

TRADITION AND INNOVATION – 169 YEARS OF KERN

Independent and family-run, KERN is already in its 6th generation and is synonymous with quality and reliability in customer service.

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FAST

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

COMPETENT

- DKD accreditation (DIN EN ISO/IEC 17025)
- QM system (DIN EN ISO 9001:2008)
- Initial verification by the manufacturer (2009/23/ECC)
- Medical (DIN EN ISO 13485 & 93/42/EWG)

RELIABLE

- 2+ years warranty
- Precision in weighing technology for the last 169 years

DIVERSE

- One-stop shopping: from pocket balances through to floor scales – everything from one supplier
- Find the balance you want in no time with the „Balance Quick-Finder“



KERN – Professional measuring.

TEST WEIGHTS



BALANCES & TEST SERVICE – for laboratory, industry and food

GB

2013

15 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, doing it right!

The internationally valid OIML Directive R111-2004 classifies test weights hierarchically into 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 to ISO 9000ff if it has the relevant proof of accuracy, all KERN test weights come with an appropriate DKD calibration certificate (optional). For further details, see the DKD calibration service section on page 153.

KERN offers you the appropriate test weight package for your balance, consisting of the test weight, box and → **DKD calibration** certificate, as proof of its accuracy ... the best pre-requisite for proper balance calibration.

→ See the glossary, page 158/159

Information about your KERN test weights

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Test weights

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

- E2** the 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, $\leq 100,000$ e
- F2** Test weights for precision balances of verification class II, $\leq 30,000$ e
- M1** Test weights for industrial and commercial balances of verification class III, $\leq 10,000$ e



Your KERN product specialist will be happy to help:

Marietta Diener
Product specialist Test weights

Selection of the appropriate test weight for your balance:

Correctly selected test weights with DKD 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 depends on its tolerance.

Accuracy of the test weight: Should correspond to the readout d of the balance, rather than something better.

Nominal weight value: This is shown in adjust mode „CAL“ in the balance display. Given the 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 \pm mg“ at the respective weight and table at page 135.

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, stand in accuracy class F1. KERN-No 327-72, see page 140.

Exception, analytical balances (readout $d \leq 0,1$ mg):

E1 test weights are recommended. Depending on the safety requirements, E2 test weights with a DKD 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 nickel-plated 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 ↓						
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
Verification possible	yes	yes	yes	no	yes	yes, except M2
Checking equipment for verification purposes	approved	approved	approved	not approved	approved	approved
Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)	yes	yes	yes	yes	yes	yes
Benefits	<ul style="list-style-type: none"> High-quality test weight for analytical and precision balances Highly-refined upper surface Optimum shape of the top for good grip 	<ul style="list-style-type: none"> Affordable test weight for analytical and precision balances Highly-refined upper surface 	<ul style="list-style-type: none"> Optimum, high-quality test weight for precision balances Optimum shape of the top for good grip 	<ul style="list-style-type: none"> Affordable test weight for in-house checking of precision balances 	<ul style="list-style-type: none"> Optimum test weight for commercial and industrial scales Optimum shape of the top for good grip 	<ul style="list-style-type: none"> Affordable test weight for commercial and industrial scales Optimum shape of the top for good grip

OIML Directive R111-2004 for weights

The key points from the OIML Directive 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–50 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.

→ See the glossary, page 158/159

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 → *DKD 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, i.e. it is accepted that: material density of the weights is 8000 kg/m^3 , air density is 1.2 kg/m^3 and measuring temperature is 20°C .

KERN cylindrical test weights

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

Nominal value ↓	OIML R111-2004 Maximum permissible errors for weights = permissible tolerances „Tol ± mg“						
	E1	E2	F1	F2	M1	M2	M3
1 mg	$\pm 0.003 \text{ mg}$	$\pm 0.006 \text{ mg}$	$\pm 0.020 \text{ mg}$	$\pm 0.06 \text{ mg}$	$\pm 0.20 \text{ mg}$		
2 mg	$\pm 0.003 \text{ mg}$	$\pm 0.006 \text{ mg}$	$\pm 0.020 \text{ mg}$	$\pm 0.06 \text{ mg}$	$\pm 0.20 \text{ mg}$		
5 mg	$\pm 0.003 \text{ mg}$	$\pm 0.006 \text{ mg}$	$\pm 0.020 \text{ mg}$	$\pm 0.06 \text{ mg}$	$\pm 0.20 \text{ mg}$		
10 mg	$\pm 0.003 \text{ mg}$	$\pm 0.008 \text{ mg}$	$\pm 0.025 \text{ mg}$	$\pm 0.08 \text{ mg}$	$\pm 0.25 \text{ mg}$		
20 mg	$\pm 0.003 \text{ mg}$	$\pm 0.010 \text{ mg}$	$\pm 0.03 \text{ mg}$	$\pm 0.10 \text{ mg}$	$\pm 0.3 \text{ mg}$		
50 mg	$\pm 0.004 \text{ mg}$	$\pm 0.012 \text{ mg}$	$\pm 0.04 \text{ mg}$	$\pm 0.12 \text{ mg}$	$\pm 0.4 \text{ mg}$		
100 mg	$\pm 0.005 \text{ mg}$	$\pm 0.016 \text{ mg}$	$\pm 0.05 \text{ mg}$	$\pm 0.16 \text{ mg}$	$\pm 0.5 \text{ mg}$	$\pm 1.6 \text{ mg}$	
200 mg	$\pm 0.006 \text{ mg}$	$\pm 0.020 \text{ mg}$	$\pm 0.06 \text{ mg}$	$\pm 0.20 \text{ mg}$	$\pm 0.6 \text{ mg}$	$\pm 2.0 \text{ mg}$	
500 mg	$\pm 0.008 \text{ mg}$	$\pm 0.025 \text{ mg}$	$\pm 0.08 \text{ mg}$	$\pm 0.25 \text{ mg}$	$\pm 0.8 \text{ mg}$	$\pm 2.5 \text{ mg}$	
1 g	$\pm 0.010 \text{ mg}$	$\pm 0.03 \text{ mg}$	$\pm 0.10 \text{ mg}$	$\pm 0.3 \text{ mg}$	$\pm 1.0 \text{ mg}$	$\pm 3.0 \text{ mg}$	$\pm 10 \text{ mg}$
2 g	$\pm 0.012 \text{ mg}$	$\pm 0.04 \text{ mg}$	$\pm 0.12 \text{ mg}$	$\pm 0.4 \text{ mg}$	$\pm 1.2 \text{ mg}$	$\pm 4.0 \text{ mg}$	$\pm 12 \text{ mg}$
5 g	$\pm 0.016 \text{ mg}$	$\pm 0.05 \text{ mg}$	$\pm 0.16 \text{ mg}$	$\pm 0.5 \text{ mg}$	$\pm 1.6 \text{ mg}$	$\pm 5.0 \text{ mg}$	$\pm 16 \text{ mg}$
10 g	$\pm 0.020 \text{ mg}$	$\pm 0.06 \text{ mg}$	$\pm 0.20 \text{ mg}$	$\pm 0.6 \text{ mg}$	$\pm 2.0 \text{ mg}$	$\pm 6.0 \text{ mg}$	$\pm 20 \text{ mg}$
20 g	$\pm 0.025 \text{ mg}$	$\pm 0.08 \text{ mg}$	$\pm 0.25 \text{ mg}$	$\pm 0.8 \text{ mg}$	$\pm 2.5 \text{ mg}$	$\pm 8.0 \text{ mg}$	$\pm 25 \text{ mg}$
50 g	$\pm 0.03 \text{ mg}$	$\pm 0.10 \text{ mg}$	$\pm 0.3 \text{ mg}$	$\pm 1.0 \text{ mg}$	$\pm 3.0 \text{ mg}$	$\pm 10 \text{ mg}$	$\pm 30 \text{ mg}$
100 g	$\pm 0.05 \text{ mg}$	$\pm 0.16 \text{ mg}$	$\pm 0.5 \text{ mg}$	$\pm 1.6 \text{ mg}$	$\pm 5.0 \text{ mg}$	$\pm 16 \text{ mg}$	$\pm 50 \text{ mg}$
200 g	$\pm 0.10 \text{ mg}$	$\pm 0.3 \text{ mg}$	$\pm 1.0 \text{ mg}$	$\pm 3.0 \text{ mg}$	$\pm 10 \text{ mg}$	$\pm 30 \text{ mg}$	$\pm 100 \text{ mg}$
500 g	$\pm 0.25 \text{ mg}$	$\pm 0.8 \text{ mg}$	$\pm 2.5 \text{ mg}$	$\pm 8.0 \text{ mg}$	$\pm 25 \text{ mg}$	$\pm 80 \text{ mg}$	$\pm 250 \text{ mg}$
1 kg	$\pm 0.5 \text{ mg}$	$\pm 1.6 \text{ mg}$	$\pm 5.0 \text{ mg}$	$\pm 16 \text{ mg}$	$\pm 50 \text{ mg}$	$\pm 160 \text{ mg}$	$\pm 500 \text{ mg}$
2 kg	$\pm 1.0 \text{ mg}$	$\pm 3.0 \text{ mg}$	$\pm 10 \text{ mg}$	$\pm 30 \text{ mg}$	$\pm 100 \text{ mg}$	$\pm 300 \text{ mg}$	$\pm 1000 \text{ mg}$
5 kg	$\pm 2.5 \text{ mg}$	$\pm 8.0 \text{ mg}$	$\pm 25 \text{ mg}$	$\pm 80 \text{ mg}$	$\pm 250 \text{ mg}$	$\pm 800 \text{ mg}$	$\pm 2500 \text{ mg}$
10 kg	$\pm 5.0 \text{ mg}$	$\pm 16 \text{ mg}$	$\pm 50 \text{ mg}$	$\pm 160 \text{ mg}$	$\pm 500 \text{ mg}$	$\pm 1600 \text{ mg}$	$\pm 5000 \text{ mg}$
20 kg	$\pm 10 \text{ mg}$	$\pm 30 \text{ mg}$	$\pm 100 \text{ mg}$	$\pm 300 \text{ mg}$	$\pm 1000 \text{ mg}$	$\pm 3000 \text{ mg}$	$\pm 10 \text{ g}$
50 kg	$\pm 25 \text{ mg}$	$\pm 80 \text{ mg}$	$\pm 250 \text{ mg}$	$\pm 800 \text{ mg}$	$\pm 2500 \text{ mg}$	$\pm 8000 \text{ mg}$	$\pm 25 \text{ g}$
100 kg		$\pm 160 \text{ mg}$	$\pm 500 \text{ mg}$	$\pm 1600 \text{ mg}$	$\pm 5000 \text{ mg}$	$\pm 16 \text{ g}$	$\pm 50 \text{ g}$
200 kg		$\pm 300 \text{ mg}$	$\pm 1000 \text{ mg}$	$\pm 3000 \text{ mg}$	$\pm 10 \text{ g}$	$\pm 30 \text{ g}$	$\pm 100 \text{ g}$
500 kg		$\pm 800 \text{ mg}$	$\pm 2500 \text{ mg}$	$\pm 8000 \text{ mg}$	$\pm 25 \text{ g}$	$\pm 80 \text{ g}$	$\pm 250 \text{ g}$
1 000 kg		$\pm 1600 \text{ mg}$	$\pm 5000 \text{ mg}$	$\pm 16 \text{ g}$	$\pm 50 \text{ g}$	$\pm 160 \text{ g}$	$\pm 500 \text{ g}$
2 000 kg			$\pm 10 \text{ g}$	$\pm 30 \text{ g}$	$\pm 100 \text{ g}$	$\pm 300 \text{ g}$	$\pm 1000 \text{ g}$
5 000 kg				$\pm 25 \text{ g}$	$\pm 80 \text{ g}$	$\pm 250 \text{ g}$	$\pm 800 \text{ g}$

Denomination 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
Weight set ↓	△	□	□	◇	△	□	□	◇	△	□	□	◇	1	2	2	5	10
1 mg - 500 mg	Total weight	1,11 g															
1 mg - 50 g													111,11 g				
1 mg - 100 g													211,11 g				
1 mg - 200 g													611,11 g				
1 mg - 500 g													1.111,11 g				
1 mg - 1 kg													2.111,11 g				
1 mg - 2 kg													6.111,11 g				
1 mg - 5 kg													11.111,11 g				
1 mg - 10 kg													21.111,11 g				

CLASS E1

Milligram weights, wire shape, stainless steel



- Test weight material: Stainless steel

- Container material: Wood

Milligram weight			Box	DKD certificate		Package price
KERN		Tol ±mg	KERN	KERN		KERN
308-31	1 mg	0,003	338-090-200	962-251		308-311-600
308-32	2 mg	0,003	338-090-200	962-252		308-321-600
308-33	5 mg	0,003	338-090-200	962-253		308-331-600
308-34	10 mg	0,003	338-090-200	962-254		308-341-600
308-35	20 mg	0,003	338-090-200	962-255		308-351-600
308-36	50 mg	0,004	338-090-200	962-256		308-361-600
308-37	100 mg	0,005	338-090-200	962-257		308-371-600
308-38	200 mg	0,006	338-090-200	962-258		308-381-600
308-39	500 mg	0,008	338-090-200	962-259		308-391-600

Individual weights, cylindrical, polished stainless steel



- Test weight material: Polished stainless steel

- Container material: Lined wood

Individual weight			Box	DKD certificate	Package price	DKD certificate
KERN		Tol ±mg	KERN	Initial calibration	KERN	Recalibration
307-01	1 g	0,010	317-010-100	963-231	307-011-610	962-231
307-02	2 g	0,012	317-020-100	963-232	307-021-610	962-232
307-03	5 g	0,016	317-030-100	963-233	307-031-610	962-233
307-04	10 g	0,020	317-040-100	963-234	307-041-610	962-234
307-05	20 g	0,025	317-050-100	963-235	307-051-610	962-235
307-06	50 g	0,030	317-060-100	963-236	307-061-610	962-236
307-07	100 g	0,05	317-070-100	963-237	307-071-610	962-237
307-08	200 g	0,10	317-080-100	963-238	307-081-610	962-238
307-09	500 g	0,25	317-090-100	963-239	307-091-610	962-239
307-11	1 kg	0,5	317-110-100	963-241	307-111-610	962-241
307-12	2 kg	1,0	317-120-100	963-242	307-121-610	962-242
307-13	5 kg	2,5	317-130-100	963-243	307-131-610	962-243
307-14	10 kg	5,0	317-140-100	963-244	307-141-610	962-244
307-15	20 kg	10,0	317-150-100	963-245	307-151-610	962-245
307-16	50 kg	25,0	317-160-100	963-246	307-161-610	962-246

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.

Weight sets, cylindrical shape, polished stainless steel



- Test weight material: Polished stainless steel

- Container material: Lined wood

Weight set		DKD certificate	Package price	DKD certificate
KERN		Initial calibration	KERN	Recalibration
308-42	1 mg - 500 mg	962-250	308-421-600	962-250
303-02	1 mg - 50 g	963-201	303-021-610	962-201
303-03	1 mg - 100 g	963-202	303-031-610	962-202
303-04	1 mg - 200 g	963-203	303-041-610	962-203
303-05	1 mg - 500 g	963-204	303-051-610	962-204
303-06	1 mg - 1 kg	963-205	303-061-610	962-205
303-07	1 mg - 2 kg	963-206	303-071-610	962-206
303-08	1 mg - 5 kg	963-207	303-081-610	962-207
303-09	1 mg - 10 kg	963-208	303-091-610	962-208
304-02	1 g - 50 g	963-215	304-021-610	962-215
304-03	1 g - 100 g	963-216	304-031-610	962-216
304-04	1 g - 200 g	963-217	304-041-610	962-217
304-05	1 g - 500 g	963-218	304-051-610	962-218
304-06	1 g - 1 kg	963-219	304-061-610	962-219
304-07	1 g - 2 kg	963-220	304-071-610	962-220
304-08	1 g - 5 kg	963-221	304-081-610	962-221
304-09	1 g - 10 kg	963-222	304-091-610	962-222

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		DKD certificate		Package price	
			+		+		=	
KERN		Tol ±mg	KERN		KERN		KERN	
318-01	1 mg	0,006	347-009-400		962-351		318-014-600	
318-02	2 mg	0,006	347-009-400		962-352		318-024-600	
318-03	5 mg	0,006	347-009-400		962-353		318-034-600	
318-04	10 mg	0,008	347-009-400		962-354		318-044-600	
318-05	20 mg	0,010	347-009-400		962-355		318-054-600	
318-06	50 mg	0,012	347-009-400		962-356		318-064-600	
318-07	100 mg	0,016	347-009-400		962-357		318-074-600	
318-08	200 mg	0,020	347-009-400		962-358		318-084-600	
318-09	500 mg	0,025	347-009-400		962-359		318-094-600	

Individual weights, compact shape, polished stainless steel

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



Individual weight			Container		DKD certificate		Package price	
			+		+		=	
KERN		Tol ±mg	KERN		KERN		KERN	
316-01	1 g	0,03	317-020-400		962-331		316-014-600	
316-02	2 g	0,04	317-020-400		962-332		316-024-600	
316-03	5 g	0,05	317-030-400		962-333		316-034-600	
316-04	10 g	0,06	317-040-400		962-334		316-044-600	
316-05	20 g	0,08	317-050-400		962-335		316-054-600	
316-06	50 g	0,10	317-060-400		962-336		316-064-600	
316-07	100 g	0,16	317-070-400		962-337		316-074-600	
316-08	200 g	0,30	317-080-400		962-338		316-084-600	
316-09	500 g	0,8	317-090-400		962-339		316-094-600	
316-11	1 kg	1,6	317-110-400		962-341		316-114-600	
316-12	2 kg	3,0	317-120-400		962-342		316-124-600	
316-13	5 kg	8,0	317-130-400		962-343		316-134-600	
316-14	10 kg	16,0	317-140-400		962-344		316-141-600	

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		DKD certificate		Package price	
			+		+		=	
KERN		Tol ±mg	KERN		KERN		KERN	
317-01	1 g	0,03	317-020-400		962-331		317-011-600	
317-02	2 g	0,04	317-020-400		962-332		317-024-600	
317-03	5 g	0,05	317-030-400		962-333		317-034-600	
317-04	10 g	0,06	317-040-400		962-334		317-044-600	
317-05	20 g	0,08	317-050-400		962-335		317-054-600	
317-06	50 g	0,10	317-060-400		962-336		317-064-600	
317-07	100 g	0,16	317-070-400		962-337		317-074-600	
317-08	200 g	0,30	317-080-400		962-338		317-084-600	
317-09	500 g	0,8	317-090-400		962-339		317-094-600	
317-11	1 kg	1,6	317-110-400		962-341		317-114-600	
317-12	2 kg	3,0	317-120-400		962-342		317-124-600	
317-13	5 kg	8,0	317-130-400		962-343		317-134-600	
317-14	10 kg	16,0	317-140-400		962-344		317-141-600	
317-15	20 kg	30,0	317-150-100		962-345		317-151-600	
317-16	50 kg	80,0	317-160-100		962-346		317-161-600	

For individual weights, wooden boxes are also available as an alternative to the plastic containers.
For more details on this, please see page 151.

CLASS E2

Weight sets, compact shape, polished stainless steel



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

Weight set		DKD certificate	Package price	
		+ KERN	= KERN	KERN
KERN		962-315		312-024-600
312-024	1 g - 50 g	962-316		312-034-600
312-034	1 g - 100 g	962-317		312-044-600
312-044	1 g - 200 g	962-318		312-054-600
312-054	1 g - 500 g	962-319		312-064-600
312-064	1 g - 1 kg	962-320		312-074-600
312-074	1 g - 2 kg	962-321		312-084-600
312-084	1 g - 5 kg			

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 removable plastic box

Weight set		DKD certificate	Package price	
		+ KERN	= KERN	KERN
KERN		962-350		318-221-600
318-22	1 mg - 500 mg	962-301		313-024-600
313-024	1 mg - 50 g	962-302		313-034-600
313-034	1 mg - 100 g	962-303		313-044-600
313-044	1 mg - 200 g	962-304		313-054-600
313-054	1 mg - 500 g	962-305		313-064-600
313-064	1 mg - 1 kg	962-306		313-074-600
313-074	1 mg - 2 kg	962-307		313-084-600
313-084	1 mg - 5 kg	962-315		314-024-600
314-024	1 g - 50 g	962-316		314-034-600
314-034	1 g - 100 g	962-317		314-044-600
314-044	1 g - 200 g	962-318		314-054-600
314-054	1 g - 500 g	962-319		314-064-600
314-064	1 g - 1 kg	962-320		314-074-600
314-074	1 g - 2 kg	962-321		314-084-600
314-084	1 g - 5 kg			

Weight sets, cylindrical shape, polished stainless steel



- Test weight material: Individual weights - polished stainless steel, milligram weights - aluminium/German silver
- Box material: Lined wood. Milligram weights 1 mg - 500 mg in removable plastic box

Weight set		DKD certificate	Package price	
		+ KERN	= KERN	KERN
KERN		962-350		318-221-600
318-22	1 mg - 500 mg	962-301		313-021-600
313-02	1 mg - 50 g	962-302		313-031-600
313-03	1 mg - 100 g	962-303		313-041-600
313-04	1 mg - 200 g	962-304		313-051-600
313-05	1 mg - 500 g	962-305		313-061-600
313-06	1 mg - 1 kg	962-306		313-071-600
313-07	1 mg - 2 kg	962-307		313-081-600
313-08	1 mg - 5 kg	962-308		313-091-600
313-09	1 mg - 10 kg	962-315		314-021-600
314-02	1 g - 50 g	962-316		314-031-600
314-03	1 g - 100 g	962-317		314-041-600
314-04	1 g - 200 g	962-318		314-051-600
314-05	1 g - 500 g	962-319		314-061-600
314-06	1 g - 1 kg	962-320		314-071-600
314-07	1 g - 2 kg	962-321		314-081-600
314-08	1 g - 5 kg	962-322		314-091-600
314-09	1 g - 10 kg			

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		DKD certificate		Package price	
			+		+		=	
KERN	Tol ±mg		KERN		KERN		KERN	
328-01	1 mg	0,020	347-009-400		962-451		328-014-600	
328-02	2 mg	0,020	347-009-400		962-452		328-024-600	
328-03	5 mg	0,020	347-009-400		962-453		328-034-600	
328-04	10 mg	0,025	347-009-400		962-454		328-044-600	
328-05	20 mg	0,030	347-009-400		962-455		328-054-600	
328-06	50 mg	0,040	347-009-400		962-456		328-064-600	
328-07	100 mg	0,050	347-009-400		962-457		328-074-600	
328-08	200 mg	0,060	347-009-400		962-458		328-084-600	
328-09	500 mg	0,080	347-009-400		962-459		328-094-600	

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		DKD certificate		Package price	
			+		+		=	
KERN	Tol ±mg		KERN		KERN		KERN	
329-01	1 g	0,10	347-030-400		962-431N		329-014-600	
329-02	2 g	0,12	347-030-400		962-432N		329-024-600	
329-03	5 g	0,16	347-030-400		962-433N		329-034-600	
329-04	10 g	0,20	347-050-400		962-434N		329-044-600	
329-05	20 g	0,25	347-050-400		962-435N		329-054-600	
329-06	50 g	0,30	347-070-400		962-436N		329-064-600	
329-07	100 g	0,50	347-070-400		962-437N		329-074-600	
329-08	200 g	1	347-080-400		962-438N		329-084-600	
329-09	500 g	2,50	347-090-400		962-439N		329-094-600	
329-11	1 kg	5	347-110-400		962-441N		329-114-600	
329-12	2 kg	10	347-120-400		962-442N		329-124-600	
329-13	5 kg	25	347-130-400		962-443N		329-134-600	
329-14	10 kg	50	347-140-400		962-444N		329-144-600	

Individual weights, compact shape, polished stainless steel

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



Individual weight			Container		DKD certificate		Package price	
			+		+		=	
KERN	Tol ±mg		KERN		KERN		KERN	
326-01	1 g	0,10	347-030-400		962-431		326-014-600	
326-02	2 g	0,12	347-030-400		962-432		326-024-600	
326-03	5 g	0,16	347-030-400		962-433		326-034-600	
326-04	10 g	0,20	347-050-400		962-434		326-044-600	
326-05	20 g	0,25	347-050-400		962-435		326-054-600	
326-06	50 g	0,30	347-070-400		962-436		326-064-600	
326-07	100 g	0,50	347-070-400		962-437		326-074-600	
326-08	200 g	1	347-080-400		962-438		326-084-600	
326-09	500 g	2,50	347-090-400		962-439		326-094-600	
326-11	1 kg	5	347-110-400		962-441		326-114-600	
326-12	2 kg	10	347-120-400		962-442		326-124-600	
326-13	5 kg	25	347-130-400		962-443		326-134-600	
326-14	10 kg	50	347-140-400		962-444		326-144-600	

For individual weights, wooden boxes are also available as an alternative to the plastic containers.
For more details on this, please see page 151.

Test weights

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		DKD certificate		Package price	
			+		+		=	
KERN	Tol ±mg		KERN		KERN		KERN	
327-61	1 g	0,10	347-030-400		962-431		327-614-600	
327-62	2 g	0,12	347-030-400		962-432		327-624-600	
327-63	5 g	0,16	347-030-400		962-433		327-634-600	
327-64	10 g	0,20	347-050-400		962-434		327-644-600	
327-65	20 g	0,25	347-050-400		962-435		327-654-600	
327-66	50 g	0,30	347-070-400		962-436		327-664-600	
327-67	100 g	0,50	347-070-400		962-437		327-674-600	
327-68	200 g	1	347-080-400		962-438		327-684-600	
327-69	500 g	2,50	347-090-400		962-439		327-694-600	
327-71	1 kg	5	347-110-400		962-441		327-714-600	
327-72	2 kg	10	347-120-400		962-442		327-724-600	
327-73	5 kg	25	347-130-400		962-443		327-734-600	
327-74	10 kg	50	347-140-400		962-444		327-744-600	
327-75	20 kg	100	317-150-100		962-445		327-751-600	
327-76	50 kg	250	317-160-100		962-446		327-761-600	

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		DKD certificate		Package price	
			+		+		=	
KERN	Tol ±mg		KERN		KERN		KERN	
327-01	1 g	0,10	347-030-400		962-431		327-014-600	
327-02	2 g	0,12	347-030-400		962-432		327-024-600	
327-03	5 g	0,16	347-030-400		962-433		327-034-600	
327-04	10 g	0,20	347-050-400		962-434		327-044-600	
327-05	20 g	0,25	347-050-400		962-435		327-054-600	
327-06	50 g	0,30	347-070-400		962-436		327-064-600	
327-07	100 g	0,50	347-070-400		962-437		327-074-600	
327-08	200 g	1	347-080-400		962-438		327-084-600	
327-09	500 g	2,50	347-090-400		962-439		327-094-600	
327-11	1 kg	5	347-110-400		962-441		327-114-600	
327-12	2 kg	10	347-120-400		962-442		327-124-600	
327-13	5 kg	25	347-130-400		962-443		327-134-600	
327-14	10 kg	50	347-140-400		962-444		327-144-600	
327-15	20 kg	100	317-150-100		962-445		327-151-600	
327-16	50 kg	250	317-160-100		962-446		327-161-600	

Alternative to plastic container:

Wooden boxes for individual weights. For more details on this, please see page 151.



Test weights

CLASS F1

Weight sets, compact shape, finely turned stainless steel



- Test weight material: Finely turned stainless steel
- Case material: Lined plastic

Weight set		DKD certificate	Package price
		+	=
KERN		KERN	KERN
321-024	1 g - 50 g	962-415	321-024-600
321-034	1 g - 100 g	962-416	321-034-600
321-044	1 g - 200 g	962-417	321-044-600
321-054	1 g - 500 g	962-418	321-054-600
321-064	1 g - 1 kg	962-419	321-064-600
321-074	1 g - 2 kg	962-420	321-074-600
321-084	1 g - 5 kg	962-421	321-084-600

Weight sets, compact shape, polished stainless steel



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

Weight set		DKD certificate	Package price
		+	=
KERN		KERN	KERN
322-024	1 g - 50 g	962-415	322-024-600
322-034	1 g - 100 g	962-416	322-034-600
322-044	1 g - 200 g	962-417	322-044-600
322-054	1 g - 500 g	962-418	322-054-600
322-064	1 g - 1 kg	962-419	322-064-600
322-074	1 g - 2 kg	962-420	322-074-600
322-084	1 g - 5 kg	962-421	322-084-600

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 removable plastic box



Weight set		DKD certificate	Package price
		+	=
KERN		KERN	KERN
328-22	1 mg - 500 mg	962-450	328-221-600
Nickel-plated and polished brass			
323-624	1 mg - 50 g	962-401	323-624-600
323-634	1 mg - 100 g	962-402	323-634-600
323-644	1 mg - 200 g	962-403	323-644-600
323-654	1 mg - 500 g	962-404	323-654-600
323-664	1 mg - 1 kg	962-405	323-664-600
323-674	1 mg - 2 kg	962-406	323-674-600
323-684	1 mg - 5 kg	962-407	323-684-600
324-624	1 g - 50 g	962-415	324-624-600
324-634	1 g - 100 g	962-416	324-634-600
324-644	1 g - 200 g	962-417	324-644-600
324-654	1 g - 500 g	962-418	324-654-600
324-664	1 g - 1 kg	962-419	324-664-600
324-674	1 g - 2 kg	962-420	324-674-600
324-684	1 g - 5 kg	962-421	324-684-600
Polished stainless steel			
323-024	1 mg - 50 g	962-401	323-024-600
323-034	1 mg - 100 g	962-402	323-034-600
323-044	1 mg - 200 g	962-403	323-044-600
323-054	1 mg - 500 g	962-404	323-054-600
323-064	1 mg - 1 kg	962-405	323-064-600
323-074	1 mg - 2 kg	962-406	323-074-600
323-084	1 mg - 5 kg	962-407	323-084-600
324-024	1 g - 50 g	962-415	324-024-600
324-034	1 g - 100 g	962-416	324-034-600
324-044	1 g - 200 g	962-417	324-044-600
324-054	1 g - 500 g	962-418	324-054-600
324-064	1 g - 1 kg	962-419	324-064-600
324-074	1 g - 2 kg	962-420	324-074-600
324-084	1 g - 5 kg	962-421	324-084-600

CLASS F1

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

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



Weight set	DKD certificate	Package price
KERN	KERN	KERN
Polished brass and nickel-plated		
328-22 1 mg - 500 mg		
323-62 1 mg - 50 g	962-450	328-221-600
323-63 1 mg - 100 g	962-401	323-621-600
323-64 1 mg - 200 g	962-402	323-631-600
323-65 1 mg - 500 g	962-403	323-641-600
323-66 1 mg - 1 kg	962-404	323-651-600
323-67 1 mg - 2 kg	962-405	323-661-600
323-68 1 mg - 5 kg	962-406	323-671-600
323-69 1 mg - 10 kg	962-407	323-681-600
324-62 1 g - 50 g	962-408	323-691-600
324-63 1 g - 100 g	962-415	324-621-600
324-64 1 g - 200 g	962-416	324-631-600
324-65 1 g - 500 g	962-417	324-641-600
324-66 1 g - 1 kg	962-418	324-651-600
324-67 1 g - 2 kg	962-419	324-661-600
324-68 1 g - 5 kg	962-420	324-671-600
324-69 1 g - 10 kg	962-421	324-681-600
	962-422	324-691-600
Polished stainless steel		
323-02 1 mg - 50 g	962-401	323-021-600
323-03 1 mg - 100 g	962-402	323-031-600
323-04 1 mg - 200 g	962-403	323-041-600
323-05 1 mg - 500 g	962-404	323-051-600
323-06 1 mg - 1 kg	962-405	323-061-600
323-07 1 mg - 2 kg	962-406	323-071-600
323-08 1 mg - 5 kg	962-407	323-081-600
323-09 1 mg - 10 kg	962-408	323-091-600
324-02 1 g - 50 g	962-415	324-021-600
324-03 1 g - 100 g	962-416	324-031-600
324-04 1 g - 200 g	962-417	324-041-600
324-05 1 g - 500 g	962-418	324-051-600
324-06 1 g - 1 kg	962-419	324-061-600
324-07 1 g - 2 kg	962-420	324-071-600
324-08 1 g - 5 kg	962-421	324-081-600
324-09 1 g - 10 kg	962-422	324-091-600

**You can make up your own individual weight set yourself:**

It contains only the weights which you need for testing purposes. KERN will make your own personal box out of plastic, wood or aluminium. For more details on this, please see page 152.



Test weights

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		DKD certificate		Package price	
KERN		Tol ±mg	KERN		KERN		KERN	
338-01	1 mg	0,06	347-009-400		962-451		338-014-600	
338-02	2 mg	0,06	347-009-400		962-452		338-024-600	
338-03	5 mg	0,06	347-009-400		962-453		338-034-600	
338-04	10 mg	0,08	347-009-400		962-454		338-044-600	
338-05	20 mg	0,10	347-009-400		962-455		338-054-600	
338-06	50 mg	0,12	347-009-400		962-456		338-064-600	
338-07	100 mg	0,16	347-009-400		962-457		338-074-600	
338-08	200 mg	0,20	347-009-400		962-458		338-084-600	
338-09	500 mg	0,25	347-009-400		962-459		338-094-600	

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		DKD certificate		Package price	
KERN		Tol ±mg	KERN		KERN		KERN	
337-01	1 g	0,3	347-030-400		962-431		337-014-600	
337-02	2 g	0,4	347-030-400		962-432		337-024-600	
337-03	5 g	0,5	347-030-400		962-433		337-034-600	
337-04	10 g	0,6	347-050-400		962-434		337-044-600	
337-05	20 g	0,8	347-050-400		962-435		337-054-600	
337-06	50 g	1,0	347-070-400		962-436		337-064-600	
337-07	100 g	1,6	347-070-400		962-437		337-074-600	
337-08	200 g	3,0	347-080-400		962-438		337-084-600	
337-09	500 g	8,0	347-090-400		962-439		337-094-600	
337-11	1 kg	16	347-110-400		962-441		337-114-600	
337-12	2 kg	30	347-120-400		962-442		337-124-600	
337-13	5 kg	80	347-130-400		962-443		337-134-600	
337-14	10 kg	160	347-140-400		962-444		337-144-600	
337-15	20 kg	300	337-150-200		962-445		337-152-600	
337-16	50 kg	800	337-160-200		962-446		337-162-600	



Alternative to plastic container:

Wooden boxes for individual weights. For more details on this, please see page 151.

Test weights, stainless steel, stackable

- Test weight material: Stainless steel, finely turned



Test weight				DKD certificate	
KERN		Tol ±mg	Dim. Ø x H	KERN	
337-141	10 kg	160	137 x 132 mm	962-444	
337-151	20 kg	300	137 x 217 mm	962-445	
337-161	50 kg	800	198 x 250 mm	962-446	

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 removable plastic box



Weight set		DKD certificate	Package price	
KERN		KERN	KERN	
338-22	1 mg - 500 mg	962-450	338-224-600	
333-024	1 mg - 50 g	962-401	333-024-600	
333-034	1 mg - 100 g	962-402	333-034-600	
333-044	1 mg - 200 g	962-403	333-044-600	
333-054	1 mg - 500 g	962-404	333-054-600	
333-064	1 mg - 1 kg	962-405	333-064-600	
333-074	1 mg - 2 kg	962-406	333-074-600	
333-084	1 mg - 5 kg	962-407	333-084-600	
334-024	1 g - 50 g	962-415	334-024-600	
334-034	1 g - 100 g	962-416	334-034-600	
334-044	1 g - 200 g	962-417	334-044-600	
334-054	1 g - 500 g	962-418	334-054-600	
334-064	1 g - 1 kg	962-419	334-064-600	
334-074	1 g - 2 kg	962-420	334-074-600	
334-084	1 g - 5 kg	962-421	334-084-600	

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
- **Box material:** Wood



Weight set		DKD certificate	Package price	
KERN		KERN	KERN	
338-22	1 mg - 500 mg	962-450	338-224-600	
333-02	1 mg - 50 g	962-401	333-022-600	
333-03	1 mg - 100 g	962-402	333-032-600	
333-04	1 mg - 200 g	962-403	333-042-600	
333-05	1 mg - 500 g	962-404	333-052-600	
333-06	1 mg - 1 kg	962-405	333-062-600	
333-07	1 mg - 2 kg	962-406	333-072-600	
333-08	1 mg - 5 kg	962-407	333-082-600	
333-09	1 mg - 10 kg	962-408	333-092-600	
334-02	1 g - 50 g	962-415	334-022-600	
334-03	1 g - 100 g	962-416	334-032-600	
334-04	1 g - 200 g	962-417	334-042-600	
334-05	1 g - 500 g	962-418	334-052-600	
334-06	1 g - 1 kg	962-419	334-062-600	
334-07	1 g - 2 kg	962-420	334-072-600	
334-08	1 g - 5 kg	962-421	334-082-600	
334-09	1 g - 10 kg	962-422	334-092-600	

**You can make up your own individual weight set yourself:**

It contains only the weights which you need for testing purposes. KERN will make your own personal box out of plastic, wood or aluminium. For more details on this, please see page 152.

Test weights

CLASS M 1

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		DKD certificate		Package price	
KERN		Tol ±mg	KERN		KERN		KERN	
348-01	1 mg	0,20	347-009-400		962-651		348-014-600	
348-02	2 mg	0,20	347-009-400		962-652		348-024-600	
348-03	5 mg	0,20	347-009-400		962-653		348-034-600	
348-04	10 mg	0,25	347-009-400		962-654		348-044-600	
348-05	20 mg	0,30	347-009-400		962-655		348-054-600	
348-06	50 mg	0,40	347-009-400		962-656		348-064-600	
348-07	100 mg	0,50	347-009-400		962-657		348-074-600	
348-08	200 mg	0,60	347-009-400		962-658		348-084-600	
348-09	500 mg	0,80	347-009-400		962-659		348-094-600	

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		DKD certificate		Package price	
KERN		Tol ±mg	KERN		KERN		KERN	
Finely turned brass								
347-41	1 g	1,0	347-030-400		962-631		347-414-600	
347-42	2 g	1,2	347-030-400		962-632		347-424-600	
347-43	5 g	1,6	347-030-400		962-633		347-434-600	
347-44	10 g	2,0	347-050-400		962-634		347-444-600	
347-45	20 g	2,5	347-050-400		962-635		347-454-600	
347-46	50 g	3,0	347-070-400		962-636		347-464-600	
347-47	100 g	5,0	347-070-400		962-637		347-474-600	
347-48	200 g	10	347-080-400		962-638		347-484-600	
347-49	500 g	25	347-090-400		962-639		347-494-600	
347-51	1 kg	50	347-110-400		962-641		347-514-600	
347-52	2 kg	100	347-120-400		962-642		347-524-600	
347-53	5 kg	250	347-130-400		962-643		347-534-600	
347-54	10 kg	500	347-140-400		962-644		347-544-600	
Finely turned stainless steel								
347-01	1 g	1,0	347-030-400		962-631		347-014-600	
347-02	2 g	1,2	347-030-400		962-632		347-024-600	
347-03	5 g	1,6	347-030-400		962-633		347-034-600	
347-04	10 g	2,0	347-050-400		962-634		347-044-600	
347-05	20 g	2,5	347-050-400		962-635		347-054-600	
347-06	50 g	3,0	347-070-400		962-636		347-064-600	
347-07	100 g	5,0	347-070-400		962-637		347-074-600	
347-08	200 g	10	347-080-400		962-638		347-084-600	
347-09	500 g	25	347-090-400		962-639		347-094-600	
347-11	1 kg	50	347-110-400		962-641		347-114-600	
347-12	2 kg	100	347-120-400		962-642		347-124-600	
347-13	5 kg	250	347-130-400		962-643		347-134-600	
347-14	10 kg	500	347-140-400		962-644		347-144-600	

Test weights, stainless steel, stackable

- Test weight material: Stainless steel, finely turned

Test weight			DKD certificate	
KERN		Tol ±g	Dim. Ø x H	
347-141	10 kg	0,50	137 x 132 mm	
347-151	20 kg	1,00	137 x 217 mm	
347-161	50 kg	2,50	198 x 250 mm	

CLASS M 1

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/German silver
- **Case material:** Lined plastic. Milligram weights 1 mg - 500 mg in a removable plastic box



Weight set		DKD certificate		Package price	
KERN		KERN		KERN	
Finely turned brass					
348-22	1 mg - 500 mg	962-650		348-224-600	
343-424	1 mg - 50 g	962-601		343-424-600	
343-434	1 mg - 100 g	962-602		343-434-600	
343-444	1 mg - 200 g	962-603		343-444-600	
343-454	1 mg - 500 g	962-604		343-454-600	
343-464	1 mg - 1 kg	962-605		343-464-600	
343-474	1 mg - 2 kg	962-606		343-474-600	
343-484	1 mg - 5 kg	962-607		343-484-600	
344-424	1 g - 50 g	962-615		344-424-600	
344-434	1 g - 100 g	962-616		344-434-600	
344-444	1 g - 200 g	962-617		344-444-600	
344-454	1 g - 500 g	962-618		344-454-600	
344-464	1 g - 1 kg	962-619		344-464-600	
344-474	1 g - 2 kg	962-620		344-474-600	
344-484	1 g - 5 kg	962-621		344-484-600	
Finely turned stainless steel					
343-024	1 mg - 50 g	962-601		343-024-600	
343-034	1 mg - 100 g	962-602		343-034-600	
343-044	1 mg - 200 g	962-603		343-044-600	
343-054	1 mg - 500 g	962-604		343-054-600	
343-064	1 mg - 1 kg	962-605		343-064-600	
343-074	1 mg - 2 kg	962-606		343-074-600	
343-084	1 mg - 5 kg	962-607		343-084-600	
344-024	1 g - 50 g	962-615		344-024-600	
344-034	1 g - 100 g	962-616		344-034-600	
344-044	1 g - 200 g	962-617		344-044-600	
344-054	1 g - 500 g	962-618		344-054-600	
344-064	1 g - 1 kg	962-619		344-064-600	
344-074	1 g - 2 kg	962-620		344-074-600	
344-084	1 g - 5 kg	962-621		344-084-600	

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
- **Box material:** Wood



Weight set		DKD certificate		Package price	
KERN		KERN		KERN	
Finely turned brass					
348-22	1 mg - 500 mg	962-650		348-224-600	
343-42	1 mg - 50 g	962-601		343-422-600	
343-43	1 mg - 100 g	962-602		343-432-600	
343-44	1 mg - 200 g	962-603		343-442-600	
343-45	1 mg - 500 g	962-604		343-452-600	
343-46	1 mg - 1 kg	962-605		343-462-600	
343-47	1 mg - 2 kg	962-606		343-472-600	
343-48	1 mg - 5 kg	962-607		343-482-600	
343-49	1 mg - 10 kg	962-608		343-492-600	
344-42	1 g - 50 g	962-615		344-422-600	
344-43	1 g - 100 g	962-616		344-432-600	
344-44	1 g - 200 g	962-617		344-442-600	
344-45	1 g - 500 g	962-618		344-452-600	
344-46	1 g - 1 kg	962-619		344-462-600	
344-47	1 g - 2 kg	962-620		344-472-600	
344-48	1 g - 5 kg	962-621		344-482-600	
344-49	1 g - 10 kg	962-622		344-492-600	

CLASS M 1

Continuation of weight sets, cylindrical shape, finely turned brass or finely turned stainless steel



Weight set		DKD certificate	Package price	
KERN		+ KERN	= KERN	
343-02	1 mg - 50 g	962-601	343-022-600	
343-03	1 mg - 100g	962-602	343-032-600	
343-04	1 mg - 200 g	962-603	343-042-600	
343-05	1 mg - 500 g	962-604	343-052-600	
343-06	1 mg - 1 kg	962-605	343-062-600	
343-07	1 mg - 2 kg	962-606	343-072-600	
343-08	1 mg - 5 kg	962-607	343-082-600	
343-09	1 mg - 10 kg	962-608	343-092-600	
344-02	1 g - 50 g	962-615	344-022-600	
344-03	1 g - 100 g	962-616	344-032-600	
344-04	1 g - 200 g	962-617	344-042-600	
344-05	1 g - 500 g	962-618	344-052-600	
344-06	1 g - 1 kg	962-619	344-062-600	
344-07	1 g - 2 kg	962-620	344-072-600	
344-08	1 g - 5 kg	962-621	344-082-600	
344-09	1 g - 10 kg	962-622	344-092-600	



You can make up your own individual weight set yourself:
It contains only the weights which you need for testing purposes.
KERN will make your own personal box out of plastic, wood or aluminium For more details on this, please see page 152.

Newton weights (N)

All hook and slotted weights as well as beam bars are available with N adjustment according to M1 tolerances.
We need to know the location of use and post code.

DKD-calibration certificate for N weights: identical to DKD prices for individual weights M1

Hook weights, finely turned brass

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



Hook weight		Container	DKD certificate	Package price	
KERN		+ KERN	+ KERN	KERN	
347-416	1 g	347-030-400	962-631	347-4164-600	
347-426	2 g	347-030-400	962-632	347-4264-600	
347-436	5 g	347-030-400	962-633	347-4364-600	
347-446	10 g	347-050-400	962-634	347-4464-600	
347-456	20 g	347-050-400	962-635	347-4564-600	
347-466	50 g	347-070-400	962-636	347-4664-600	
347-476	100 g	347-090-400	962-637	347-4764-600	
347-486	200 g	347-090-400	962-638	347-4864-600	
347-496	500 g	347-110-400	962-639	347-4964-600	
347-516	1 kg	347-120-400	962-641	347-5164-600	
347-526	2 kg	347-130-400	962-642	347-5264-600	
347-536	5 kg	347-140-400	962-643	347-5364-600	
347-546	10 kg	-	962-644	-	

CLASS M 1

Slotted weights, finely turned brass



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

Slotted weight			Container		DKD certificate		Package price	
KERN		Tol \pm mg	KERN		KERN		KERN	
347-415	1 g	1,0	347-030-400		962-631		347-4154-600	
347-425	2 g	1,2	347-030-400		962-632		347-4254-600	
347-435	5 g	1,6	347-030-400		962-633		347-4354-600	
347-445	10 g	2,0	347-030-400		962-634		347-4454-600	
347-455	20 g	2,5	347-080-400		962-635		347-4554-600	
347-465	50 g	3,0	347-080-400		962-636		347-4654-600	
347-475	100 g	5	347-090-400		962-637		347-4754-600	
347-485	200 g	10	347-090-400		962-638		347-4854-600	
347-495	500 g	25	347-110-400		962-639		347-4954-600	
347-515	1 kg	50	347-130-400		962-641		347-5154-600	
347-525	2 kg	100	347-130-400		962-642		347-5254-600	
347-535	5 kg	250	347-140-400		962-643		347-5354-600	
347-545	10 kg	500	347-140-400		962-644		347-5454-600	

Beam bars, finely turned brass, for fixing slotted weights



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

Carrier bar					DKD certificate	
KERN		Size	Largest slotted weight possible	Maximum total load	KERN	
347-445-100		10 g	100 g	200 g	962-634	
347-475-100		100 g	1 kg	2 kg	962-637	
347-495-100		500 g	10 kg	20 kg	962-639	
347-515-100		1000 g	10 kg	40 kg	962-641	

Rectangular weights, lacquered cast iron/stainless steel



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

Rectangular weight			DKD certificate		Package price	
KERN		Tol \pm g	KERN		KERN	
Lacquered cast iron						
346-86	5 kg	0,25	962-643		346-860-600	
346-87	10 kg	0,50	962-644		346-870-600	
346-88	20 kg	1,00	962-645		346-880-600	
346-89	50 kg	2,50	962-646		346-890-600	
Stainless steel						
346-06	5 kg	0,25	962-643		346-060-600	
346-07	10 kg	0,50	962-644		346-070-600	
346-08	20 kg	1,00	962-645		346-080-600	
346-09	50 kg	2,50	962-646		346-090-600	

Heavy duty weights, cast iron, stackable. Designed to be lifted with forklift trucks or cranes.



- Test weight material: Lacquered cast iron

Heavy duty weight				DKD certificate	
KERN		Tol \pm g	Dim. W x D x H	KERN	
346-81	100 kg	5	340 x 225 x 280 mm	962-691	
346-82	200 kg	10	465 x 340 x 291 mm	962-692	
346-83	500 kg	25	750 x 500 x 314 mm	962-693	
346-84	1000 kg	50	750 x 500 x 500 mm	962-694	
346-85	2000 kg	100	1000 x 750 x 500 mm	962-695	

Test weights

CLASS M2

Individual weights, cylindrical shape, finely turned brass

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



Individual weight			Container		DKD certificate		Package price	
			+		+		=	
KERN	Tol ±mg		KERN		KERN		KERN	
357-41	1 g	3	347-030-400		962-631		357-414-600	
357-42	2 g	4	347-030-400		962-632		357-424-600	
357-43	5 g	5	347-030-400		962-633		357-434-600	
357-44	10 g	6	347-050-400		962-634		357-444-600	
357-45	20 g	8	347-050-400		962-635		357-454-600	
357-46	50 g	10	347-070-400		962-636		357-464-600	
357-47	100 g	16	347-070-400		962-637		357-474-600	
357-48	200 g	30	347-080-400		962-638		357-484-600	
357-49	500 g	80	347-090-400		962-639		357-494-600	
357-51	1 kg	160	347-110-400		962-641		357-514-600	
357-52	2 kg	300	347-120-400		962-642		357-524-600	
357-53	5 kg	800	347-130-400		962-643		357-534-600	
357-54	10 kg	1600	347-140-400		962-644		357-544-600	

Alternative to plastic container:

Wooden boxes for individual weights. For more details on this, please see page 151.

Rectangular weights, lacquered cast iron

- Test weight material: Lacquered cast iron



Rectangular weight			DKD certificate		Package price	
			+		=	
KERN	Tol ±g		KERN		KERN	
356-86	5 kg	0,8	962-643		356-860-600	
356-87	10 kg	1,6	962-644		356-870-600	
356-88	20 kg	3,0	962-645		356-880-600	
356-89	50 kg	8,0	962-646		356-890-600	

Weight sets, cylindrical shape, finely turned brass

- Test weight material: Finely turned brass
- Box material: Wooden box



Weight set			DKD certificate		Package price	
			+		=	
KERN			KERN		KERN	
354-42	1 g - 50 g		962-615		354-422-600	
354-43	1 g - 100 g		962-616		354-432-600	
354-44	1 g - 200 g		962-617		354-442-600	
354-45	1 g - 500 g		962-618		354-452-600	
354-46	1 g - 1 kg		962-619		354-462-600	
354-47	1 g - 2 kg		962-620		354-472-600	
354-48	1 g - 5 kg		962-621		354-482-600	
354-49	1 g - 10 kg		962-622		354-492-600	

CLASS M3

Individual weights, cylindrical shape, finely turned brass

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



Individual weight			Container		DKD certificate		Package price	
			+		+		=	
KERN	Tol ±mg		KERN		KERN		KERN	
367-41	1 g	10	347-030-400		962-631		367-414-600	
367-42	2 g	12	347-030-400		962-632		367-424-600	
367-43	5 g	16	347-030-400		962-633		367-434-600	
367-44	10 g	20	347-050-400		962-634		367-444-600	
367-45	20 g	25	347-050-400		962-635		367-454-600	
367-46	50 g	30	347-070-400		962-636		367-464-600	
367-47	100 g	50	347-070-400		962-637		367-474-600	
367-48	200 g	100	347-080-400		962-638		367-484-600	
367-49	500 g	250	347-090-400		962-639		367-494-600	
367-51	1 kg	500	347-110-400		962-641		367-514-600	
367-52	2 kg	1000	347-120-400		962-642		367-524-600	

Individual weights, cylindrical, lacquered cast iron

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



Individual weight			DKD certificate		Package price	
			+		=	
KERN	Tol ±g		KERN		KERN	
366-91	100 g	0,05	962-637		366-910-600	
366-92	200 g	0,10	962-638		366-920-600	
366-93	500 g	0,25	962-639		366-930-600	
366-94	1 kg	0,50	962-641		366-940-600	
366-95	2 kg	1,0	962-642		366-950-600	
366-96	5 kg	2,5	962-643		366-960-600	
366-97	10 kg	5	962-644		366-970-600	
366-98	20 kg	10	962-645		366-980-600	
366-99	50 kg	25	962-646		366-990-600	

Rectangular weights, lacquered cast iron

- Test weight material: Lacquered cast iron



Rectangular weight			DKD certificate		Package price	
			+		=	
KERN	Tol ±g		KERN		KERN	
366-86	5 kg	2,5	962-643		366-860-600	
366-87	10 kg	5	962-644		366-870-600	
366-88	20 kg	10	962-645		366-880-600	
366-89	50 kg	25	962-646		366-890-600	

Weight sets, cylindrical, lacquered brass and cast iron

- Test weight material: Brass lacquered and cast iron
- Container material: Wooden block



Weight set			DKD certificate		Package price	
			+		=	
KERN			KERN		KERN	
362-96	1 g - 1 kg		962-619		362-963-600	
362-97	1 g - 2 kg		962-620		362-973-600	
362-98	1 g - 5 kg		962-621		362-983-600	
362-99	1 g - 10 kg		962-622		362-993-600	

Test weights-accessories

Tweezers, weight forks, weight grips, gloves, dusting brush

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



Tweezers to be able to safely grip small test weights

For weights of the class	For weights	KERN	Length	Version
E1 - F1	1 mg - 200 g	315-243	105 mm	1 Stainless steel with silicone-coated tips
E1 - F1	500 g - 2 kg	315-245	250 mm	1 Stainless steel with silicone-coated tips
F2 - M3	1 mg - 200 g	335-240	100 mm	2 Stainless steel
E1 - M1	1 mg - 200 g	315-242	100 mm	3 Plastic



Weight fork to be able to better grip the individual, cylindrical weights

KERN	For weights
315-253	2 kg
315-254	5 kg



Weight carrying handle to be able to safely grip heavy, individual cylindrical weights

KERN	For weights
315-264	10 kg
315-265	20 kg
315-266	50 kg



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

KERN
317-280



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

KERN
317-290



Dusting brush to clean the weights

KERN
318-270

Wooden boxes for individual weights

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

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



Wooden box
for individual weights E1 - F1

For weights	KERN
mg	338-090-200
1 g	317-010-100
2 g	317-020-100
5 g	317-030-100
10 g	317-040-100
20 g	317-050-100
50 g	317-060-100
100 g	317-070-100
200 g	317-080-100
500 g	317-090-100
1 kg	317-110-100
2 kg	317-120-100
5 kg	317-130-100
10 kg	317-140-100
20 kg	317-150-100
50 kg	317-160-100



Wooden box
for individual weights F2 - M3

For weights	KERN
mg	338-090-200
1 g	337-010-200
2 g	337-020-200
5 g	337-030-200
10 g	337-040-200
20 g	337-050-200
50 g	337-060-200
100 g	337-070-200
200 g	337-080-200
500 g	337-090-200
1 kg	337-110-200
2 kg	337-120-200
5 kg	337-130-200
10 kg	337-140-200
20 kg	337-150-200
50 kg	337-160-200

Made specially for you

Cases/boxes for individual weight sets

Individual weight sets:

You can make up your own „tailor-made“ individual weight sets yourself.

KERN will make 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 No. 313-080-400 (plastic) or
KERN No. 315-070-100 (wood).



Plastic case

for weight classes **E1, E2, F, M**,
not appropriate for cast iron weights

KERN	For weights
313-050-400	≤ 500 g
313-080-400	≤ 5 kg



Wooden box

for weight classes **E1, E2 and F1**

KERN	For weights
315-040-100	≤ 200 g
315-060-100	≤ 1 kg
315-070-100	≤ 2 kg
315-080-100	≤ 5 kg
315-090-100	≤ 10 kg



Wooden box

for weight classes **F2, M1, M2 and M3**

KERN	For weights
335-040-200	≤ 200 g
335-050-200	≤ 500 g
335-060-200	≤ 1 kg
335-070-200	≤ 2 kg
335-080-200	≤ 5 kg
335-090-200	≤ 10 kg

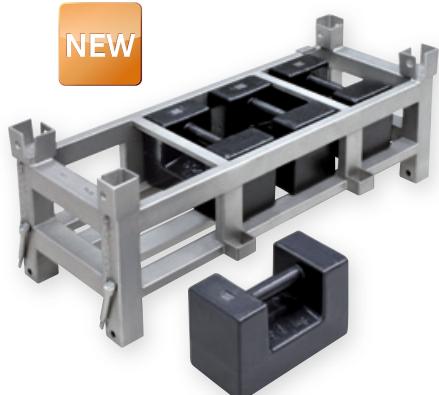


Aluminium case

for safe storage and transportation under harsh industrial conditions.
Ideal for test weights of accuracy classes E2-M3. Please ask for details.

Weight carriers for rectangular weights or other test weights

NEW



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 balance in one go, saving you 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.