-	962-643	17,-
10 kg	500	347-545	375,-	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 box,  
lined, for block weights



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



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



Wooden box,  
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	<b>3,50</b>	347-030-400	<b>2,-</b>	317-010-600	<b>14,-</b>	337-010-200	<b>14,-</b>	962-631	<b>15,-</b>
2 g	4	357-42	<b>3,70</b>	347-030-400	<b>2,-</b>	317-020-600	<b>14,-</b>	337-020-200	<b>14,-</b>	962-632	<b>15,-</b>
5 g	5	357-43	<b>4,10</b>	347-030-400	<b>2,-</b>	317-030-600	<b>14,-</b>	337-030-200	<b>14,-</b>	962-633	<b>15,-</b>
10 g	6	357-44	<b>4,40</b>	347-050-400	<b>2,-</b>	317-040-600	<b>14,-</b>	337-040-200	<b>14,-</b>	962-634	<b>15,-</b>
20 g	8	357-45	<b>6,30</b>	347-050-400	<b>2,-</b>	317-050-600	<b>14,-</b>	337-050-200	<b>14,-</b>	962-635	<b>15,-</b>
50 g	10	357-46	<b>7,40</b>	347-070-400	<b>2,-</b>	317-060-600	<b>14,-</b>	337-060-200	<b>15,-</b>	962-636	<b>15,-</b>
100 g	16	357-47	<b>9,50</b>	347-070-400	<b>2,-</b>	317-070-600	<b>14,-</b>	337-070-200	<b>15,-</b>	962-637	<b>16,-</b>
200 g	30	357-48	<b>13,-</b>	347-080-400	<b>2,-</b>	317-080-600	<b>14,-</b>	337-080-200	<b>16,-</b>	962-638	<b>16,-</b>
500 g	80	357-49	<b>26,-</b>	347-090-400	<b>3,-</b>	317-090-600	<b>14,-</b>	337-090-200	<b>19,-</b>	962-639	<b>16,-</b>
1 kg	160	357-51	<b>41,-</b>	347-110-400	<b>3,-</b>	317-110-600	<b>24,-</b>	337-110-200	<b>24,-</b>	962-641	<b>16,-</b>
2 kg	300	357-52	<b>69,-</b>	347-120-400	<b>3,-</b>	317-120-600	<b>27,-</b>	337-120-200	<b>27,-</b>	962-642	<b>17,-</b>
5 kg	800	357-53	<b>149,-</b>	347-130-400	<b>9,-</b>	317-130-600	<b>47,-</b>	337-130-200	<b>47,-</b>	962-643	<b>17,-</b>
10 kg	1600	357-54	<b>295,-</b>	347-140-400	<b>9,-</b>	317-140-600	<b>65,-</b>	337-140-200	<b>60,-</b>	962-644	<b>17,-</b>

**Class M2 · Heavy duty weights, lacquered cast iron**

Block weight material: cast iron, surface and edges refined

Weight	Tol +/- g	Heavy duty weight, cast iron		Aluminium protected box		DAkkS certificate	
		KERN	€	KERN 	€	KERN	€
5 kg	0,8	356-86	<b>65,-</b>	346-060-600	<b>180,-</b>	962-643	<b>17,-</b>
10 kg	1,6	356-87	<b>90,-</b>	346-070-600	<b>180,-</b>	962-644	<b>17,-</b>
20 kg	3,0	356-88	<b>113,-</b>	346-080-600	<b>220,-</b>	962-645	<b>22,-</b>
50 kg	8,0	356-89	<b>390,-</b>	346-090-600	<b>345,-</b>	962-646	<b>24,-</b>

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

Weight	Knob shape, in aluminium box		Knob shape, in wooden box		DAkkS certificate	
	KERN 	€	KERN 	€	KERN	€
1 g - 50 g	354-426	<b>105,-</b>	354-42	<b>76,-</b>	962-615	<b>42,-</b>
1 g - 100 g	354-436	<b>106,-</b>	354-43	<b>86,-</b>	962-616	<b>49,-</b>
1 g - 200 g	354-446	<b>135,-</b>	354-44	<b>119,-</b>	962-617	<b>61,-</b>
1 g - 500 g	354-456	<b>156,-</b>	354-45	<b>153,-</b>	962-618	<b>68,-</b>
1 g - 1 kg	354-466	<b>240,-</b>	354-46	<b>240,-</b>	962-619	<b>74,-</b>
1 g - 2 kg	354-476	<b>390,-</b>	354-47	<b>390,-</b>	962-620	<b>89,-</b>
1 g - 5 kg	354-486	<b>590,-</b>	354-48	<b>590,-</b>	962-621	<b>96,-</b>
1 g - 10 kg	354-496	<b>940,-</b>	354-49	<b>940,-</b>	962-622	<b>104,-</b>

**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	3,00	347-030-400	2,-	317-010-600	14,-	337-010-200	26,-	962-631	15,-
2 g	12	367-42	3,40	347-030-400	2,-	317-020-600	14,-	337-020-200	26,-	962-632	15,-
5 g	16	367-43	3,80	347-030-400	2,-	317-030-600	14,-	337-030-200	26,-	962-633	15,-
10 g	20	367-44	4,20	347-050-400	2,-	317-040-600	14,-	337-040-200	26,-	962-634	15,-
20 g	25	367-45	5,60	347-050-400	2,-	317-050-600	14,-	337-050-200	26,-	962-635	15,-
50 g	30	367-46	6,80	347-070-400	2,-	317-060-600	14,-	337-060-200	27,-	962-636	15,-
100 g	50	367-47	8,90	347-070-400	2,-	317-070-600	14,-	337-070-200	28,-	962-637	16,-
200 g	100	367-48	13,00	347-080-400	2,-	317-080-600	14,-	337-080-200	28,-	962-638	16,-
500 g	250	367-49	25,00	347-090-400	3,-	317-090-600	14,-	337-090-200	29,-	962-639	16,-
1 kg	500	367-51	37,00	347-110-400	3,-	317-110-600	24,-	337-110-200	35,-	962-641	16,-
2 kg	1000	367-52	68,00	347-120-400	3,-	317-120-600	27,-	337-120-200	44,-	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	12,-	962-637	16,-
200 g *	0,1	366-92	13,-	962-638	16,-
500 g **	0,25	366-93	19,-	962-639	16,-
1 kg **	0,5	366-94	25,-	962-641	16,-
2 kg **	1,0	366-95	44,-	962-642	17,-
5 kg **	2,5	366-96	75,-	962-643	17,-
10 kg **	5,0	366-97	135,-	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	64,-	346-060-600	180,-	962-643	17,-
10 kg	5,0	366-87	89,-	346-070-600	180,-	962-644	17,-
20 kg	10	366-88	112,-	346-080-600	220,-	962-645	22,-
50 kg	25	366-89	380,-	346-090-600	345,-	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	160,-	962-619	74,-
1 g – 2 kg	362-97	260,-	962-620	89,-
1 g – 5 kg	362-98	350,-	962-621	96,-
1 g – 10 kg	362-99	500,-	962-622	104,-



Individual weights ≤ 50 g

Individual weights 100 g and 200 g

Individual weights ≥ 500 g

**Tweezers, weight grips, gloves, dusting brush**



<b>Tweezers</b>					
to be able to safely grip small test weights					
For class	For weights	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	32,-
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	30,-
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

<b>Weight grip</b> plastic coated				
For class	for knob shaped weights	KERN	€	
E1 - M3	2 kg	315-273	22,-	
E1 - M3	5 kg	315-274	30,-	
E1 - M3	10 kg	315-275	35,-	
E1 - M3	20 kg	315-276	42,-	



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

Box 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

Box 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

Box material: Wood, suitable for test 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	16,-
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	35,-
2 kg	317-120-100	44,-
5 kg	317-130-100	66,-
10 kg	317-140-100	89,-
20 kg	317-150-100	340,-
50 kg	317-160-100	415,-

**Wooden box,**  
for single weights F2 - M3

For weights	KERN	€
mg	338-090-200	16,-
1 g	337-010-200	14,-
2 g	337-020-200	13,-
5 g	337-030-200	13,-
10 g	337-040-200	14,-
20 g	337-050-200	14,-
50 g	337-060-200	15,-
100 g	337-070-200	15,-
200 g	337-080-200	16,-
500 g	337-090-200	19,-
1 kg	337-110-200	24,-
2 kg	337-120-200	27,-
5 kg	337-130-200	47,-
10 kg	337-140-200	60,-
20 kg	337-150-200	220,-
50 kg	337-160-200	345,-

**Wooden box**  
for test weights F1 - M1

For weights	KERN	€
10 kg	337-141-200	190,-
20 kg	337-151-200	235,-
50 kg	337-161-200	345,-



For weights ≤ 5 kg, OIML class E1 - M3

Box 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 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	19,-
1 kg	317-110-600	24,-
2 kg	317-120-600	27,-
5 kg	317-130-600	47,-



For weights ≤ 10 kg, OIML class E1 - M3

Box 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

Largest possible weight	KERN	€
10 kg	317-140-600	65,-
20 kg	317-150-600	205,-
50 kg	317-160-600	250,-



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

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

**Aluminium protected box, lined**  
for block weights F1 - M3

For weights	KERN	€
5 kg	346-060-600	180,-
10 kg	346-070-600	180,-
20 kg	346-080-600	220,-
50 kg	346-090-600	345,-

## Carrying 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 box. 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 box

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

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

### Wooden box

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

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

Wooden box 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		<b>65,-</b>
≤ 500 g	335-050-200		<b>65,-</b>
≤ 1 kg	335-060-200		<b>115,-</b>
≤ 2 kg	335-070-200		<b>136,-</b>
≤ 5 kg*	335-080-200		<b>210,-</b>
≤ 10 kg*	335-090-200		<b>300,-</b>

## Carrying boxes for standard weight sets



Fig. shows 313-010-600

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

### Plastic box for weight sets

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

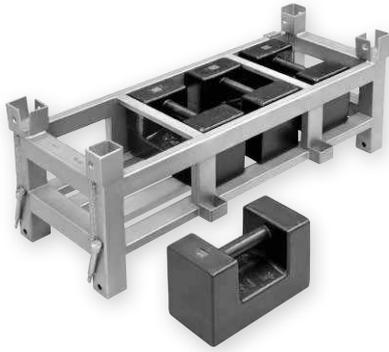
Largest possible weight	KERN		€
≤ 500 g	313-052-400		<b>55,-</b>
≤ 5 kg	313-082-400		<b>154,-</b>

### Aluminium protected box

for weight sets with standard denomination classes E1 - M2

for weights	OIML class	KERN		€
1 mg - 500 mg	E1 - M1	313-010-600		<b>75,-</b>
1 mg - 50 g	E1 - M1	313-020-600		<b>110,-</b>
1 mg - 100 g	E1 - M1	313-030-600		<b>121,-</b>
1 mg - 200 g	E1 - M1	313-040-600		<b>129,-</b>
1 mg - 500 g	E1 - M1	313-050-600		<b>152,-</b>
1 mg - 1 kg	E1 - M1	313-060-600		<b>169,-</b>
1 mg - 2 kg	E1 - M1	313-070-600		<b>250,-</b>
1 mg - 5 kg	E1 - M1	313-080-600		<b>350,-</b>
1 mg - 10 kg	E1 - M1	313-090-600		<b>405,-</b>
1 g - 50 g	E1 - M2	314-020-600		<b>110,-</b>
1 g - 100 g	E1 - M2	314-030-600		<b>120,-</b>
1 g - 200 g	E1 - M2	314-040-600		<b>128,-</b>
1 g - 500 g	E1 - M2	314-050-600		<b>151,-</b>
1 g - 1 kg	E1 - M2	314-060-600		<b>168,-</b>
1 g - 2 kg	E1 - M2	314-070-600		<b>245,-</b>
1 g - 5 kg	E1 - M2	314-080-600		<b>345,-</b>
1 g - 10 kg	E1 - M2	314-090-600		<b>400,-</b>

## 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.

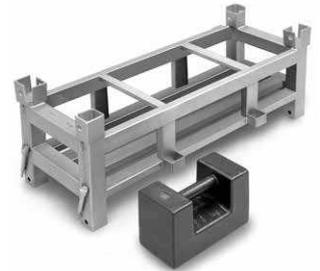
Example:

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

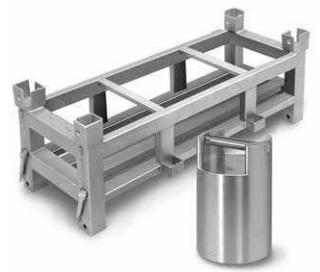
## Weight containers for rectangular weights or other test weights, adjusted to OIML class M1

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 +/- mg	Possible equipment, rectangular weights, OIML class M1	Maximum total weight (weight container incl. weights)	Price (weight container excluding weights)	
				KERN	€
20 kg	1000	5 × 20 kg	120 kg	346-022-005	1560,-
40 kg	1500	8 × 20 kg	200 kg	346-042-008	1840,-
50 kg	2500	10 × 20 kg	250 kg	346-052-010	1990,-
50 kg	2500	4 × 50 kg	250 kg	346-055-004	1990,-
50 kg	2500	9 × 50 kg	500 kg	346-055-009	1990,-
60 kg	3000	8 × 50 kg and 2 × 20 kg	500 kg	346-065-009	2190,-



Weight of the weight container, OIML class M1	Tol +/- mg	Possible equipment, test weights, OIML class M1	Maximum total weight (weight container incl. weights)	Price (weight container excluding weights)	
				KERN	€
20 kg	1000	max. 10 × 10 kg or 5 × 20 kg	120 kg	347-022-005	1560,-
40 kg	2000	max. 16 × 10 kg or 8 × 20 kg	200 kg	347-042-008	1840,-
50 kg	2500	max. 20 × 10 kg or 10 × 20 kg	250 kg	347-052-010	1990,-
60 kg	3000	max. 22 × 20 kg	500 kg	347-062-022	2190,-



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

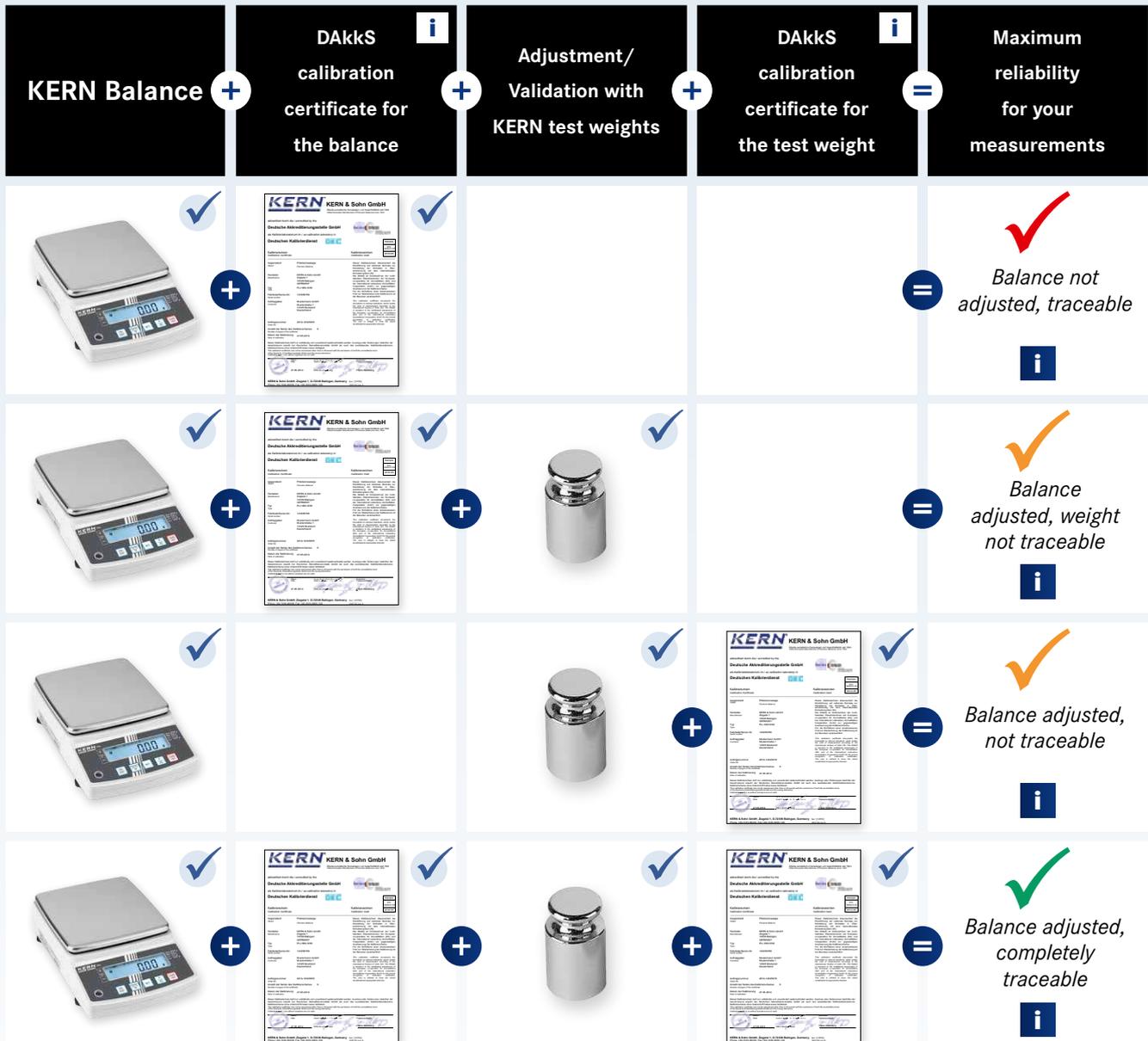
Weight of the weight container, OIML class M1	Price (weight container excluding weights)	
	KERN	€
Individual weight container for rectangular weights	346-000-000	Price on request
Individual weight container for test weights	347-000-000	Price on request

# Balance & weight in the quality management system

Do you already use all the modules of the KERN precision package for maximum accuracy and reliability of your balance?

## KERN precision package

As per ISO 9001, TS 16949, VDA 6.x, FDA, GLP, GMP, ...



Information & ordering:

[www.kern-sohn.com/qmb](http://www.kern-sohn.com/qmb)



The DAkkS calibration (DAkkS = German accreditation authority) documents traceability to the national standard and thus meets the specific normative requirements of QM systems.

International recognition:



# KERN test services at a glance

## Calibration of balances at KERN (inhouse)

With the shortest calibration time in the KERN calibration laboratory of maximum 4 working days after receipt of order, this gives you almost uninterrupted use of your balances within your production processes.

## Calibration of balances at the customer (on site)

We are happy to calibrate your scales on site. This reduces down-times, takes into account the application environment and avoids possible transport damage. Personal contact with a specialist is an additional advantage of this service. Inform yourself and make an appointment with us.

## Calibration of weights

Here too, with its short process times, KERN is unbeatable. The most modern calibration robots calibrate your test weights with only the slightest ► **measuring uncertainty**, according to international directives of OIML R111 and thereby ensuring a reliable weighing result. Recommended recalibration period 1 year. On-site calibration of your weights according to OIML classes M1–M3 (10–2500 kg) can also offer you an affordable alternative. We would be pleased to come to your premises and calibrate your test weights with our mobile MACOS calibration system.

## Volume determination

When calibrating every new weight in OIML class E1 you must also establish its volume. This is necessary for the correction of air buoyancy. Accredited volume determination in our laboratories is an integral part of our high-end demands.

## Reconditioning of weights

KERN gets your weights back up to standard, **regardless of the manufacturer**. Whether it is adjustment, marking, sand blasting or lacquering. The aim here is compliance and long-term stability. Special arrangements on request.

## Magnetic characteristics

By measuring sensitivity/and magnetisation KERN gains reliable evidence regarding the magnetic characteristics of your test weights. “Magnetic” weights can distort the weighing result when you are using the balance.

## DAkkS calibration certificates for force-measurement

Through the force-measurement accreditation from KERN (in Newtons), DAkkS calibration of your force-measuring devices means that we can meet the highest requirements. With test stands and measuring procedures designed for this purpose, our specialists can calibrate your checking equipment to the latest test methodology in our laboratory.

## Factory calibration

The testing of measuring devices for accuracy in accordance with a recognised, but not accredited, process – this is the difference when compared with DAkkS calibration.

## Digital calibration certificate

Of course you will also receive the issued DAkkS and ISO\* calibration certificates from us in digital form. Ideal for your own archives or as an “Express solution” by e-mail, when you need it even quicker.

## Reverification service for balances and test weights (in Germany)

In Germany, re-verification may only be carried out by verification authorities. In conjunction with these KERN offers reverification of balances and test weights.

## Database supported management of checking equipment

Information on your checking equipment which has been calibrated by us is stored in our database. In this way it is possible to make trend calculations. You therefore get an overview of long-term stability and trend behaviour of your checking equipment.

## Reminder service

The continuous recalibration of your checking equipment is an integral part of the reliable management of checking equipment. You can depend on KERN to support you, and KERN will remind you in good time when the next recalibration is due. **This service is free of charge to you!**

## Collection and delivery service

Why not let us transport your checking equipment correctly. We will collect your checking equipment from you and then deliver it quickly and safely.

**KERN & SOHN GmbH**  
**Balances, Test weights, Microscopes,**  
**DAkKS Calibration laboratory**  
 Ziegelei 1  
 72336 Balingen  
 Germany

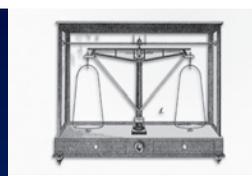
Tel. +49 7433 9933-0  
 Fax +49 7433 9933-149

info@kern-sohn.com  
 www.kern-sohn.com



**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](http://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 for KERN  
 25 years of accredited DKD laboratory  
 175 years of KERN & SOHN  
 250 years of balance manufacture in the Sauter family-owned company