

WLC X2 Precision Balances

Advanced weighing under laboratory and less challenging industrial conditions







WLC X2, d = 0.01 g

WLC X2, d = 0.1 g



Communication interfaces

WLC X2, d = 0.001 g

Functions



Parts counting



Dosing



Checkweighing



Formulations



Percent weighing



Statistics



Animal weighing



Autotest



Density

determination

Under hook

weighing

Peak

hold

GLP procedures



Proximity sensors



Ambient conditions measurement



Alibi memory



Replaceable unit



Multilingual menu

Features

Reliable Results and High Measurement Precision

Excellent performance and weighing precision enable applying WLC X2 balances in laboratories and industries.

Excellent Weighing Parameters and Comfort of Operation

Thanks to a clear and intuitive menu layout and 5" colour touch screen, maximum comfort and incredibly easy operation are both ensured.

Customization via Widgets

WLC X2 software enables designing widgets layout on the display. Display customization allows you to run any selected function directly from the home screen.

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 od Data Management

The instrument enables saving all data of carried out measurements as reports and graphs.

Wide Capacity Range for Different Applications

Wide capacity range enables you to select appropriate weighing instrument suiting your needs and requirements.

Technical Specifications

Maximum capacity (Max) 02 kg 06 kg 1 kg / 10 kg 2 kg Minimum load — — — — Readability (d) 0001 g 001 g / 0.1 g 0.0 l g Verification scale interval [e] — — — — Tare range —02 kg —06 kg —10 kg —2 kg Repeatability* — —00 kg —10 kg —2 kg Linearity ±003 g ±003 g / ±03 g ±003 g / ±03 g ±003 g Linearity ±000 g ±003 g / ±03 g ±003 g / ±03 g ±003 g Kabilization time ±000 g ±003 g / ±03 g ±003 g / ±03 g ±003 g Adjustment internal internal external internal Linearity ±000 g — — — — Adjustment internal internal ±0 kg 6 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5		WLC 0.2.X2	WLC 0.6.X2	WLC 1/10.X2	WLC 2.X2
Readability Id) 0.019 g 0.018 g 0.018 g 0.018 g 0.015 g 0.008 g 0.008 g 0.008 g 0.003 g 0.003 g 0.003 g 0.003 g 0.008 g 0.003 g 0.008 g 0.003 g	Maximum capacity [Max]	0.2 kg	0.6 kg	1 kg / 10 kg	2 kg
Verification scale interval [e] — <t< th=""><th>Minimum load</th><th>_</th><th>_</th><th>_</th><th>_</th></t<>	Minimum load	_	_	_	_
Tare range -0.2 kg -0.6 kg -10 kg -2 kg Repeatability* 0.0014 g 0.008 g 0.015 g / 0.08 g 0.015 g / 0.08 g Linearity ±0.003 g ±0.03 g / ±0.3 g ±0.03 g / ±0.3 g ±0.03 g / ±0.3 g Stabilization time 2 s 2 s ~4 s / 2 s 2 s Adjustment internal internal internal Verification - - - - OIML Class - - - - - Oille Class - - - - - Boyland 8 cepeatability 5 capacitive colour touch 5 capacitive colour touch 5 capacitive colour touch Boyland 8 cepeatability 5 capacitive colour touch 5 capacitive colour touch 6 keys Boyland 1 43 </th <th>Readability [d]</th> <th>0.001 g</th> <th>0.01 g</th> <th>0.01 g / 0.1 g</th> <th>0.01 g</th>	Readability [d]	0.001 g	0.01 g	0.01 g / 0.1 g	0.01 g
Repeatability* 0.0014 g 0.008 g 0.015 g / 0.08 g 0.015 g / 0.08 g Linearity ±0.003 g ±0.03 g ±0.03 g / ±0.3 g ±0.03 g / ±0.3 g Stabilization time 2 s 2 s −4 s / 2 s 2 s Adjustment internal internal external internal Verification — — — — OIML Class — — — — OIML Class — — — — Display 5" capacitive colour touch screen Keypad 6 keys 6 keys 6 keys 6 keys 6 keys 6 keys Protection class IP 43	Verification scale interval [e]	_	_	_	_
Linearity ±0.03 g ±0.03 g ±0.03 g/±0.3 g ±0.03 g/±0.3 g Stabilization time 2 s 2 s 2 s/2 s 2 s Adjustment internal internal external internal Verification — — — — OIML Class — — — — Display 5 crapacitive colour touch screen 6 keys 7 crapacitive colour touch screen 5 crapacitive colour touch screen 6 keys	Tare range	-0.2 kg	-0.6 kg	–10 kg	–2 kg
Stabilization time2 s2 s~4 s/2 s2 sAdjustmentinternalinternalexternalinternalVerification————OIML Class———Display5° capacitive colour touch screen5° capacitive colour touch screenKeypad6 keys6 keys6 keys6 keys6 keysProtection classIP 43IP 43IP 43IP 43Touch-free operation2 programmable proximity sensors2 programmable proximity sensors2 programmable proximity sensors2 programmable proximity sensors2 programmable proximity sensors2 programmable proximity sensorsUSB-A11111Wireless Connection802.11 b/g/n802.11 b/g/n802.11 b/g/n802.11 b/g/n802.11 b/g/n802.11 b/g/n802.11 b/g/nEthernet10 / 100 Mbit10 / 100 MbitPower consumption12 ÷ 16 V DC12 ÷ 16 V DC12 ÷ 16 V DC12 ÷ 16 V DC12 ÷ 16 V DCPower supply4W4W4WOperating temperature40 ÷ 80 %40	Repeatability*	0.0014 g	0.008 g	0.015 g / 0.08 g	0.015 g
Adjustment internal internal external internal Verification — — — — OIML Class — — — — Display 5" capacitive colour touch screen 6 keys 6 keys <th>Linearity</th> <th>±0.003 g</th> <th>±0.03 g</th> <th>±0.03 g / ±0.3 g</th> <th>±0.03 g</th>	Linearity	±0.003 g	±0.03 g	±0.03 g / ±0.3 g	±0.03 g
Verification — <	Stabilization time	2 s	2 s	~ 4 s / 2 s	2 s
OIML Class — — — — Display 5" capacitive colour touch screen Keypad 6 keys 6 keys 6 keys 6 keys 6 keys Protection class IP 43 IP 44 IP 43 IP 43	Adjustment	internal	internal	external	internal
Display 5" capacitive colour tooch screen Keypad 6 keys 6 keys 6 keys 6 keys Protection class IP 43 IP 43 IP 43 IP 43 Touch-free operation 2 programmable proximity sensors 2 programmable proximity sensors <t< th=""><th>Verification</th><th>_</th><th>_</th><th>_</th><th>_</th></t<>	Verification	_	_	_	_
Keypad Screen screen screen screen Keypad 6 keys 6 keys 6 keys 6 keys Protection class IP 43 IP 43 IP 43 IP 43 Touch-free operation 2 programmable proximity sensors 2 programmable proximity sensors 2 programmable proximity sensors 2 programmable proximity sensors USB-A 1 1 1 1 USB-B 1 1 1 1 RS 232 2 2 2 2 Wireless Connection 802.11 b/g/n	OIML Class	_	_	_	_
Protection class IP 43 IP 48 TH 45 IP 48 TH 45	Display	· ·	•	·	•
Touch-free operation 2 programmable proximity sensors 2 programmable proximity sensors 2 programmable proximity sensors 2 programmable proximity sensors USB-A 1 1 1 1 USB-B 1 1 1 1 RS 232 2 2 2 2 Wireless Connection 802.11 b/g/n	Keypad	6 keys	6 keys	6 keys	6 keys
USB-A 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <th>Protection class</th> <th>IP 43</th> <th>IP 43</th> <th>IP 43</th> <th>IP 43</th>	Protection class	IP 43	IP 43	IP 43	IP 43
USB-B 1 1 1 1 1 1 1 RS 232 2 2 2 2 2 Wireless Connection 802.11 b/g/n 10 / 100 Mbit 40 / 100 Mbit <th>Touch-free operation</th> <th>, , , , ,</th> <th>, , ,</th> <th>, , ,</th> <th>, , ,</th>	Touch-free operation	, , , , ,	, , ,	, , ,	, , ,
RS 232 2 2 2 Wireless Connection 802.11 b/g/n	USB-A	1	1	1	1
Wireless Connection 802.11 b/g/n 802.11 b/g/n 802.11 b/g/n 802.11 b/g/n 802.11 b/g/n Ethernet 10 / 100 Mbit Power consumption 12 ÷ 16 V DC Power supply 4W 4W 4W 4W Operating temperature +10 ÷ +40 °C Atmospheric humidity** 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % Weighing pan dimensions Ø 100 mm 128 × 128 mm 195 × 195 mm 195 × 195 mm Weighing device dimensions 333 × 206 × 280 mm 333 × 206 × 100 mm 333 × 206 × 100 mm 333 × 206 × 100 mm Net weight 1.8 kg 2.2 kg 2.2 kg 2.2 kg Gross weight 3.4 kg 3.8 kg 3.8 kg 3.8 kg	USB-B	1	1	1	1
Ethernet 10 / 100 Mbit Power consumption 12 ÷ 16 V DC Power supply 4W 4W 4W 4W Operating temperature +10 ÷ +40 °C +10 ÷ +40 °C +10 ÷ +40 °C +10 ÷ +40 °C Atmospheric humidity** 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % Weighing pan dimensions Ø 100 mm 128 × 128 mm 195 × 195 mm 195 × 195 mm Weighing device dimensions 333 × 206 × 280 mm 333 × 206 × 100 mm 333 × 206 × 100 mm 333 × 206 × 100 mm Net weight 1.8 kg 2.2 kg 2.2 kg 2.2 kg Gross weight 3.4 kg 3.8 kg 3.8 kg 3.8 kg	RS 232	2	2	2	2
Power consumption 12 ÷ 16 V DC Power supply 4 W </th <th>Wireless Connection</th> <th>802.11 b/g/n</th> <th>802.11 b/g/n</th> <th>802.11 b/g/n</th> <th>802.11 b/g/n</th>	Wireless Connection	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power supply 4 W Operating temperature $+10 \div +40 ^{\circ}\text{C}$ $+10 \div +40 ^{\circ}$	Ethernet	10 / 100 Mbit			
Operating temperature +10 ÷ +40 °C +10	Power consumption	12 ÷ 16 V DC			
Atmospheric humidity** 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 40 ÷ 80 % 195 × 195 mm 195 × 195 mm 195 × 195 mm 333 × 206 × 100 mm 22 kg 22 kg 2.2 kg 2.2 kg 2.2 kg 3.8	Power supply	4 W	4 W	4 W	4 W
Weighing pan dimensions Ø 100 mm 128 × 128 mm 195 × 195 mm 195 × 195 mm Weighing device dimensions 333 × 206 × 280 mm 333 × 206 × 100 mm 333 × 206 × 100 mm 333 × 206 × 100 mm Net weight 1.8 kg 2.2 kg 2.2 kg 2.2 kg Gross weight 3.4 kg 3.8 kg 3.8 kg 3.8 kg	Operating temperature	+10 ÷ +40 °C			
Weighing device dimensions 333 × 206 × 280 mm 333 × 206 × 100 mm 333 × 206 × 100 mm 333 × 206 × 100 mm Net weight 1.8 kg 2.2 kg 2.2 kg 2.2 kg Gross weight 3.4 kg 3.8 kg 3.8 kg 3.8 kg	Atmospheric humidity**	40 ÷ 80 %	40 ÷ 80 %	40 ÷ 80 %	40 ÷ 80 %
Net weight 1.8 kg 2.2 kg 2.2 kg 2.2 kg 2.2 kg Gross weight 3.4 kg 3.8 kg 3.8 kg 3.8 kg 3.8 kg	Weighing pan dimensions	ø 100 mm	128 × 128 mm	195 × 195 mm	195 × 195 mm
Gross weight 3.4 kg 3.8 kg 3.8 kg 3.8 kg	Weighing device dimensions	333 × 206 × 280 mm	333 × 206 × 100 mm	333 × 206 × 100 mm	333 × 206 × 100 mm
<u> </u>	Net weight	1.8 kg	2.2 kg	2.2 kg	2.2 kg
Packaging dimensions 470 × 380 × 336 mm	Gross weight	3.4 kg	3.8 kg	3.8 kg	3.8 kg
	Packaging dimensions	470 × 380 × 336 mm			

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

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

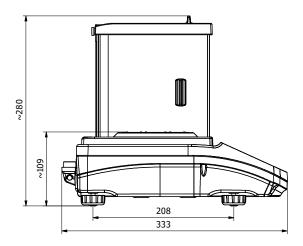
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^{**} non-condensing conditions

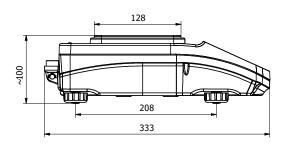
	WLC 6.X2	WLC 10.X2	WLC 20.X2	WLC 21.X2
Maximum capacity [Max]	6 kg	10 kg	20 kg	21 kg
Minimum load	_	_	_	_
Readability [d]	0.1 g	0.1 g	0.1 g	1 g
Verification scale interval [e]	_	_	_	_
Tare range	-6 kg	–10 kg	–20 kg	–21 kg
Repeatability*	0.1 g	0.08 g	0.1 g	0.8 g
Linearity	±0.3 g	±0.3 g	±0.3 g	±3 g
Stabilization time	2 s	2 s	3 s	3 s
Adjustment	internal	external	external	external
Verification	_	_	_	_
OIML Class	_	_	_	_
Display	5" capacitive colour touch screen	5" capacitive colour touch screen	5" capacitive colour touch screen	5" capacitive colour touch screen
Keypad	6 keys	6 keys	6 keys	6 keys
Protection class	IP 43	IP 43	IP 43	IP 43
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	1	1	1	1
	1			1
USB-B	1	1	1	1
		1 2	1 2	
USB-B	1			1
USB-B RS 232	1 2	2	2	1 2
USB-B RS 232 Wireless Connection	1 2 802.11 b/g/n	2 802.11 b/g/n	2 802.11 b/g/n	1 2 802.11 b/g/n
USB-B RS 232 Wireless Connection Ethernet	1 2 802.11 b/g/n 10 / 100 Mbit	2 802.11 b/g/n 10 / 100 Mbit	2 802.11 b/g/n 10 / 100 Mbit	1 2 802.11 b/g/n 10 / 100 Mbit
USB-B RS 232 Wireless Connection Ethernet Power consumption	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC
USB-B RS 232 Wireless Connection Ethernet Power consumption Power supply	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W
USB-B RS 232 Wireless Connection Ethernet Power consumption Power supply Operating temperature	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C
USB-B RS 232 Wireless Connection Ethernet Power consumption Power supply Operating temperature Atmospheric humidity**	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 %	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 %	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 %	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 %
USB-B RS 232 Wireless Connection Ethernet Power consumption Power supply Operating temperature Atmospheric humidity** Weighing pan dimensions	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm
USB-B RS 232 Wireless Connection Ethernet Power consumption Power supply Operating temperature Atmospheric humidity** Weighing pan dimensions Weighing device dimensions	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm 333 × 206 × 100 mm	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm 333 × 206 × 100 mm	2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm 333 × 206 × 100 mm	1 2 802.11 b/g/n 10 / 100 Mbit 12 ÷ 16 V DC 4 W +10 ÷ +40 °C 40 ÷ 80 % 195 × 195 mm 333 × 206 × 100 mm

repeatability is expressed as a standard deviation from 10 weighing cycles
 non-condensing conditions
 In accordance with type approval, the balance parameters are maintained in temperature range: +15 ÷ +35 °C.

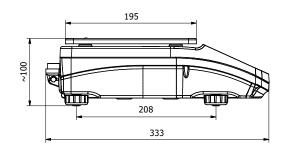
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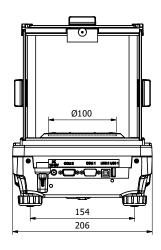
WLC X2, d = 0.001 mg

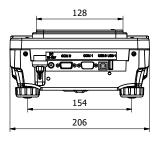


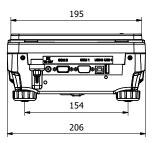
WLC X2, d = 0.01 mg



WLC X2, d = 0.1 mg







Accessories

Weighing Tables

• granite antivibration table

Professional Weighing

• under-hook weighing rack

Peripheral Devices

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

Cables, Converters

- P0108: RS 232 cable (balance-computer)
- P0151: RS 232 cable (balance Epson printer)
- USB cable type A-B

Electrical Accessories

• ZR-02 power supply with battery

Remaining Accessories

• suitcase for PS

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

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