XA 4Y SERIES ANALYTICAL BALANCES









APPLICATION

4Y series is a modern weighing device, especially useful when the measurement requires perfect accuracy and high speed.

FEATURES OF 4Y SERIES BALANCES

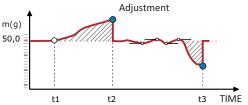


d = 0,1 mg



ACCURACY

Measurement accuracy is guaranteed with an adjustment procedure carried out using an internal adjustment weight. This fully automatic process is controlled by a module intended to diagnose ambient conditions change (on-line). Adjustment processes (internal and external) can be performed in accordance with a specially designed schedule.



FUNCTIONALITY

4Y series balance is an optimized modern device which features an option of automatic level control (LevelSENSING) as one of numerous functions.

The practical effect of balance customization are individual user profiles and gradable permission levels for access to balance menu.

Programmable proximity sensors offer wide range of possibilities: zeroing, tarring, printout. Several functions such as differential weighing facilitate multi-stage mass control of one and the same sample subjected to various processes. Pipettes calibration function is an ergonomic tool designed to calibrate and control piston pipettes with the use of gravimetric method. MEDIA module, as one of the greatest 4Y series assets, provides the user with an on-screen help and support.

COMPLIANCE WITH REGULATIONS

Owing to security system and possibility to document the process by means of printouts (standard/editable), the 4Y balance meets requirements imposed by GLP/GMP systems for various industries (pharmacy, petrochemistry, environmental protection).



PARTS COUNTING



DOSING



CHECKWEIGHING



FORMULATION



WEIGHING [%]



STATYSTICS



WEIGHING



DIFFERENTIAL WEIGHING



PIPETTES CALIBRATION



STATISTICAL QUALITY CONTROL



AUTOTEST





AIR DENSITY



CORRECTION



WITH TITRATORS



GLP / GMP **PROCEDURES**



INFRARED



AMBIENT COND. MONITORING



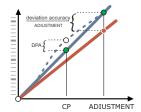
UNITS



MOVABLE RANGE

MECHANICAL DESIGN

The 4Y series features reliable measuring system housed within a tight casing. With this feature, the balance provides accuracy and fast measurement for any working environment. DPA SYSTEM (Dual Point Adiustment), which is the great novelty of RADWAG analytical balances, guarantees perfect linearity even for challenging ambient conditions. DPA is a standard solution of the XA.4Y series regardless of the reading unit value.



4Y balances offer modern hardware and software. In-build programs, Windows Embeded Compact 7 operating system, Flash memory, Double Hardware system guarantee fast measurement and reliability when it comes to data acquiring and processing. The 4Y series comprises 5,7" colour touchscreen providing ever more increased balance operation functionality and even more practical results presentation. Complex databases allow measurement record along with printout and export option. The system supports 13 languages.































DENSITY



COOPERATION





SENSORS





	XA 52.4Y	XA 110.4Y	XA 210.4Y	XA 82/220.4Y**	XA 120/250.4Y**	
Verification	YES	YES	YES	YES	YES	
Maximum capacity	52 g	110 g	210 g	82 g / 220 g	120 g / 250 g	
Minimum capacity	1 mg	1 mg	1 mg	1 mg	1 mg	
Readability	0,01 mg	0,01 mg	0,01 mg	0,01 mg / 0,1 mg	0,01 mg / 0,1 mg	
Tare range	-52 g	-110 g	-210 g	-220 g	-250 g	
Operating temperature		+10° ÷ +40°C				
Relative humidity ***		40% ÷ 80% (non-condensing conditions)				
Repeatability *		0,01 mg (Rt≤20g)	0,01 mg (Rt≤20g)	0,01 mg (Rt≤20g)	0,01 mg (Rt≤20g)	
	0,01 mg (Rt≤20g)	0,02 mg (20g <rt≤50g)< td=""><td>0,02 mg (20g<rt≤50g)< td=""><td>0,02 mg (20g<rt≤50g)< td=""><td>0,02 mg (20g<rt≤50g)< td=""></rt≤50g)<></td></rt≤50g)<></td></rt≤50g)<></td></rt≤50g)<>	0,02 mg (20g <rt≤50g)< td=""><td>0,02 mg (20g<rt≤50g)< td=""><td>0,02 mg (20g<rt≤50g)< td=""></rt≤50g)<></td></rt≤50g)<></td></rt≤50g)<>	0,02 mg (20g <rt≤50g)< td=""><td>0,02 mg (20g<rt≤50g)< td=""></rt≤50g)<></td></rt≤50g)<>	0,02 mg (20g <rt≤50g)< td=""></rt≤50g)<>	
Repeatability	0,012 mg (20g <rt≤52g)< td=""><td>0,025 mg (50g<rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g< td=""></rt≤82g<></td></rt≤82g)<></td></rt≤82g)<></td></rt≤82g)<></td></rt≤52g)<>	0,025 mg (50g <rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g< td=""></rt≤82g<></td></rt≤82g)<></td></rt≤82g)<></td></rt≤82g)<>	0,025 mg (50g <rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g< td=""></rt≤82g<></td></rt≤82g)<></td></rt≤82g)<>	0,025 mg (50g <rt≤82g)< td=""><td>0,025 mg (50g<rt≤82g< td=""></rt≤82g<></td></rt≤82g)<>	0,025 mg (50g <rt≤82g< td=""></rt≤82g<>	
		0,03 mg (82g <rt≤110g)< td=""><td>0,03 mg (82g<rt≤100g)< td=""><td>0,08 mg (82g<rt≤220g)< td=""><td>0,03 mg (82g<rt≤120g< td=""></rt≤120g<></td></rt≤220g)<></td></rt≤100g)<></td></rt≤110g)<>	0,03 mg (82g <rt≤100g)< td=""><td>0,08 mg (82g<rt≤220g)< td=""><td>0,03 mg (82g<rt≤120g< td=""></rt≤120g<></td></rt≤220g)<></td></rt≤100g)<>	0,08 mg (82g <rt≤220g)< td=""><td>0,03 mg (82g<rt≤120g< td=""></rt≤120g<></td></rt≤220g)<>	0,03 mg (82g <rt≤120g< td=""></rt≤120g<>	
			0,04 mg (100g <rt≤210g)< td=""><td></td><td>0,08 mg (120g<rt≤250g< td=""></rt≤250g<></td></rt≤210g)<>		0,08 mg (120g <rt≤250g< td=""></rt≤250g<>	
Linearity	±0,03 mg	±0,06 mg	±0,1 mg	±0,06/0,2 mg	±0,06/0,2 mg	
Eccentricity	0,03 mg	0,06 mg	0,1 mg	0,2 mg	0,2 mg	
Sensitivity offset		2 × 10 ⁻⁶ × Rt				
Sensitivity temperature drift 1 × 10°/°C × Rt						
Sensitivity time drift	nsitivity time drift 1 × 10° / Rok × Rt					
Minimum smaple weight (USP) 20 mg						
Minimum weight (U = 1%	6, k = 2)	2 mg				
Stabilization time ~4 s						
Interface	2×USB, 2×RS 232, 1×Ethernet, Wireless Module, 4 in / 4 out (digital)					
ower supply - balance 13,5 ÷ 16 V DC / 700 mA						
Power supply - terminal **** 13,5 ÷ 16 V DC / 1 A						
Adjustment		internal (automatic)				
Weighing pan		grid pan Ø 90 mm (additional weighing pan Ø 85 mm - option)				
	Veighing chamber dimensions 170 × 200 × 220 mm					
Net/Gross weight	<u> </u>					
Packaging dimensions	ckaging dimensions 720 × 385 × 485 mm					

Technical specification:	VA 000 4V	VA 040 4V		
	XA 220.4Y	XA 310.4Y		
Verification	YES	YES		
Maximum capacity	220 g	310 g		
Minimum capacity	10 mg	10 mg		
Readability	0,1 mg	0,1 mg		
Tare range	-220 g	-310 g		
Operating temperature	+10° ÷	+10° ÷ +40°C		
Relative humidity	40% ÷ 80% (non-condensing conditions)			
	0,08 mg (Rt≤100g)	0,08 mg (Rt≤100g)		
Repeatability *		0,12 mg (100g <rt≤220g)< td=""></rt≤220g)<>		
	0,12 mg (100g <rt≤220g)< td=""><td>0,2 mg (220g<rt≤310g)< td=""></rt≤310g)<></td></rt≤220g)<>	0,2 mg (220g <rt≤310g)< td=""></rt≤310g)<>		
Linearity	±0,2 mg	±0,3 mg		
Eccentricity	0,2 mg	0,3 mg		
Sensitivity offset	2 × 10 ^s × Rt			
Sensitivity temperature drift	1 × 10° / °C × Rt			
Sensitivity time drift	1 × 10 ⁻⁶ / Rok × Rt			
Minimum smaple weight (USP)	160 mg			
Minimum weight (U = 1%, k = 2)	16 mg			
Stabilization time	~ 2,5 sek.			
Interface	2×USB, 2×RS 232, 1×Ethernet, V	Vireless Module, 4 in / 4 out (digital)		
Power supply - balance		DC / 700 mA		
Power supply - terminal ****	13,5 ÷ 16 V DC / 1 A			
Adjustment	internal (automatic)			
Weighing pan	Ø 100 mm			
Weighing chamber dimensions	170×200×220 mm			
Net/Gross weight	9,8 kg / 14,3 kg			
Packaging dimensions	720×385×485 mm			

 $Rt-net\ weight, *Repeatability\ is\ expressed\ as\ a\ standard\ deviation\ from\ 10\ weighing\ cycles, **Balance\ with\ Movable\ Range\ function$

^{****} Power supply of terminal for wireless transmission version of XA.4Y.B

The above parameters values have been determined for standard laboratory conditions. Owing to ambient conditions influence or/and balance setup the above parameters may vary for environment other than laboratory.

Mass measurement support

OPENWORK WEIGHING PAN



Recommended for measurements with d=0.01mg and wherever heavy air drafts occur.

AMBIENT CONDITIONS MODULE



Air pressure, temperature and humidity are parameters measured on-line, signalling system informs when their maximum and minimum values are out of range.

DATA EXCHANGE / COLLECTION



Using USB port it is possible to exchange and archive any information, besides the port allows you to copy your balance parameters.

HOLDERS



The holders are especially useful in course of weighing oval-shaped objects (bulbs, measuring vessels, test tubes etc.)

HANDS-FREE OPERATION



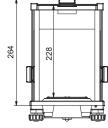
Proximity sensors stand for various ergonomic solutions, they facilitate remote control of functions such as tarring, zeroing, printout.

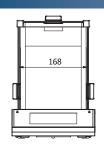
IONIZER

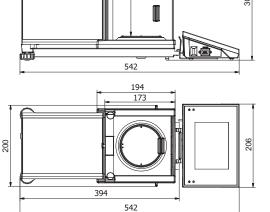


Application: removing electrostatic charges from samples, adjustable operating power, various options of load emission type (plus, minus, both).

Dimensions:







160

Accessories:

Anti-vibration table for microbalances	Density determination kit
Professional weighing table	THB ambient conditions module
Impact printer - Zebra	LCD "WD-5"
Label printer - Citizen	PC USB keyboard
Holders for glass vessels	Adapter for pipettes calibration
"Tare" or "Print" footswitch	ZR-02 power supplier
"R-LAB" PC software	Mass standard
"Pipettes" PC software	Anti-static cable PA 1
DJ-02 Anti-static ioniser	Barcode scanner
	Cable RS 232 (balance - printer: drukarka Epson, Citizen) "P0151"