

Height Rod KERN MSB · MBA · MSF



## When every centimetre counts – mechanical height rod approved as a medical device for professional use in medical diagnostics

### MSB 80

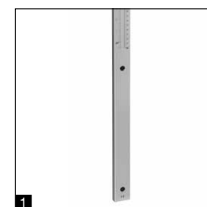
- Portable mechanical height rod
- Approved as a medical device according to 93/42/EEC or regulation (EU) 2017/745
- For babies up to a maximum of 80 cm
- Large guide surfaces make handling easier (aligning, shifting, reading)
- Measuring scale begins with 0 on the right and left, so it can be used in both directions
- Height rod can be taken apart for compact storage

### MBA-A01

- Portable mechanical height rod
- Approved as a medical device according to 93/42/EEC or regulation (EU) 2017/745
- For babies up to a maximum of 80 cm
- Robust construction
- Compact size
- Easy and hygienic cleaning
- Readout on scale with moveable stop
- Large guide surfaces make handling easier (aligning, shifting, reading)

### MSF 200

- Mechanical height rod
- Approved as a medical device according to 93/42/EEC or regulation (EU) 2017/745
- Readability on scale with moveable, foldable stop
- Readout on scale with moveable, foldable stop or mounting on KERN scales MPS-PM, MPB-P or wall-mounted
- Sturdy aluminium profile



STANDARD



Model	Measuring range	Increments	Overall dimensions	Net weight approx.
			W×D×H mm	
<b>KERN</b>	mm (inch)	mm		kg
<b>MSB 80</b>	10 – 80	1	882×70×28	0,7
<b>MBA-A01</b>	30 – 80 (11 1/5 – 31 1/2)	1 (1 1/16)	850×240×60	0,4
<b>MSF 200</b>	60 – 205 (23 1/2 – 78 3/4)	1 (1 1/16)	53×40×1000	0,8

**CAL EXT**  
**Adjusting program CAL**  
 For quick setting up of the balance's accuracy. External adjusting weight required

**MEMORY**  
**Memory**  
 Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.

**RS 232**  
**Data interface RS-232**  
 To connect the balance to a printer, PC or network

**RS 485**  
**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**  
**USB data interface**  
 To connect the balance to a printer, PC or other peripherals

**BT**  
**Bluetooth\* data interface**  
 To transfer data from the balance to a printer, PC or other peripherals

**WIFI**  
**WIFI data interface**  
 To transfer data from the balance to a printer, PC or other peripherals

**SWITCH**  
**Control outputs (optocoupler, digital I/O)**  
 To connect relays, signal lamps, valves, etc.

**STATISTIC**  
**Statistics**  
 Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.

**SOFTWARE**  
**PC Software**  
 to transfer the measurements from the device to a PC

**GLP INTERN**  
**GLP/ISO log internal**  
 The balance displays weight, date and time, independent

**GLP PRINTER**  
**GLP/ISO log**  
 With date and time. Only with KERN printers

**KCP PROTOCOL**  
**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

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

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

**UNIT**  
**Weighing units**  
 Can be switched to e.g. nonmetric units. Please refer to website for more details

**TOL**  
**Weighing with tolerance range** (Check weighing)  
 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

**ZERO**  
**ZERO**  
 Resets the display to "0"

**MOVE**  
**Hold function**  
 When patients do not stand, sit or lie completely still, a stable weight is calculated using an average weight

**MOVE**  
**Hold function**  
 When the weighing conditions are unstable, a stable weight is calculated as an average value

**IP**  
**Protection against dust and water splashes IPxx**  
 The type of protection is shown in the pictogram of. DIN EN 60529:2000-09, IEC0529:1989+A1:1999 +A2:2013

**UNDER**  
**Suspended weighing**  
 Load support with hook on the underside of the balance

**BATT**  
**Battery operation**  
 Ready for battery operation. The battery type is specified for each device

**RECHARGE**  
**Battery operation rechargeable**  
 Prepared for a rechargeable battery operation

**ACCU**  
**Rechargeable battery pack**  
 Rechargeable set

**MULTI**  
**Universal plug-in power supply**  
 with universal input and optional input socket adapters for  
 A) EU, CH  
 B) EU, CH, GB, US  
 C) EU, CH, GB, US, AUS

**230 V**  
**Plug-in power supply**  
 230V/50Hz in standard version for EU. On request GB, AUS or US version available

**230 V**  
**Integrated power supply unit**  
 Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or US on request

**DMS**  
**Weighing principle Strain gauges**  
 Electrical resistor on an elastic deforming body

**PEAK**  
**Peak hold function**  
 capturing a peak value within a measuring process

**PUSH/PULL**  
**Push and Pull**  
 the measuring device can capture tension and compression forces

**SCALE**  
**Integrated scale**  
 In the eyepiece

**360°**  
**360° rotatable microscope head**

**360°**  
**Monocular Microscope**  
 For the inspection with one eye

**BINDO**  
**Binocular Microscope**  
 For the inspection with both eyes

**TRINO**  
**Trinocular Microscope**  
 For the inspection with both eyes and the additional option for the connection of a camera

**ABBE**  
**Abbe Condenser**  
 With high numerical aperture for the concentration and the focusing of light

**HAL**  
**Halogen illumination**  
 For pictures bright and rich in contrast

**LED**  
**LED illumination**  
 Cold, energy-saving and especially long-life illumination

**FL-HBD**  
**Fluorescence illumination for compound microscopes**  
 With 100 W mercury lamp and filter

**FL-LED**  
**Fluorescence illumination for compound microscopes**  
 With 3 W LED illumination and filter

**PH**  
**Phase contrast unit**  
 For a higher contrast

**DF**  
**Darkfield condenser/unit**  
 For a higher contrast due to indirect illumination

**POLAR**  
**Polarising unit**  
 To polarise the light

**INFINITY**  
**Infinity system**  
 Infinity corrected optical system

**AUTO ATC**  
**Automatic temperature compensation**  
 For measurements between 10 °C and 30 °C

**M +3 DAYS**  
**Conformity assessment**  
 The time required for conformity assessment is specified in the pictogram

**1 DAY**  
**Package shipment**  
 The time required for internal shipping preparations is shown in days in the pictogram

**2 DAYS**  
**Pallet shipment**  
 The time required for internal shipping preparations is shown in days in the pictogram

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