

Analytical Balances KERN ACS · ACJ



USB data interfaces and RS-232 for transferring weighing data to the PC, tablet, printer or USB

The bestseller in analytical balances, with high-quality single-cell weighing system, verification optional

Features

- KERN ACJ: Automatic internal adjustment in the case of a change in temperature \geq or timecontrolled every , guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN ACS: Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *Test Weights*
- Dosage aid: High stability mode and other filter settings can be selected
- Simple recipe weighing and documenting with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- Automatic data output to the PC/printer each time the balance is steady
- Identification number: 4 digits, printed on calibration protocol freely programmable
- Protective working cover included with delivery

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Technical data

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel, \varnothing 91 mm
- Weighing space W×D×H 174×162×227 mm
- Overall dimensions W×D×H 213×333×338 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 °C/30 °C



Accessories

- Protective working cover, scope of delivery 5 items, KERN ACS-A02S05
- **1** Set for density determination of liquids and solids with density \leq/\geq 1, the density is indicated directly on the display, KERN YDB-03
- **2** Ioniser to neutralise electrostatic charge, KERN YBI-01A
- **3** Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services, Installation Qualification (IQ), Operating Qualification (OQ)
- Further details, plenty of further accessories and suitable printers see *Accessories*



4 Single-cell advanced technology:

- Fully automatic manufactured weighing cell from one piece of material
- Stable temperature behaviour
- Short stabilisation time: steady weight values within approx. 3 s under laboratory conditions
- Shock proof construction
- High corner load performance

STANDARD
















OPTION



























FACTORY







Model	Weighing capacity [Max]	Readability	Verification value	Minimal load	Reproducibility	Linearity	Verification	Options DAkkS Calibr. Certificate
	g	[d] mg	[e] mg	[Min] mg	mg	mg	KERN	DAkkS KERN
KERN								
ACS 80-4	82	0,1	-	-	0,2	± 0,3	-	963-101
ACS 100-4	120	0,1	-	-	0,2	± 0,3	-	963-101
ACS 200-4	220	0,1	-	-	0,2	± 0,3	-	963-101
ACS 300-4	320	0,1	-	-	0,2	± 0,3	-	963-101
Note: For devices that require verification (conformity assessment according to NAWI 2014/31/EU), please include the verification when placing your order.								
The initial verification is not possible after delivery. Please inform the full address of the location of use for the initial verification.								
ACJ 80-4M	82	0,1	1	10	0,2	± 0,3	965-201	963-101
ACJ 100-4M	120	0,1	1	10	0,2	± 0,3	965-201	963-101
ACJ 200-4M	220	0,1	1	10	0,2	± 0,3	965-201	963-101
ACJ 300-4M	320	0,1	1	10	0,2	± 0,3	965-201	963-101

	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
	EasyTouch Suitable for the connection, data transmission and control through PC or tablet
	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.
	KERN Universal Port (KUP) allows the connection of external KUP interface adapters, e.g. RS-232, RS-485, SB, Bluetooth, WIFI, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort
	RS-232 Data interface 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
	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
	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 intern The balance displays weight, date and time, independent of a printer connection
	GLP/ISO log Printer With weight, date and time. Only with KERN printers.
	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
	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. 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
	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 plug-in power supply with universal input and optional input socket adapters for A) EU, CH, GB B) EU, CH, GB, US C) EU, CH, GB, US, AUS
	Plug-in power supply 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
	Integrated power supply unit 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

	Conformity Assessment The time required for conformity assessment is specified in the pictogram
	DAkkS calibration possible (DKD) The time required for DAkkS calibration is 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 The time required for internal shipping preparations is shown in days in the pictogram