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# **Advanced Precision Balances**

'Advanced level' measurement of large masses with the highest accuracy in laboratory and industry



PM C32, d = 0.01 g



PM C32, d = 0.1 g



Radwag MonoBLOCK™, an innovative weighing system



PM C32: d = 0.5 g, d = 1 g



Weighing heavy loads with the maximum accuracy

## **Functions**



Parts counting

Checkweighing



Percent weighing

Statistics



Under hook weighing

procedures





Proximity sensors

Replaceable



Alibi memory



Multilingual menu

# **Technical Specifications**

# Reliable Results and High Measurement Precision

Excellent measurement parameters and performance enable applying PM C32 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<1, and a significant resistance to ambient conditions.

# 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.

# **Ease of Use and Maximum Comfort of Operation**

unit

5" colour screen enables intuitive operation and easy access to numerous applications and functions. PM C32 program allows screen layout customization.

# **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 10.C32	PM 15.C32	PM 25.C32	PM 35.C32
Maximum capacity [Max]	10 kg	15 kg	25 kg	35 kg
Preload	1 kg	1.5 kg	2.5 kg	3.5 kg
Minimum load	0.5 g	0.5 g	5 g	5 g
Readability [d]	0.01 g	0.01 g	0.1 g	0.1 g
Verification scale interval [e]	0.1 g	_	1 g	1 g
Tare range	–10 kg	–15 kg	–25 kg	–35 kg
Repeatability (5% Max)*	0.004 g	0.004 g	0.04 g	0.04 g
Repeatability (Max)	0.01 g	0.015 g	0.1 g	0.1 g
Linearity	± 0.03 g	± 0.03 g	± 0.3 g	± 0.3 g
Sensitivity temperature drift**	2 × 10 <sup>-6</sup> /°C × Rt	2 × 10 <sup>-6</sup> / °C × Rt	2 × 10 <sup>-6</sup> / °C × Rt	2 × 10 <sup>-6</sup> /°C × Rt
Minimum weight (U=1%, k=2)	0.82 g	0.82 g	8.2 g	8.2 g
Minimum weight (USP)	8.2 g	8.2 g	82 g	82 g
Stabilization time	3 s	3 s	3 s	3 s
Adjustment	internal	internal	internal	internal
Verification	Yes	_	Yes	Yes
OIML Class	II	_	II	II
Indicator fastening	1.5 m cable	1.5 m cable	1.5 m cable	1.5 m cable
Terminal model	PUE C32 indicator	PUE C32 indicator	PUE C32 indicator	PUE C32 indicator
Display	5" graphic colour	5" graphic colour	5" graphic colour	5" graphic colour
Keypad	22-key membrane	22-key membrane	22-key membrane	22-key membrane
Protection class	IP 43	IP 43	IP 43	IP 43
Databases	5	5	5	5
Touch-free operation	2 programmable proximity sensors			
USB-A	1	1	1	1
USB-B	1	1	1	1
RS 232	2	2	2	2
Ethernet	10 / 100 Mbit			
Wi-Fi®	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power supply	12 ÷ 16 V DC			
Power consumption	15 W	15 W	15 W	15 W
Operating temperature	+10 ÷ +40 °C			
Atmospheric humidity***	40 ÷ 80 %	40 ÷ 80 %	40 ÷ 80 %	40 ÷ 80 %
Transport and storage temperature	-10 ÷ +50 °C			
Weighing pan dimensions	200 × 185 mm	200 × 185 mm	347 × 259 mm	347 × 259 mm
Weighing device dimensions	508 × 296 × 115 mm			
Net weight	10 kg	10 kg	11 kg	11 kg
Gross weight	12.2 kg	12.2 kg	13.2 kg	13.2 kg
Packaging dimensions	520 × 520 × 280 mm			

Rt net weight

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

Wi-Fi® is a registered trademark of Wi-Fi® Alliance.

repeatability is expressed as a standard deviation from 10 weighing cycles

<sup>\*\*</sup> parameter determined in the following temperature range:  $+15 \div +35$  °C

<sup>\*\*\*</sup> non-condensing conditions

	PM 50.C32	PM 60.05.C32	PM 60.1.C32
Maximum capacity [Max]	50 kg	60 kg	60 kg
Preload	5 kg	_	_
Minimum load	5 g	0.5 g	1 g
Readability [d]	0.1 g	0.5 g	1 g
Verification scale interval [e]	1 g	_	_
Tare range	–50 kg	–60 kg	-60 kg
Repeatability (5% Max)*	0.04 g	0.2 g	0.4 g
Repeatability (Max)	0.15 g	0.4 g	0.8 g
Linearity	± 0.3 g	± 1.5 g	± 3 g
Sensitivity temperature drift**	$2 \times 10^{-6}$ /°C × Rt	$2 \times 10^{-6}$ /°C × Rt	$2 \times 10^{-6}$ /°C × Rt
Minimum weight (U=1%, k=2)	8.2 g	41 g	82 g
Minimum weight (USP)	82 g	410 g	820 g
Stabilization time	3 s	3 s	3 s
Adjustment	internal	internal	internal
Verification	Yes	_	_
OIML Class		_	_
Indicator fastening	1.5 m cable	1.5 m cable	1.5 m cable
Terminal model	PUE C32 indicator	PUE C32 indicator	PUE C32 indicator
Display	5" graphic colour	5" graphic colour	5" graphic colour
Keypad	22-key membrane	22-key membrane	22-key membrane
Protection class	IP 43	IP 43	IP 43
Databases	5	5	5
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	1	1	1
USB-B	1	1	1
RS 232	2	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit
Wi-Fi®	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	15 W	15 W	15 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity***	40 ÷ 80 %	40 ÷ 80 %	40 ÷ 80 %
Transport and storage temperature	−10 ÷ +50 °C	-10 ÷ +50 °C	−10 ÷ +50 °C
Weighing pan dimensions	347 × 260 mm	500 × 400 mm	500 × 400 mm
Weighing device dimensions	508 × 296 × 115 mm	640 × 400 × 115 mm	640 × 400 × 115 mm
Net weight	11 kg	17 kg	17 kg
Gross weight	13.2 kg	19 kg	19 kg
Packaging dimensions	520 × 520 × 280 mm	700 × 600 × 200 mm	$700 \times 600 \times 200 \text{ mm}$

Rt net weight

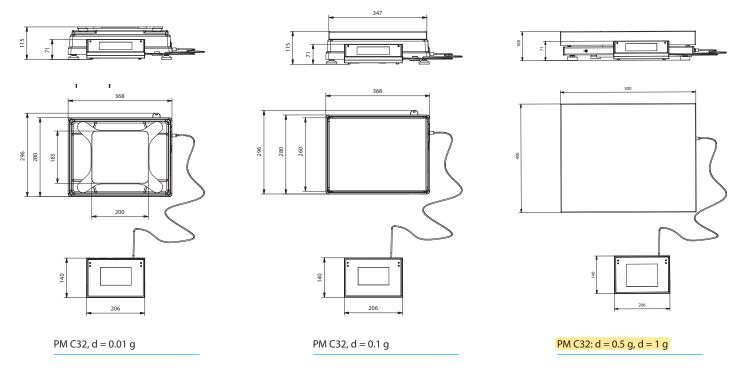
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non-condensing conditions



#### Accessories

#### **Weighing Tables**

- granite antivibration table
- antivibration tables for laboratory balances

#### **Peripheral Devices**

- Epson dot matrix printer
- barcode scanners
- WD-6 LCD display

# **Electrical accessories**

• ZR-02 power supply with battery

#### Cables, Converters

- P0108: RS 232 cable (balance-computer)
- P0167: RS 232 cable (balance-computer)
- P0151: RS 232 cable (balance Epson printer)
- AP2-1 power loop output
- IN/OUT cables

#### Draft shields and anti-draft chambers

• storage case for PM 10 kg, PM 15 kg, PM 35 kg, PM 50kg, PM.KB balances

# **Dedicated Software**

#### R-LAB

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

# **E2R Weighing Records**

- complete, automated databases synchronization
- fully supported processes of labelling and parts counting
- record of weighings, weighings archiving
- · basic and advanced (with graphs) reports

#### Alibi Reader

- readout of data saved to Alibi memory
- export of data saved to Alibi memory
- · data filtering and reports generating
- saving ALIBI database to CSV file

# R.Barcode

•The basic function software is presentation of the data sent by barcode scanners connected to PC via USB or RS232

#### RAD KEY

• Establishing cooperation between a weighing instrument and a computer

# **Radwag Development Studio**

- presentation of functions (and subfunctions) of communication protocol (Common Communication Protocol)
- possibility of connection with weighing equipment on which each

function is carried out,

- library with mass control, contained within the development environment
- complete documentation of the communication protocol
- set of user manuals for different solutions addressed for programmers employed in companies using RADWAG-manufactured weighing equipment

# **RADWAG Connect**

- establishing communication with all balances, scales and weighing modules using Common Communication Protocol
- · communication via local network,
- support of basic functions
- auto searching for devices
- connecting with few devices simultaneously, swapping between them
- clear list of connected platforms
- record of measurements in the program,
- export of carried out measurements to CSV file,
- work performed using freely selected device with Windows 10 operating system

#### LabView Driver

• operation of RADWAG balances in LabView environment