

APP 4Y.KO Mass Comparator

Class-leading manual mass comparator





APP 64.4Y.KO



APP 30.4Y.KO in an anti-draft chamber



Weighing pan with mechanical system for weights positioning



Self-centring weighing pan

Functions



Mass comparator



Ambient conditions measurement



Proximity sensors



Replaceable units



Multilingual menu

Features

Effective and Excellent Measurement

The APP 4Y.KO series stands for a class-leading manual mass comparator. These weighing instruments allow to compare 100 g - 50 kg weights of class E1 and lower.

Excellent Measurement Repeatability

The APP 4Y.KO is comprised of two parts. One featuring an electromagnetic module, the other a precise mechanical measuring system. Weighing accuracy is assured thanks to a semi-automatic system of adjustment carried out using an external adjustment weight.

Design and Functionality

Weighing pan with a mechanical system for weights positioning facilitates precise loading of mass standards and eliminates eccentricity. This solution additionally allows for dissemination of reference mass to few weights.

Dedicated Software

Specially-designed RMCS computer software enables comprehensive realisation of calibration procedures in laboratory. The system manages the whole calibration process, starting from the moment the order is placed, through procedure performance, to the moment of issuing the calibration certificate.

Technical Specifications

	APP 10.4Y.KO	APP 30.4Y.KO
OIML calibration range E1	5 kg ÷ 10 kg	20 kg
OIML calibration range E2	1 kg ÷ 10 kg	10 kg ÷ 20 kg
OIML calibration range F1	500 g ÷ 10 kg	1 kg ÷ 20 kg
OIML calibration range F2	100 g ÷ 10 kg	1 kg ÷ 20 kg
OIML calibration range M1	100 g ÷ 10 kg	1 kg ÷ 20 kg
OIML calibration range M2	100 g ÷ 10 kg	1 kg ÷ 20 kg
Maximum capacity [Max]	10.2 kg	30.5 kg
Readability [d]	0.1 mg	1 mg
Standard repeatability [5% Max]*	0.35 mg	3 mg
Standard repeatability [Max] *	0.4 mg	3 mg
Permissible repeatability *	0.7 mg	5 mg
Stabilization time	30 s	20 s
Adjustment	external	external
Electric compensation range	−100 g ÷ 200 g	100 g ÷ 30.5 kg
Internal supplementary weights	semi-automatic	_
External supplementary weights	300 g, 200 g	_
Eccentricity (for test weight)	2 d / 1 mm	2 d / 1 mm
Display	5.7" colour resistive touch screen	5.7" colour resistive touch screen
Keypad	8 keys	8 keys
Ingress protection - indicator	IP 43	IP 43
Touch-free operation	2 programmable sensors	2 programmable sensors
USB-A	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit
RS 232	2	2
Wi-Fi®	802.11 b/g/n	802.11 b/g/n
IN/OUT	$4 \times IN, 4 \times OUT$	$4 \times IN, 4 \times OUT$
Power supply	110 ÷ 230 V AC / 50 ÷ 60 Hz	110 ÷ 230 V AC / 50 ÷ 60 Hz
Operating temperature	+15 ÷ +30 °C	+15 ÷ +30 °C
Operating temperature change rate	±0.5 °C / 12 h (± 0.3 °C / 4 h)	±0.5 °C / 12 h
Relative humidity variations	±3% / 4 h	(30 ÷ 70)%
Relative humidity***	40 ÷ 60%	±5% / 4 h
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 200 mm (ø 300 mm)	ø 220 mm (ø 300 mm)
Self-centring weighing pan dimensions**	ø 220 mm	ø 220 mm
Anti-draft chamber dimensions	660 × 680 × 450 mm	700 × 545 × 440 mm
Mass comparator dimensions	455 × 385 × 315 mm	454 × 200 × 275 mm
Dimensions of mass comparator with self-centring weighing pan**	455 × 385 × 315 mm	455 × 385 × 315 mm
Indicator dimensions	$206 \times 140 \times 70 \text{ mm}$	206 × 140 × 70 mm
Mass comparator net weight	45 kg	23 kg
Mass comparator gross weight	59 kg	37 kg
Net weight of mass comparator with self-centring weighing pan**	47 kg	25 kg
Anti-draft chamber net weight	18 kg	16 kg
Gross weight of mass comparator with self-centring weighing pan**	49 kg	39 kg
Anti-draft chamber gross weight	30 kg	28 kg
Anti-draft chamber packaging dimensions	970 × 930 × 750 mm	960 × 830 × 730 mm
Mass comparator packaging dimensions	1160 × 650 × 690 mm	1160 × 650 × 690 mm
Packaging dimensions of mass comparator with self-centring weighing pan**	1160 × 650 × 690 mm	1160 × 650 × 690 mm

repeatability is expressed as a standard deviation determined for 6 ABBA cycles optional design

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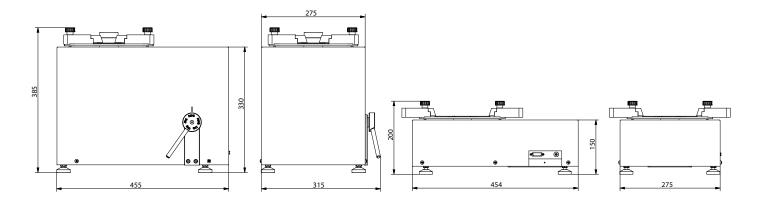
^{***} non-condensing conditions
Wi-Fi * is a registered trademark of Wi-Fi Alliance.

Technical Specifications

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Dimensions of mass comparator with self-centring weighing pan** Indicator dimensions 206 × 140 × 70 mm 25 kg Mass comparator net weight 39 kg Net weight of mass comparator with self-centring weighing pan** 25 kg Anti-draft chamber net weight 16 kg Gross weight of mass comparator with self-centring weighing pan** 39 kg Anti-draft chamber gross weight 28 kg Anti-draft chamber packaging dimensions 960 × 830 × 730 mm Mass comparator packaging dimensions 1160 × 650 × 690 mm		700 × 545 × 440 mm
Indicator dimensions Mass comparator net weight Mass comparator gross weight Mass comparator gross weight Net weight of mass comparator with self-centring weighing pan** Anti-draft chamber net weight Gross weight of mass comparator with self-centring weighing pan** Anti-draft chamber gross weight Anti-draft chamber packaging dimensions Mass comparator packaging dimensions 206 × 140 × 70 mm 39 kg 48 48 48 48 48 48 48 48 48 4		
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Anti-draft chamber net weight Gross weight of mass comparator with self-centring weighing pan** Anti-draft chamber gross weight Anti-draft chamber packaging dimensions 960 × 830 × 730 mm Mass comparator packaging dimensions 1160 × 650 × 690 mm	Mass comparator gross weight	-
Gross weight of mass comparator with self-centring weighing pan** Anti-draft chamber gross weight Anti-draft chamber packaging dimensions 960 × 830 × 730 mm 1160 × 650 × 690 mm		
Anti-draft chamber gross weight 28 kg Anti-draft chamber packaging dimensions 960 × 830 × 730 mm Mass comparator packaging dimensions 1160 × 650 × 690 mm	Anti-draft chamber net weight	-
Anti-draft chamber packaging dimensions 960 × 830 × 730 mm Mass comparator packaging dimensions 1160 × 650 × 690 mm	Gross weight of mass comparator with self-centring weighing pan**	39 kg
Mass comparator packaging dimensions 1160 × 650 × 690 mm	Anti-draft chamber gross weight	28 kg
	Anti-draft chamber packaging dimensions	960 × 830 × 730 mm
Packaging dimensions of mass comparator with self-centring weighing pan** $1160 \times 650 \times 690 \text{ mm}$	Mass comparator packaging dimensions	1160 × 650 × 690 mm
	Packaging dimensions of mass comparator with self-centring weighing pan** $$	1160 × 650 × 690 mm

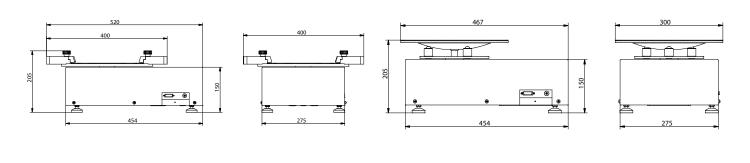
repeatability is expressed as a standard deviation determined for 6 ABBA cycles optional design

non-condensing conditions Wi-Fi * is a registered trademark of Wi-Fi Alliance.



APP-10.4Y.KO

APP-30.4Y.KO



APP-64.4Y.KO

APP-30.4Y.SSC self-centring weighing pan

Accessories

Weighing Tables

- granite anti-vibration table
- anti-vibration table for APP series mass comparators

Professional weighing

• self-centring pan

Ambient Conditions

• THB-S or THB-P sensor

Peripheral Devices

- Epson dot matrix printer
- barcode scanner
- WD-5/3Y LCD display (backlit)

Cables, Converters

- RS-232 P0108 computer cable
- RS-232 P0167 computer cable
- RS-232 P0151 Epson printer cable

Electrical Accessories

• power supply with ZR-02 battery

Anti-Draft Chambers

• anti-draft chamber for APP.3Y.KO mass comparator

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Dedicated Software

RMCS System

- performance of calibration procedures in a laboratory from the moment the order is placed, to the moment of issuing a calibration certificate
- compatible with THB sensors enabling recording ambient conditions
- export of report results to various files
- archiving calibration protocols, orders, certificates and ambient conditions

RADWAG Remote Desktop

- remote control of the mass comparator using computer, telephone or tablet
- sending text messages
- version for Windows 10 and Android systems

R-LAB

- collecting measurements
- carrying out statistical analysis of measurements
- customized graphs and reports

Parameters Editor

- remote change of parameters
- remote on-line preview of the display
- displaying current mass indication
- software update
- file loading, editing and saving parameters to a file
- import and export of parameters
- interfaces: RS232, Ethernet and Wireless Connection
- quick and easy edition of balance parameters using computer

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