GB

KERN®

# TEST WEIGHTS

PROFESSIONAL
MEASURING

2018

# 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:**
Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard. For details see page 191

**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. Suitable for data transfer over large distances. Network in bus topology is possible

**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

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

**KERN Communication Protocol (KCP):**
It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems

**GLP/ISO log:**
The balance displays serial number, user ID, weight, date and time, regardless of a printer connection

**GLP/ISO log:**
With weight, date and time. Only with KERN printers, see page 154/155

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

**Recipe level A:**
The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out

**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, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition

**Totalising level A:**
The weights of similar items can be added together and the total can be printed out

**Percentage determination:**
Determining the deviation in % from the target value (100 %)

**Weighing units:**
Can be switched to e.g. nonmetric units at the touch of a key. See balance model. Please refer to KERN's website for more details

**Weighing with tolerance range:**
(Checkweighing) Upper and lower limiting can be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model

**Hold function:**
(Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value

**Protection against dust and water splashes IPxx:**
The type of protection is shown in the pictogram. For details see page 58

**Stainless steel:**
The balance is protected against corrosion

**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

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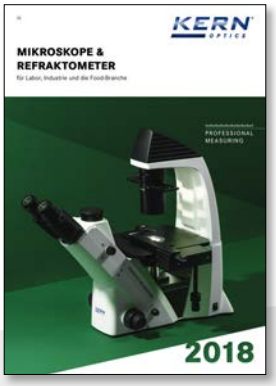
## KERN – measuring technology and testing services from a single source


**Balances & Test service catalogue**

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

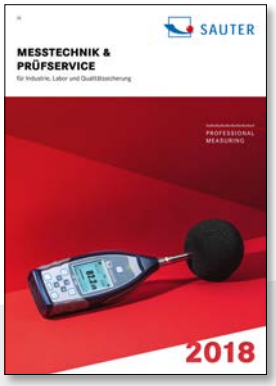

**Medical scales catalogue**

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




**Microscopes & refractometers catalogue**

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




**SAUTER measuring equipment catalogue**

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


**DAkkS calibration service brochure**

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

## Your advantages

### fast

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

### reliable

- Up to 3 years warranty
- Precision in weighing technology for more than 170 years

### competent

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

### versatile

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

**Order hotline**
+49 [0] 7433 9933-0

**Service hotline**
+49 [0] 7433 9933-199

**Calibration hotline**
+49 [0] 7433 9933-196

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

**Online Shop**
www.kern-sohn.com

**E-mail order**
info@kern-sohn.com

**Fax order**
+49 [0] 7433 9933-146

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

# Test weights

**Weights yesterday and today**

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

**Adjustment or calibration?**

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

**Testing, the right way!**

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

As the appropriate test weight is only classed as checking equipment according to ▸ ***ISO 9000ff*** if it has the relevant proof of accuracy, all KERN test weights come with an appropriate ▸ ***DAkkS-calibration certificate.*** For further details, see the calibration service section on page 182.

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 191–193***

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 ≥ 100,000 e

F1 Test weights for analytical balances/precision balances for verification class I/II ≤ 100,000 e

F2 Test weights for precision balances of verification class II ≤ 30,000 e

M1 Test weights for industrial and commercial scales of verification class III ≤ 10,000 e

| KERN DAkkS delivery times & shipping type | Total weight ≤ 40 kg (gross weight, incl. packaging) | Total weight > 40 kg (gross weight, incl. packaging) |
|---|---|---|
| DAkkS standard service Class E2 – M3 | 4 DAYS | 4 DAYS |
| DAkkS standard service Class E1, 1 mg – 500 mg and recalibration 1 g –10 kg with a known volume | 10 DAYS | 10 DAYS |
| ClassE1, ≥ 1 g, incl. volume determination (new weights) | 15 DAYS | 15 DAYS |
| Special weights, Newton weights, heavy duty weights, weight carriers, wooden boxes for individual weight sets etc. (e.g. 334-141ff, 347-141ff, 346-81ff, 315-040-100ff, 335-040-200ff) | on request | |

**Marietta Gulde**
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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 164.

**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 327-72, see page 169.

**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 →** / **Features ↓** | **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** |
|---|---|---|---|---|---|---|
| **Conforms to OIML:R111** | yes | yes | yes | no | yes | yes |
| **Available classes** | E1, E2 | E2, F1 | F1 | adjusted to F1 error limit class | F2, M1 | M1, M2, M3 |
| **Upper surface** | polished | polished | polished | finely turned | finely turned | finely turned |
| **Material** | Stainless steel | Stainless steel | Stainless steel or nickel-plated brass | Stainless steel | Stainless steel | Brass |
| **Adjusting cavity** | no | no | yes | yes, from 20 g | yes, from 20 g | yes, from 20 g |
| **Marking** (Milligram weights, generally none) | no | E2: None<br>F1: Nominal value, etched | Nominal value, etched | Nominal value, etched | F2: Class + nominal value, etched;<br>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 | not approved | approved | approved, M1 only |
| **Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)** | yes | yes | yes | yes | yes | yes |
| **Benefits** | • High-quality test weight for analytical and precision balances<br>• Highly-refined surface<br>• Ideal shape of the top for good grip | • Affordable test weight for analytical and precision balances<br>• Highly refined surface | • Ideal, high-quality test weight for precision balances<br>• Ideal shape of the top for good grip | • Affordable test weight for in-house checking of precision balances | • Ideal test weight for commercial and industrial scales<br>• Ideal shape of the top for good grip | • Affordable test weight for commercial and industrial scales<br>• Ideal shape of the top for good grip |

### The key points from the OIML norm R111:2004

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

### Error limits for weights of classes E1 to M3

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

### Error limit classes (= tolerances)

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

### Conventional mass

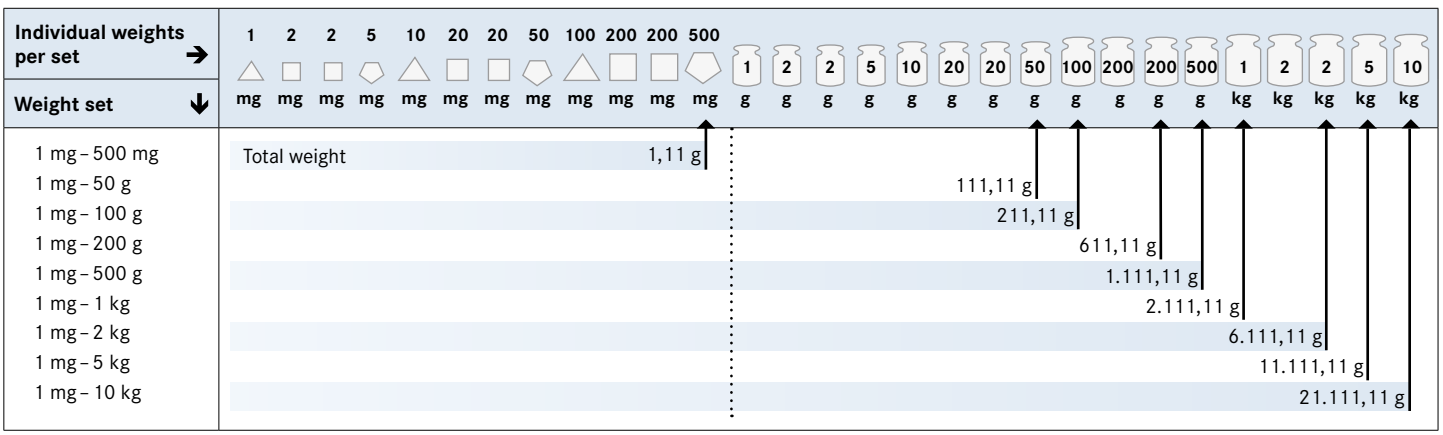
The problem is the air buoyancy, which makes the weight appear lighter. In order to avoid this "distortion" in daily use, all weights are adjusted to the unit specifications as given in R111, e.g. it is accepted that: material density of the weights is 8000 kg/m³, air density is 1.2 kg/m³ and measuring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

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

▸ ***See the glossary, page 191–193***

| 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 |

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



## 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 | € | | KERN | € |
| 308-31 | 1 mg | 0,003 | 58,- | | 338-090-200 | 14,- | | 962-251 | 52,- | | | 124,- |
| 308-32 | 2 mg | 0,003 | 58,- | | 338-090-200 | 14,- | | 962-252 | 52,- | | | 124,- |
| 308-33 | 5 mg | 0,003 | 58,- | | 338-090-200 | 14,- | | 962-253 | 52,- | | | 124,- |
| 308-34 | 10 mg | 0,003 | 58,- | | 338-090-200 | 14,- | | 962-254 | 52,- | | | 124,- |
| 308-35 | 20 mg | 0,003 | 58,- | | 338-090-200 | 14,- | | 962-255 | 52,- | | | 124,- |
| 308-36 | 50 mg | 0,004 | 58,- | | 338-090-200 | 14,- | | 962-256 | 52,- | | | 124,- |
| 308-37 | 100 mg | 0,005 | 58,- | | 338-090-200 | 14,- | | 962-257 | 52,- | | | 124,- |
| 308-38 | 200 mg | 0,006 | 58,- | | 338-090-200 | 14,- | | 962-258 | 52,- | | | 124,- |
| 308-39 | 500 mg | 0,008 | 58,- | | 338-090-200 | 14,- | | 962-259 | 52,- | | | 124,- |

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

For weights ≤ 500 g

For weights ≥ 1 kg

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

| Individual weight | | | | + | Box | | + | DAkkS certificate Initial calibration* | | = | Package price | DAkkS certificate Recalibration | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KERN | | Tol ± mg | € | | KERN | € | | KERN | € | | € | KERN | € |
| 307-01 | 1 g | 0,010 | 83,- | | 317-010-100 | 28,- | | 963-231 | 193,- | | 304,- | 962-231 R | 52,- |
| 307-02 | 2 g | 0,012 | 89,- | | 317-020-100 | 28,- | | 963-232 | 193,- | | 310,- | 962-232 R | 52,- |
| 307-03 | 5 g | 0,016 | 96,- | | 317-030-100 | 28,- | | 963-233 | 193,- | | 317,- | 962-233 R | 52,- |
| 307-04 | 10 g | 0,020 | 104,- | | 317-040-100 | 28,- | | 963-234 | 193,- | | 325,- | 962-234 R | 52,- |
| 307-05 | 20 g | 0,025 | 113,- | | 317-050-100 | 28,- | | 963-235 | 193,- | | 334,- | 962-235 R | 52,- |
| 307-06 | 50 g | 0,03 | 135,- | | 317-060-100 | 28,- | | 963-236 | 193,- | | 356,- | 962-236 R | 52,- |
| 307-07 | 100 g | 0,05 | 162,- | | 317-070-100 | 28,- | | 963-237 | 193,- | | 383,- | 962-237 R | 52,- |
| 307-08 | 200 g | 0,10 | 194,- | | 317-080-100 | 28,- | | 963-238 | 193,- | | 415,- | 962-238 R | 52,- |
| 307-09 | 500 g | 0,25 | 280,- | | 317-090-100 | 31,- | | 963-239 | 193,- | | 504,- | 962-239 R | 52,- |
| 307-11 | 1 kg | 0,5 | 425,- | | 317-110-100 | 35,- | | 963-241 | 193,- | | 653,- | 962-241 R | 52,- |
| 307-12 | 2 kg | 1,0 | 630,- | | 317-120-100 | 44,- | | 963-242 | 465,- | | 1139,- | 962-242 R | 64,- |
| 307-13 | 5 kg | 2,5 | 1060,- | | 317-130-100 | 66,- | | 963-243 | 465,- | | 1591,- | 962-243 R | 64,- |
| 307-14 | 10 kg | 5,0 | 1530,- | | 317-140-100 | 89,- | | 963-244 | 465,- | | 2084,- | 962-244 R | 64,- |
| 307-15 | 20 kg | 10,0 | 3100,- | | 317-150-100 | 340,- | | 963-245 | 1160,- | | 4600,- | 962-245 R | 590,- |
| 307-16 | 50 kg | 25,0 | 5900,- | | 317-160-100 | 415,- | | 963-246 | 1360,- | | 7675,- | 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, 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 Initial calibration | | = | Package price | | DAkkS certificate Recalibration | |
|---|---|---|---|---|---|---|---|---|---|---|
| KERN | | € | | KERN | € | | KERN | € | KERN | € |
| 308-42 | 1 mg – 500 mg | 780,- | | 962-250 | 350,- | | | 1130,- | 962-250 R | 350,- |
| 303-02 | 1 mg – 50 g | 1540,- | | 963-201 | 1070,- | | | 2610,- | 962-201 R | 560,- |
| 303-03 | 1 mg – 100 g | 1700,- | | 963-202 | 1170,- | | | 2870,- | 962-202 R | 580,- |
| 303-04 | 1 mg – 200 g | 2090,- | | 963-203 | 1350,- | | | 3440,- | 962-203 R | 630,- |
| 303-05 | 1 mg – 500 g | 2420,- | | 963-204 | 1440,- | | | 3860,- | 962-204 R | 660,- |
| 303-06 | 1 mg – 1 kg | 2840,- | | 963-205 | 1530,- | | | 4370,- | 962-205 R | 700,- |
| 303-07 | 1 mg – 2 kg | 4150,- | | 963-206 | 2000,- | | | 6150,- | 962-206 R | 750,- |
| 303-08 | 1 mg – 5 kg | 5300,- | | 963-207 | 2450,- | | | 7750,- | 962-207 R | 770,- |
| 303-09 | 1 mg – 10 kg | 6890,- | | 963-208 | 2900,- | | | 9790,- | 962-208 R | 800,- |
| 304-02 | 1 g – 50 g | 910,- | | 963-215 | 770,- | | | 1680,- | 962-215 R | 245,- |
| 304-03 | 1 g – 100 g | 1070,- | | 963-216 | 860,- | | | 1930,- | 962-216 R | 270,- |
| 304-04 | 1 g – 200 g | 1460,- | | 963-217 | 1040,- | | | 2500,- | 962-217 R | 320,- |
| 304-05 | 1 g – 500 g | 1790,- | | 963-218 | 1130,- | | | 2920,- | 962-218 R | 350,- |
| 304-06 | 1 g – 1 kg | 2210,- | | 963-219 | 1230,- | | | 3440,- | 962-219 R | 375,- |
| 304-07 | 1 g – 2 kg | 3520,- | | 963-220 | 1780,- | | | 5300,- | 962-220 R | 425,- |
| 304-08 | 1 g – 5 kg | 4670,- | | 963-221 | 2230,- | | | 6900,- | 962-221 R | 450,- |
| 304-09 | 1 g – 10 kg | 6260,- | | 963-222 | 2690,- | | | 8950,- | 962-222 R | 485,- |

## 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 | € | | KERN | € |
| **318-01** | 1 mg | 0,006 | **24,-** | | 347-009-400 | **2,-** | | 962-351 | **26,-** | | | **52,-** |
| **318-02** | 2 mg | 0,006 | **24,-** | | 347-009-400 | **2,-** | | 962-352 | **26,-** | | | **52,-** |
| **318-03** | 5 mg | 0,006 | **24,-** | | 347-009-400 | **2,-** | | 962-353 | **26,-** | | | **52,-** |
| **318-04** | 10 mg | 0,008 | **24,-** | | 347-009-400 | **2,-** | | 962-354 | **26,-** | | | **52,-** |
| **318-05** | 20 mg | 0,010 | **24,-** | | 347-009-400 | **2,-** | | 962-355 | **26,-** | | | **52,-** |
| **318-06** | 50 mg | 0,012 | **24,-** | | 347-009-400 | **2,-** | | 962-356 | **26,-** | | | **52,-** |
| **318-07** | 100 mg | 0,016 | **24,-** | | 347-009-400 | **2,-** | | 962-357 | **26,-** | | | **52,-** |
| **318-08** | 200 mg | 0,020 | **24,-** | | 347-009-400 | **2,-** | | 962-358 | **26,-** | | | **52,-** |
| **318-09** | 500 mg | 0,025 | **24,-** | | 347-009-400 | **2,-** | | 962-359 | **26,-** | | | **52,-** |

## 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 | € | | KERN | € |
| **316-01** | 1 g | 0,03 | **33,-** | | 317-020-400 | **6,-** | | 962-331 | **26,-** | | | **65,-** |
| **316-02** | 2 g | 0,04 | **35,-** | | 317-020-400 | **6,-** | | 962-332 | **26,-** | | | **67,-** |
| **316-03** | 5 g | 0,05 | **37,-** | | 317-030-400 | **6,-** | | 962-333 | **26,-** | | | **69,-** |
| **316-04** | 10 g | 0,06 | **39,-** | | 317-040-400 | **6,-** | | 962-334 | **26,-** | | | **71,-** |
| **316-05** | 20 g | 0,08 | **45,-** | | 317-050-400 | **6,-** | | 962-335 | **26,-** | | | **77,-** |
| **316-06** | 50 g | 0,10 | **48,-** | | 317-060-400 | **6,-** | | 962-336 | **26,-** | | | **80,-** |
| **316-07** | 100 g | 0,16 | **52,-** | | 317-070-400 | **6,-** | | 962-337 | **33,-** | | | **91,-** |
| **316-08** | 200 g | 0,3 | **66,-** | | 317-080-400 | **6,-** | | 962-338 | **33,-** | | | **105,-** |
| **316-09** | 500 g | 0,8 | **111,-** | | 317-090-400 | **9,-** | | 962-339 | **33,-** | | | **153,-** |
| **316-11** | 1 kg | 1,6 | **161,-** | | 317-110-400 | **9,-** | | 962-341 | **33,-** | | | **203,-** |
| **316-12** | 2 kg | 3,0 | **260,-** | | 317-120-400 | **9,-** | | 962-342 | **41,-** | | | **310,-** |
| **316-13** | 5 kg | 8,0 | **375,-** | | 317-130-400 | **15,-** | | 962-343 | **41,-** | | | **431,-** |
| **316-14** | 10 kg | 16,0 | **530,-** | | 317-140-400 | **20,-** | | 962-344 | **41,-** | | | **591,-** |

## 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)

For weights ≤ 500 g

For weights ≥ 1 kg

| Individual weight | | | | + | Container | | + | DAkkS certificate | | = | Package price | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KERN | | Tol ± mg | € | | KERN | € | | KERN | € | | KERN | € |
| **317-01** | 1 g | 0,03 | **47,-** | | 317-020-400 | **6,-** | | 962-331 | **26,-** | | | **79,-** |
| **317-02** | 2 g | 0,04 | **50,-** | | 317-020-400 | **6,-** | | 962-332 | **26,-** | | | **82,-** |
| **317-03** | 5 g | 0,05 | **54,-** | | 317-030-400 | **6,-** | | 962-333 | **26,-** | | | **86,-** |
| **317-04** | 10 g | 0,06 | **56,-** | | 317-040-400 | **6,-** | | 962-334 | **26,-** | | | **88,-** |
| **317-05** | 20 g | 0,08 | **65,-** | | 317-050-400 | **6,-** | | 962-335 | **26,-** | | | **97,-** |
| **317-06** | 50 g | 0,10 | **76,-** | | 317-060-400 | **6,-** | | 962-336 | **26,-** | | | **108,-** |
| **317-07** | 100 g | 0,16 | **82,-** | | 317-070-400 | **6,-** | | 962-337 | **33,-** | | | **121,-** |
| **317-08** | 200 g | 0,3 | **104,-** | | 317-080-400 | **6,-** | | 962-338 | **33,-** | | | **143,-** |
| **317-09** | 500 g | 0,8 | **175,-** | | 317-090-400 | **9,-** | | 962-339 | **33,-** | | | **217,-** |
| **317-11** | 1 kg | 1,6 | **260,-** | | 317-110-400 | **9,-** | | 962-341 | **33,-** | | | **302,-** |
| **317-12** | 2 kg | 3,0 | **415,-** | | 317-120-400 | **9,-** | | 962-342 | **41,-** | | | **465,-** |
| **317-13** | 5 kg | 8,0 | **590,-** | | 317-130-400 | **15,-** | | 962-343 | **41,-** | | | **646,-** |
| **317-14** | 10 kg | 16,0 | **850,-** | | 317-140-400 | **20,-** | | 962-344 | **41,-** | | | **911,-** |
| **317-15** | 20 kg | 30,0 | **1680,-** | | 317-150-100 | **340,-** | | 962-345 | **52,-** | | | **2072,-** |
| **317-16** | 50 kg | 80,0 | **3500,-** | | 317-160-100 | **415,-** | | 962-346 | **64,-** | | | **3979,-** |

For individual weights, wooden boxes are also available as an alternative to the plastic containers.
For more details on this, please see page 180

## 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 | € | | KERN | € |
| 312-024 | 1 g – 50 g | 370,- | | 962-315 | 127,- | | | 497,- |
| 312-034 | 1 g – 100 g | 410,- | | 962-316 | 150,- | | | 560,- |
| 312-044 | 1 g – 200 g | 500,- | | 962-317 | 196,- | | | 696,- |
| 312-054 | 1 g – 500 g | 610,- | | 962-318 | 220,- | | | 830,- |
| 312-064 | 1 g – 1 kg | 810,- | | 962-319 | 245,- | | | 1055,- |
| 312-074 | 1 g – 2 kg | 1310,- | | 962-320 | 305,- | | | 1615,- |
| 312-084 | 1 g – 5 kg | 1650,- | | 962-321 | 340,- | | | 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 | € | | KERN | € |
| 318-22 | 1 mg – 500 mg | 320,- | | 962-350 | 190,- | | | 510,- |
| 313-024 | 1 mg – 50 g | 820,- | | 962-301 | 315,- | | | 1135,- |
| 313-034 | 1 mg – 100 g | 910,- | | 962-302 | 340,- | | | 1250,- |
| 313-044 | 1 mg – 200 g | 1110,- | | 962-303 | 385,- | | | 1495,- |
| 313-054 | 1 mg – 500 g | 1270,- | | 962-304 | 410,- | | | 1680,- |
| 313-064 | 1 mg – 1 kg | 1630,- | | 962-305 | 435,- | | | 2065,- |
| 313-074 | 1 mg – 2 kg | 2460,- | | 962-306 | 495,- | | | 2955,- |
| 313-084 | 1 mg – 5 kg | 3050,- | | 962-307 | 530,- | | | 3580,- |
| 314-024 | 1 g – 50 g | 540,- | | 962-315 | 127,- | | | 667,- |
| 314-034 | 1 g – 100 g | 620,- | | 962-316 | 150,- | | | 770,- |
| 314-044 | 1 g – 200 g | 830,- | | 962-317 | 196,- | | | 1026,- |
| 314-054 | 1 g – 500 g | 1010,- | | 962-318 | 220,- | | | 1230,- |
| 314-064 | 1 g – 1 kg | 1340,- | | 962-319 | 245,- | | | 1585,- |
| 314-074 | 1 g – 2 kg | 2180,- | | 962-320 | 305,- | | | 2485,- |
| 314-084 | 1 g – 5 kg | 2760,- | | 962-321 | 340,- | | | 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 | € | | KERN | € |
| 318-22 | 1 mg – 500 mg | 320,- | | 962-350 | 190,- | | | 510,- |
| 313-02 | 1 mg – 50 g | 880,- | | 962-301 | 315,- | | | 1195,- |
| 313-03 | 1 mg – 100 g | 960,- | | 962-302 | 340,- | | | 1300,- |
| 313-04 | 1 mg – 200 g | 1170,- | | 962-303 | 385,- | | | 1555,- |
| 313-05 | 1 mg – 500 g | 1400,- | | 962-304 | 410,- | | | 1810,- |
| 313-06 | 1 mg – 1 kg | 1670,- | | 962-305 | 435,- | | | 2105,- |
| 313-07 | 1 mg – 2 kg | 2550,- | | 962-306 | 495,- | | | 3045,- |
| 313-08 | 1 mg – 5 kg | 3250,- | | 962-307 | 530,- | | | 3780,- |
| 313-09 | 1 mg – 10 kg | 4180,- | | 962-308 | 560,- | | | 4740,- |
| 314-02 | 1 g – 50 g | 590,- | | 962-315 | 127,- | | | 717,- |
| 314-03 | 1 g – 100 g | 670,- | | 962-316 | 150,- | | | 820,- |
| 314-04 | 1 g – 200 g | 880,- | | 962-317 | 196,- | | | 1076,- |
| 314-05 | 1 g – 500 g | 1120,- | | 962-318 | 220,- | | | 1340,- |
| 314-06 | 1 g – 1 kg | 1380,- | | 962-319 | 245,- | | | 1625,- |
| 314-07 | 1 g – 2 kg | 2260,- | | 962-320 | 305,- | | | 2565,- |
| 314-08 | 1 g – 5 kg | 2960,- | | 962-321 | 340,- | | | 3300,- |
| 314-09 | 1 g – 10 kg | 3890,- | | 962-322 | 370,- | | | 4260,- |

## 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 | € | | KERN | € |
| **328-01** | 1 mg | 0,020 | **11,-** | | 347-009-400 | **2,-** | | 962-451 | **18,-** | | | **31,-** |
| **328-02** | 2 mg | 0,020 | **11,-** | | 347-009-400 | **2,-** | | 962-452 | **18,-** | | | **31,-** |
| **328-03** | 5 mg | 0,020 | **11,-** | | 347-009-400 | **2,-** | | 962-453 | **18,-** | | | **31,-** |
| **328-04** | 10 mg | 0,025 | **11,-** | | 347-009-400 | **2,-** | | 962-454 | **18,-** | | | **31,-** |
| **328-05** | 20 mg | 0,03 | **11,-** | | 347-009-400 | **2,-** | | 962-455 | **18,-** | | | **31,-** |
| **328-06** | 50 mg | 0,04 | **11,-** | | 347-009-400 | **2,-** | | 962-456 | **18,-** | | | **31,-** |
| **328-07** | 100 mg | 0,05 | **11,-** | | 347-009-400 | **2,-** | | 962-457 | **18,-** | | | **31,-** |
| **328-08** | 200 mg | 0,06 | **11,-** | | 347-009-400 | **2,-** | | 962-458 | **18,-** | | | **31,-** |
| **328-09** | 500 mg | 0,08 | **11,-** | | 347-009-400 | **2,-** | | 962-459 | **18,-** | | | **31,-** |

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

Test weight material: finely turned stainless steel
Container material: Lined plastic
**Build type: Does not conform to OIML:R111, adjusted to F1 error limit class, however no mention of the OIML error limit classes on the calibration certificate**

| Individual weight | | | | + | Container | | + | DAkkS certificate | | = | Package price | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KERN | | Tol ± mg | € | | KERN | € | | KERN | € | | KERN | € |
| **329-01** | 1 g | 0,10 | **18,-** | | 347-030-400 | **2,-** | | 962-431 | **18,-** | | | **38,-** |
| **329-02** | 2 g | 0,12 | **19,-** | | 347-030-400 | **2,-** | | 962-432 | **18,-** | | | **39,-** |
| **329-03** | 5 g | 0,16 | **20,-** | | 347-030-400 | **2,-** | | 962-433 | **18,-** | | | **40,-** |
| **329-04** | 10 g | 0,20 | **23,-** | | 347-050-400 | **2,-** | | 962-434 | **18,-** | | | **43,-** |
| **329-05** | 20 g | 0,25 | **25,-** | | 347-050-400 | **2,-** | | 962-435 | **18,-** | | | **45,-** |
| **329-06** | 50 g | 0,3 | **27,-** | | 347-070-400 | **2,-** | | 962-436 | **18,-** | | | **47,-** |
| **329-07** | 100 g | 0,5 | **31,-** | | 347-070-400 | **2,-** | | 962-437 | **20,-** | | | **53,-** |
| **329-08** | 200 g | 1,0 | **41,-** | | 347-080-400 | **2,-** | | 962-438 | **20,-** | | | **63,-** |
| **329-09** | 500 g | 2,5 | **58,-** | | 347-090-400 | **3,-** | | 962-439 | **20,-** | | | **81,-** |
| **329-11** | 1 kg | 5,0 | **83,-** | | 347-110-400 | **3,-** | | 962-441 | **20,-** | | | **106,-** |
| **329-12** | 2 kg | 10 | **127,-** | | 347-120-400 | **3,-** | | 962-442 | **25,-** | | | **155,-** |
| **329-13** | 5 kg | 25 | **220,-** | | 347-130-400 | **9,-** | | 962-443 | **25,-** | | | **254,-** |
| **329-14** | 10 kg | 50 | **410,-** | | 347-140-400 | **9,-** | | 962-444 | **25,-** | | | **444,-** |

## 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 | € | | KERN | € |
| **326-01** | 1 g | 0,10 | **22,-** | | 347-030-400 | **2,-** | | 962-431 | **18,-** | | | **42,-** |
| **326-02** | 2 g | 0,12 | **23,-** | | 347-030-400 | **2,-** | | 962-432 | **18,-** | | | **43,-** |
| **326-03** | 5 g | 0,16 | **25,-** | | 347-030-400 | **2,-** | | 962-433 | **18,-** | | | **45,-** |
| **326-04** | 10 g | 0,20 | **28,-** | | 347-050-400 | **2,-** | | 962-434 | **18,-** | | | **48,-** |
| **326-05** | 20 g | 0,25 | **29,-** | | 347-050-400 | **2,-** | | 962-435 | **18,-** | | | **49,-** |
| **326-06** | 50 g | 0,3 | **32,-** | | 347-070-400 | **2,-** | | 962-436 | **18,-** | | | **52,-** |
| **326-07** | 100 g | 0,5 | **36,-** | | 347-070-400 | **2,-** | | 962-437 | **20,-** | | | **58,-** |
| **326-08** | 200 g | 1,0 | **49,-** | | 347-080-400 | **2,-** | | 962-438 | **20,-** | | | **71,-** |
| **326-09** | 500 g | 2,5 | **68,-** | | 347-090-400 | **3,-** | | 962-439 | **20,-** | | | **91,-** |
| **326-11** | 1 kg | 5,0 | **101,-** | | 347-110-400 | **3,-** | | 962-441 | **20,-** | | | **124,-** |
| **326-12** | 2 kg | 10 | **150,-** | | 347-120-400 | **3,-** | | 962-442 | **25,-** | | | **178,-** |
| **326-13** | 5 kg | 25 | **260,-** | | 347-130-400 | **9,-** | | 962-443 | **25,-** | | | **294,-** |
| **326-14** | 10 kg | 50 | **485,-** | | 347-140-400 | **9,-** | | 962-444 | **25,-** | | | **519,-** |

## 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 | € | | KERN | € |
| **327-61** | 1 g | 0,10 | **23,-** | | 347-030-400 | **2,-** | | 962-431 | **18,-** | | | **43,-** |
| **327-62** | 2 g | 0,12 | **24,-** | | 347-030-400 | **2,-** | | 962-432 | **18,-** | | | **44,-** |
| **327-63** | 5 g | 0,16 | **26,-** | | 347-030-400 | **2,-** | | 962-433 | **18,-** | | | **46,-** |
| **327-64** | 10 g | 0,20 | **29,-** | | 347-050-400 | **2,-** | | 962-434 | **18,-** | | | **49,-** |
| **327-65** | 20 g | 0,25 | **31,-** | | 347-050-400 | **2,-** | | 962-435 | **18,-** | | | **51,-** |
| **327-66** | 50 g | 0,3 | **34,-** | | 347-070-400 | **2,-** | | 962-436 | **18,-** | | | **54,-** |
| **327-67** | 100 g | 0,5 | **38,-** | | 347-070-400 | **2,-** | | 962-437 | **20,-** | | | **60,-** |
| **327-68** | 200 g | 1,0 | **52,-** | | 347-080-400 | **2,-** | | 962-438 | **20,-** | | | **74,-** |
| **327-69** | 500 g | 2,5 | **72,-** | | 347-090-400 | **3,-** | | 962-439 | **20,-** | | | **95,-** |
| **327-71** | 1 kg | 5,0 | **106,-** | | 347-110-400 | **3,-** | | 962-441 | **20,-** | | | **129,-** |
| **327-72** | 2 kg | 10 | **158,-** | | 347-120-400 | **3,-** | | 962-442 | **25,-** | | | **186,-** |
| **327-73** | 5 kg | 25 | **270,-** | | 347-130-400 | **9,-** | | 962-443 | **25,-** | | | **304,-** |
| **327-74** | 10 kg | 50 | **510,-** | | 347-140-400 | **9,-** | | 962-444 | **25,-** | | | **544,-** |
| **327-75** | 20 kg | 100 | **960,-** | | 317-150-100 | **340,-** | | 962-445 | **28,-** | | | **1328,-** |
| **327-76** | 50 kg | 250 | **1800,-** | | 317-160-100 | **415,-** | | 962-446 | **39,-** | | | **2254,-** |

## 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 | € | | KERN | € |
| **327-01** | 1 g | 0,10 | **30,-** | | 347-030-400 | **2,-** | | 962-431 | **18,-** | | | **50,-** |
| **327-02** | 2 g | 0,12 | **31,-** | | 347-030-400 | **2,-** | | 962-432 | **18,-** | | | **51,-** |
| **327-03** | 5 g | 0,16 | **33,-** | | 347-030-400 | **2,-** | | 962-433 | **18,-** | | | **53,-** |
| **327-04** | 10 g | 0,20 | **37,-** | | 347-050-400 | **2,-** | | 962-434 | **18,-** | | | **57,-** |
| **327-05** | 20 g | 0,25 | **41,-** | | 347-050-400 | **2,-** | | 962-435 | **18,-** | | | **61,-** |
| **327-06** | 50 g | 0,3 | **45,-** | | 347-070-400 | **2,-** | | 962-436 | **18,-** | | | **65,-** |
| **327-07** | 100 g | 0,5 | **55,-** | | 347-070-400 | **2,-** | | 962-437 | **20,-** | | | **77,-** |
| **327-08** | 200 g | 1,0 | **72,-** | | 347-080-400 | **2,-** | | 962-438 | **20,-** | | | **94,-** |
| **327-09** | 500 g | 2,5 | **118,-** | | 347-090-400 | **3,-** | | 962-439 | **20,-** | | | **141,-** |
| **327-11** | 1 kg | 5,0 | **165,-** | | 347-110-400 | **3,-** | | 962-441 | **20,-** | | | **188,-** |
| **327-12** | 2 kg | 10 | **250,-** | | 347-120-400 | **3,-** | | 962-442 | **25,-** | | | **278,-** |
| **327-13** | 5 kg | 25 | **375,-** | | 347-130-400 | **9,-** | | 962-443 | **25,-** | | | **409,-** |
| **327-14** | 10 kg | 50 | **680,-** | | 347-140-400 | **9,-** | | 962-444 | **25,-** | | | **714,-** |
| **327-15** | 20 kg | 100 | **1350,-** | | 317-150-100 | **340,-** | | 962-445 | **28,-** | | | **1718,-** |
| **327-16** | 50 kg | 250 | **2900,-** | | 317-160-100 | **415,-** | | 962-446 | **39,-** | | | **3354,-** |

**Alternative to plastic container:**
Wooden boxes for individual weights. For more details on this, please see page 180

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

Check weight material: finely turned stainless steel, Case material: Lined plastic

**! Build type: Does not conform to OIML:R111, adjusted to F1 error limit class, however no mention of the OIML error limit classes on the calibration certificate**

| Weight set | | | + | DAkkS certificate | | = | Package price | |
|---|---|---|---|---|---|---|---|---|
| KERN | | € | | KERN | € | | KERN | € |
| 321-024 | 1 g – 50 g | 185,- | | 962-415 | 67,- | | | 252,- |
| 321-034 | 1 g – 100 g | 215,- | | 962-416 | 77,- | | | 292,- |
| 321-044 | 1 g – 200 g | 280,- | | 962-417 | 98,- | | | 378,- |
| 321-054 | 1 g – 500 g | 320,- | | 962-418 | 109,- | | | 429,- |
| 321-064 | 1 g – 1 kg | 460,- | | 962-419 | 119,- | | | 579,- |
| 321-074 | 1 g – 2 kg | 640,- | | 962-420 | 151,- | | | 791,- |
| 321-084 | 1 g – 5 kg | 820,- | | 962-421 | 166,- | | | 986,- |

## 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 | € | | KERN | € |
| 322-024 | 1 g – 50 g | 235,- | | 962-415 | 67,- | | | 302,- |
| 322-034 | 1 g – 100 g | 270,- | | 962-416 | 77,- | | | 347,- |
| 322-044 | 1 g – 200 g | 350,- | | 962-417 | 98,- | | | 448,- |
| 322-054 | 1 g – 500 g | 410,- | | 962-418 | 109,- | | | 519,- |
| 322-064 | 1 g – 1 kg | 580,- | | 962-419 | 119,- | | | 699,- |
| 322-074 | 1 g – 2 kg | 810,- | | 962-420 | 151,- | | | 961,- |
| 322-084 | 1 g – 5 kg | 1030,- | | 962-421 | 166,- | | | 1196,- |

## 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 | € | | KERN | € |
| 328-22 | 1 mg – 500 mg | 175,- | | 962-450 | 100,- | | | 275,- |
| **Polished and nickel-plated brass** | | | | | | | | |
| 323-624 | 1 mg – 50 g | 400,- | | 962-401 | 167,- | | | 567,- |
| 323-634 | 1 mg – 100 g | 435,- | | 962-402 | 178,- | | | 613,- |
| 323-644 | 1 mg – 200 g | 530,- | | 962-403 | 199,- | | | 729,- |
| 323-654 | 1 mg – 500 g | 590,- | | 962-404 | 210,- | | | 800,- |
| 323-664 | 1 mg – 1 kg | 750,- | | 962-405 | 220,- | | | 970,- |
| 323-674 | 1 mg – 2 kg | 1030,- | | 962-406 | 250,- | | | 1280,- |
| 323-684 | 1 mg – 5 kg | 1270,- | | 962-407 | 265,- | | | 1535,- |
| 324-624 | 1 g – 50 g | 260,- | | 962-415 | 67,- | | | 327,- |
| 324-634 | 1 g – 100 g | 300,- | | 962-416 | 77,- | | | 377,- |
| 324-644 | 1 g – 200 g | 380,- | | 962-417 | 98,- | | | 478,- |
| 324-654 | 1 g – 500 g | 450,- | | 962-418 | 109,- | | | 559,- |
| 324-664 | 1 g – 1 kg | 630,- | | 962-419 | 119,- | | | 749,- |
| 324-674 | 1 g – 2 kg | 900,- | | 962-420 | 151,- | | | 1051,- |
| 324-684 | 1 g – 5 kg | 1140,- | | 962-421 | 166,- | | | 1306,- |
| **Polished stainless steel** | | | | | | | | |
| 323-024 | 1 mg – 50 g | 500,- | | 962-401 | 167,- | | | 667,- |
| 323-034 | 1 mg – 100 g | 560,- | | 962-402 | 178,- | | | 738,- |
| 323-044 | 1 mg – 200 g | 700,- | | 962-403 | 199,- | | | 899,- |
| 323-054 | 1 mg – 500 g | 820,- | | 962-404 | 210,- | | | 1030,- |
| 323-064 | 1 mg – 1 kg | 1070,- | | 962-405 | 220,- | | | 1290,- |
| 323-074 | 1 mg – 2 kg | 1570,- | | 962-406 | 250,- | | | 1820,- |
| 323-084 | 1 mg – 5 kg | 1920,- | | 962-407 | 265,- | | | 2185,- |
| 324-024 | 1 g – 50 g | 340,- | | 962-415 | 67,- | | | 407,- |
| 324-034 | 1 g – 100 g | 400,- | | 962-416 | 77,- | | | 477,- |
| 324-044 | 1 g – 200 g | 540,- | | 962-417 | 98,- | | | 638,- |
| 324-054 | 1 g – 500 g | 660,- | | 962-418 | 109,- | | | 769,- |
| 324-064 | 1 g – 1 kg | 890,- | | 962-419 | 119,- | | | 1009,- |
| 324-074 | 1 g – 2 kg | 1400,- | | 962-420 | 151,- | | | 1551,- |
| 324-084 | 1 g – 5 kg | 1750,- | | 962-421 | 166,- | | | 1916,- |

## 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 | € | | KERN | € |
| 328-22 | 1 mg – 500 mg | 175,- | | 962-450 | 100,- | | | 275,- |
| Polished and nickel-plated brass | | | | | | | | |
| 323-62 | 1 mg – 50 g | 455,- | | 962-401 | 167,- | | | 622,- |
| 323-63 | 1 mg – 100 g | 485,- | | 962-402 | 178,- | | | 663,- |
| 323-64 | 1 mg – 200 g | 580,- | | 962-403 | 199,- | | | 779,- |
| 323-65 | 1 mg – 500 g | 700,- | | 962-404 | 210,- | | | 910,- |
| 323-66 | 1 mg – 1 kg | 790,- | | 962-405 | 220,- | | | 1010,- |
| 323-67 | 1 mg – 2 kg | 1120,- | | 962-406 | 250,- | | | 1370,- |
| 323-68 | 1 mg – 5 kg | 1470,- | | 962-407 | 265,- | | | 1735,- |
| 323-69 | 1 mg – 10 kg | 1990,- | | 962-408 | 285,- | | | 2275,- |
| 324-62 | 1 g – 50 g | 310,- | | 962-415 | 67,- | | | 377,- |
| 324-63 | 1 g – 100 g | 350,- | | 962-416 | 77,- | | | 427,- |
| 324-64 | 1 g – 200 g | 435,- | | 962-417 | 98,- | | | 533,- |
| 324-65 | 1 g – 500 g | 560,- | | 962-418 | 109,- | | | 669,- |
| 324-66 | 1 g – 1 kg | 660,- | | 962-419 | 119,- | | | 779,- |
| 324-67 | 1 g – 2 kg | 980,- | | 962-420 | 151,- | | | 1131,- |
| 324-68 | 1 g – 5 kg | 1330,- | | 962-421 | 166,- | | | 1496,- |
| 324-69 | 1 g – 10 kg | 1850,- | | 962-422 | 182,- | | | 2032,- |
| Polished stainless steel | | | | | | | | |
| 323-02 | 1 mg – 50 g | 560,- | | 962-401 | 167,- | | | 727,- |
| 323-03 | 1 mg – 100 g | 610,- | | 962-402 | 178,- | | | 788,- |
| 323-04 | 1 mg – 200 g | 750,- | | 962-403 | 199,- | | | 949,- |
| 323-05 | 1 mg – 500 g | 930,- | | 962-404 | 210,- | | | 1140,- |
| 323-06 | 1 mg – 1 kg | 1100,- | | 962-405 | 220,- | | | 1320,- |
| 323-07 | 1 mg – 2 kg | 1650,- | | 962-406 | 250,- | | | 1900,- |
| 323-08 | 1 mg – 5 kg | 2110,- | | 962-407 | 265,- | | | 2375,- |
| 323-09 | 1 mg – 10 kg | 2880,- | | 962-408 | 285,- | | | 3165,- |
| 324-02 | 1 g – 50 g | 390,- | | 962-415 | 67,- | | | 457,- |
| 324-03 | 1 g – 100 g | 450,- | | 962-416 | 77,- | | | 527,- |
| 324-04 | 1 g – 200 g | 600,- | | 962-417 | 98,- | | | 698,- |
| 324-05 | 1 g – 500 g | 760,- | | 962-418 | 109,- | | | 869,- |
| 324-06 | 1 g – 1 kg | 940,- | | 962-419 | 119,- | | | 1059,- |
| 324-07 | 1 g – 2 kg | 1480,- | | 962-420 | 151,- | | | 1631,- |
| 324-08 | 1 g – 5 kg | 1950,- | | 962-421 | 166,- | | | 2116,- |
| 324-09 | 1 g – 10 kg | 2710,- | | 962-422 | 182,- | | | 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 181

## 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 | € | | KERN | € |
| **338-01** | 1 mg | 0,06 | **10,-** | | 347-009-400 | **2,-** | | 962-451 | **18,-** | | | **30,-** |
| **338-02** | 2 mg | 0,06 | **10,-** | | 347-009-400 | **2,-** | | 962-452 | **18,-** | | | **30,-** |
| **338-03** | 5 mg | 0,06 | **10,-** | | 347-009-400 | **2,-** | | 962-453 | **18,-** | | | **30,-** |
| **338-04** | 10 mg | 0,08 | **10,-** | | 347-009-400 | **2,-** | | 962-454 | **18,-** | | | **30,-** |
| **338-05** | 20 mg | 0,10 | **10,-** | | 347-009-400 | **2,-** | | 962-455 | **18,-** | | | **30,-** |
| **338-06** | 50 mg | 0,12 | **10,-** | | 347-009-400 | **2,-** | | 962-456 | **18,-** | | | **30,-** |
| **338-07** | 100 mg | 0,16 | **10,-** | | 347-009-400 | **2,-** | | 962-457 | **18,-** | | | **30,-** |
| **338-08** | 200 mg | 0,20 | **10,-** | | 347-009-400 | **2,-** | | 962-458 | **18,-** | | | **30,-** |
| **338-09** | 500 mg | 0,25 | **10,-** | | 347-009-400 | **2,-** | | 962-459 | **18,-** | | | **30,-** |

## 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 | € | | KERN | € |
| **337-01** | 1 g | 0,3 | **19,-** | | 347-030-400 | **2,-** | | 962-431 | **18,-** | | | **39,-** |
| **337-02** | 2 g | 0,4 | **20,-** | | 347-030-400 | **2,-** | | 962-432 | **18,-** | | | **40,-** |
| **337-03** | 5 g | 0,5 | **22,-** | | 347-030-400 | **2,-** | | 962-433 | **18,-** | | | **42,-** |
| **337-04** | 10 g | 0,6 | **24,-** | | 347-050-400 | **2,-** | | 962-434 | **18,-** | | | **44,-** |
| **337-05** | 20 g | 0,8 | **26,-** | | 347-050-400 | **2,-** | | 962-435 | **18,-** | | | **46,-** |
| **337-06** | 50 g | 1,0 | **28,-** | | 347-070-400 | **2,-** | | 962-436 | **18,-** | | | **48,-** |
| **337-07** | 100 g | 1,6 | **32,-** | | 347-070-400 | **2,-** | | 962-437 | **20,-** | | | **54,-** |
| **337-08** | 200 g | 3,0 | **42,-** | | 347-080-400 | **2,-** | | 962-438 | **20,-** | | | **64,-** |
| **337-09** | 500 g | 8,0 | **60,-** | | 347-090-400 | **3,-** | | 962-439 | **20,-** | | | **83,-** |
| **337-11** | 1 kg | 16 | **84,-** | | 347-110-400 | **3,-** | | 962-441 | **20,-** | | | **107,-** |
| **337-12** | 2 kg | 30 | **129,-** | | 347-120-400 | **3,-** | | 962-442 | **25,-** | | | **157,-** |
| **337-13** | 5 kg | 80 | **220,-** | | 347-130-400 | **9,-** | | 962-443 | **25,-** | | | **254,-** |
| **337-14** | 10 kg | 160 | **415,-** | | 347-140-400 | **9,-** | | 962-444 | **25,-** | | | **449,-** |
| **337-15** | 20 kg | 300 | **710,-** | | 337-150-200 | **220,-** | | 962-445 | **28,-** | | | **958,-** |
| **337-16** | 50 kg | 800 | **1290,-** | | 337-160-200 | **345,-** | | 962-446 | **39,-** | | | **1674,-** |

**Alternative to plastic container:**
Wooden boxes for individual weights. For more details on this, please see page 180

## 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 | Dimens. ∅ × H | € | | KERN | € | | KERN | € | | KERN | € |
| **337-141** | 10 kg | 160 | 137×132 mm | **550,-** | | 337-141-200 | **190,-** | | 962-444 | **25,-** | | | **765,-** |
| **337-151** | 20 kg | 300 | 137×217 mm | **670,-** | | 337-151-200 | **235,-** | | 962-445 | **28,-** | | | **933,-** |
| **337-161** | 50 kg | 800 | 198×250 mm | **1790,-** | | 337-161-200 | **345,-** | | 962-446 | **39,-** | | | **2174,-** |

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

Test weight material: I 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 | € | | KERN | € |
| 338-22 | 1 mg – 500 mg | 143,- | | 962-450 | 100,- | | | 243,- |
| 333-024 | 1 mg – 50 g | 365,- | | 962-401 | 167,- | | | 532,- |
| 333-034 | 1 mg – 100 g | 405,- | | 962-402 | 178,- | | | 583,- |
| 333-044 | 1 mg – 200 g | 495,- | | 962-403 | 199,- | | | 694,- |
| 333-054 | 1 mg – 500 g | 570,- | | 962-404 | 210,- | | | 780,- |
| 333-064 | 1 mg – 1 kg | 690,- | | 962-405 | 220,- | | | 910,- |
| 333-074 | 1 mg – 2 kg | 970,- | | 962-406 | 250,- | | | 1220,- |
| 333-084 | 1 mg – 5 kg | 1250,- | | 962-407 | 265,- | | | 1515,- |
| 334-024 | 1 g – 50 g | 225,- | | 962-415 | 67,- | | | 292,- |
| 334-034 | 1 g – 100 g | 265,- | | 962-416 | 77,- | | | 342,- |
| 334-044 | 1 g – 200 g | 360,- | | 962-417 | 98,- | | | 458,- |
| 334-054 | 1 g – 500 g | 425,- | | 962-418 | 109,- | | | 534,- |
| 334-064 | 1 g – 1 kg | 560,- | | 962-419 | 119,- | | | 679,- |
| 334-074 | 1 g – 2 kg | 850,- | | 962-420 | 151,- | | | 1001,- |
| 334-084 | 1 g – 5 kg | 1120,- | | 962-421 | 166,- | | | 1286,- |

## 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 | € | | KERN | € |
| 338-22 | 1 mg – 500 mg | 143,- | | 962-450 | 100,- | | | 243,- |
| 333-02 | 1 mg – 50 g | 365,- | | 962-401 | 167,- | | | 532,- |
| 333-03 | 1 mg – 100 g | 405,- | | 962-402 | 178,- | | | 583,- |
| 333-04 | 1 mg – 200 g | 495,- | | 962-403 | 199,- | | | 694,- |
| 333-05 | 1 mg – 500 g | 570,- | | 962-404 | 210,- | | | 780,- |
| 333-06 | 1 mg – 1 kg | 690,- | | 962-405 | 220,- | | | 910,- |
| 333-07 | 1 mg – 2 kg | 970,- | | 962-406 | 250,- | | | 1220,- |
| 333-08 | 1 mg – 5 kg | 1250,- | | 962-407 | 265,- | | | 1515,- |
| 333-09 | 1 mg – 10 kg | 1750,- | | 962-408 | 285,- | | | 2035,- |
| 334-02 | 1 g – 50 g | 225,- | | 962-415 | 67,- | | | 292,- |
| 334-03 | 1 g – 100 g | 265,- | | 962-416 | 77,- | | | 342,- |
| 334-04 | 1 g – 200 g | 360,- | | 962-417 | 98,- | | | 458,- |
| 334-05 | 1 g – 500 g | 425,- | | 962-418 | 109,- | | | 534,- |
| 334-06 | 1 g – 1 kg | 560,- | | 962-419 | 119,- | | | 679,- |
| 334-07 | 1 g – 2 kg | 850,- | | 962-420 | 151,- | | | 1001,- |
| 334-08 | 1 g – 5 kg | 1120,- | | 962-421 | 166,- | | | 1286,- |
| 334-09 | 1 g – 10 kg | 1610,- | | 962-422 | 182,- | | | 1792,- |

**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 181

## 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 | € | | KERN | € |
| **348-01** | 1 mg | 0,20 | **4,10** | | 347-009-400 | **2,-** | | 962-651 | **15,-** | | | **21,10** |
| **348-02** | 2 mg | 0,20 | **4,10** | | 347-009-400 | **2,-** | | 962-652 | **15,-** | | | **21,10** |
| **348-03** | 5 mg | 0,20 | **4,10** | | 347-009-400 | **2,-** | | 962-653 | **15,-** | | | **21,10** |
| **348-04** | 10 mg | 0,25 | **4,10** | | 347-009-400 | **2,-** | | 962-654 | **15,-** | | | **21,10** |
| **348-05** | 20 mg | 0,3 | **4,10** | | 347-009-400 | **2,-** | | 962-655 | **15,-** | | | **21,10** |
| **348-06** | 50 mg | 0,4 | **4,10** | | 347-009-400 | **2,-** | | 962-656 | **15,-** | | | **21,10** |
| **348-07** | 100 mg | 0,5 | **4,10** | | 347-009-400 | **2,-** | | 962-657 | **15,-** | | | **21,10** |
| **348-08** | 200 mg | 0,6 | **4,10** | | 347-009-400 | **2,-** | | 962-658 | **15,-** | | | **21,10** |
| **348-09** | 500 mg | 0,8 | **4,10** | | 347-009-400 | **2,-** | | 962-659 | **15,-** | | | **21,10** |

## 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 | € | | KERN | € |
| **Finely turned brass** | | | | | | | | | | | | |
| **347-41** | 1 g | 1,0 | **4,10** | | 347-030-400 | **2,-** | | 962-631 | **15,-** | | | **21,10** |
| **347-42** | 2 g | 1,2 | **4,40** | | 347-030-400 | **2,-** | | 962-632 | **15,-** | | | **21,40** |
| **347-43** | 5 g | 1,6 | **4,80** | | 347-030-400 | **2,-** | | 962-633 | **15,-** | | | **21,80** |
| **347-44** | 10 g | 2,0 | **5,30** | | 347-050-400 | **2,-** | | 962-634 | **15,-** | | | **22,30** |
| **347-45** | 20 g | 2,5 | **6,30** | | 347-050-400 | **2,-** | | 962-635 | **15,-** | | | **23,30** |
| **347-46** | 50 g | 3,0 | **7,50** | | 347-070-400 | **2,-** | | 962-636 | **15,-** | | | **24,50** |
| **347-47** | 100 g | 5,0 | **9,50** | | 347-070-400 | **2,-** | | 962-637 | **16,-** | | | **27,50** |
| **347-48** | 200 g | 10 | **13,-** | | 347-080-400 | **2,-** | | 962-638 | **16,-** | | | **31,-** |
| **347-49** | 500 g | 25 | **28,-** | | 347-090-400 | **3,-** | | 962-639 | **16,-** | | | **47,-** |
| **347-51** | 1 kg | 50 | **43,-** | | 347-110-400 | **3,-** | | 962-641 | **16,-** | | | **62,-** |
| **347-52** | 2 kg | 100 | **77,-** | | 347-120-400 | **3,-** | | 962-642 | **17,-** | | | **97,-** |
| **347-53** | 5 kg | 250 | **165,-** | | 347-130-400 | **9,-** | | 962-643 | **17,-** | | | **191,-** |
| **347-54** | 10 kg | 500 | **310,-** | | 347-140-400 | **9,-** | | 962-644 | **17,-** | | | **336,-** |
| **Finely turned stainless steel** | | | | | | | | | | | | |
| **347-01** | 1 g | 1,0 | **4,60** | | 347-030-400 | **2,-** | | 962-631 | **15,-** | | | **21,60** |
| **347-02** | 2 g | 1,2 | **4,90** | | 347-030-400 | **2,-** | | 962-632 | **15,-** | | | **21,90** |
| **347-03** | 5 g | 1,6 | **5,40** | | 347-030-400 | **2,-** | | 962-633 | **15,-** | | | **22,40** |
| **347-04** | 10 g | 2,0 | **5,80** | | 347-050-400 | **2,-** | | 962-634 | **15,-** | | | **22,80** |
| **347-05** | 20 g | 2,5 | **6,50** | | 347-050-400 | **2,-** | | 962-635 | **15,-** | | | **23,50** |
| **347-06** | 50 g | 3,0 | **8,20** | | 347-070-400 | **2,-** | | 962-636 | **15,-** | | | **25,20** |
| **347-07** | 100 g | 5,0 | **11,-** | | 347-070-400 | **2,-** | | 962-637 | **16,-** | | | **29,-** |
| **347-08** | 200 g | 10 | **16,-** | | 347-080-400 | **2,-** | | 962-638 | **16,-** | | | **34,-** |
| **347-09** | 500 g | 25 | **34,-** | | 347-090-400 | **3,-** | | 962-639 | **16,-** | | | **53,-** |
| **347-11** | 1 kg | 50 | **54,-** | | 347-110-400 | **3,-** | | 962-641 | **16,-** | | | **73,-** |
| **347-12** | 2 kg | 100 | **92,-** | | 347-120-400 | **3,-** | | 962-642 | **17,-** | | | **112,-** |
| **347-13** | 5 kg | 250 | **196,-** | | 347-130-400 | **9,-** | | 962-643 | **17,-** | | | **222,-** |
| **347-14** | 10 kg | 500 | **385,-** | | 347-140-400 | **9,-** | | 962-644 | **17,-** | | | **411,-** |

## 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 | € | | KERN | € |
| **347-141** | 10 kg | 0,50 | 137×132 mm | **490,-** | | 337-141-200 | **190,-** | | 962-644 | **17,-** | | | **697,-** |
| **347-151** | 20 kg | 1,00 | 137×217 mm | **590,-** | | 337-151-200 | **235,-** | | 962-645 | **22,-** | | | **847,-** |
| **347-161** | 50 kg | 2,50 | 198×250 mm | **1600,-** | | 337-161-200 | **345,-** | | 962-646 | **24,-** | | | **1969,-** |

## 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 | € | | KERN | € |
| 348-22 | 1 mg – 500 mg | 69,- | | 962-650 | 63,- | | | 132,- |
| Finely turned brass | | | | | | | | |
| 343-424 | 1 mg – 50 g | 149,- | | 962-601 | 106,- | | | 255,- |
| 343-434 | 1 mg – 100 g | 162,- | | 962-602 | 112,- | | | 274,- |
| 343-444 | 1 mg – 200 g | 191,- | | 962-603 | 125,- | | | 316,- |
| 343-454 | 1 mg – 500 g | 220,- | | 962-604 | 131,- | | | 351,- |
| 343-464 | 1 mg – 1 kg | 340,- | | 962-605 | 137,- | | | 477,- |
| 343-474 | 1 mg – 2 kg | 485,- | | 962-606 | 152,- | | | 637,- |
| 343-484 | 1 mg – 5 kg | 710,- | | 962-607 | 160,- | | | 870,- |
| 344-424 | 1 g – 50 g | 94,- | | 962-615 | 42,- | | | 136,- |
| 344-434 | 1 g – 100 g | 100,- | | 962-616 | 49,- | | | 149,- |
| 344-444 | 1 g – 200 g | 126,- | | 962-617 | 61,- | | | 187,- |
| 344-454 | 1 g – 500 g | 158,- | | 962-618 | 68,- | | | 226,- |
| 344-464 | 1 g – 1 kg | 280,- | | 962-619 | 74,- | | | 354,- |
| 344-474 | 1 g – 2 kg | 430,- | | 962-620 | 89,- | | | 519,- |
| 344-484 | 1 g – 5 kg | 650,- | | 962-621 | 96,- | | | 746,- |
| Finely turned stainless steel | | | | | | | | |
| 343-024 | 1 mg – 50 g | 155,- | | 962-601 | 106,- | | | 261,- |
| 343-034 | 1 mg – 100 g | 170,- | | 962-602 | 112,- | | | 282,- |
| 343-044 | 1 mg – 200 g | 205,- | | 962-603 | 125,- | | | 330,- |
| 343-054 | 1 mg – 500 g | 245,- | | 962-604 | 131,- | | | 376,- |
| 343-064 | 1 mg – 1 kg | 335,- | | 962-605 | 137,- | | | 472,- |
| 343-074 | 1 mg – 2 kg | 540,- | | 962-606 | 152,- | | | 692,- |
| 343-084 | 1 mg – 5 kg | 800,- | | 962-607 | 160,- | | | 960,- |
| 344-024 | 1 g – 50 g | 92,- | | 962-615 | 42,- | | | 134,- |
| 344-034 | 1 g – 100 g | 102,- | | 962-616 | 49,- | | | 151,- |
| 344-044 | 1 g – 200 g | 139,- | | 962-617 | 61,- | | | 200,- |
| 344-054 | 1 g – 500 g | 179,- | | 962-618 | 68,- | | | 247,- |
| 344-064 | 1 g – 1 kg | 285,- | | 962-619 | 74,- | | | 359,- |
| 344-074 | 1 g – 2 kg | 490,- | | 962-620 | 89,- | | | 579,- |
| 344-084 | 1 g – 5 kg | 750,- | | 962-621 | 96,- | | | 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 | € | | KERN | € |
| 348-22 | 1 mg – 500 mg | 69,- | | 962-650 | 63,- | | | 132,- |
| Finely turned brass | | | | | | | | |
| 343-42 | 1 mg – 50 g | 149,- | | 962-601 | 106,- | | | 255,- |
| 343-43 | 1 mg – 100 g | 162,- | | 962-602 | 112,- | | | 274,- |
| 343-44 | 1 mg – 200 g | 191,- | | 962-603 | 125,- | | | 316,- |
| 343-45 | 1 mg – 500 g | 220,- | | 962-604 | 131,- | | | 351,- |
| 343-46 | 1 mg – 1 kg | 305,- | | 962-605 | 137,- | | | 442,- |
| 343-47 | 1 mg – 2 kg | 485,- | | 962-606 | 152,- | | | 637,- |
| 343-48 | 1 mg – 5 kg | 710,- | | 962-607 | 160,- | | | 870,- |
| 343-49 | 1 mg – 10 kg | 1090,- | | 962-608 | 167,- | | | 1257,- |
| 344-42 | 1 g – 50 g | 90,- | | 962-615 | 42,- | | | 132,- |
| 344-43 | 1 g – 100 g | 100,- | | 962-616 | 49,- | | | 149,- |
| 344-44 | 1 g – 200 g | 126,- | | 962-617 | 61,- | | | 187,- |
| 344-45 | 1 g – 500 g | 158,- | | 962-618 | 68,- | | | 226,- |
| 344-46 | 1 g – 1 kg | 280,- | | 962-619 | 74,- | | | 354,- |
| 344-47 | 1 g – 2 kg | 430,- | | 962-620 | 89,- | | | 519,- |
| 344-48 | 1 g – 5 kg | 650,- | | 962-621 | 96,- | | | 746,- |
| 344-49 | 1 g – 10 kg | 1020,- | | 962-622 | 104,- | | | 1124,- |

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

| Weight set | | | + | DAkkS certificate | | = | Package price | |
|---|---|---|---|---|---|---|---|---|
| KERN | | € | | KERN | € | | KERN | € |
| **Finely turned stainless steel** | | | | | | | | |
| **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 | **92,-** | | 962-615 | **42,-** | | | **134,-** |
| **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 181

## 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 | € | | KERN | € |
| **347-416** | 1 g | 1,0 | **14,-** | | 347-030-400 | **2,-** | | 962-631 | **15,-** | | | **31,-** |
| **347-426** | 2 g | 1,2 | **15,-** | | 347-030-400 | **2,-** | | 962-632 | **15,-** | | | **32,-** |
| **347-436** | 5 g | 1,6 | **15,-** | | 347-030-400 | **2,-** | | 962-633 | **15,-** | | | **32,-** |
| **347-446** | 10 g | 2,0 | **15,-** | | 347-050-400 | **2,-** | | 962-634 | **15,-** | | | **32,-** |
| **347-456** | 20 g | 2,5 | **16,-** | | 347-050-400 | **2,-** | | 962-635 | **15,-** | | | **33,-** |
| **347-466** | 50 g | 3,0 | **20,-** | | 347-070-400 | **2,-** | | 962-636 | **15,-** | | | **37,-** |
| **347-476** | 100 g | 5 | **23,-** | | 347-090-400 | **3,-** | | 962-637 | **16,-** | | | **42,-** |
| **347-486** | 200 g | 10 | **31,-** | | 347-090-400 | **3,-** | | 962-638 | **16,-** | | | **50,-** |
| **347-496** | 500 g | 25 | **46,-** | | 347-110-400 | **3,-** | | 962-639 | **16,-** | | | **65,-** |
| **347-516** | 1 kg | 50 | **66,-** | | 347-120-400 | **3,-** | | 962-641 | **16,-** | | | **85,-** |
| **347-526** | 2 kg | 100 | **107,-** | | 347-130-400 | **9,-** | | 962-642 | **17,-** | | | **133,-** |
| **347-536** | 5 kg | 250 | **200,-** | | 347-140-400 | **9,-** | | 962-643 | **17,-** | | | **226,-** |
| **347-546** | 10 kg | 500 | **350,-** | | – | – | | 962-644 | **17,-** | | | **367,-** |

## 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 | € | | KERN | € |
| 347-415 | 1 g | 1,0 | 14,- | | 347-030-400 | 2,- | | 962-631 | 15,- | | | 31,- |
| 347-425 | 2 g | 1,2 | 15,- | | 347-030-400 | 2,- | | 962-632 | 15,- | | | 32,- |
| 347-435 | 5 g | 1,6 | 16,- | | 347-030-400 | 2,- | | 962-633 | 15,- | | | 33,- |
| 347-445 | 10 g | 2,0 | 19,- | | 347-030-400 | 2,- | | 962-634 | 15,- | | | 36,- |
| 347-455 | 20 g | 2,5 | 20,- | | 347-080-400 | 2,- | | 962-635 | 15,- | | | 37,- |
| 347-465 | 50 g | 3,0 | 22,- | | 347-080-400 | 2,- | | 962-636 | 15,- | | | 39,- |
| 347-475 | 100 g | 5,0 | 25,- | | 347-090-400 | 3,- | | 962-637 | 16,- | | | 44,- |
| 347-485 | 200 g | 10 | 30,- | | 347-090-400 | 3,- | | 962-638 | 16,- | | | 49,- |
| 347-495 | 500 g | 25 | 48,- | | 347-110-400 | 3,- | | 962-639 | 16,- | | | 67,- |
| 347-515 | 1 kg | 50 | 77,- | | 347-130-400 | 9,- | | 962-641 | 16,- | | | 102,- |
| 347-525 | 2 kg | 100 | 118,- | | 347-130-400 | 9,- | | 962-642 | 17,- | | | 144,- |
| 347-535 | 5 kg | 250 | 215,- | | 347-140-400 | 9,- | | 962-643 | 17,- | | | 241,- |
| 347-545 | 10 kg | 500 | 375,- | | 347-140-400 | 9,- | | 962-644 | 17,- | | | 401,- |

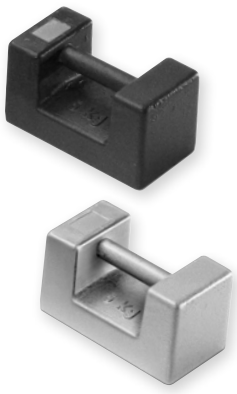
## Class M1 • Beam bars, aluminium or finely turned brass, for fixing slotted weights


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

| Beam bar | | | | | + | DAkkS certificate | |
|---|---|---|---|---|---|---|---|
| KERN | Size | Largest slotted weight possible | Maximum total load[1)] | € | | 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,- |

[1)] is exclusive of the weight of the beam bar (“Size”)

## 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 | € |
| Lacquered cast iron | | | | | | | | | |
| 346-86 | 5 kg | 0,25 | 71,- | | 962-643 | 17,- | | | 88,- |
| 346-87 | 10 kg | 0,50 | 95,- | | 962-644 | 17,- | | | 112,- |
| 346-88 | 20 kg | 1,00 | 118,- | | 962-645 | 22,- | | | 140,- |
| 346-89 | 50 kg | 2,50 | 400,- | | 962-646 | 24,- | | | 424,- |
| Stainless steel | | | | | | | | | |
| 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, delivery time is approx. 4 weeks

| Heavy duty weight | | | | | + | DAkkS certificate | |
|---|---|---|---|---|---|---|---|
| KERN | | Tol ± g | Dimensions W×D×H | € | | KERN | € |
| 346-81 | 100 kg | 5 | 340×225×280 mm | 1390,- | | 962-691 | 63,- |
| 346-82 | 200 kg | 10 | 465×340×291 mm | 1800,- | | 962-692 | 63,- |
| 346-83 | 500 kg | 25 | 750×500×314 mm | 3350,- | | 962-693 | 63,- |
| 346-84 | 1000 kg | 50 | 750×500×500 mm | 5500,- | | 962-694 | 136,- |
| 346-85 | 2000 kg | 100 | 1000×750×500 mm | 10300,- | | 962-695 | 250,- |

## Class M2 • 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 | € | | 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 | **6,30** | | 347-050-400 | **2,-** | | 962-635 | **15,-** | | | **23,30** |
| **357-46** | 50 g | 10 | **7,40** | | 347-070-400 | **2,-** | | 962-636 | **15,-** | | | **24,40** |
| **357-47** | 100 g | 16 | **9,50** | | 347-070-400 | **2,-** | | 962-637 | **16,-** | | | **27,50** |
| **357-48** | 200 g | 30 | **13,-** | | 347-080-400 | **2,-** | | 962-638 | **16,-** | | | **31,-** |
| **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,-** | | | **60,-** |
| **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,-** |

**Alternative to plastic container:**
Wooden boxes for individual weights. For more details on this, please see page 180

## 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 | **65,-** | | 962-643 | **17,-** | | | **82,-** |
| **356-87** | 10 kg | 1,6 | **90,-** | | 962-644 | **17,-** | | | **107,-** |
| **356-88** | 20 kg | 3,0 | **113,-** | | 962-645 | **22,-** | | | **135,-** |
| **356-89** | 50 kg | 8,0 | **390,-** | | 962-646 | **24,-** | | | **414,-** |

## 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 | **76,-** | | 962-615 | **42,-** | | | **118,-** |
| **354-43** | 1 g – 100 g | **86,-** | | 962-616 | **49,-** | | | **135,-** |
| **354-44** | 1 g – 200 g | **119,-** | | 962-617 | **61,-** | | | **180,-** |
| **354-45** | 1 g – 500 g | **153,-** | | 962-618 | **68,-** | | | **221,-** |
| **354-46** | 1 g – 1 kg | **240,-** | | 962-619 | **74,-** | | | **314,-** |
| **354-47** | 1 g – 2 kg | **390,-** | | 962-620 | **89,-** | | | **479,-** |
| **354-48** | 1 g – 5 kg | **590,-** | | 962-621 | **96,-** | | | **686,-** |
| **354-49** | 1 g – 10 kg | **940,-** | | 962-622 | **104,-** | | | **1044,-** |

## 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 | € | | KERN | € |
| **367-41** | 1 g | 10 | **3,-** | | 347-030-400 | **2,-** | | 962-631 | **15,-** | | | **20,-** |
| **367-42** | 2 g | 12 | **3,40** | | 347-030-400 | **2,-** | | 962-632 | **15,-** | | | **20,40** |
| **367-43** | 5 g | 16 | **3,80** | | 347-030-400 | **2,-** | | 962-633 | **15,-** | | | **20,80** |
| **367-44** | 10 g | 20 | **4,20** | | 347-050-400 | **2,-** | | 962-634 | **15,-** | | | **21,20** |
| **367-45** | 20 g | 25 | **5,60** | | 347-050-400 | **2,-** | | 962-635 | **15,-** | | | **22,60** |
| **367-46** | 50 g | 30 | **6,80** | | 347-070-400 | **2,-** | | 962-636 | **15,-** | | | **23,80** |
| **367-47** | 100 g | 50 | **8,90** | | 347-070-400 | **2,-** | | 962-637 | **16,-** | | | **26,90** |
| **367-48** | 200 g | 100 | **13,-** | | 347-080-400 | **2,-** | | 962-638 | **16,-** | | | **31,-** |
| **367-49** | 500 g | 250 | **25,-** | | 347-090-400 | **3,-** | | 962-639 | **16,-** | | | **44,-** |
| **367-51** | 1 kg | 500 | **37,-** | | 347-110-400 | **3,-** | | 962-641 | **16,-** | | | **56,-** |
| **367-52** | 2 kg | 1000 | **68,-** | | 347-120-400 | **3,-** | | 962-642 | **17,-** | | | **88,-** |

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

Test weight material: Lacquered cast iron

| Individual weight | | | | + | DAkkS certificate | | = | Package price | |
|---|---|---|---|---|---|---|---|---|---|
| KERN | | Tol ±g | € | | KERN | € | | KERN | € |
| **366-91** | 100 g | 0,05 | **12,-** | | 962-637 | **16,-** | | | **28,-** |
| **366-92** | 200 g | 0,10 | **13,-** | | 962-638 | **16,-** | | | **29,-** |
| **366-93** | 500 g | 0,25 | **19,-** | | 962-639 | **16,-** | | | **35,-** |
| **366-94** | 1 kg | 0,50 | **25,-** | | 962-641 | **16,-** | | | **41,-** |
| **366-95** | 2 kg | 1,0 | **44,-** | | 962-642 | **17,-** | | | **61,-** |
| **366-96** | 5 kg | 2,5 | **75,-** | | 962-643 | **17,-** | | | **92,-** |
| **366-97** | 10 kg | 5,0 | **135,-** | | 962-644 | **17,-** | | | **152,-** |

## Class M3 • Block weights, lacquered cast iron

Test weight material: lacquered cast iron

| Block weight | | | | + | DAkkS certificate | | = | Package price | |
|---|---|---|---|---|---|---|---|---|---|
| KERN | | Tol ±g | € | | KERN | € | | KERN | € |
| **366-86** | 5 kg | 2,5 | **64,-** | | 962-643 | **17,-** | | | **81,-** |
| **366-87** | 10 kg | 5,0 | **89,-** | | 962-644 | **17,-** | | | **106,-** |
| **366-88** | 20 kg | 10 | **112,-** | | 962-645 | **22,-** | | | **134,-** |
| **366-89** | 50 kg | 25 | **380,-** | | 962-646 | **24,-** | | | **404,-** |

## 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 | € | | KERN | € |
| **362-96** | 1 g – 1 kg | **160,-** | | 962-619 | **74,-** | | | **234,-** |
| **362-97** | 1 g – 2 kg | **260,-** | | 962-620 | **89,-** | | | **349,-** |
| **362-98** | 1 g – 5 kg | **350,-** | | 962-621 | **96,-** | | | **446,-** |
| **362-99** | 1 g – 10 kg | **500,-** | | 962-622 | **104,-** | | | **604,-** |

## 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 | 8,- |
| E1 – M3 | 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

For weights ≤ 500 g

Box material: Lined wood
Suitable for individual weights
KERN-No. 307, 316, 317, 326, 327, 329

**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,- |

For weights ≥ 1 kg

For weights ≥ 10 kg

**Wooden box**
for check weights F2, M1

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

For weights ≤ 500 g

Box material: Wood
Suitable for individual weights
KERN-No. 337, 347, 357, 367

**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,- |

For weights ≥ 1 kg

For weights ≥ 10 kg

**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,- |

## Cases/boxes for individual weight sets

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

**Sample order:**
Your individual weight set:
1 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)

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

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

**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,- |

**Wooden box**
for individual weight sets classes E1 – F1

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

## 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,- |

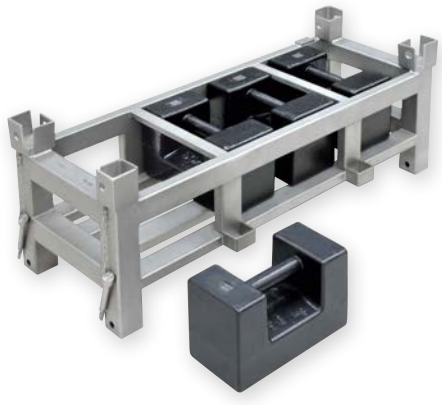
**Aluminium case**

for safe storage and transportation under harsh industrial conditions

**Aluminium case**
for weight sets with standard denomination classes E1 – M2

| KERN | Largest possible weight | € |
|---|---|---|
| 313-042-600 | ≤ 200 g | 230,- |
| 313-062-600 | ≤ 1 kg | 320,- |
| 313-082-600 | ≤ 5 kg | 390,- |
| 313-090-600 | ≤ 10 kg | 510,- |

## 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.

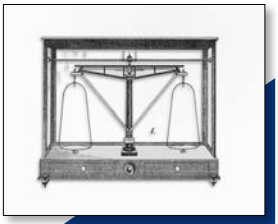
Example:

| | | | |
|---|---|---|---|
| 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

Printed in Germany
by KERN & SOHN GmbH
z-cb-gb-np-20181

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



**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/EU)


**2009**

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

**2012**

Verification point for non-automatic balances and test weights.

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

**2014**

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


**2015**

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

**2017**

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

**KERN & SOHN GmbH**
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**DAkkS Calibration laboratory**
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