### **KERN BALANCES & TEST SERVICES CATALOGUE 2021**

### Precision platform scale KERN DS



### Precision industrial scale with laboratory accuracy

### Features

- High-capacity precision balance, ideal for high volume or heavy samples to be weighed with a high degree of accuracy
- User guidance step by step on display by Yes/No dialogue
- Numerical subtraction of tare weight for known container weight. Useful for checking fill-levels
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m<sup>2</sup>, or else
- · Protective working cover included with delivery

### Technical data

- Large backlit LCD display, digit height 18 mm
- Weighing plate dimensions, stainless steel  $W{\times}D{\times}H$
- A 228×228×95 mm
- 308×318×75 mm, see larger picture
  450×350×115 mm
- Dimensions of display device W×D×H 225×115×60 mm
- Cable length of display device approx. **A**, **B** 2 m
  - C 0,6 m
- Permissible ambient temperature 10  $^{\circ}\text{C}/40$   $^{\circ}\text{C}$

DAkks +3 DAYS







### Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN DE-A12S05
- Stand to elevate display device, height of stand approx. 480 mm for models with weighing plate size **B**, **D**, can be reordered, KERN DE-A10
- Mount to fasten the display device to the platform, for models with weighing plate size , can be reordered, KERN DE-A11N
- Wall mount for display device, KERN DS-A02
- 2 Set for underfloor weighing, consists of platform, bow, hook, only for models with weighing plate 1, KERN DS-A01
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- Internal rechargeable battery pack, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N
- Further details, plenty of further accessories and suitable printers see Accessories

STANDARD									OPTION		
				%	$\mathcal{C}$	^-–	в			<b>F</b>	
CAL EXT	RS 232	PCS	SUM	PERCENT	UNIT	MOVE	MULTI	DMS	1 DAY	UNDER	ACCU
										В	

Model	Weighing ca-	Readability	Smallest part	Net weight	Resolution	Weighing plate	Option
	pacity		weight	_			DAkkS Calibr. Certificate
	[Max]	[d]	[Normal]	approx.			DAkkS
KERN	kg	g	g/piece	kg	Points		KERN
DS 3K0.01S	3	0,01	0,1	4,2	300.000	A	963-127
DS 5K0.05S	5	0,05	0,5	4,2	100.000	А	963-127
DS 8K0.05	8	0,05	0,5	8	160.000	В	963-128
DS 10K0.1S	10	0,1	1	4,2	100.000	A	963-128
DS 16K0.1	16	0,1	1	9	160.000	В	963-128
DS 20K0.1	20	0,1	1	8	200.000	В	963-128
DS 30K0.1	30	0,1	1	8	300.000	В	963-128
DS 30K0.1L	30	0,1	1	10	300.000	C	963-128
DS 36K0.2	36	0,2	2	8	180.000	В	963-128
DS 36K0.2L	36	0,2	2	10	180.000	C	963-128
DS 60K0.2	60	0,2	2	10	300.000	C	963-129
DS 65K0.5	65	0,5	5	10	130.000	C	963-129
DS 100K0.5	100	0,5	5	10	200.000	C	963-129
DS 150K1	150	1	10	10	150.000	C	963-129

## **KERN BALANCES & TEST SERVICES CATALOGUE 2021**

KCP

PROTOCOL

GLP

INTERN

PRINTER

PCS

RECIPE

RECIPE

- 88'

SUM

PERCENT

C

UNIT

- → +<

TOL

^-

digital systems GLP/ISO log:

connection GLP/ISO log:

printers

**Piece counting:** 

Recipe level A:

Recipe level B:

**Totalising level A:** 

value (100 %)

Weighing units:

Hold function:

**KERN Communication Protocol (KCP):** 

It is a standardized interface command set for

KERN balances and other instruments, which

devices featuring KCP are thus easily integrated

with computers, industrial controllers and other

The balance displays serial number, user ID,

With weight, date and time. Only with KERN

Reference quantities selectable. Display can

The weights of the recipe ingredients can

be added together and the total weight of

Internal memory for complete recipes with

The weights of similar items can be added

Determining the deviation in % from the target

Can be switched to e.g. nonmetric units at the

(Checkweighing) Upper and lower limiting can

be programmed individually, e.g. for sorting and

dosing. The process is supported by an audible

(Animal weighing program) When the weighing

conditions are unstable, a stable weight is calculated as an average value

or visual signal, see the relevant model

touch of a key. See balance model. Please refer

together and the total can be printed out

name and target value of the recipe ingredients.

be switched from piece to weight

the recipe can be printed out

User guidance through display

Percentage determination:

to KERN's website for more details

Weighing with tolerance range:

weight, date and time, regardless of a printer

allows retrieving and controlling all relevant parameters and functions of the device. KERN



### Pictograms



#### Internal adjusting: Quick setting up of the balance's accuracy with



### Adjusting program CAL:

For quick setting up of the balance's accuracy. External adjusting weight required

internal adjusting weight (motordriven)



Easy Touch: Suitable for the connection, data transmission and control through PC, tablet or smartphone.



### 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

### Data interface RS-232:

• 6550.• To connect the balance to a printer, PC or RS 232 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



\*

### WiFi 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.



### Analogue interface:

to connect a suitable peripheral device for analogue processing of the measurements



### Interface for second balance:

For direct connection of a second balance



### Network interface:

For connecting the scale to an Ethernet network





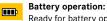
water splashes IPxx: The type of protection is shown in the pictogram

Protection against dust and

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### UNDER the balance

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### Ready for battery operation. The battery type

Suspended weighing:



is specified for each device

Load support with hook on the underside of



#### Rechargeable battery pack: Rechargeable set

### Universal mains adapter:

with universal input and optional input socket MULTI adapters for A) EU, CH, GB; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS



### Mains adapter:

230V/50Hz in standard version for EU, CH. 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



#### The time required for verification is specified +3 DAYS in the pictogram

DAkkS calibration possible (DKD): DAkkS The time required for DAkkS calibration is +3 DAYS shown in days in the pictogram

## Factory calibration (ISO):



The time required for Factory 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:



Your KERN specialist dealer:

The time required for internal shipping preparations is shown in days in the pictogram

### **KERN – Precision is our business**

To ensure the high precision of your balance KERN offers you the the appropriate test weight in the international OIML error limit classes E1-M3 from 1 mg - 2500 kg. In combination with a DAkkS calibration certificate the best pre-requisite for proper balance calibration.

The KERN DAkkS calibration laboratory today is one of the most modern and bestequipped DAkkS calibration laboratories for balances, test weights and force-measurement in Europe

Thanks to the high level of automation, we can carry out DAkkS calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

#### Range of services:

- · DAkkS calibration of balances with a maximum load of up to 50 t
- · DAkkS calibration of weights in the range of 1 mg 2500 kg · Volume determination and measuring of magnetic susceptibility (magnetic
- characteristics) for test weights · Database supported management of checking equipment and reminder service
- · Calibration of force-measuring devices
- · DAkkS calibration certificates in the following languages DE, EN, FR, IT, ES, NL, PL
- · Conformity evaluation and reverification of balances and test weights