KERN **ALJ 160-4A**



Analytical balance with high weighing capacity, graphic display and convenient recipe function



Category	
Brand	KERN
Product categoriy	Laboratory balance
Product group	Analytical balance
Product family	ALJ

Construction type of the scale Weighing system Force compensation Weighing capacity [Max] Weighing cap	Measuring System	
Weighing capacity [Max] 160 g Weighing capacity [Max] (ct) 800 ct Readability [d] 0,0001 g Readability carat [d] (ct) 0,0001 ct Reproducibility 0,0001 g Linearity ± 0,0003 g USP Minimum weight of sample (k = 2, U = 0.1%) Resolution 1.600.000 Adjustment options Internal calibration (automatic) Recommended adjusting weight 150 g (E2) Possible calibration points 150 g Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval 3 h Stabilization time 4 s Warm-up time 8 h Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (30 minutes) 1 mg Maximum creep (30 minutes) 2 mg	Construction type of the scale	Single-range balance
Weighing capacity [Max] (ct) 800 ct Readability [d] 0,0001 g Readability carat [d] (ct) 0,0001 g Linearity 0,0003 g USP Minimum weight of sample (k = 2, U = 0.1%) Resolution 1.600.000 Adjustment options Internal calibration (automatic) Recommended adjusting weight 150 g (E2) Possible calibration points 150 g Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval 3 h Stabilization time 4 s Warm-up time 8 h Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (30 minutes) 1 mg Maximum creep (30 minutes) 2 mg	Weighing system	Force compensation
Readability [d] 0,0001 g Readability carat [d] (ct) 0,0001 ct Reproducibility 0,0001 g Linearity ± 0,0003 g USP Minimum weight of sample (k = 2, U = 0.1%) Resolution 1.600.000 Adjustment options Internal calibration (automatic) Recommended adjusting weight 150 g (E2) Possible calibration points 150 g Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval Stabilization time 4 s Warm-up time 8 h Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (30 minutes) 2 mg	Weighing capacity [Max]	160 g
Readability carat [d] (ct) 0,001 ct Reproducibility 0,0001 g Linearity ± 0,0003 g USP Minimum weight of sample (k = 2, U = 0.1%) Resolution 1.600.000 Adjustment options Internal calibration (automatic) Recommended adjusting weight 150 g (E2) Possible calibration points 150 g Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval Stabilization time 4 s Warm-up time 8 h Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (30 minutes) 2 mg	Weighing capacity [Max] (ct)	800 ct
Reproducibility Linearity	Readability [d]	0,0001 g
Linearity ± 0,0003 g USP Minimum weight of sample (k = 2, U = 0.1%) Resolution 1.600.000 Adjustment options Internal calibration (automatic) Recommended adjusting weight 150 g (E2) Possible calibration points 150 g Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval 3 h Stabilization time 4 s Warm-up time 8 h Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (15 minutes) 1 mg Maximum creep (30 minutes) 2 mg	Readability carat [d] (ct)	0,001 ct
USP Minimum weight of sample (k = 2, U = 0.1%) Resolution	Reproducibility	0,0001 g
= 2, U = 0.1%) Resolution Adjustment options Recommended adjusting weight Possible calibration points Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval Stabilization time Warm-up time Eccentric loading at 1/3 [Max] Maximum creep (30 minutes) 1.600.000 Internal calibration (automatic) 150 g 1,2 °C 3 h 4 s Warm-up time 8 h Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (30 minutes) 2 mg	Linearity	± 0,0003 g
Adjustment options Recommended adjusting weight Possible calibration points Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval Stabilization time Warm-up time Eccentric loading at 1/3 [Max] Maximum creep (30 minutes) Internal calibration (automatic) 150 g 1,2 °C 3 h 4 s 8 h 9 0,0003 g Maximum creep (30 minutes) 1 mg 2 mg		200 mg
Adjustment options Recommended adjusting weight Possible calibration points Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval Stabilization time Warm-up time Eccentric loading at 1/3 [Max] Maximum creep (30 minutes) (automatic) 150 g 1,2 °C 3 h 4 s 0,0003 g 1 mg	Resolution	1.600.000
Possible calibration points Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval Stabilization time Warm-up time Eccentric loading at 1/3 [Max] Maximum creep (15 minutes) Maximum creep (30 minutes) 150 g 1,2 °C 3 h 4 s 9 o,0003 g 1 mg 1 mg 1 mg 1 mg	Adjustment options	
Automatic adjustment - Standard temperature deviation Automatic adjustment - Standard time interval Stabilization time Warm-up time Eccentric loading at 1/3 [Max] Maximum creep (15 minutes) Maximum creep (30 minutes) 1,2 °C 3 h 4 s 0,0003 g 1 mg 2 mg	Recommended adjusting weight	150 g (E2)
temperature deviation Automatic adjustment - Standard time interval Stabilization time 4 s Warm-up time Eccentric loading at 1/3 [Max] Maximum creep (15 minutes) Maximum creep (30 minutes) 2 mg	Possible calibration points	150 g
time interval Stabilization time 4 s Warm-up time 8 h Eccentric loading at 1/3 [Max] Maximum creep (15 minutes) Maximum creep (30 minutes) 2 mg	-	1,2 °C
Warm-up time 8 h Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (15 minutes) 1 mg Maximum creep (30 minutes) 2 mg	•	3 h
Eccentric loading at 1/3 [Max] 0,0003 g Maximum creep (15 minutes) 1 mg Maximum creep (30 minutes) 2 mg	Stabilization time	4 s
Maximum creep (15 minutes) 1 mg Maximum creep (30 minutes) 2 mg	Warm-up time	8 h
Maximum creep (30 minutes) 2 mg	Eccentric loading at 1/3 [Max]	0,0003 g
	Maximum creep (15 minutes)	1 mg
Default unit g	Maximum creep (30 minutes)	2 mg
	Default unit	g

	mg
	gn
	dwt
	tl (Tw)
Jnits	tl (HK)
אווונט	ozt
	tl (Singap, Malays)
	ct
	mo
	lb
	OZ

g

Display	
Display type	LCD graphic
Display backlight	✓
Display screen size	132×38 mm
Display digit height - smallest digit	4 mm
Display digit height	15 mm
Languages of the user interface	English

Construction	
Dimension housing (W×D×H)	210×340×330 mm
Dimensions completely mounted (W×D×H)	210×340×330 mm
Dimensions rectangular draught shield - inner (W×D×H)	160×170×225 mm
Dimensions rectangular draught shield - outer (W×D×H)	172×185×245 mm
Dimensions weighing surface (Ø)	80 mm
Dimensions weighing surface	80 mm
Material housing	plastic
Material weighing plate	stainless steel
Material platform	Stainless steel
Material draught shield	glass
Material display housing	Plastics
Level indicator	✓
Levelling feet adjustable	✓
Transport safety lock - bolt torque	0,1 Nm

Functions	
PreTare function	✓
Recipe/summing level	Rez B (Net-total, memory with plain text designations + setpoint, also for printout)
Recipe weighing - number of database entries	99
Recipe weighing - number of ingredients per database entry	20

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Percentage determination	✓
Dispensing function	✓
Density determination	✓
Tolerance weighing	✓
Tolerance weighing - type of signal	acoustically visual
Underfloor weighing	None
Function for averaging under unstable weighing conditions	1
Capacity - Display	✓
Standby function	✓
Counting function	✓
Counting resolution (laboratory conditions)	160.000
Counting reference weight can be entered	/
Smallest piece weight when piece counting - laboratory conditions	1 mg
Smallest piece weight when piece counting - normal conditions	10 mg
Reference quantity	10, 25, 50, 100, n (any number of pieces)
Auto-off interval(s) in mains power mode	off 5 min 2 min 15 min
Tare function	manual (multi)
Number of keys for operation	6

Interface	
Interfaces	RS-232 standard

Power Supply	
Supplied power supply	Power supply unit
Plug-in power supply type	Power adapter
Plug-in power supply / adapter for countries - included with the delivery	EURO AUS UK US CH
Plug-in power supply / adapter for countries - optional	EURO UK US CH
Input voltage power supply / power [Max]	country dependent
Input voltage device / power [Max]	24 V 1 A

Environmental conditions	
Ambient temperature [Min]	5 °C

Ambient temperature [Max]	35 °C
Humity of environment [Max]	80 %
Storage temperature [Min]	-10 °C
Storage temperature [Max]	40 °C

Approval	
CE mark	✓

Services (optional)	
Article number for DAkkS calibration	963-101
Article number for certificate of conformity	969-517

Packing & Shipping	
Delivery time	1 d
Dimensions packaging (W×D×H)	400×515×615 mm
Shipping method	Parcel service
Net weight approx.	7 kg
Gross weight approx.	9 kg
Shipping weight	25,3 kg

Pictograms

STANDARD



OPTION

MULTI FORCE 1 DAY

