

The Radwag PM series balances are equipped with an innovative measuring system based on RADWAG MonoBLOCK® technology. This enables operation with readability of 0.01g at capacity of 15kg, and with readability of 0.1g at capacity of 50 kg. 10 kg x 0.01 g



**Capacity x
Readability**

10 kg x 0.01 g

Pan Size

7.87 x 7.28 in

Manufacture:

RADWAG

SKU: PM-10.4Y.B

Free Ground Shipping
within the 48 continental
US States

**Please Call
(800)832-0055**

Features

The Radwag PM series balances are equipped with an innovative measuring system based on RADWAG MonoBLOCK® technology. This enables operation with readability of 0.01g at capacity of 15kg, and with readability of 0.1g at capacity of 50 kg.

Use of the new measuring system, which is a subject matter of RADWAG patent, guarantees stability of repeatability over time at a range sd An in-built 4-point protection system prevents balance overloading, this ensures safety in case too heavy load is applied onto the weighing pan.

• **Main features:**

- new RADWAG MonoBLOCK® sensor;
- unrivalled repeatability of indications;
- weighing of heavy loads with maximum accuracy;
- intuitive operation guaranteed by a colour touchscreen;
- compliance with CFR21;
- fast mass measurements;
- robust mechanical design – new lower weighing platform;
- improved ergonomics – two types of weighing terminal for selection.

Balance offers possibility of weighing loads outside the weighing platform (so called under-pan weighing). This is an alternative for weighing loads with non-standard dimensions and shapes or those generating magnetic field.

- **Reliable Results and High Measurement Precision** Excellent measurement parameters and performance enable applying PM 4Y balances in laboratories and various branches of industry
- **Radwag MonoBLOCK™, an Innovative Weighing System** The cutting edge technology of the measuring system guarantees stability of repeatability in time, where sd
- **Weighing Heavy Loads With the Maximum Accuracy** It is possible to work with samples of different weight values, from few grams to several kilograms, wherein the highest measurement accuracy and excellent result repeatability are maintained
- **Reliability and Safety** 4-point protection system prevents balance overloading, this ensures safety in case too heavy load is applied onto the weighing pan. Robust design allows to operate the device even in the most challenging ambient conditions.
- **Intuitive Operation and Touch Screen** 5.7" colour touch screen enables intuitive operation and easy access to numerous applications and functions of the weighing instrument.
- **Automatic Adjustment** Internal adjustment system guarantees the highest accuracy and reliable measurements results
- **Touch-Free Operation** Two programmable proximity sensors can be assigned with any function or application. The given function when assigned is both run and operated touch-free.
- **Numerous Options of Data Management** The instrument enables saving all completed measurements data as complex reports and graphs. PM 4Y, d = 0.1 g Radwag MonoBLOCK™, an innovative weighing system Wireless communication between a weighing device and an indicator PM 4Y, d = 0.01 g PM 4Y, d = 0.5 g, d = 1 g Under hook weighing
- **AUTOTEST** - Diagnostic function aiming at metrological parameters determination (repeatability), the parameters are determined for the actual conditions of use. When speaking of repeatability it may be also used for weighing time optimization. Autotest is operated in an automatic mode thus operator's time is saved.
- **DOSING** - Weighing process for which reference mass has been determined together with tolerance for its determination. Dosing tolerance is given in [%] and it is calculated in relation to the reference value thus being a permissible deviation of this process. This solution is used for weighing powders, liquids and loose materials. Dosing function performance is often supported with bargraph - load indicator. For industrial scales it is possible to use a control systems of dosing process.
- **PERCENT WEIGHING** - Percent Weighing function is used for comparison of measured products with mass standard. Mass of a mass standard may be a numeric value taken from a database or it may be determined through a measurement process. Each measured product is compared to mass standard, mass of which is presumed as a model 100% ideal mass. For products weighing less than the mass standard, obtained results are lower than 100%, for products weighing more, the obtained results are greatly exceeded.
- **PARTS COUNTING** - Function using mass measurement for determination of measured items quantity. Mass of a single item is required for this process. It may be either estimated through weightment or taken from a database. For items counting the following algorithm is used: all items mass / single item mass = quantity. Function operation is supported by a mechanism of Automatic Correction of Accuracy. This allows to update single item mass in course of the process. To a certain extend Automatic Correction of Accuracy eliminates error which may be a result of different mass values of seemingly alike single elements. For industry solutions items counting may be simultaneously carried out with checkweighing and dosing thus industry solutions feature audio signalling base informing that specified number of items has been weighed. It is possible to apply weighing systems using few platforms of different MAX capacities and different accuracies.
- **FORMULATION** - Function supporting the mixture making process, wherein the mixture contains various components. Formulation function usually uses the balance/scale database of components. Formulation serves for monitored checkweighing of every single component with a given tolerance. It is enriched with a set of individual settings.
- **STATISTICS** - Statistics function registers and analyses performed measurements. This supplies the user with the following information: Max and Min standard deviation, average value, variance, range etc.
- **CHECKWEIGHING** - Checkweighing function is used for checking whether the measured sample mass is within the predefined threshold values, Low [LO] and High [HI]. The thresholds are given in [g] and [kg] units. Current state of a sample being measured is signalled by means of pictograms located on a display for laboratory balances, for industrial scales Stacklight System is used. This visual +/- inspection is in operation during segregation, control or packing process of products for which mass has been determined with a specified tolerance, eg. 12860 g 961
- **IR SENSORS** - Programmable function supporting the weighing process through control of the following options: sliding weighing chamber doors, printout, zeroing, tarring etc. Especially appreciated wherever preventing the balance from soiling is important.

- **GLP PROCEDURES** - Diagnostic function allowing to objectively document performed measurements. GLP procedures may be either presented in a short report form or extended one.
- **ANIMAL WEIGHING** - Process of mass determination for a product which may unwillingly reposition within the weighing pan. Mass determination in such cases requires much longer period of time when compared to typical weighing process. It is the user who defines period of time needed for control of measured product mass. The user can thus optimize the function depending on the measured product characteristics.
- **AIR DENSITY CORRECTION** - Function performing correction of mass measurement indication, wherein the air density is taken into account. It is used in balances with reading unit < 0,01 mg.
- **STATISTICAL QUALITY CONTROL** - Statistical control for determination of basic statistical criteria: maximum, minimum, standard deviation, mean values for each batch, etc.

Specifications

Standard Model	PM-10.4Y WL-223-0002	PM-15.4Y WL-223-0003	PM-35.4Y WL-223-0004	PM-50.4Y WL-223-0013	PM-60.05.4Y WL-223-0010	PM-60.1.4Y WL-223-0011
Model with Wireless Terminal	PM-10.4Y.B	PM-15.4Y.B	PM-35.4Y.B	PM-50.4Y.B	PM-60.05.4Y.B	PM-60.1.4Y.B
Capacity x Readability	10 kg x 0.01 g	15 kg x 0.01 g	35 kg x 0.1 g	50 kg x 0.1 g	60 kg x 0.5 g	60 kg x 1 g
Preload	1 kg	1.5 kg	3.5 kg	5 kg	-	-
Minimum load	0.5 g	0.5 g	5 g	5 g	-	-
Verification scale interval [e]	0.1 g	-	1 g	1 g	-	-
Tare range	−10 kg	−15 kg	−35 kg	−50 kg	−60 kg	−60 kg
Repeatability (5% Max)*	0.004 g	0.004 g	0.04 g	0.04 g	0.2 g	0.4 g
Repeatability (Max)	0.01 g	0.015 g	0.1 g	0.15 g	0.4 g	0.8 g
Linearity	± 0.03 g	± 0.03 g	± 0.3 g	± 0.3 g	± 1.5 g	± 3 g
Sensitivity temperature drift**	2 x 10 ⁻⁶ / °C x Rt	2 x 10 ⁻⁶ / °C x Rt	2 x 10 ⁻⁶ / °C x Rt	2 x 10 ⁻⁶ / °C x Rt	2 x 10 ⁻⁶ / °C x Rt	2 x 10 ⁻⁶ / °C x Rt
Minimum weight (U=1%, k=2)	0.82 g	0.82 g	8.2 g	8.2 g	41 g	82 g
Minimum weight (USP)	8.2 g	8.2 g	82 g	82 g	410 g	820 g
Adjustment	Internal Calibration					
Stabilization time	3 s					
OIML Class	OIML Class II -		OIML Class II	OIML Class II -	-	
Indicator fastening	1.5 m cable (Standard Models)					
Terminal mode	4Y Terminal					
Display	5.7" color, resistive touch screen					
Keypad	8 keys					

Protection class	IP 43					
Databases	19					
Touch-free operation	2 programmable proximity sensors					
USB-A	2					
RS232	2					
Ethernet	10 / 100 Mbit					
Wireless connection	802.11 b/g/n					
IN/OUT	4 x IN, 4 x OUT					
Power supply	3.5 ÷ 16 V DC					
Power consumption	15 W					
Operating temperature	+10 ÷ +40 °C					
Atmospheric humidity***	40 ÷ 80 %					
Transport and storage temperature	−10 ÷ +50 °C					
Weighing pan dimensions	200 x 185 mm	200 x 185 mm	347 x 259 mm	347 x 260 mm	500 x 400 mm	500 x 400 mm
Weighing device dimensions	508 x 296 x 115 mm	508 x 296 x 115 mm	508 x 296 x 115 mm	508 x 296 x 115 mm	640 x 400 x 115 mm	640 x 400 x 115 mm
Net weight	10 kg	10 kg	11 kg	11 kg	17 kg	17 kg
Gross weight	12.2 kg	12.2 kg	13.2 kg	13.2 kg	19 kg	19 kg
Packaging dimensions	520 x 520 x 280 mm	520 x 520 x 280 mm	520 x 520 x 280 mm	520 x 520 x 280 mm	700 x 600 x 200 mm	700 x 600 x 200 mm

Rt net weight

* repeatability is expressed as a standard deviation from 10 weighing cycles

** parameter determined in the following temperature range: +15 ÷ +35 °C

*** non-condensing conditions

In accordance with type approval, the balance parameters are maintained in temperature range: +15 ÷ +35 °C.

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