

## TEST WEIGHTS



PROFESSIONAL MEASURING

2016

# KERN Pictograms



**Internal adjusting:**  
Quick setting up of the balance's accuracy with internal adjusting weight (motordriven).



**Adjusting program CAL:**  
For quick setting up of the balance's accuracy. External adjusting weight required.



**Memory:**  
Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.



**Alibi memory:**  
Electronic archiving of weighing results, complying with the 2009/23/EC standard. For details see page 214



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



**RS-485 data interface:**  
To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.



**USB data interface:**  
To connect the balance to a printer, PC or other peripherals.



**Bluetooth\* data interface:**  
To transfer data from the balance to a printer, PC or other peripherals.



**WLAN data interface:**  
To transfer data from the balance to a printer, PC or other peripherals.



**Control outputs (optocoupler, digital I/O):**  
To connect relays, signal lamps, valves, etc.



**Interface for second balance:**  
For direct connection of a second balance.



**Network interface:**  
For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter. See page 180



**Wireless data transfer:**  
between the weighing unit and the evaluation unit using an integrated radio module.



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



**GLP/ISO log:**  
With weight, date and time. Only with KERN printers, see "Accessories", see page 177.



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



**Recipe level A:**  
Separate memory for the weight of the tare container and the recipe ingredients (net total).



**Recipe level B:**  
Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display.



**Recipe level C:**  
Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, adjustment of recipe when dosages are exceeded, multiplier function, barcode.



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



**Battery operation:**  
Ready for battery operation. The battery type is specified for each device.



**Rechargeable battery pack:**  
Rechargeable set.



**Universal mains adapter:** with universal input and optional input socket adapters for  
A) EU, GB  
B) EU, GB, CH, USA  
C) EU, GB, CH, USA, AUS



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



**Power supply:**  
Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request.



**Weighing principle: Strain gauges**  
Electrical resistor on an elastic deforming body.



**Weighing principle: Tuning fork**  
A resonating body is electromagnetically excited, causing it to oscillate.



**Weighing principle: Electromagnetic force compensation**  
Coil inside a permanent magnet. For the most accurate weighings.



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



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



**DAkkS calibration possible (DKD):**  
The time required for DAkkS calibration is shown in days in the pictogram.



**Package shipment:**  
The time required for internal shipping preparations is shown in days in the pictogram.

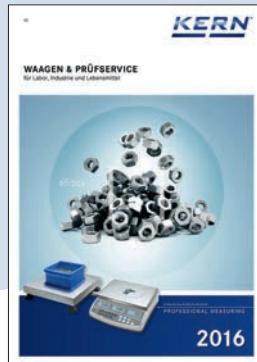


**Pallet shipment:**  
The time required for internal shipping preparations is shown in days in the pictogram.



**Warranty:**  
The warranty period is shown in the pictogram.

# KERN – measuring technology and testing services from a single source



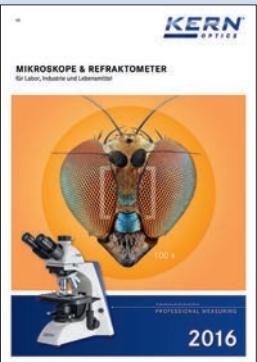
## Balances & Test service catalogue

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



## Medical scales catalogue

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



## Microscopes & refractometers catalogue

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



## SAUTER measuring equipment catalogue

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



## KERN DAkkS calibration service brochure

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



## KERN flyer Special offers

Compact overview of our bestselling products – just the balances/measuring instruments/microscopes your customers need! Can be customised to suit your requirements.



## The gnome guide

Travel report from KERN, the famous scientific gnome, who travelled all over the world, in order to illustrate the physical law of gravitational force. Ideal for use in school education – please request, it's free of charge.



## 170 years of KERN

Interesting and readable overview of the history of the origins of Southern German balance manufacturing, as well as the company history, which stretches right back to 1770 – please request, it's free of charge.

## Your advantages

### 1 Quick Delivery

Items in stock are sent the same day if orders are placed before 1:00 pm (valid for parcel service delivery within the EC).

### 2

### Price performance ratio

KERN scales are always an inexpensive alternative. They are durable, uncomplicated and easy to place into operation.

### 3

### Direct dispatch

of ordered goods to your customer is available, with personalised delivery note if desired (please ask), invoice will be issued to you (third party business).

### 4

### 3 years warranty

Items under € 400,- : 2 years

### 5

### No stock-keeping necessary.

KERN does the warehousing for you.

### 6

### Sale or return

within 14 days of purchase.

### Weights yesterday and today

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

### Adjustment or calibration?

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

### Testing, the right way!

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

As the appropriate test weight is only classed as checking equipment according to → **ISO 9000ff** if it has the relevant proof of accuracy, all KERN test weights come with an appropriate → **DAkkS-calibration certificate**. For further details, see the calibration service section on page 208.

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 pre-requisite for proper balance calibration.

→ See the glossary on page 214 – 216

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

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



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# Selection of the appropriate test weight for your balance

Correctly selected test weights with DAkkS calibration certificate are the pre-requisite for ensuring that your balances are not only correctly adjusted, but also correctly calibrated. Scheduled testing of your balances with such test weights helps to guarantee your quality requirements and to maintain your quality targets.

## Here's how you find the right 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.

**Accuracy of the test weight:** Should correspond to the readout [d] of the balance, or rather be better.

**Nominal weight value:** This 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 190.

## 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] with approx. ± 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 327-72, see page 195.

## 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 →	Cylindrical shape with lifting knob, polished stainless steel	Compact shape with carrying grip, polished stainless steel	Cylindrical shape with lifting knob, polished stainless steel or nickelplated and polished brass	Compact shape with carrying grip, finely turned stainless steel	Cylindrical shape with lifting knob, finely turned stainless steel	Cylindrical shape with lifting knob, finely turned brass
Features ↓						
<b>Conforms to OIML R111</b>	yes	yes	yes	no	yes	yes
<b>Available classes</b>	E1, E2	E2, F1	F1	adjusted to F1 error limit class	F2, M1	M1, M2, M3
<b>Upper surface</b>	polished	polished	polished	finely turned	finely turned	finely turned
<b>Material</b>	Stainless steel	Stainless steel	Stainless steel or nickel-plated brass	Stainless steel	Stainless steel	Brass
<b>Adjusting cavity</b>	no	no	yes	yes, from 20 g	yes, from 20 g	yes, from 20 g
<b>Verification possible</b>	yes	yes	yes	nein	yes	yes, except M2
<b>Checking equipment for verification purposes</b>	approved	approved	approved	not approved	approved	approved (M1, M2)
<b>Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)</b>	yes	yes	yes	yes	yes	yes
<b>Benefits</b>	<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>Ideal shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>Affordable test weight for in-house checking of precision balances</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>

# OIML norm R111-2004 for weights

## 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  $\pm \dots$  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  $8000 \text{ kg/m}^3$ , air density is  $1.2 \text{ kg/m}^3$  and measuring temperature is  $20^\circ\text{C}$ .

## KERN cylindrical test weights

Comply with OIML R111-2004 in all respects, without exception.

→ See the glossary, page 214 – 216

Nominal value ↓	OIML R111-2004 Maximum permissible errors for weights = permissible tolerances "Tol $\pm$ mg"						
	E1	E2	F1	F2	M1	M2	M3
1 mg	$\pm 0,003$ mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	-	-
2 mg	$\pm 0,003$ mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	-	-
5 mg	$\pm 0,003$ mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	-	-
10 mg	$\pm 0,003$ mg	$\pm 0,008$ mg	$\pm 0,025$ mg	$\pm 0,08$ mg	$\pm 0,25$ mg	-	-
20 mg	$\pm 0,003$ mg	$\pm 0,010$ mg	$\pm 0,03$ mg	$\pm 0,10$ mg	$\pm 0,3$ mg	-	-
50 mg	$\pm 0,004$ mg	$\pm 0,012$ mg	$\pm 0,04$ mg	$\pm 0,12$ mg	$\pm 0,4$ mg	-	-
100 mg	$\pm 0,005$ mg	$\pm 0,016$ mg	$\pm 0,05$ mg	$\pm 0,16$ mg	$\pm 0,5$ mg	$\pm 1,6$ mg	-
200 mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	$\pm 0,6$ mg	$\pm 2,0$ mg	-
500 mg	$\pm 0,008$ mg	$\pm 0,025$ mg	$\pm 0,08$ mg	$\pm 0,25$ mg	$\pm 0,8$ mg	$\pm 2,5$ mg	-
1 g	$\pm 0,010$ mg	$\pm 0,03$ mg	$\pm 0,10$ mg	$\pm 0,3$ mg	$\pm 1,0$ mg	$\pm 3,0$ mg	$\pm 10$ mg
2 g	$\pm 0,012$ mg	$\pm 0,04$ mg	$\pm 0,12$ mg	$\pm 0,4$ mg	$\pm 1,2$ mg	$\pm 4,0$ mg	$\pm 12$ mg
5 g	$\pm 0,016$ mg	$\pm 0,05$ mg	$\pm 0,16$ mg	$\pm 0,5$ mg	$\pm 1,6$ mg	$\pm 5,0$ mg	$\pm 16$ mg
10 g	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	$\pm 0,6$ mg	$\pm 2,0$ mg	$\pm 6,0$ mg	$\pm 20$ mg
20 g	$\pm 0,025$ mg	$\pm 0,08$ mg	$\pm 0,25$ mg	$\pm 0,8$ mg	$\pm 2,5$ mg	$\pm 8,0$ mg	$\pm 25$ mg
50 g	$\pm 0,03$ mg	$\pm 0,10$ mg	$\pm 0,3$ mg	$\pm 1,0$ mg	$\pm 3,0$ mg	$\pm 10$ mg	$\pm 30$ mg
100 g	$\pm 0,05$ mg	$\pm 0,16$ mg	$\pm 0,5$ mg	$\pm 1,6$ mg	$\pm 5,0$ mg	$\pm 16$ mg	$\pm 50$ mg
200 g	$\pm 0,10$ mg	$\pm 0,3$ mg	$\pm 1,0$ mg	$\pm 3,0$ mg	$\pm 10$ mg	$\pm 30$ mg	$\pm 100$ mg
500 g	$\pm 0,25$ mg	$\pm 0,8$ mg	$\pm 2,5$ mg	$\pm 8,0$ mg	$\pm 25$ mg	$\pm 80$ mg	$\pm 250$ mg
1 kg	$\pm 0,5$ mg	$\pm 1,6$ mg	$\pm 5,0$ mg	$\pm 16$ mg	$\pm 50$ mg	$\pm 160$ mg	$\pm 500$ mg
2 kg	$\pm 1,0$ mg	$\pm 3,0$ mg	$\pm 10$ mg	$\pm 30$ mg	$\pm 100$ mg	$\pm 300$ mg	$\pm 1000$ mg
5 kg	$\pm 2,5$ mg	$\pm 8,0$ mg	$\pm 25$ mg	$\pm 80$ mg	$\pm 250$ mg	$\pm 800$ mg	$\pm 2500$ mg
10 kg	$\pm 5,0$ mg	$\pm 16$ mg	$\pm 50$ mg	$\pm 160$ mg	$\pm 500$ mg	$\pm 1600$ mg	$\pm 5000$ mg
20 kg	$\pm 10$ mg	$\pm 30$ mg	$\pm 100$ mg	$\pm 300$ mg	$\pm 1000$ mg	$\pm 3000$ mg	$\pm 10$ g
50 kg	$\pm 25$ mg	$\pm 80$ mg	$\pm 250$ mg	$\pm 800$ mg	$\pm 2500$ mg	$\pm 8000$ mg	$\pm 25$ g
100 kg	-	$\pm 160$ mg	$\pm 500$ mg	$\pm 1600$ mg	$\pm 5000$ mg	$\pm 16$ g	$\pm 50$ g
200 kg	-	$\pm 300$ mg	$\pm 1000$ mg	$\pm 3000$ mg	$\pm 10$ g	$\pm 30$ g	$\pm 100$ g
500 kg	-	$\pm 800$ mg	$\pm 2500$ mg	$\pm 8000$ mg	$\pm 25$ g	$\pm 80$ g	$\pm 250$ g
1 000 kg	-	$\pm 1600$ mg	$\pm 5000$ mg	$\pm 16000$ mg	$\pm 50$ g	$\pm 160$ g	$\pm 500$ g
2 000 kg	-	-	$\pm 10$ g	$\pm 30$ g	$\pm 100$ g	$\pm 300$ g	$\pm 1000$ g
5 000 kg	-	-	$\pm 25$ g	$\pm 80$ g	$\pm 250$ g	$\pm 800$ g	$\pm 2500$ g

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

Individual weights per set →	1	2	2	5	10	20	20	50	100	200	200	500	1	2	2	5	10	20	20	50	100	200	200	500	1	2	2	5	10	
	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	g	g	g	g	g	g	g	g	g	g	g	kg	kg	kg	kg	kg		
1 mg – 500 mg	Total weight												1,11 g																	
1 mg – 50 g																														
1 mg – 100 g																														
1 mg – 200 g																														
1 mg – 500 g																														
1 mg – 1 kg																														
1 mg – 2 kg																														
1 mg – 5 kg																														
1 mg – 10 kg																														

# Test weights class E1

## Class E1 Milligram weights, wire shape, stainless steel

Test weight material: stainless steel  
Box material: Wood



Milligram weight			+ Box	+ DAkkS certificate	= Package price		
KERN		Tol ± mg	KERN	€	KERN	€	
308-31	1 mg	0,003	52,-	338-090-200	14,-	962-251	52,-
308-32	2 mg	0,003	52,-	338-090-200	14,-	962-252	52,-
308-33	5 mg	0,003	52,-	338-090-200	14,-	962-253	52,-
308-34	10 mg	0,003	52,-	338-090-200	14,-	962-254	52,-
308-35	20 mg	0,003	52,-	338-090-200	14,-	962-255	52,-
308-36	50 mg	0,004	52,-	338-090-200	14,-	962-256	52,-
308-37	100 mg	0,005	52,-	338-090-200	14,-	962-257	52,-
308-38	200 mg	0,006	52,-	338-090-200	14,-	962-258	52,-
308-39	500 mg	0,008	52,-	338-090-200	14,-	962-259	52,-

## Class E1 Individual weights, cylindrical shape, polished stainless steel

Test weight material: Polished stainless steel  
Box material: Lined wood



For weights  
≤ 500 g

For weights  
≥ 1 kg

Individual weight			+ Box	+ DAkkS certificate	= Package price	DAkkS certificate Recalibration	
KERN		Tol ± mg	KERN	€	KERN	€	
307-01	1 g	0,010	83,-	317-010-100	28,-	962-231	304,-
307-02	2 g	0,012	89,-	317-020-100	28,-	962-232	310,-
307-03	5 g	0,016	96,-	317-030-100	28,-	962-233	317,-
307-04	10 g	0,020	104,-	317-040-100	28,-	962-234	325,-
307-05	20 g	0,025	113,-	317-050-100	28,-	962-235	334,-
307-06	50 g	0,03	135,-	317-060-100	28,-	962-236	356,-
307-07	100 g	0,05	162,-	317-070-100	28,-	962-237	383,-
307-08	200 g	0,10	194,-	317-080-100	28,-	962-238	415,-
307-09	500 g	0,25	280,-	317-090-100	31,-	962-239	504,-
307-11	1 kg	0,5	425,-	317-110-100	35,-	962-241	653,-
307-12	2 kg	1,0	630,-	317-120-100	44,-	962-242	1139,-
307-13	5 kg	2,5	1060,-	317-130-100	66,-	962-243	1591,-
307-14	10 kg	5,0	1530,-	317-140-100	89,-	962-244	2084,-
307-15	20 kg	10,0	2160,-	317-150-100	340,-	962-245	3660,-
307-16	50 kg	25,0	4140,-	317-160-100	415,-	962-246	5915,-

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, cylindrical shape, polished stainless steel

Test weight material: Polished stainless steel  
Case material: Lined wood. Milligram weights 1 mg – 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price	DAkkS certificate Recalibration
KERN		Initial calibration	KERN	€
308-42	1 mg – 500 mg	655,-	962-250	1005,-
303-02	1 mg – 50 g	1540,-	963-201	2610,-
303-03	1 mg – 100 g	1700,-	963-202	2870,-
303-04	1 mg – 200 g	2090,-	963-203	3440,-
303-05	1 mg – 500 g	2420,-	963-204	3860,-
303-06	1 mg – 1 kg	2840,-	963-205	4370,-
303-07	1 mg – 2 kg	4150,-	963-206	6150,-
303-08	1 mg – 5 kg	5300,-	963-207	7750,-
303-09	1 mg – 10 kg	6890,-	963-208	9790,-
304-02	1 g – 50 g	910,-	963-215	1680,-
304-03	1 g – 100 g	1070,-	963-216	1930,-
304-04	1 g – 200 g	1460,-	963-217	2500,-
304-05	1 g – 500 g	1790,-	963-218	2920,-
304-06	1 g – 1 kg	2210,-	963-219	3440,-
304-07	1 g – 2 kg	3520,-	963-220	5300,-
304-08	1 g – 5 kg	4670,-	963-221	6900,-
304-09	1 g – 10 kg	6260,-	963-222	8950,-

# Test weights class E2

## Class E2 Milligram weights, flat polygonal sheet, aluminium/German silver

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



Milligram weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
318-01	1 mg	0,006	24,-		347-009-400	2,-	962-351	26,-
318-02	2 mg	0,006	24,-		347-009-400	2,-	962-352	26,-
318-03	5 mg	0,006	24,-		347-009-400	2,-	962-353	26,-
318-04	10 mg	0,008	24,-		347-009-400	2,-	962-354	26,-
318-05	20 mg	0,010	24,-		347-009-400	2,-	962-355	26,-
318-06	50 mg	0,012	24,-		347-009-400	2,-	962-356	26,-
318-07	100 mg	0,016	24,-		347-009-400	2,-	962-357	26,-
318-08	200 mg	0,020	24,-		347-009-400	2,-	962-358	26,-
318-09	500 mg	0,025	24,-		347-009-400	2,-	962-359	26,-

## Class E2 Individual weights, compact shape, polished stainless steel

Test weight material: Polished stainless steel  
 Container material: Lined plastic



Individual weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
316-01	1 g	0,03	33,-		317-020-400	6,-	962-331	26,-
316-02	2 g	0,04	35,-		317-020-400	6,-	962-332	26,-
316-03	5 g	0,05	37,-		317-030-400	6,-	962-333	26,-
316-04	10 g	0,06	39,-		317-040-400	6,-	962-334	26,-
316-05	20 g	0,08	45,-		317-050-400	6,-	962-335	26,-
316-06	50 g	0,10	48,-		317-060-400	6,-	962-336	26,-
316-07	100 g	0,16	52,-		317-070-400	6,-	962-337	33,-
316-08	200 g	0,3	66,-		317-080-400	6,-	962-338	33,-
316-09	500 g	0,8	111,-		317-090-400	9,-	962-339	33,-
316-11	1 kg	1,6	161,-		317-110-400	9,-	962-341	33,-
316-12	2 kg	3,0	260,-		317-120-400	9,-	962-342	41,-
316-13	5 kg	8,0	375,-		317-130-400	15,-	962-343	41,-
316-14	10 kg	16,0	530,-		317-140-400	20,-	962-344	41,-

## Class E2 Individual weights, cylindrical shape, polished stainless steel

Test weight material: Polished stainless steel  
 Container material: Lined plastic or wooden box (317-150-100 and 317-160-100)



Individual weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
317-01	1 g	0,03	47,-		317-020-400	6,-	962-331	26,-
317-02	2 g	0,04	50,-		317-020-400	6,-	962-332	26,-
317-03	5 g	0,05	54,-		317-030-400	6,-	962-333	26,-
317-04	10 g	0,06	56,-		317-040-400	6,-	962-334	26,-
317-05	20 g	0,08	65,-		317-050-400	6,-	962-335	26,-
317-06	50 g	0,10	76,-		317-060-400	6,-	962-336	26,-
317-07	100 g	0,16	82,-		317-070-400	6,-	962-337	33,-
317-08	200 g	0,3	104,-		317-080-400	6,-	962-338	33,-
317-09	500 g	0,8	175,-		317-090-400	9,-	962-339	33,-
317-11	1 kg	1,6	260,-		317-110-400	9,-	962-341	33,-
317-12	2 kg	3,0	415,-		317-120-400	9,-	962-342	41,-
317-13	5 kg	8,0	590,-		317-130-400	15,-	962-343	41,-
317-14	10 kg	16,0	850,-		317-140-400	20,-	962-344	41,-
317-15	20 kg	30,0	1340,-		317-150-100	340,-	962-345	52,-
317-16	50 kg	80,0	2780,-		317-160-100	415,-	962-346	64,-

For individual weights, wooden boxes are also available as an alternative to the plastic containers.  
 For more details on this, please see page 206.

For weights  
≤ 500 g

For weights  
≥ 1 kg

# Test weights class E2

## Class E2 Weight sets, compact shape, polished stainless steel



Test weight material: Polished stainless steel

Case material: Lined plastic

Weight set		+ DAkkS certificate	= Package price
KERN	€	KERN	€
312-024	1 g - 50 g	370,-	497,-
312-034	1 g - 100 g	410,-	560,-
312-044	1 g - 200 g	500,-	696,-
312-054	1 g - 500 g	610,-	830,-
312-064	1 g - 1 kg	810,-	1055,-
312-074	1 g - 2 kg	1310,-	1615,-
312-084	1 g - 5 kg	1650,-	1990,-

## Class E2 Weight sets, cylindrical shape, polished stainless steel

Test weight material: Individual weights, polished stainless steel, milligram weights aluminium/German silver

Case material: Lined plastic. Milligram weights 1 mg - 500 mg in plastic box



Weight set		+ DAkkS certificate	= Package price
KERN	€	KERN	€
318-22	1 mg - 500 mg	320,-	510,-
313-024	1 mg - 50 g	820,-	1135,-
313-034	1 mg - 100 g	910,-	1250,-
313-044	1 mg - 200 g	1110,-	1495,-
313-054	1 mg - 500 g	1270,-	1680,-
313-064	1 mg - 1 kg	1630,-	2065,-
313-074	1 mg - 2 kg	2460,-	2955,-
313-084	1 mg - 5 kg	3050,-	3580,-
314-024	1 g - 50 g	540,-	667,-
314-034	1 g - 100 g	620,-	770,-
314-044	1 g - 200 g	830,-	1026,-
314-054	1 g - 500 g	1010,-	1230,-
314-064	1 g - 1 kg	1340,-	1585,-
314-074	1 g - 2 kg	2180,-	2485,-
314-084	1 g - 5 kg	2760,-	3100,-

## Class E2 Weight sets, cylindrical shape, polished stainless steel

Test weight material: Individual weights, polished stainless steel, milligram weights aluminium /German silver

Case material: Lined wood. Milligram weights 1 mg - 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price
KERN	€	KERN	€
318-22	1 mg - 500 mg	320,-	510,-
313-02	1 mg - 50 g	880,-	1195,-
313-03	1 mg - 100 g	960,-	1300,-
313-04	1 mg - 200 g	1170,-	1555,-
313-05	1 mg - 500 g	1400,-	1810,-
313-06	1 mg - 1 kg	1670,-	2105,-
313-07	1 mg - 2 kg	2550,-	3045,-
313-08	1 mg - 5 kg	3250,-	3780,-
313-09	1 mg - 10 kg	4180,-	4740,-
314-02	1 g - 50 g	590,-	717,-
314-03	1 g - 100 g	670,-	820,-
314-04	1 g - 200 g	880,-	1076,-
314-05	1 g - 500 g	1120,-	1340,-
314-06	1 g - 1 kg	1380,-	1625,-
314-07	1 g - 2 kg	2260,-	2565,-
314-08	1 g - 5 kg	2960,-	3300,-
314-09	1 g - 10 kg	3890,-	4260,-

# Test weights class F1

## Class F1 Milligram weights, flat polygonal sheet, aluminium/German silver

Test weight material: Aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg  
 Container material: Lined plastic



Milligram weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
328-01	1 mg	0,020	11,-		347-009-400	2,-	962-451	18,-
328-02	2 mg	0,020	11,-		347-009-400	2,-	962-452	18,-
328-03	5 mg	0,020	11,-		347-009-400	2,-	962-453	18,-
328-04	10 mg	0,025	11,-		347-009-400	2,-	962-454	18,-
328-05	20 mg	0,03	11,-		347-009-400	2,-	962-455	18,-
328-06	50 mg	0,04	11,-		347-009-400	2,-	962-456	18,-
328-07	100 mg	0,05	11,-		347-009-400	2,-	962-457	18,-
328-08	200 mg	0,06	11,-		347-009-400	2,-	962-458	18,-
328-09	500 mg	0,08	11,-		347-009-400	2,-	962-459	18,-

## Individual weights, compact shape, finely turned stainless steel

Test weight material: finely turned stainless steel  
 Container material: Lined plastic

■ Build type: Not in accordance with OIML R111, adjusted to error limit class F1



Individual weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
329-01	1 g	0,10	18,-		347-030-400	2,-	962-431N	18,-
329-02	2 g	0,12	19,-		347-030-400	2,-	962-432N	18,-
329-03	5 g	0,16	20,-		347-030-400	2,-	962-433N	18,-
329-04	10 g	0,20	23,-		347-050-400	2,-	962-434N	18,-
329-05	20 g	0,25	25,-		347-050-400	2,-	962-435N	18,-
329-06	50 g	0,3	27,-		347-070-400	2,-	962-436N	18,-
329-07	100 g	0,5	31,-		347-070-400	2,-	962-437N	20,-
329-08	200 g	1,0	41,-		347-080-400	2,-	962-438N	20,-
329-09	500 g	2,5	58,-		347-090-400	3,-	962-439N	20,-
329-11	1 kg	5,0	83,-		347-110-400	3,-	962-441N	20,-
329-12	2 kg	10	127,-		347-120-400	3,-	962-442N	25,-
329-13	5 kg	25	218,-		347-130-400	9,-	962-443N	25,-
329-14	10 kg	50	412,-		347-140-400	9,-	962-444N	25,-

## Class F1 Individual weights, compact shape, polished stainless steel

Test weight material: Polished stainless steel  
 Container material: Lined plastic



Individual weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
326-01	1 g	0,10	22,-		347-030-400	2,-	962-431	18,-
326-02	2 g	0,12	23,-		347-030-400	2,-	962-432	18,-
326-03	5 g	0,16	25,-		347-030-400	2,-	962-433	18,-
326-04	10 g	0,20	28,-		347-050-400	2,-	962-434	18,-
326-05	20 g	0,25	29,-		347-050-400	2,-	962-435	18,-
326-06	50 g	0,3	32,-		347-070-400	2,-	962-436	18,-
326-07	100 g	0,5	36,-		347-070-400	2,-	962-437	20,-
326-08	200 g	1,0	49,-		347-080-400	2,-	962-438	20,-
326-09	500 g	2,5	68,-		347-090-400	3,-	962-439	20,-
326-11	1 kg	5,0	101,-		347-110-400	3,-	962-441	20,-
326-12	2 kg	10	150,-		347-120-400	3,-	962-442	25,-
326-13	5 kg	25	257,-		347-130-400	9,-	962-443	25,-
326-14	10 kg	50	485,-		347-140-400	9,-	962-444	25,-

# Test weights class F1

## Class F1 Individual weights, cylindrical shape, nickel-plated and polished brass

Test weight material: Nickel-plated and polished brass

Container material: Lined plastic or lined wooden box (317-150-100 and 317-160-100)



Individual weight			+ Container	+ DAkkS certificate	= Package price		
KERN	Tol ± mg	€	KERN	€	KERN	€	
327-61	1 g	0,10	23,-	347-030-400	2,-	962-431	18,-
327-62	2 g	0,12	24,-	347-030-400	2,-	962-432	18,-
327-63	5 g	0,16	26,-	347-030-400	2,-	962-433	18,-
327-64	10 g	0,20	29,-	347-050-400	2,-	962-434	18,-
327-65	20 g	0,25	31,-	347-050-400	2,-	962-435	18,-
327-66	50 g	0,3	34,-	347-070-400	2,-	962-436	18,-
327-67	100 g	0,5	38,-	347-070-400	2,-	962-437	20,-
327-68	200 g	1,0	52,-	347-080-400	2,-	962-438	20,-
327-69	500 g	2,5	72,-	347-090-400	3,-	962-439	20,-
327-71	1 kg	5,0	106,-	347-110-400	3,-	962-441	20,-
327-72	2 kg	10	158,-	347-120-400	3,-	962-442	25,-
327-73	5 kg	25	270,-	347-130-400	9,-	962-443	25,-
327-74	10 kg	50	510,-	347-140-400	9,-	962-444	25,-
327-75	20 kg	100	960,-	317-150-100	340,-	962-445	28,-
327-76	50 kg	250	1800,-	317-160-100	415,-	962-446	39,-

## Class F1 Individual weights, cylindrical shape, polished stainless steel

Test weight material: Polished stainless steel

Container material: Lined plastic or lined wooden box (317-150-100 and 317-160-100)



Individual weight			+ Container	+ DAkkS certificate	= Package price		
KERN	Tol ± mg	€	KERN	€	KERN	€	
327-01	1 g	0,10	30,-	347-030-400	2,-	962-431	18,-
327-02	2 g	0,12	31,-	347-030-400	2,-	962-432	18,-
327-03	5 g	0,16	33,-	347-030-400	2,-	962-433	18,-
327-04	10 g	0,20	37,-	347-050-400	2,-	962-434	18,-
327-05	20 g	0,25	41,-	347-050-400	2,-	962-435	18,-
327-06	50 g	0,3	45,-	347-070-400	2,-	962-436	18,-
327-07	100 g	0,5	55,-	347-070-400	2,-	962-437	20,-
327-08	200 g	1,0	72,-	347-080-400	2,-	962-438	20,-
327-09	500 g	2,5	118,-	347-090-400	3,-	962-439	20,-
327-11	1 kg	5,0	165,-	347-110-400	3,-	962-441	20,-
327-12	2 kg	10	250,-	347-120-400	3,-	962-442	25,-
327-13	5 kg	25	375,-	347-130-400	9,-	962-443	25,-
327-14	10 kg	50	680,-	347-140-400	9,-	962-444	25,-
327-15	20 kg	100	1050,-	317-150-100	340,-	962-445	28,-
327-16	50 kg	250	2270,-	317-160-100	415,-	962-446	39,-



### Alternative to plastic container:

Wooden boxes for individual weights. For more details on this, please see page 206.

# Test weights class F1

## Weight sets, compact shape, finely turned stainless steel



Check weight material: finely turned stainless steel, Case material: Lined plastic  
**Build type: Not in accordance with OIML R111, adjusted to error limit class F1**

Weight set		+ DAkkS certificate	= Package price	
KERN	€	KERN	€	
321-024	1 g - 50 g	185,-	962-415	67,-
321-034	1 g - 100 g	215,-	962-416	77,-
321-044	1 g - 200 g	280,-	962-417	98,-
321-054	1 g - 500 g	320,-	962-418	109,-
321-064	1 g - 1 kg	460,-	962-419	119,-
321-074	1 g - 2 kg	640,-	962-420	151,-
321-084	1 g - 5 kg	820,-	962-421	166,-

## Class F1 Weight sets, compact shape, polished stainless steel



Test weight material: Polished stainless steel  
Case material: Lined plastic

Weight set		+ DAkkS certificate	= Package price	
KERN	€	KERN	€	
322-024	1 g - 50 g	235,-	962-415	67,-
322-034	1 g - 100 g	270,-	962-416	77,-
322-044	1 g - 200 g	350,-	962-417	98,-
322-054	1 g - 500 g	410,-	962-418	109,-
322-064	1 g - 1 kg	580,-	962-419	119,-
322-074	1 g - 2 kg	810,-	962-420	151,-
322-084	1 g - 5 kg	1030,-	962-421	166,-

## Class F1 Weight sets, cylindrical shape, polished and nickel-plated brass or polished stainless steel

Test weight material: Individual weights - nickel-plated and polished brass or polished stainless steel, milligram weights - aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg  
Case material: Lined plastic. Milligram weights 1 mg - 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price	
KERN	€	KERN	€	
328-22	1 mg - 500 mg	175,-	962-450	100,-
<b>Nickel-plated and polished brass</b>				
323-624	1 mg - 50 g	400,-	962-401	167,-
323-634	1 mg - 100 g	435,-	962-402	178,-
323-644	1 mg - 200 g	530,-	962-403	199,-
323-654	1 mg - 500 g	590,-	962-404	210,-
323-664	1 mg - 1 kg	750,-	962-405	220,-
323-674	1 mg - 2 kg	1030,-	962-406	250,-
323-684	1 mg - 5 kg	1270,-	962-407	265,-
324-624	1 g - 50 g	260,-	962-415	67,-
324-634	1 g - 100 g	300,-	962-416	77,-
324-644	1 g - 200 g	380,-	962-417	98,-
324-654	1 g - 500 g	450,-	962-418	109,-
324-664	1 g - 1 kg	630,-	962-419	119,-
324-674	1 g - 2 kg	900,-	962-420	151,-
324-684	1 g - 5 kg	1140,-	962-421	166,-
<b>Polished stainless steel</b>				
323-024	1 mg - 50 g	500,-	962-401	167,-
323-034	1 mg - 100 g	560,-	962-402	178,-
323-044	1 mg - 200 g	700,-	962-403	199,-
323-054	1 mg - 500 g	820,-	962-404	210,-
323-064	1 mg - 1 kg	1070,-	962-405	220,-
323-074	1 mg - 2 kg	1570,-	962-406	250,-
323-084	1 mg - 5 kg	1920,-	962-407	265,-
324-024	1 g - 50 g	340,-	962-415	67,-
324-034	1 g - 100 g	400,-	962-416	77,-
324-044	1 g - 200 g	540,-	962-417	98,-
324-054	1 g - 500 g	660,-	962-418	109,-
324-064	1 g - 1 kg	890,-	962-419	119,-
324-074	1 g - 2 kg	1400,-	962-420	151,-
324-084	1 g - 5 kg	1750,-	962-421	166,-

# Test weights class F1

## Class F1 Weight sets, cylindrical shape, nickel-plated and polished brass or polished stainless steel

Test weight material: Individual weights polished or nickel-plated brass or polished stainless steel, milligram weights aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg  
 Case material: Lined wood. Milligram weights 1 mg – 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price
KERN	€	KERN	€
328-22	1 mg – 500 mg	175,-	275,-
<b>Polished and nickel-plated brass</b>			
323-62	1 mg – 50 g	455,-	622,-
323-63	1 mg – 100 g	485,-	663,-
323-64	1 mg – 200 g	580,-	779,-
323-65	1 mg – 500 g	700,-	910,-
323-66	1 mg – 1 kg	790,-	1010,-
323-67	1 mg – 2 kg	1120,-	1370,-
323-68	1 mg – 5 kg	1470,-	1735,-
323-69	1 mg – 10 kg	1990,-	2275,-
324-62	1 g – 50 g	310,-	377,-
324-63	1 g – 100 g	350,-	427,-
324-64	1 g – 200 g	435,-	533,-
324-65	1 g – 500 g	560,-	669,-
324-66	1 g – 1 kg	660,-	779,-
324-67	1 g – 2 kg	980,-	1131,-
324-68	1 g – 5 kg	1330,-	1496,-
324-69	1 g – 10 kg	1850,-	2032,-
<b>Polished stainless steel</b>			
323-02	1 mg – 50 g	560,-	727,-
323-03	1 mg – 100 g	610,-	788,-
323-04	1 mg – 200 g	750,-	949,-
323-05	1 mg – 500 g	930,-	1140,-
323-06	1 mg – 1 kg	1100,-	1320,-
323-07	1 mg – 2 kg	1650,-	1900,-
323-08	1 mg – 5 kg	2110,-	2375,-
323-09	1 mg – 10 kg	2880,-	3165,-
324-02	1 g – 50 g	390,-	457,-
324-03	1 g – 100 g	450,-	527,-
324-04	1 g – 200 g	600,-	698,-
324-05	1 g – 500 g	760,-	869,-
324-06	1 g – 1 kg	940,-	1059,-
324-07	1 g – 2 kg	1480,-	1631,-
324-08	1 g – 5 kg	1950,-	2116,-
324-09	1 g – 10 kg	2710,-	2892,-



### You can create your own individual weight set yourself:

It contains only the weights which you need for testing purposes. KERN will customise your own personal box out of plastic, wood or aluminium. For more details on this, please see page 207.



## Test weights class F2

### Class F2 Milligram weights, flat polygonal sheet, aluminium/German silver

Test weight material: Aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg  
 Container material: Lined plastic



Milligram weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
338-01	1 mg	0,06	10,-		347-009-400	2,-	962-451	18,-
338-02	2 mg	0,06	10,-		347-009-400	2,-	962-452	18,-
338-03	5 mg	0,06	10,-		347-009-400	2,-	962-453	18,-
338-04	10 mg	0,08	10,-		347-009-400	2,-	962-454	18,-
338-05	20 mg	0,10	10,-		347-009-400	2,-	962-455	18,-
338-06	50 mg	0,12	10,-		347-009-400	2,-	962-456	18,-
338-07	100 mg	0,16	10,-		347-009-400	2,-	962-457	18,-
338-08	200 mg	0,20	10,-		347-009-400	2,-	962-458	18,-
338-09	500 mg	0,25	10,-		347-009-400	2,-	962-459	18,-

### Class F2 Individual weights, cylindrical shape, finely turned stainless steel

Test weight material: finely turned stainless steel  
 Container material: Lined plastic or wooden box (337-150-200 and 337-160-200)



Individual weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
337-01	1 g	0,3	19,-		347-030-400	2,-	962-431	18,-
337-02	2 g	0,4	20,-		347-030-400	2,-	962-432	18,-
337-03	5 g	0,5	22,-		347-030-400	2,-	962-433	18,-
337-04	10 g	0,6	24,-		347-050-400	2,-	962-434	18,-
337-05	20 g	0,8	26,-		347-050-400	2,-	962-435	18,-
337-06	50 g	1,0	28,-		347-070-400	2,-	962-436	18,-
337-07	100 g	1,6	32,-		347-070-400	2,-	962-437	20,-
337-08	200 g	3,0	42,-		347-080-400	2,-	962-438	20,-
337-09	500 g	8,0	60,-		347-090-400	3,-	962-439	20,-
337-11	1 kg	16	84,-		347-110-400	3,-	962-441	20,-
337-12	2 kg	30	129,-		347-120-400	3,-	962-442	25,-
337-13	5 kg	80	220,-		347-130-400	9,-	962-443	25,-
337-14	10 kg	160	415,-		347-140-400	9,-	962-444	25,-
337-15	20 kg	300	710,-		337-150-200	220,-	962-445	28,-
337-16	50 kg	800	1290,-		337-160-200	345,-	962-446	39,-

#### Alternative to plastic container:

Wooden boxes for individual weights. For more details on this, please see page 206.

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

Test weight material: finely turned stainless steel  
 Box material: Wood



Test weight				Container		DAkkS certificate		Package price	
KERN		Tol ± mg	Dim. Ø x H	€		KERN	€	KERN	€
337-141	10 kg	160	137x132 mm	550,-		337-141-200	190,-	962-444	25,-
337-151	20 kg	300	137x217 mm	670,-		337-151-200	235,-	962-445	28,-
337-161	50 kg	800	198x250 mm	1790,-		337-161-200	345,-	962-446	39,-

# Test weights class F2

## Class F2 Weight sets, cylindrical shape, finely turned stainless steel

Test weight material: Individual weights - finely turned stainless steel,  
milligram weights - aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg  
Case material: Lined plastic. Milligram weights 1 mg - 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price	
KERN	€	KERN	€	
338-22	1 mg - 500 mg	143,-	KERN	243,-
333-024	1 mg - 50 g	365,-	962-450	100,-
333-034	1 mg - 100 g	405,-	962-401	167,-
333-044	1 mg - 200 g	495,-	962-402	178,-
333-054	1 mg - 500 g	570,-	962-403	199,-
333-064	1 mg - 1 kg	690,-	962-404	210,-
333-074	1 mg - 2 kg	970,-	962-405	220,-
333-084	1 mg - 5 kg	1250,-	962-406	250,-
334-024	1 g - 50 g	225,-	962-407	265,-
334-034	1 g - 100 g	265,-	962-415	67,-
334-044	1 g - 200 g	360,-	962-416	77,-
334-054	1 g - 500 g	425,-	962-417	98,-
334-064	1 g - 1 kg	560,-	962-418	109,-
334-074	1 g - 2 kg	850,-	962-419	119,-
334-084	1 g - 5 kg	1120,-	962-420	151,-
			962-421	166,-
			962-422	182,-

## Class F2 Weight sets, cylindrical shape, finely turned stainless steel

Test weight material: Individual weights - finely turned stainless steel,  
milligram weights - aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg  
Case material: Wood. Milligram weights 1 mg - 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price	
KERN	€	KERN	€	
338-22	1 mg - 500 mg	143,-	KERN	243,-
333-02	1 mg - 50 g	365,-	962-450	100,-
333-03	1 mg - 100 g	405,-	962-401	167,-
333-04	1 mg - 200 g	495,-	962-402	178,-
333-05	1 mg - 500 g	570,-	962-403	199,-
333-06	1 mg - 1 kg	690,-	962-404	210,-
333-07	1 mg - 2 kg	970,-	962-405	220,-
333-08	1 mg - 5 kg	1250,-	962-406	250,-
333-09	1 mg - 10 kg	1750,-	962-407	265,-
334-02	1 g - 50 g	225,-	962-408	285,-
334-03	1 g - 100 g	265,-	962-415	67,-
334-04	1 g - 200 g	360,-	962-416	77,-
334-05	1 g - 500 g	425,-	962-417	98,-
334-06	1 g - 1 kg	560,-	962-418	109,-
334-07	1 g - 2 kg	850,-	962-419	119,-
334-08	1 g - 5 kg	1120,-	962-420	151,-
334-09	1 g - 10 kg	1610,-	962-421	166,-
			962-422	182,-



### You can create your own individual weight set yourself:

It contains only the weights which you need for testing purposes. KERN will customise your own personal box out of plastic, wood or aluminium. For more details on this, please see page 207.

# Test weights class M1

## Class M1 Milligram weights, flat polygonal sheet, aluminium/German silver

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



Milligram weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
348-01	1 mg	0,20	4,10		347-009-400	2,-	962-651	15,-
348-02	2 mg	0,20	4,10		347-009-400	2,-	962-652	15,-
348-03	5 mg	0,20	4,10		347-009-400	2,-	962-653	15,-
348-04	10 mg	0,25	4,10		347-009-400	2,-	962-654	15,-
348-05	20 mg	0,3	4,10		347-009-400	2,-	962-655	15,-
348-06	50 mg	0,4	4,10		347-009-400	2,-	962-656	15,-
348-07	100 mg	0,5	4,10		347-009-400	2,-	962-657	15,-
348-08	200 mg	0,6	4,10		347-009-400	2,-	962-658	15,-
348-09	500 mg	0,8	4,10		347-009-400	2,-	962-659	15,-

## Class M1 Individual weights, cylindrical shape, finely turned brass or finely turned stainless steel

Test weight material: Individual weights - finely turned brass or finely turned stainless steel  
 Container material: Lined plastic



Individual weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
<b>Finely turned brass</b>								
347-41	1 g	1,0	4,10		347-030-400	2,-	962-631	15,-
347-42	2 g	1,2	4,40		347-030-400	2,-	962-632	15,-
347-43	5 g	1,6	4,80		347-030-400	2,-	962-633	15,-
347-44	10 g	2,0	5,30		347-050-400	2,-	962-634	15,-
347-45	20 g	2,5	5,70		347-050-400	2,-	962-635	15,-
347-46	50 g	3,0	6,70		347-070-400	2,-	962-636	15,-
347-47	100 g	5,0	8,60		347-070-400	2,-	962-637	16,-
347-48	200 g	10	13,-		347-080-400	2,-	962-638	16,-
347-49	500 g	25	28,-		347-090-400	3,-	962-639	16,-
347-51	1 kg	50	43,-		347-110-400	3,-	962-641	16,-
347-52	2 kg	100	77,-		347-120-400	3,-	962-642	17,-
347-53	5 kg	250	165,-		347-130-400	9,-	962-643	17,-
347-54	10 kg	500	310,-		347-140-400	9,-	962-644	17,-
<b>Finely turned stainless steel</b>								
347-01	1 g	1,0	4,60		347-030-400	2,-	962-631	15,-
347-02	2 g	1,2	4,90		347-030-400	2,-	962-632	15,-
347-03	5 g	1,6	5,40		347-030-400	2,-	962-633	15,-
347-04	10 g	2,0	5,80		347-050-400	2,-	962-634	15,-
347-05	20 g	2,5	6,50		347-050-400	2,-	962-635	15,-
347-06	50 g	3,0	8,20		347-070-400	2,-	962-636	15,-
347-07	100 g	5,0	11,-		347-070-400	2,-	962-637	16,-
347-08	200 g	10	16,-		347-080-400	2,-	962-638	16,-
347-09	500 g	25	34,-		347-090-400	3,-	962-639	16,-
347-11	1 kg	50	54,-		347-110-400	3,-	962-641	16,-
347-12	2 kg	100	92,-		347-120-400	3,-	962-642	17,-
347-13	5 kg	250	196,-		347-130-400	9,-	962-643	17,-
347-14	10 kg	500	385,-		347-140-400	9,-	962-644	17,-

## Class M1 Test weights, stainless steel, stackable

Test weight material: Stainless steel, finely turned  
 Box material: Wood



Test weight				Container		DAkkS certificate		Package price	
KERN		Tol ± g	Dim. Ø x H	€		KERN	€	KERN	€
347-141	10 kg	0,50	137x132 mm	465,-		337-141-200	190,-	962-644	17,-
347-151	20 kg	1,00	137x217 mm	530,-		337-151-200	235,-	962-645	22,-
347-161	50 kg	2,50	198x250 mm	1510,-		337-161-200	345,-	962-646	24,-

# Test weights class M1

## Class M1 Weight sets, cylindrical shape, finely turned brass or finely turned stainless steel

Test weight material: Individual weights finely turned brass or finely turned stainless steel, milligram weights aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg  
 Case material: Lined plastic. Milligram weights 1 mg - 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price
KERN	€	KERN	€
348-22	1 mg - 500 mg	69,-	132,-
<b>Finely turned brass</b>			
343-424	1 mg - 50 g	149,-	255,-
343-434	1 mg - 100 g	162,-	274,-
343-444	1 mg - 200 g	191,-	316,-
343-454	1 mg - 500 g	220,-	351,-
343-464	1 mg - 1 kg	305,-	442,-
343-474	1 mg - 2 kg	485,-	637,-
343-484	1 mg - 5 kg	710,-	870,-
344-424	1 g - 50 g	81,-	123,-
344-434	1 g - 100 g	94,-	143,-
344-444	1 g - 200 g	124,-	185,-
344-454	1 g - 500 g	158,-	226,-
344-464	1 g - 1 kg	250,-	324,-
344-474	1 g - 2 kg	430,-	519,-
344-484	1 g - 5 kg	650,-	746,-
<b>Finely turned stainless steel</b>			
343-024	1 mg - 50 g	155,-	261,-
343-034	1 mg - 100 g	170,-	282,-
343-044	1 mg - 200 g	205,-	330,-
343-054	1 mg - 500 g	245,-	376,-
343-064	1 mg - 1 kg	335,-	472,-
343-074	1 mg - 2 kg	540,-	692,-
343-084	1 mg - 5 kg	800,-	960,-
344-024	1 g - 50 g	88,-	130,-
344-034	1 g - 100 g	102,-	151,-
344-044	1 g - 200 g	139,-	200,-
344-054	1 g - 500 g	179,-	247,-
344-064	1 g - 1 kg	285,-	359,-
344-074	1 g - 2 kg	490,-	579,-
344-084	1 g - 5 kg	750,-	846,-

## Class M1 Weight sets, cylindrical shape, finely turned brass or finely turned stainless steel

Test weight material: Individual weights finely turned brass or finely turned stainless steel, milligram weights aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg  
 Case material: Wood. Milligram weights 1 mg - 500 mg in plastic box.



Weight set		+ DAkkS certificate	= Package price
KERN	€	KERN	€
348-22	1 mg - 500 mg	69,-	132,-
<b>Finely turned brass</b>			
343-42	1 mg - 50 g	149,-	255,-
343-43	1 mg - 100 g	162,-	274,-
343-44	1 mg - 200 g	191,-	316,-
343-45	1 mg - 500 g	220,-	351,-
343-46	1 mg - 1 kg	305,-	442,-
343-47	1 mg - 2 kg	485,-	637,-
343-48	1 mg - 5 kg	710,-	870,-
343-49	1 mg - 10 kg	1090,-	1257,-
344-42	1 g - 50 g	81,-	123,-
344-43	1 g - 100 g	94,-	143,-
344-44	1 g - 200 g	124,-	185,-
344-45	1 g - 500 g	158,-	226,-
344-46	1 g - 1 kg	250,-	324,-
344-47	1 g - 2 kg	430,-	519,-
344-48	1 g - 5 kg	650,-	746,-
344-49	1 g - 10 kg	1020,-	1124,-

# Test weights class M1

Continuation: Class M1 **Weight sets, cylindrical shape, finely turned brass or finely turned stainless steel**



Weight set		+ DAkkS certificate	= Package price		
KERN	€	KERN	€		
<b>Finely turned stainless steel</b>					
343-02	1 mg - 50 g	155,-	962-601	106,-	261,-
343-03	1 mg - 100g	170,-	962-602	112,-	282,-
343-04	1 mg - 200 g	205,-	962-603	125,-	330,-
343-05	1 mg - 500 g	245,-	962-604	131,-	376,-
343-06	1 mg - 1 kg	335,-	962-605	137,-	472,-
343-07	1 mg - 2 kg	540,-	962-606	152,-	692,-
343-08	1 mg - 5 kg	800,-	962-607	160,-	960,-
343-09	1 mg - 10 kg	1250,-	962-608	167,-	1417,-
344-02	1 g - 50 g	88,-	962-615	42,-	130,-
344-03	1 g - 100 g	102,-	962-616	49,-	151,-
344-04	1 g - 200 g	139,-	962-617	61,-	200,-
344-05	1 g - 500 g	179,-	962-618	68,-	247,-
344-06	1 g - 1 kg	285,-	962-619	74,-	359,-
344-07	1 g - 2 kg	490,-	962-620	89,-	579,-
344-08	1 g - 5 kg	750,-	962-621	96,-	846,-
344-09	1 g - 10 kg	1190,-	962-622	104,-	1294,-



## You can create your own individual weight set yourself:

It contains only the weights which you need for testing purposes. KERN will customise your own personal box out of plastic, wood or aluminium. For more details on this, please see page 207.

## 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,-.  
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,-.

## Class M1 Hook weights, finely turned brass

Test weight material: Finely turned brass

Container material: Lined plastic



Hook weight			+ Container	+ DAkkS certificate	= Package price	
KERN	Tol ± mg	€	KERN	€	KERN	€
347-416	1 g	1,0	347-030-400	2,-	29,-	
347-426	2 g	1,2	347-030-400	2,-	30,-	
347-436	5 g	1,6	347-030-400	2,-	31,-	
347-446	10 g	2,0	347-050-400	2,-	32,-	
347-456	20 g	2,5	347-050-400	2,-	33,-	
347-466	50 g	3,0	347-070-400	2,-	37,-	
347-476	100 g	5	347-090-400	3,-	42,-	
347-486	200 g	10	347-090-400	3,-	50,-	
347-496	500 g	25	347-110-400	3,-	62,-	
347-516	1 kg	50	347-120-400	3,-	82,-	
347-526	2 kg	100	347-130-400	9,-	130,-	
347-536	5 kg	250	347-140-400	9,-	206,-	
347-546	10 kg	500	-	-	367,-	

# Test weights class M1

## Class M1 Slotted weights, finely turned brass

Test weight material: Finely turned brass  
Container material: Lined plastic



Slotted weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg	€		KERN	€	KERN	€
347-415	1 g	1,0	14,-		347-030-400	2,-	962-631	15,-
347-425	2 g	1,2	15,-		347-030-400	2,-	962-632	15,-
347-435	5 g	1,6	16,-		347-030-400	2,-	962-633	15,-
347-445	10 g	2,0	19,-		347-030-400	2,-	962-634	15,-
347-455	20 g	2,5	20,-		347-080-400	2,-	962-635	15,-
347-465	50 g	3,0	22,-		347-080-400	2,-	962-636	15,-
347-475	100 g	5,0	25,-		347-090-400	3,-	962-637	16,-
347-485	200 g	10	30,-		347-090-400	3,-	962-638	16,-
347-495	500 g	25	48,-		347-110-400	3,-	962-639	16,-
347-515	1 kg	50	77,-		347-130-400	9,-	962-641	16,-
347-525	2 kg	100	116,-		347-130-400	9,-	962-642	17,-
347-535	5 kg	250	216,-		347-140-400	9,-	962-643	17,-
347-545	10 kg	500	376,-		347-140-400	9,-	962-644	17,-

## Class M1 Beam bars, finely turned brass, for fixing slotted weights

Beam bar material: Brass, aluminium (347-445-100)



Beam bar					DAkkS certificate		
KERN		Size	Largest slotted weight possible	Maximum total load	€	KERN	€
347-445-100*	10 g		100 g	200 g	30,-	962-634	15,-
347-475-100**	100 g		1 kg	2 kg	50,-	962-637	16,-
347-495-100***	500 g		10 kg	20 kg	79,-	962-639	16,-
347-515-100***	1000 g		10 kg	40 kg	118,-	962-641	16,-

## Class M1 Block weights, lacquered cast iron/stainless steel

Test weight material: Lacquered cast iron/stainless steel (in OIML classes F1 and F2 on request)



Block weight			DAkkS certificate		Package price	
KERN	Tol ± g	€	KERN	€	KERN	€
<b>Lacquered cast iron</b>						
346-86	5 kg	0,25	65,-	962-643	17,-	82,-
346-87	10 kg	0,50	85,-	962-644	17,-	102,-
346-88	20 kg	1,00	116,-	962-645	22,-	138,-
346-89	50 kg	2,50	320,-	962-646	24,-	344,-
<b>Stainless steel</b>						
346-06	5 kg	0,25	315,-	962-643	17,-	332,-
346-07	10 kg	0,50	455,-	962-644	17,-	472,-
346-08	20 kg	1,00	580,-	962-645	22,-	602,-
346-09	50 kg	2,50	1490,-	962-646	24,-	1514,-

## Class M1 Heavy duty weights, cast iron, stackable

Designed to be lifted with forklift trucks or cranes

Test weight material: Lacquered cast iron



Heavy duty weight				DAkkS certificate		
KERN	Tol ± g	Dimensions WxDxH	€	KERN	€	
346-81	100 kg	5	340x225x280 mm	1390,-	962-691	63,-
346-82	200 kg	10	465x340x291 mm	1650,-	962-692	63,-
346-83	500 kg	25	750x500x314 mm	2950,-	962-693	63,-
346-84	1000 kg	50	750x500x500 mm	4750,-	962-694	136,-
346-85	2000 kg	100	1000x750x500 mm	8700,-	962-695	250,-

# Test weights class M2

## Class M2 Individual weights, cylindrical shape, finely turned brass

Test weight material: finely turned brass

Container material: Lined plastic



### Alternative to plastic container:

Wooden boxes for individual weights. For more details on this, please see page 206

Individual weight			Container		DAkkS certificate		Package price		
KERN		Tol ± mg		KERN	€	KERN	€	KERN	€
357-41	1 g	3	3,60	347-030-400	2,-	962-631	15,-		20,60
357-42	2 g	4	3,90	347-030-400	2,-	962-632	15,-		20,90
357-43	5 g	5	4,30	347-030-400	2,-	962-633	15,-		21,30
357-44	10 g	6	4,70	347-050-400	2,-	962-634	15,-		21,70
357-45	20 g	8	5,20	347-050-400	2,-	962-635	15,-		22,20
357-46	50 g	10	6,20	347-070-400	2,-	962-636	15,-		23,20
357-47	100 g	16	8,-	347-070-400	2,-	962-637	16,-		26,-
357-48	200 g	30	12,-	347-080-400	2,-	962-638	16,-		30,-
357-49	500 g	80	26,-	347-090-400	3,-	962-639	16,-		45,-
357-51	1 kg	160	41,-	347-110-400	3,-	962-641	16,-		61,-
357-52	2 kg	300	69,-	347-120-400	3,-	962-642	17,-		89,-
357-53	5 kg	800	149,-	347-130-400	9,-	962-643	17,-		175,-
357-54	10 kg	1600	295,-	347-140-400	9,-	962-644	17,-		321,-

## Class M2 Block weights, lacquered cast iron

Test weight material: Lacquered cast iron



Block weight			DAkkS certificate		Package price		
KERN		Tol ± g		KERN	€	KERN	€
356-86	5 kg	0,8	62,-	962-643	17,-		79,-
356-87	10 kg	1,6	82,-	962-644	17,-		99,-
356-88	20 kg	3,0	113,-	962-645	22,-		135,-
356-89	50 kg	8,0	310,-	962-646	24,-		334,-

## Class M2 Weight sets, cylindrical shape, finely turned brass

Test weight material: Finely turned brass

Case material: Wood



Weight set			DAkkS certificate		Package price		
KERN		€		KERN	€	KERN	€
354-42	1 g - 50 g	78,-	962-615	42,-		118,-	
354-43	1 g - 100 g	89,-	962-616	49,-		138,-	
354-44	1 g - 200 g	117,-	962-617	61,-		178,-	
354-45	1 g - 500 g	149,-	962-618	68,-		217,-	
354-46	1 g - 1 kg	245,-	962-619	74,-		319,-	
354-47	1 g - 2 kg	405,-	962-620	89,-		494,-	
354-48	1 g - 5 kg	610,-	962-621	96,-		706,-	
354-49	1 g - 10 kg	970,-	962-622	104,-		1074,-	

# Test weights class M3

## Class M3 Individual weights, cylindrical shape, finely turned brass

Test weight material: Finely turned brass  
Container material: Lined plastic



Individual weight			Container		DAkkS certificate		Package price	
KERN		Tol ± mg			KERN	€	KERN	€
367-41	1 g	10	3,10		347-030-400	2,-	962-631	15,-
367-42	2 g	12	3,40		347-030-400	2,-	962-632	15,-
367-43	5 g	16	3,80		347-030-400	2,-	962-633	15,-
367-44	10 g	20	4,20		347-050-400	2,-	962-634	15,-
367-45	20 g	25	4,60		347-050-400	2,-	962-635	15,-
367-46	50 g	30	5,40		347-070-400	2,-	962-636	15,-
367-47	100 g	50	6,70		347-070-400	2,-	962-637	16,-
367-48	200 g	100	9,80		347-080-400	2,-	962-638	16,-
367-49	500 g	250	22,-		347-090-400	3,-	962-639	16,-
367-51	1 kg	500	35,-		347-110-400	3,-	962-641	16,-
367-52	2 kg	1000	59,-		347-120-400	3,-	962-642	17,-

## Class M3 Individual weights, cylindrical shape, lacquered cast iron

Test weight material: Lacquered cast iron. 20 kg and 50 kg with bail



Individual weight			DAkkS certificate		Package price	
KERN		Tol ± g			KERN	€
366-91	100 g	0,05	11,-		962-637	16,-
366-92	200 g	0,10	12,-		962-638	16,-
366-93	500 g	0,25	18,-		962-639	16,-
366-94	1 kg	0,50	22,-		962-641	16,-
366-95	2 kg	1,0	40,-		962-642	17,-
366-96	5 kg	2,5	66,-		962-643	17,-
366-97	10 kg	5,0	118,-		962-644	17,-

## Class M3 Block weights, lacquered cast iron

Test weight material: Lacquered cast iron



Block weight			DAkkS certificate		Package price	
KERN		Tol ± g			KERN	€
366-86	5 kg	2,5	59,-		962-643	17,-
366-87	10 kg	5,0	79,-		962-644	17,-
366-88	20 kg	10	110,-		962-645	22,-
366-89	50 kg	25	300,-		962-646	24,-

## Class M3 Weight sets, cylindrical, brass and lacquered cast iron

Test weight material: Brass and lacquered cast iron  
Case material: Wooden block



Weight set			DAkkS certificate		Package price	
KERN		€			KERN	€
362-96	1 g - 1 kg	140,-			962-619	74,-
362-97	1 g - 2 kg	225,-			962-620	89,-
362-98	1 g - 5 kg	295,-			962-621	96,-
362-99	1 g - 10 kg	420,-			962-622	104,-

# Test weights accessories

## Tweezers, gloves, dusting brush



### Tweezers

to be able to safely grip small test weights

For class	For weights	KERN	Length	Version	€
E1 – F1	1 mg – 200 g	315-243	105 mm	1	Stainless steel with silicone-coated tips 15,-
E1 – F1	500 g – 2 kg	315-245	250 mm	1	Stainless steel with silicone-coated tips 32,-
F2 – M3	1 mg – 200 g	335-240	100 mm	2	Stainless steel 6,80
E1 – M1	1 mg – 200 g	315-242	100 mm	3	Plastic 6,20



### 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



### Dusting brush

to clean the weights

KERN	€
318-270	4,20

## Boxes for individual weights/test weights

Box material: Lined wood

Suitable for individual weights

KERN-No. 307, 316, 317, 326, 327, 329



For weights ≤ 500 g



For weights ≥ 1 kg



For weights ≥ 10 kg

Box material: Wood

Suitable for individual weights

KERN-No. 337, 347, 357, 367



For weights ≤ 500 g



For weights ≥ 1 kg



For weights ≥ 10 kg

### Wooden box

for individual weights E1 – F1

For weight	KERN	€
mg	338-090-200	14,-
1 g	317-010-100	28,-
2 g	317-020-100	28,-
5 g	317-030-100	28,-
10 g	317-040-100	28,-
20 g	317-050-100	28,-
50 g	317-060-100	28,-
100 g	317-070-100	28,-
200 g	317-080-100	28,-
500 g	317-090-100	31,-
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 individual weights F2 – M3

For weight	KERN	€
mg	338-090-200	14,-
1 g	337-010-200	14,-
2 g	337-020-200	14,-
5 g	337-030-200	14,-
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	61,-
20 kg	337-150-200	220,-
50 kg	337-160-200	345,-

### Aluminium box

for individual weights, cylindrical shape, class E1, E2, F1 and F2

Largest possible weight	KERN	€
10 kg	317-140-600	245,-
20 kg	317-150-600	275,-

# Test weights accessories

## 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.



#### Plastic case

for individual weight sets classes E2 – M3,  
not appropriate for cast iron weights

KERN	Largest possible weight	€
313-050-400	≤ 500 g	82,-
313-080-400	≤ 5 kg	180,-

### Sample order:

Your individual weight set:

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

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



#### Wooden box

for individual weight sets classes E1 – F1

KERN	Largest possible weight	€
315-040-100	≤ 200 g	124,-
315-060-100	≤ 1 kg	185,-
315-070-100	≤ 2 kg	245,-
315-080-100	≤ 5 kg	350,-
315-090-100	≤ 10 kg	465,-



#### Wooden box

for individual weight set classes F2 – M3

KERN	Largest possible weight	€
335-040-200	≤ 200 g	58,-
335-050-200	≤ 500 g	61,-
335-060-200	≤ 1 kg	108,-
335-070-200	≤ 2 kg	134,-
335-080-200	≤ 5 kg	210,-
335-090-200	≤ 10 kg	300,-

## Plastic carrying case for standard weight sets



#### Plastic case for weight sets

with standard denomination classes E2 – M3,  
not appropriate for cast iron weights

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

### Aluminium case

for safe storage and transportation under harsh industrial conditions.

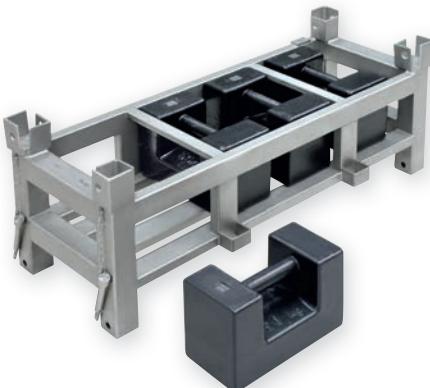


#### Aluminium case

for weight sets with standard denomination classes E1, E2

KERN	Largest possible weight	€
313-042-600	≤ 200 g	230,-
313-062-600	≤ 1 kg	310,-
313-082-600	≤ 5 kg	390,-
313-090-600	≤ 10 kg	470,-

## Weight carriers for block weights or other test weights



Individual weight carriers for testing high capacity floor scales, pallet scales, pallet truck scales, crane scales, etc. This can also be used for storing the weights.

This means the weight container and the weights can be placed on the scale in one go, saving time and money.

The weight container can be calibrated to OIML accuracy classes M1 – M3.

On request, KERN will make you a "tailor-made" weight carrier to your specifications.

Example:

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

# Tradition and innovation for more than 170 years

An independent family business, KERN since already 7 generations is synonymous with quality and reliability in customer service.



► 1844



► 1863



► 1880



► 1923



► 1980

KERN is founded – precision balances are produced

A proud Gottlieb Kern with his staff

Pharmaceutical balance with Aesculap

Inflation – KERN wages are paid with self printed currency

The electronic balance ousts mechanical devices



► 1994



► 2000



► 2002



► 2007



► 2008

Accredited DKD laboratory (ISO 17025)

New premises in Balingen

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

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

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



► 2009



► 2012



► 2014



► 2015

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

Verification point for non-automatic balances and test weights.

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

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

New customer portal [www.kern-sohn.com](http://www.kern-sohn.com) goes live



## Our Tip

Come to see the Museum of scale and weight ...



How a scale learned to weigh! Come and experience KERN history in the Zollernschloss at Balingen ...

[www.balingen.de](http://www.balingen.de)  
→ "Kultur"

## KERN – Tradition and Innovation for over 170 years

An independent family business, KERN since already 7 generations is synonymous with quality and reliability in customer service.

fast

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

reliable

- 3 years warranty for balances over € 400,-
- Precision in weighing technology for more than 170 years

competent

- DAkkS accreditation DIN EN ISO/IEC 17025
- Certified QM system DIN EN ISO 9001:2008
- Authorisation for initial verification by the manufacturer 2009/23/EC
- Medical certifications DIN EN ISO 13485 and 93/42/EEC

versatile

- One-stop shopping: from pocket balances through to floor scales – everything from one supplier
- Find the product you want at lightning speed with the “Balance Quick-Finder” at [www.kern-sohn.com](http://www.kern-sohn.com)

 Order hotline  
+49 [0] 7433 9933-0

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

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

 Service hotline  
+49 [0] 7433 9933-199

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

 **www.kern-sohn.com**  
For product specification sheets, user manuals, useful information, technical glossary pictures and much more as well as a smart search engine for test weights and balances

 Calibration hotline  
+49 [0] 7433 9933-196

 Fax Order  
+49 [0] 7433 9933-146

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



APPROVAL FOR  
MANUFACTURE  
OF MEDICAL  
PRODUCTS  
EN 13485 and  
93/42/EEC

AUTHORISATION  
FOR INITIAL  
VERIFICATION  
BY THE  
MANUFACTURER  
2009/23/EC

  
German Excellence Group  
Member