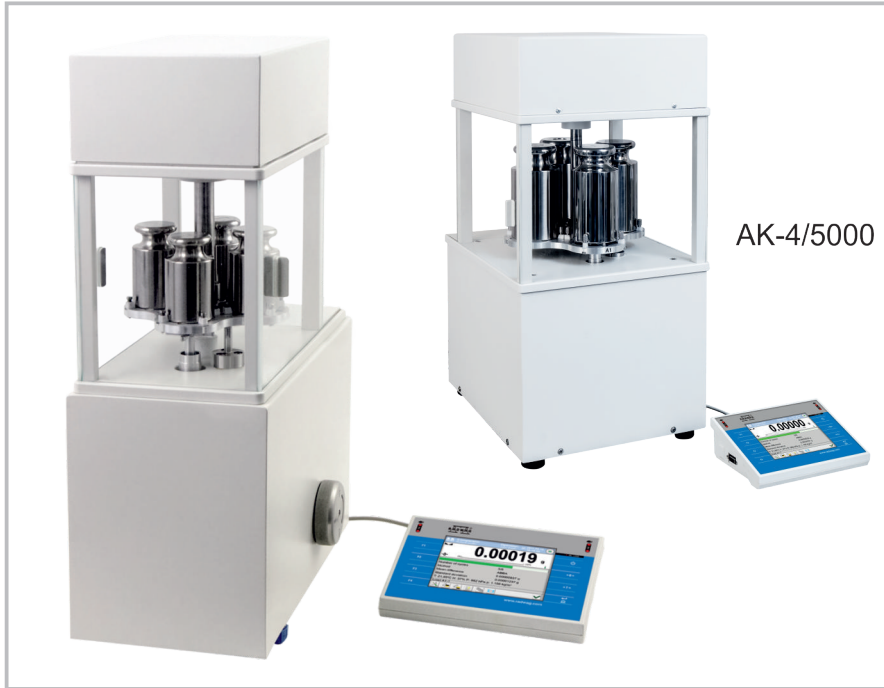








AUTOMATIC MASS COMPARATOR AK-4



Automatic mass comparators series AK-4/X are intended to automatic determination of mass deviations in weights with operator's activity limited to the minimum. The comparators enable determining deviations of three tested weights in a single cycle. AK-4/X are designed to compare weights from 100 g to 10 kg. The instruments are commonly applicable in mass measuring laboratories, and particularly in certification units for weights classes E and F.







The supervising part of a mass comparator is a digital module which cooperates with a controller of instrument's mechanical components. The digital module and the automatic loader are located in mass comparator's weighing chamber. The instrument is operated from level of mass indicating digital display which is plugged to mass comparator's controller. The supervising elements are not integrated with mass comparator's mechanical parts, thus enabling separation of instrument's weighing chamber from ambient conditions influence.

Technical specification:

	AK-4/100	AK-4/1000	AK-4/1001
E1 	10 g ÷ 100 g	100 g ÷ 1 kg	100 g ÷ 1 kg
E2 	10 g ÷ 100 g	100 g ÷ 1 kg	100 g ÷ 1 kg
F1 	10 g ÷ 100 g	100 g ÷ 1 kg	100 g ÷ 1 kg
F2 	10 g ÷ 100 g	100 g ÷ 1 kg	100 g ÷ 1 kg
M1 	-	-	-
M2 	-	-	-
Maximum Capacity	110 g	1,2 kg	1,02 kg
Readability	0,001 mg	0,01 mg	0,001 mg
* Repeatability at nominal load	0,002 mg (100 g)	0,012 mg (1 kg)	0,002 mg (1 kg)
* Repeatability at low load	0,002 mg (10 g)	0,012 mg (100 g)	0,002 mg (100 g)
Electric compensation range	- 1 g ÷ 10 g	- 10 g ÷ 20 g	- 1 g ÷ 10 g
Supplementary weights internal	half automatic	half automatic	half automatic
Eccentricity (tested load)	0 mg	0 mg	0 mg
Stabilization time	30 s	30 s	30 s
Adjustment	external	external	external
Magazine positions	4 positions	4 positions	4 positions
Ambient conditions			
Working temperature	(15 ÷ 30) °C	(15 ÷ 30) °C	(15 ÷ 30) °C
Change rate of working temperatures	± 0,5 °C / 12 h (± 0,3 °C / 4 h)	± 0,5 °C / 12 h (± 0,3 °C / 4 h)	± 0,5 °C / 12 h (± 0,3 °C / 4 h)
Atmospheric humidity	(40 ÷ 60) %	(40 ÷ 60) %	(40 ÷ 60) %
Change rate of atmospheric humidity	± 2 % / 4 h	± 2 % / 4 h	± 2 % / 4 h
Dimensions			
Weighing pan dimensions	ø 30 mm	ø 50 mm	ø 50 mm
Weighing unit dimensions	385×215×600 mm	385×215×600 mm	385×215×600 mm
Control unit dimensions	206×140×70 mm	206×140×70 mm	206×140×70 mm
Anti-draft chamber dimensions	560×340×665 mm	560×300×665 mm	560×340×665 mm
Net weight/Gross weight	25 kg / 41 kg	25 kg / 41 kg	25 kg / 41 kg
Comparators packaging size	860×800×560 mm	860×800×560 mm	860×800×560 mm
Chamber packaging size	950×420×630 mm	950×420×630 mm	950×420×630 mm

* Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

Technical specification:

	AK-4/2000	AK-4/5000	AK-4/10000
E1 	200 g ÷ 2 kg	1 kg ÷ 5 kg	1 kg ÷ 10 kg
E2 	200 g ÷ 2 kg	1 kg ÷ 5 kg	1 kg ÷ 10 kg
F1 	200 g ÷ 2 kg	1 kg ÷ 5 kg	1 kg ÷ 10 kg
F2 	200 g ÷ 2 kg	1 kg ÷ 5 kg	1 kg ÷ 10 kg
M1 	-	-	-
M2 	-	-	-
Maximum Capacity	2,02 kg	5,05 kg	10,02 kg
Readability	0,01 mg	0,01 mg	0,01 mg
* Repeatability at nominal load	0,015 mg (2 kg)	0,02 mg (5 kg)	0,02 mg (10 kg)
* Repeatability at low load	0,015 mg (1 kg)	0,02 mg (1 kg)	0,02 mg (1 kg)
Electric compensation range	- 10 g ÷ 50 g	- 10 g ÷ 50 g	- 10 g ÷ 50 g
Supplementary weights internal	half automatic	half automatic	half automatic
Eccentricity (tested load)	0 mg	0 mg	0 mg
Stabilization time	30 s	30 s	30 s
Adjustment	external	external	external
Magazine positions	4 positions	4 positions	4 positions
Ambient conditions			
Working temperature	(15 ÷ 30) °C	(15 ÷ 30) °C	(15 ÷ 30) °C
Change rate of working temperatures	±0,5°C/12h (±0,3°C/4h)	±0,5°C/12h (±0,3°C/4h)	±0,5°C/12h (±0,3°C/4h)
Atmospheric humidity	(40 ÷ 60) %	(40 ÷ 60) %	(40 ÷ 60) %
Change rate of atmospheric humidity	± 2 % / 4 h	± 2 % / 4 h	± 2 % / 4 h
Dimensions			
Weighing pan dimensions	ø 70 mm	ø 70 mm	ø 100 mm
Weighing unit dimensions	350×405×650 mm	350×405×650 mm	800×500×930 mm
Control unit dimensions	206×140×70 mm	206×140×70 mm	206×140×70 mm
Anti-draft chamber dimensions	660×470×700 mm	660×470×700 mm	-
Net weight/Gross weight	50 kg / 75 kg	50 kg / 75 kg	90 kg / 140 kg
Comparators packaging size	1000×900×685 mm	1000×900×685 mm	1000×900×685 mm
Chamber packaging size	930×750×1000 mm	930×750×1000 mm	1100×800×1150 mm

*) Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

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