



### AS 220.R1 PLUS Analytical Balance

More information on the website  
[radwag.com/en/info,w1,LZY](http://radwag.com/en/info,w1,LZY)



AS 220.R1 PLUS Analytical Balance

The drawings, photos and graphics used are for illustrative purposes only.

## Functions



Autotest



Dosing



Percent Weighing



Totalizing



Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

# Datasheet

AS 220.R1 PLUS Analytical Balance	
<b>Metrological parameters</b>	
Maximum capacity [Max]	220 g
Minimum load	10 mg
Readability [d]	0,1 mg
Tare range	-220 g
Standard repeatability [5% Max]	0,07 mg
Standard repeatability [Max]	0,08 mg
Standard minimum weight (USP)	140 mg
Standard minimum weight (U=1%, k=2)	14 mg
Permissible repeatability [5% Max]	0,09 mg
Permissible repeatability [Max]	0,1 mg
Linearity	±0,2 mg
Stabilization time	2 s
Adjustment	external
OIML Class	-
<b>Physical parameters</b>	
Leveling system	manual
Display	LCD (backlit)
Protection class	IP 43
Delivery components	Balance, weighing pan, weighing pan shield, bottom cover, power supply.
Weighing pan dimensions	ø100 mm
Packaging dimensions	490×400×520 mm
Net weight	7,3 kg
Gross weight	9,3 kg
<b>Communication interface</b>	
Communication interface	2×RS232, 2×USB-A (interchangeable), USB-B, Wi-Fi (option)
<b>Electrical parameters</b>	
Power supply	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max
<b>Environmental conditions</b>	
Operating temperature	+10 ÷ +40 °C

Repeatability is expressed as a standard deviation from 10 weighing cycles. Stabilization time depends on the ambient conditions and the dynamics of weighing pan loading; specified for FAST profile.

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



## Accessories

Holders for laboratory flasks  
 Barcode scanners  
 Cigarette lighter receptacle power supply cables  
 Density determination KIT  
 USB cable (scale - printer)  
 Professional weighing table  
 Holders for test tubes and filters

Displays  
 Weighing dishes  
 Antistatic ionizer  
 Receipt Printer  
 AP2-1 Current Loop Unit  
 RPANEL BOX  
 RS 232, RS 485 cables

Workstation for Pipettes Calibration  
Power Adapters  
Antivibration Tables

Under-Pan Weighing Rack  
RS 232 cables (scale - printer)  
Under-pan weighing

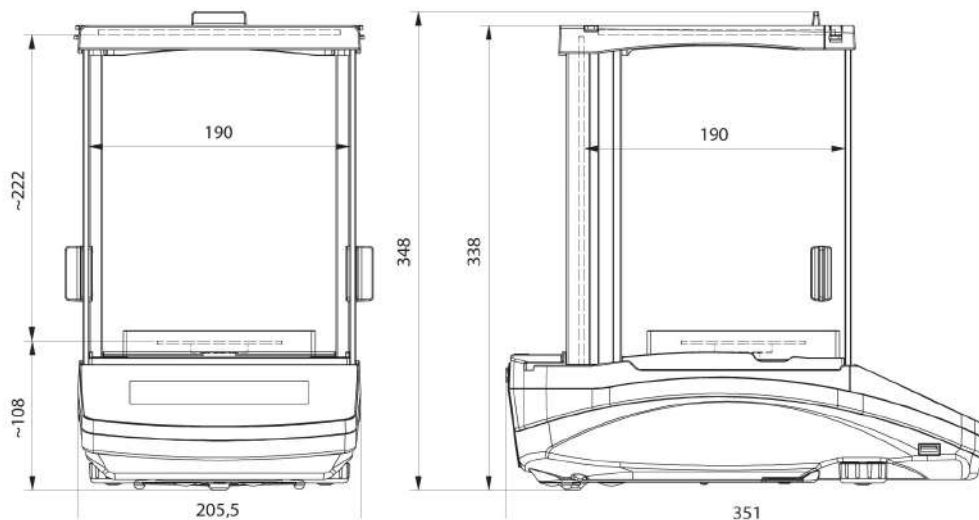
## Software

RAD-KEY  
R Panel  
R-LAB  
E2R System

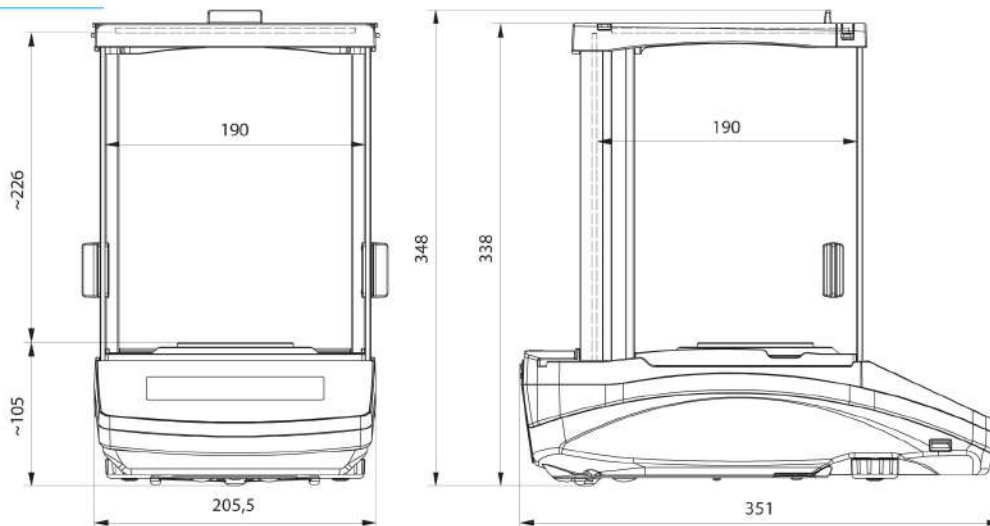
LabVIEW Driver  
Alibi Reader  
RADWAG Development Studio  
R.Barcode

## Device dimensions

AS 220.R1 PLUS Analytical Balance



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



AS 310.R2 PLUS Analytical Balance, AS 60/220.R2 PLUS Analytical Balance, AS 220.R2 PLUS Analytical Balance

More information on the website  
[radwag.com/en/info,w1,NQ5](http://radwag.com/en/info,w1,NQ5)



AS 310.R2 PLUS Analytical Balance  
AS 220.R2 PLUS Analytical Balance



AS 60/220.R2 PLUS Analytical Balance

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## Functions



Autotest



Dosing



Percent Weighing



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Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

# Datasheet

	AS 60/220.R2 PLUS Analytical Balance	AS 220.R2 PLUS Analytical Balance	AS 310.R2 PLUS Analytical Balance
<b>Metrological parameters</b>			
Maximum capacity [Max]	60 / 220 g	220 g	310 g
Minimum load	1 mg	10 mg	10 mg
Readability [d]	0,01 / 0,1 mg	0,1 mg	0,1 mg
Verification scale interval [e]	1 mg	1 mg	1 mg
Tare range	-220 g	-220 g	-310 g
Standard repeatability [5% Max]	0,012 mg	0,07 mg	0,08 mg
Standard repeatability [Max]	0,08 mg	0,08 mg	0,12 mg
Standard minimum weight (USP)	24 mg	140 mg	160 mg
Standard minimum weight (U=1%, k=2)	2,4 mg	14 mg	16 mg
Permissible repeatability [5% Max]	0,02 mg	0,09 mg	0,12 mg
Permissible repeatability [Max]	0,1 mg	0,1 mg	0,15 mg
Linearity	±0,05/0,2 mg	±0,2 mg	±0,2 mg
Stabilization time	2 s	2 s	2,5 s
Adjustment	internal (automatic)	internal (automatic)	internal (automatic)
OIML Class	I	I	I
<b>Physical parameters</b>			
Leveling system	manual	manual	manual
Display	LCD (backlit)	LCD (backlit)	LCD (backlit)
Protection class	IP 43	IP 43	IP 43
Delivery components	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply, fabric dust cover.	Balance, weighing pan, weighing pan shield, bottom cover, power supply.	Balance, weighing pan, weighing pan shield, bottom cover, power supply.
Weighing pan dimensions	ø90 + ø85 (option) mm	ø100 mm	ø100 mm
Packaging dimensions	545×455×575 mm	495×400×515 mm	495×400×515 mm
Net weight	7 kg	7,3 kg	7,3 kg
Gross weight	11 kg	9,3 kg	9,3 kg
<b>Communication interface</b>			
Communication interface	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)
<b>Electrical parameters</b>			
Power supply	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max
Power consumption max.	3 W	3 W	3 W
<b>Environmental conditions</b>			
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C

Repeatability is expressed as a standard deviation from 10 weighing cycles. Stabilization time depends on the ambient conditions and the dynamics of weighing pan loading; specified for FAST profile. 1 Barcode scanners, available as weighing instrument accessory, communicate with the instrument via RS232 interface exclusively.

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



## Accessories

Antivibration Tables  
Holders for laboratory flasks  
Barcode scanners  
Cigarette lighter receptacle power supply cables  
Density determination KIT  
USB cable (scale - printer)  
Professional weighing table  
Holders for test tubes and filters  
Workstation for Pipettes Calibration  
Power Adapters

Displays  
Protective cover for balances  
Weighing dishes  
Antistatic ionizer  
Receipt Printer  
RPANEL BOX  
RS 232, RS 485 cables  
Under-Pan Weighing Rack  
RS 232 cables (scale - printer)  
Under-pan weighing

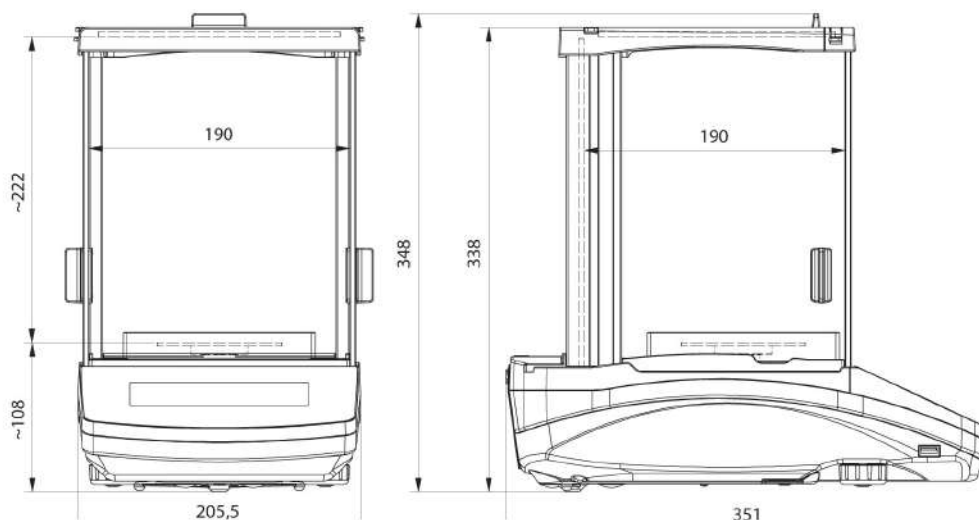
## Software

RAD-KEY  
R Panel  
R-LAB  
E2R System

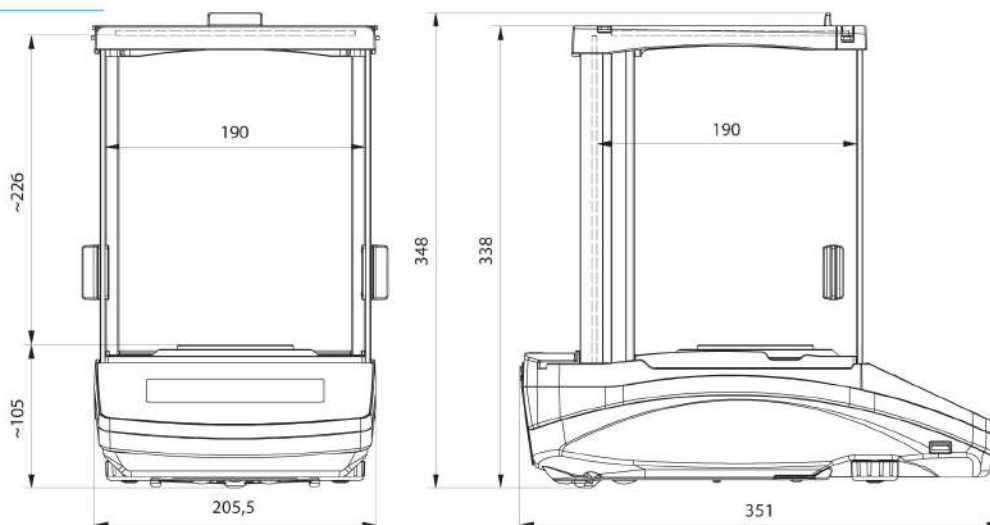
LabVIEW Driver  
Alibi Reader  
RADWAG Development Studio  
R.Barcode

## Device dimensions

AS 310.R2 PLUS Analytical Balance, AS 60/220.R2 PLUS Analytical Balance, AS 220.R2 PLUS Analytical Balance



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



Balanza analítica AS 220.R1 PLUS

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Balanza analítica AS 220.R1 PLUS

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## Funciones



Autotest



Dosing



Percent Weighing



Totalizing



Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

## Datos técnicos

	Balanza analítica AS 220.R1 PLUS
<b>Metrological parameters</b>	
Maxima capacidad	220 g
Minima capacidad	10 mg
Legibilidad [d]	0,1 mg
Rango de tara	-220 g
Repetibilidad estándar [5% Máx.]	0,07 mg
Repetibilidad estándar [Máx.]	0,08 mg
Porción mínima estándar (USP)	140 mg
Porción mínima estándar (U = 1%, k = 2)	14 mg
Repetibilidad permitida [5% Máx.]	0,09 mg
Repetibilidad permitida [Máx.]	0,1 mg
Linealidad	±0,2 mg
Tiempo de estabilización	2 s
Calibración	externa
Clase OIML	-
<b>Physical parameters</b>	
Sistema de nivelación	manual
Pantalla	LCD (con retroiluminación)
Grado de protección	IP 43
Elementos del set	Balanza, platillo, protección del platillo, protección inferior, adaptador de CA.
Dimensión de platillo	ø100 mm
Dimensiones de embalaje	490×400×520 mm
Masa neta	7,3 kg
Masa bruta	9,3 kg
<b>Communication interface</b>	
Conectividad	2×RS232, 2×USB-A (Intercambiable), USB-B, Wi-Fi (Opcional)
<b>Electrical parameters</b>	
Alimentación	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balanza: 12 – 15V DC 0,4A max
<b>Environmental conditions</b>	
Temperatura de trabajo	+10 ÷ +40 °C

La repetibilidad se expresa como una desviación estándar de 10 posiciones de carga. El tiempo de estabilización depende de las condiciones externas y la dinámica de colocar los pesos en el platillo; especificado para el perfil FAST.

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## Accesorios

Soportes para frascos  
Escáner de códigos de barra  
Cables de corriente desde mechero de automóvil  
KIT para determinar la densidad  
Cable USB (Bacula a Impresora)  
Mesa de pesaje profesional

Pantallas  
Recipientes de pesaje  
Ionizadores  
Impresoras de recibos  
Salidas del bucle de corriente AP2-1  
RPANEL BOX



Soportes para filtros y probetas  
Puesto de calibración de pipetas  
Adaptadores de corriente  
Mesas antivibratil

Cables RS 232, RS 485  
Juego para el pesaje de las cargas bajo la balanza  
Cables RS 232 (Bascula a Impresora)  
Pasaje debajo del platillo

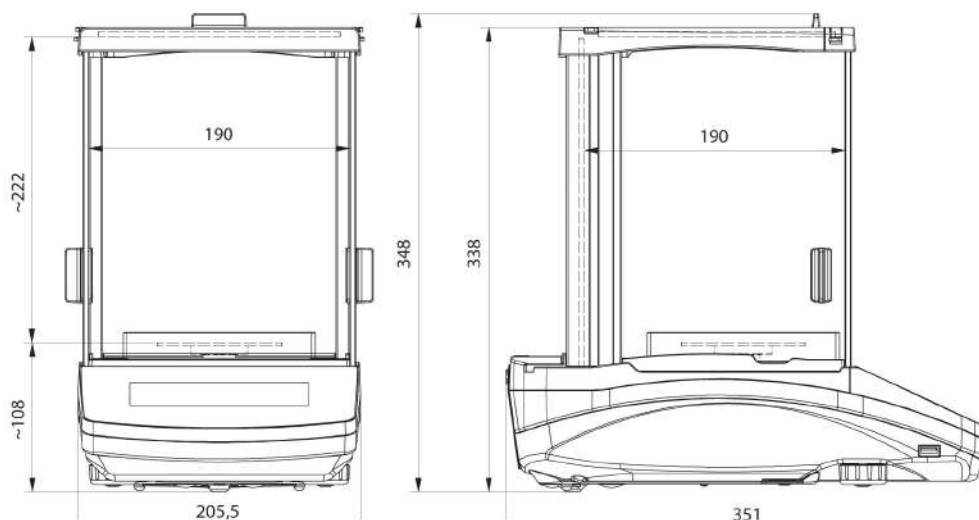
## Programas

RAD KEY  
R Panel  
R-LAB  
E2R System

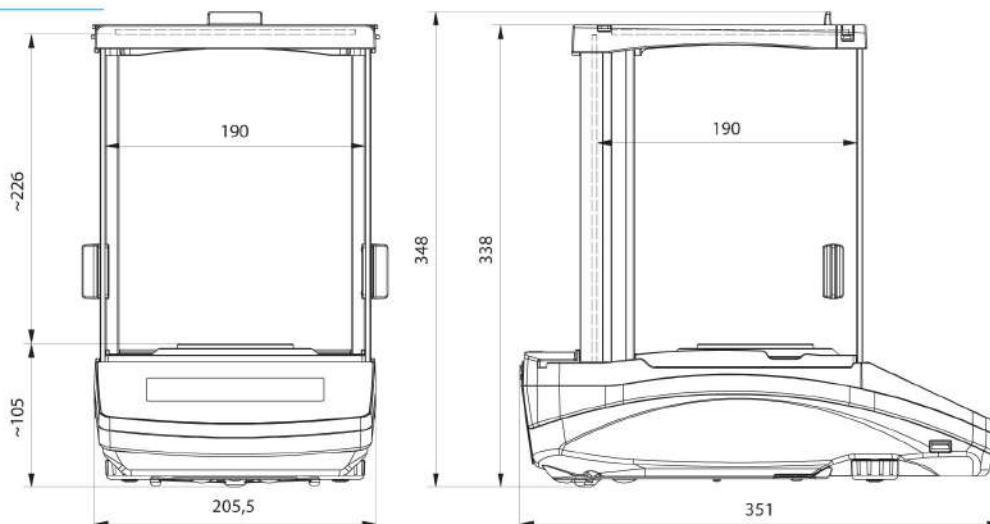
Controlador LabVIEW "Radwag Balances & Scales"  
Alibi Reader  
RADWAG Development Studio  
R.Barcode

## Dimensiones de aparato

Balanza analítica AS 220.R1 PLUS



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



Balanza analítica AS 310.R2 PLUS, Balanza analítica AS 60/220.R2 PLUS, Balanza analítica AS 220.R2 PLUS

More information on the website  
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Balanza analítica AS 310.R2 PLUS  
Balanza analítica AS 220.R2 PLUS



Balanza analítica AS 60/220.R2 PLUS

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## Funciones



Autotest



Dosing



Percent Weighing



Totalizing



Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

## Datos técnicos

	Balanza analítica AS 60/220.R2 PLUS	Balanza analítica AS 220.R2 PLUS	Balanza analítica AS 310.R2 PLUS
<b>Metrological parameters</b>			
Maxima capacidad	60 / 220 g	220 g	310 g
Minima capacidad	1 mg	10 mg	10 mg
Legibilidad [d]	0,01 / 0,1 mg	0,1 mg	0,1 mg
División de legalización [e]	1 mg	1 mg	1 mg
Rango de tara	-220 g	-220 g	-310 g
Repetibilidad estándar [5% Máx.]	0,012 mg	0,07 mg	0,08 mg
Repetibilidad estándar [Máx.]	0,08 mg	0,08 mg	0,12 mg
Porción mínima estándar (USP)	24 mg	140 mg	160 mg
Porción mínima estándar (U = 1%, k = 2)	2,4 mg	14 mg	16 mg
Repetibilidad permitida [5% Máx.]	0,02 mg	0,09 mg	0,12 mg
Repetibilidad permitida [Máx.]	0,1 mg	0,1 mg	0,15 mg
Linealidad	±0,05/0,2 mg	±0,2 mg	±0,2 mg
Tiempo de estabilización	2 s	2 s	2,5 s
Calibración	interna (automatica)	interna (automatica)	interna (automatica)
Clase OIML	I	I	I
<b>Physical parameters</b>			
Sistema de nivelación	manual	manual	manual
Pantalla	LCD (con retroiluminación)	LCD (con retroiluminación)	LCD (con retroiluminación)
Grado de protección	IP 43	IP 43	IP 43
Elementos del set	Balanza, platillo, protección del platillo, anillo de centrado, protección inferior, adaptador de CA, funda.	Balanza, platillo, protección del platillo, protección inferior, adaptador de CA.	Balanza, platillo, protección del platillo, protección inferior, adaptador de CA.
Dimensión de platillo	ø90 + ø85 (Opcional) mm	ø100 mm	ø100 mm
Dimensiones de embalaje	545x455x575 mm	495x400x515 mm	495x400x515 mm
Masa neta	7 kg	7,3 kg	7,3 kg
Masa bruta	11 kg	9,3 kg	9,3 kg
<b>Communication interface</b>			
Conectividad	2xRS232 <sup>1</sup> , 2xUSB-A (Intercambiable), USB-B, Wi-Fi (Opcional)	2xRS232 <sup>1</sup> , 2xUSB-A (Intercambiable), USB-B, Wi-Fi (Opcional)	2xRS232 <sup>1</sup> , 2xUSB-A (Intercambiable), USB-B, Wi-Fi (Opcional)
<b>Electrical parameters</b>			
Alimentación	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balanza: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balanza: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balanza: 12 – 15V DC 0,4A max
Consumo máximo de potencia	3 W	3 W	3 W
<b>Environmental conditions</b>			
Temperatura de trabajo	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C

La repetibilidad se expresa como una desviación estándar de 10 posiciones de carga. El tiempo de estabilización depende de las condiciones externas y la dinámica de colocar los pesos en el platillo; especificado para el perfil FAST. 1 Los lectores de códigos de barras disponibles como accesorio cooperan con la balanza utilizando solo la interfaz RS232.

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## Accesorios

Mesas antivibratil  
Soportes para frascos  
Escáner de códigos de barra  
Cables de corriente desde mechero de automóvil  
KIT para determinar la densidad  
Cable USB (Bascula a Impresora)  
Mesa de pesaje profesional  
Soportes para filtros y probetas  
Puesto de calibración de pipetas  
Adaptadores de corriente

Pantallas  
Protecciones de seguridad  
Recipientes de pesaje  
Ionizadores  
Impresoras de recibos  
RPANEL BOX  
Cables RS 232, RS 485  
Juego para el pesaje de las cargas bajo la balanza  
Cables RS 232 (Bascula a Impresora)  
Pasaje debajo del platillo

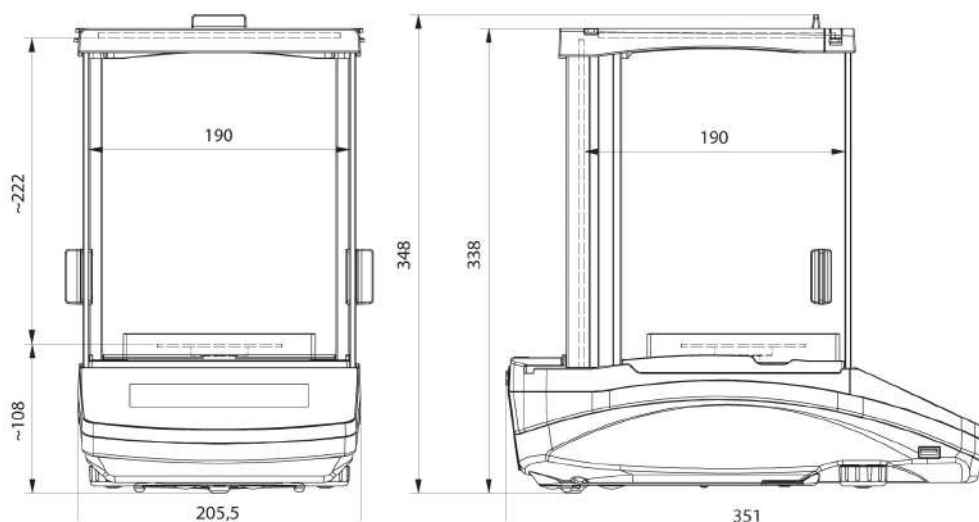
## Programas

RAD KEY  
R Panel  
R-LAB  
E2R System

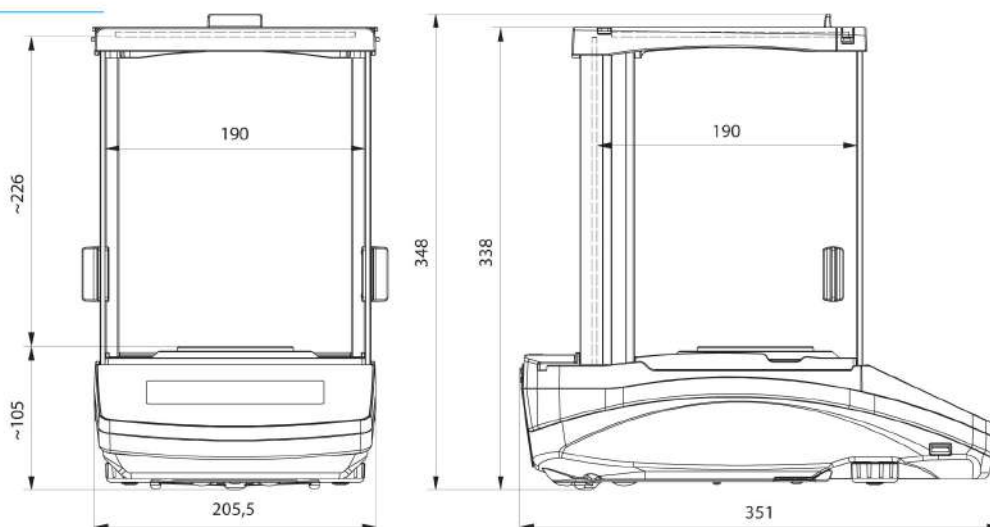
Controlador LabVIEW "Radwag Balances & Scales"  
Alibi Reader  
RADWAG Development Studio  
R.Barcode

## Dimensiones de aparato

Balanza analítica AS 310.R2 PLUS, Balanza analítica AS 60/220.R2 PLUS, Balanza analítica AS 220.R2 PLUS



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



Balance analytique AS 220.R1 PLUS

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Balance analytique AS 220.R1 PLUS

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## Fonctions



Autotest



Dosing



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Peak hold



Newton unit  
measurement



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Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

# Paramètres Techniques

	Balance analytique AS 220.R1 PLUS
<b>Metrological parameters</b>	
Capacité maximale [Max]	220 g
Capacité minimale [Min]	10 mg
Précision de lecture	0,1 mg
Étendue de tare	-220 g
Répétabilité standard [5% Max]	0,07 mg
Répétabilité standard [Max]	0,08 mg
Poids minimal d'échantillon standard (USP)	140 mg
Poids minimal d'échantillon standard (U=1%, k=2)	14 mg
Répétabilité admissible [5% Max]	0,09 mg
Répétabilité admissible [Max]	0,1 mg
Linéarité	±0,2 mg
Temps de stabilisation	2 s
Ajustage	externe
Classe de précision OIML	-
<b>Physical parameters</b>	
Système de nivellement	manuel
Afficheur	LCD (rétro-éclairé)
Degré de protection	IP 43
Élément du kit	Balance, plateau, couvercle de plateau, couvercle inférieur, power supply.
Dimension du plateau	ø100 mm
Dimensions de colis	490×400×520 mm
Masse nette	7,3 kg
Masse brute	9,3 kg
<b>Communication interface</b>	
Communication interface	2×RS232, 2×USB-A (interchangeable), USB-B, Wi-Fi (option)
<b>Electrical parameters</b>	
Alimentation	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max
<b>Environmental conditions</b>	
Température du travail	+10 ÷ +40 °C

Répétabilité exprimée comme un écart standardisé de 10 placements de chargé. Temps de stabilisation dépend de conditions externes et de la dynamique du placement d'un poids sur le plateau; déterminé pour le profil FAST.

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## Accessoires

Poignées pour ballons  
Lecteurs de code-barres  
Câbles d'alimentation de cigare-allume  
KIT pour déterminer la densité  
Câble USB (balance – imprimante)  
Table professionnel de balance

Afficheurs  
Cellules de pesée récipients  
Ioniseurs  
Imprimante de tickets de caisse  
Sorties de boucle de courant AP2-1  
RPANEL BOX

Poignées pour tubes à essai et filtres  
Poste pour calibrage de pipettes  
Alimentateurs  
Tables antivibratoires

Câbles RS 232, RS 485  
Châssis pour pesage sous balance  
Câbles RS 232 (balance – imprimante)  
Pesage sous la balance

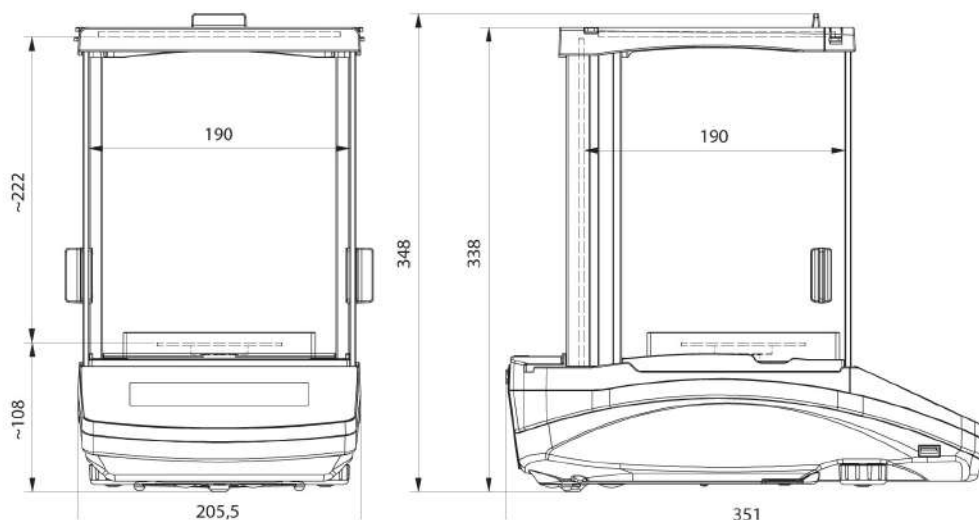
## Software

RAD KEY  
R Panel  
R-LAB  
E2R System

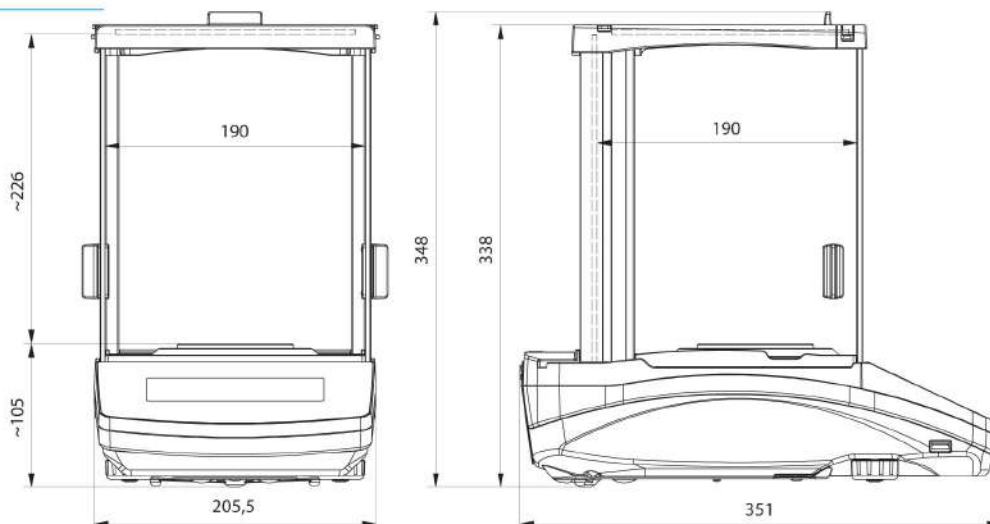
Pilote LabVIEW  
Alibi Reader  
RADWAG Studio du Développement  
R.Barcode

## Dimensions d'appareil

Balance analytique AS 220.R1 PLUS



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



Balance analytique AS 310.R2 PLUS, Balance analytique AS 60/220.R2 PLUS, Balance analytique AS 220.R2 PLUS

More information on the website  
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Balance analytique AS 310.R2 PLUS  
Balance analytique AS 220.R2 PLUS



Balance analytique AS 60/220.R2 PLUS

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## Fonctions



Autotest



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Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination



# Paramètres Techniques

	Balance analytique AS 60/220.R2 PLUS	Balance analytique AS 220.R2 PLUS	Balance analytique AS 310.R2 PLUS
<b>Metrological parameters</b>			
Capacité maximale [Max]	60 / 220 g	220 g	310 g
Capacité minimale [Min]	1 mg	10 mg	10 mg
Précision de lecture	0,01 / 0,1 mg	0,1 mg	0,1 mg
Échelon de légalisation [e]	1 mg	1 mg	1 mg
Étendue de tare	-220 g	-220 g	-310 g
Répétabilité standard [5% Max]	0,012 mg	0,07 mg	0,08 mg
Répétabilité standard [Max]	0,08 mg	0,08 mg	0,12 mg
Poids minimal d'échantillon standard (USP)	24 mg	140 mg	160 mg
Poids minimal d'échantillon standard (U=1%, k=2)	2,4 mg	14 mg	16 mg
Répétabilité admissible [5% Max]	0,02 mg	0,09 mg	0,12 mg
Répétabilité admissible [Max]	0,1 mg	0,1 mg	0,15 mg
Linéarité	±0,05/0,2 mg	±0,2 mg	±0,2 mg
Temps de stabilisation	2 s	2 s	2,5 s
Ajustage	interne (automatique)	interne (automatique)	interne (automatique)
Classe de précision OIML	I	I	I
<b>Physical parameters</b>			
Système de nivellement	manuel	manuel	manuel
Afficheur	LCD (rétro-éclairé)	LCD (rétro-éclairé)	LCD (rétro-éclairé)
Degré de protection	IP 43	IP 43	IP 43
Élément du kit	Balance, plateau, couvercle de plateau, bague de centrage, couvercle inférieur, power supply, housse.	Balance, plateau, couvercle de plateau, couvercle inférieur, power supply.	Balance, plateau, couvercle de plateau, couvercle inférieur, power supply.
Dimension du plateau	ø90 + ø85 (option) mm	ø100 mm	ø100 mm
Dimensions de colis	545×455×575 mm	495×400×515 mm	495×400×515 mm
Masse nette	7 kg	7,3 kg	7,3 kg
Masse brute	11 kg	9,3 kg	9,3 kg
<b>Communication interface</b>			
Communication interface	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)
<b>Electrical parameters</b>			
Alimentation	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max
Prise de courant maximale	3 W	3 W	3 W
<b>Environmental conditions</b>			
Température du travail	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C

Répétabilité exprimée comme un écart standardisé de 10 placements de chargé. Temps de stabilisation dépend de conditions externes et de la dynamique du placement d'un poids sur le plateau; déterminé pour le profil FAST 1 Les scanners de codes-barres disponibles en accessoire coopèrent avec la balance en utilisant uniquement l'interface RS232.

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



## Accessoires

Tables antivibratoires  
Poignées pour ballons  
Lecteurs de code-barres  
Câbles d'alimentation de cigare-allume  
KIT pour déterminer la densité  
Câble USB (balance – imprimante)  
Table professionnel de balance  
Poignées pour tubes à essai et filtres  
Poste pour calibrage de pipettes  
Alimentateurs

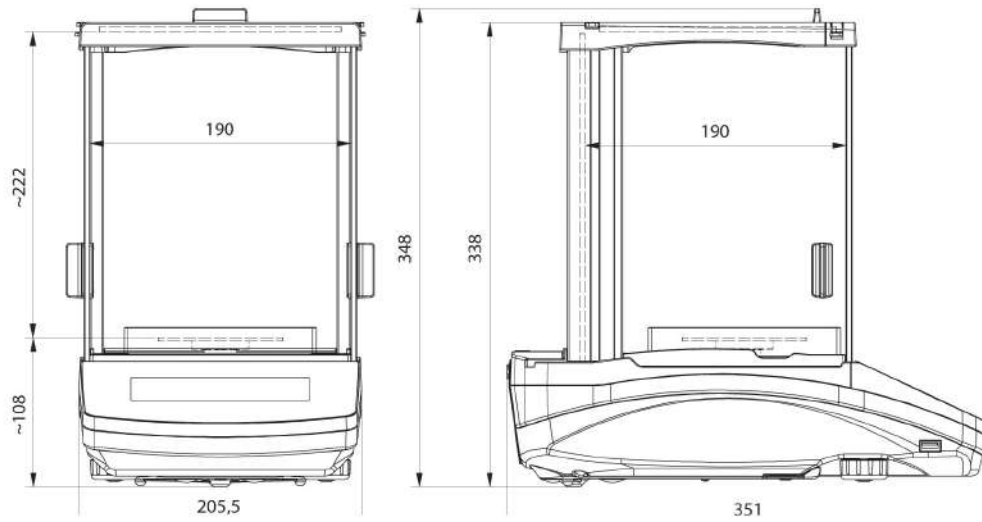
Afficheurs  
Écran de protection anti-poussière  
Cellules de pesée récipients  
Ioniseurs  
Imprimante de tickets de caisse  
RPANEL BOX  
Câbles RS 232, RS 485  
Châssis pour pesage sous balance  
Câbles RS 232 (balance – imprimante)  
Pesage sous la balance

## Software

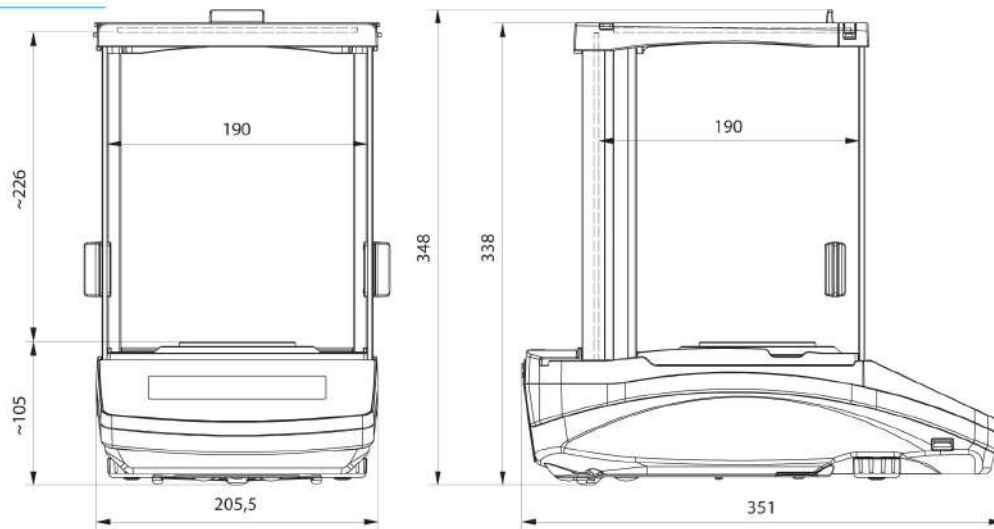
RAD KEY  
R Panel  
R-LAB  
E2R System

Pilote LabVIEW  
Alibi Reader  
RADWAG Studio du Développement  
R.Barcode

## Dimensions d'appareil



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



More information on the website  
[radwag.com/it/info,w1,LZY](http://radwag.com/it/info,w1,LZY)

## AS 220.R1 PLUS Bilancia analitica



AS 220.R1 PLUS Bilancia analitica

The drawings, photos and graphics used are for illustrative purposes only.

## funzioni



Autotest



Dosing



Percent Weighing



Totalizing



Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

# foglio di calcolo

	AS 220.R1 PLUS Bilancia analitica
<b>Metrological parameters</b>	
Capacità massima [Max]	220 g
pesata minima	10 mg
Divisione	0,1 mg
intervallo di tara	-220 g
Ripetibilità standard [5% massimo]	0,07 mg
Ripetibilità standard [Max]	0,08 mg
Peso standard minimo (USP)	140 mg
Peso standard minimo (U = 1%, k = 2)	14 mg
Ripetibilità consentita [5% massimo]	0,09 mg
Ripetibilità consentita [Max]	0,1 mg
linearità	±0,2 mg
tempo di stabilizzazione	2 s
Calibrazione	external
Classe OIML	-
<b>Physical parameters</b>	
Leveling system	manual
display	LCD (backlit)
punteggio IP	IP 43
Delivery components	Balance, weighing pan, weighing pan shield, bottom cover, power supply.
Dimensioni del piatto di pesata	ø100 mm
Packaging dimensions	490×400×520 mm
Peso netto	7,3 kg
Peso lordo	9,3 kg
<b>Communication interface</b>	
interfaccia	2×RS232, 2×USB-A (interchangeable), USB-B, Wi-Fi (option)
<b>Electrical parameters</b>	
Alimentatore	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max
<b>Environmental conditions</b>	
temperatura di lavoro	+10 ÷ +40 °C

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



## Accessori

supporti per beute da laboratorio  
lettore di codici a barre  
Cavo di alimentazione con spina per accendisigari  
KIT determinazione della densità  
cavo USB (connessione bilancia - stampanti)  
tavolo di pesata professionale  
supporti per provette e filtri  
stazione di lavoro per calibrazione pipette  
Alimentatore

Display  
Weighing dishes  
ionizzatore anti statico  
Stampanti di ricevuata  
AP2-1 Power loop output  
RPANEL BOX  
Cavo seriale RS 232, RS 485  
Under-Pan Weighing Rack  
Cavo seriale RS 232 (connessione bilancia - Stampanti)

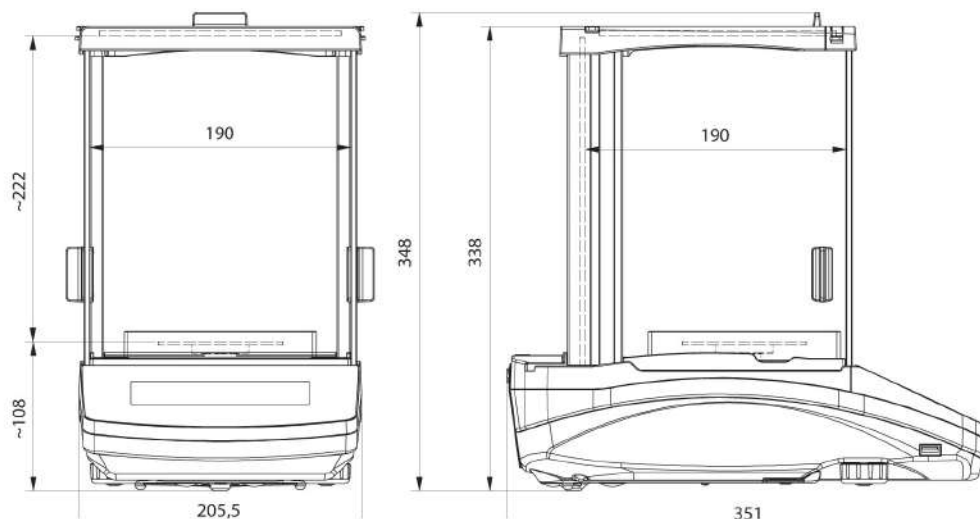
## software

RAD-KEY  
R Panel  
R-LAB  
Sistema E2R

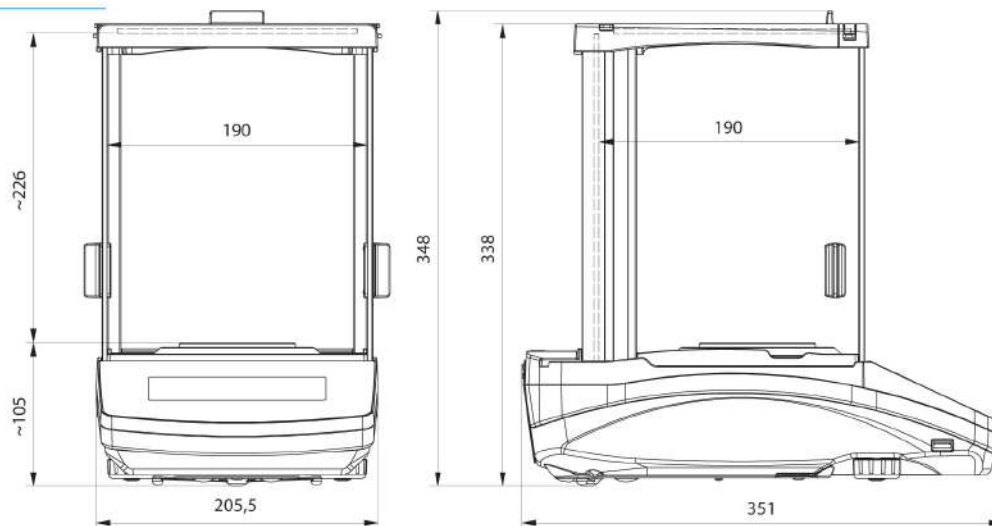
Driver LabVIEW  
Lettore memoria ALIBI  
Studio di sviluppo RADWAG  
Codice a barre R

## Device dimensions

AS 220.R1 PLUS Bilancia analitica



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



AS 310.R2 PLUS Bilancia analitica, AS 60/220.R2 PLUS Bilancia analitica, AS 220.R2 PLUS Bilancia analitica

More information on the website  
[radwag.com/it/info,w1,NQ5](http://radwag.com/it/info,w1,NQ5)



AS 310.R2 PLUS Bilancia analitica  
AS 220.R2 PLUS Bilancia analitica



AS 60/220.R2 PLUS Bilancia analitica

The drawings, photos and graphics used are for illustrative purposes only.

## funzioni



Autotest



Dosing



Percent Weighing



Totalizing



Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

# foglio di calcolo

	AS 60/220.R2 PLUS Bilancia analitica	AS 220.R2 PLUS Bilancia analitica	AS 310.R2 PLUS Bilancia analitica
<b>Metrological parameters</b>			
Capacità massima [Max]	60 / 220 g	220 g	310 g
pesata minima	1 mg	10 mg	10 mg
Divisione	0,01 / 0,1 mg	0,1 mg	0,1 mg
Intervallo di verifica della bilancia [e]	1 mg	1 mg	1 mg
intervallo di tara	-220 g	-220 g	-310 g
Ripetibilità standard [5% massimo]	0,012 mg	0,07 mg	0,08 mg
Ripetibilità standard [Max]	0,08 mg	0,08 mg	0,12 mg
Peso standard minimo (USP)	24 mg	140 mg	160 mg
Peso standard minimo (U = 1%, k = 2)	2,4 mg	14 mg	16 mg
Ripetibilità consentita [5% massimo]	0,02 mg	0,09 mg	0,12 mg
Ripetibilità consentita [Max]	0,1 mg	0,1 mg	0,15 mg
linearità	±0,05/0,2 mg	±0,2 mg	±0,2 mg
tempo di stabilizzazione	2 s	2 s	2,5 s
Calibrazione	internal (automatic)	internal (automatic)	internal (automatic)
Classe OIML	I	I	I
<b>Physical parameters</b>			
Leveling system	manual	manual	manual
display	LCD (backlit)	LCD (backlit)	LCD (backlit)
punteggio IP	IP 43	IP 43	IP 43
Delivery components	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply, fabric dust cover.	Balance, weighing pan, weighing pan shield, bottom cover, power supply.	Balance, weighing pan, weighing pan shield, bottom cover, power supply.
Dimensioni del piatto di pesata	ø90 + ø85 (option) mm	ø100 mm	ø100 mm
Packaging dimensions	545×455×575 mm	495×400×515 mm	495×400×515 mm
Peso netto	7 kg	7,3 kg	7,3 kg
Peso lordo	11 kg	9,3 kg	9,3 kg
<b>Communication interface</b>			
interfaccia	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)	2×RS232 <sup>1</sup> , 2×USB-A (interchangeable), USB-B, Wi-Fi (option)
<b>Electrical parameters</b>			
Alimentatore	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,4A max
Massimo assorbimento elettrico	3 W	3 W	3 W
<b>Environmental conditions</b>			
temperatura di lavoro	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C

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





## Accessori

tavoli antivibranti  
supporti per beute da laboratorio  
lettore di codici a barre  
Cavo di alimentazione con spina per accendisigari  
KIT determinazione della densità  
cavo USB (connessione bilance - stampanti)  
tavolo di pesata professionale  
supporti per provette e filtri  
stazione di lavoro per calibrazione pipette  
Alimentatore

Display  
capottina protettiva per bilance  
Weighing dishes  
ionizzatore anti statico  
Stampanti di ricevuta  
RPANEL BOX  
Cavo seriale RS 232, RS 485  
Under-Pan Weighing Rack  
Cavo seriale RS 232 (connessione bilance - Stampanti)  
Under-pan weighing

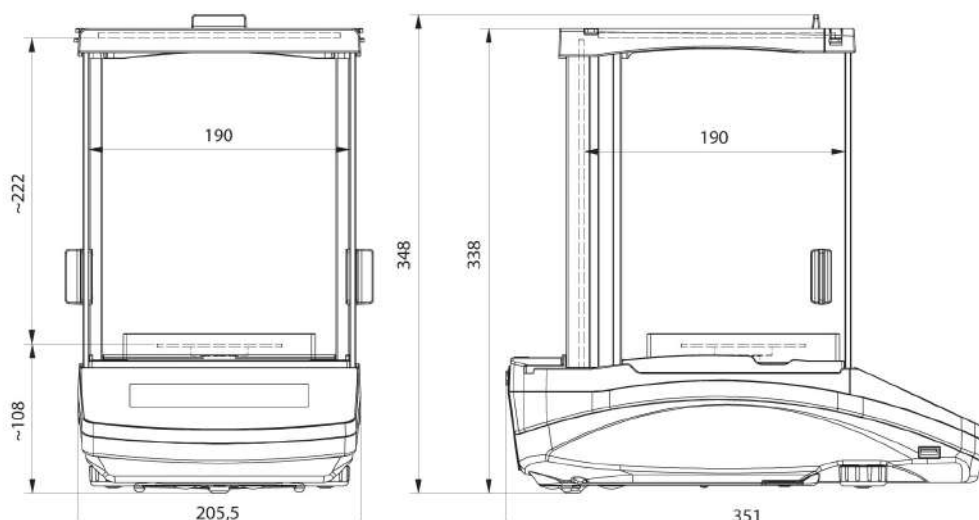
## software

RAD-KEY  
R Panel  
R-LAB  
Sistema E2R

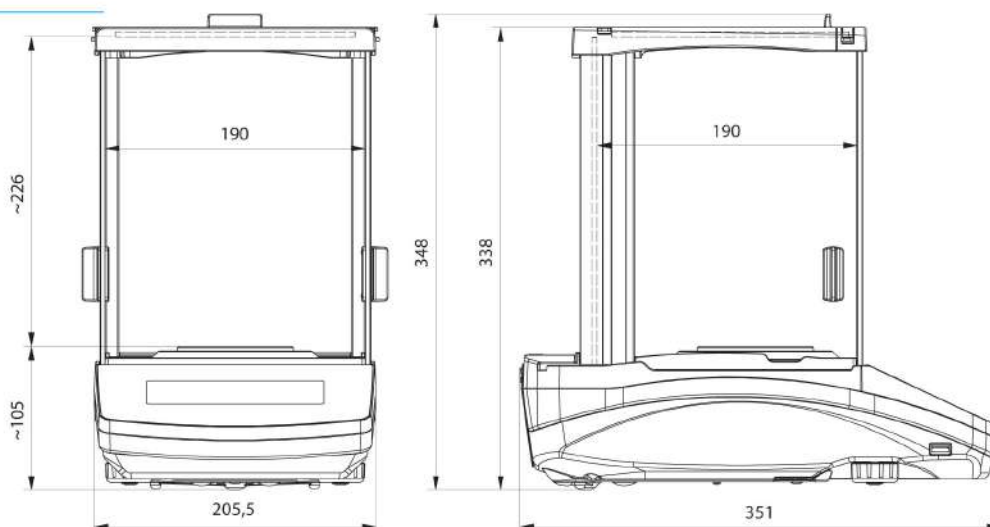
Driver LabVIEW  
Lettore memoria ALIBI  
Studio di sviluppo RADWAG  
Codice a barre R

## Device dimensions

AS 310.R2 PLUS Bilancia analitica, AS 60/220.R2 PLUS Bilancia analitica, AS 220.R2 PLUS Bilancia analitica



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



## Analysenwaage AS 220.R1 PLUS

More information on the website  
[radwag.com/de/info,w1,LZY](http://radwag.com/de/info,w1,LZY)



Analysenwaage AS 220.R1 PLUS

The drawings, photos and graphics used are for illustrative purposes only.

## Funktionen



Autotest



Dosing



Percent Weighing



Totalizing



Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

# Technische Daten

	Analysenwaage AS 220.R1 PLUS
<b>Messtechnische Parameter</b>	
Wägebereich [Max]	220 g
Min. Belastung	10 mg
Ziffernschritt [d]	0,1 mg
Tarierbereich	-220 g
Standard Wiederholbarkeit [5% Max]	0,07 mg
Standard Wiederholbarkeit [Max]	0,08 mg
Min. Einwaage (USP)	140 mg
Min. Einwaage (U=1%, k=2)	14 mg
Garantierte Wiederholbarkeit [5%]	0,09 mg
Garantierte Wiederholbarkeit [Max]	0,1 mg
Linearität	±0,2 mg
Stabilisierungszeit	2 s
Justierung	extern
OIML-Klasse	-
<b>Physikalische Parameter</b>	
Nivellierungssystem	manual
Display	LCD (hinterleuchtet)
Schutzart	IP 43
Komponenten der Lieferung	Waage, Waagschale, Waagschalenabdeckung, Bodenabdeckung, Netzteil.
Waagschale	ø100 mm
Verpackungsgröße	490×400×520 mm
Nettogewicht	7,3 kg
Bruttogewicht	9,3 kg
<b>Kommunikationsschnittstelle</b>	
Schnittstelle	2×RS232, 2×USB-A (Zugangsport vorne und hinten), USB-B, Wi-Fi (optional)
<b>Elektrische Parameter</b>	
Stromversorgung	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Waage: 12 – 15V DC 0,4A max
<b>Umgebungsbedingungen</b>	
Umgebungstemperatur	+10 ÷ +40 °C

Wiederholbarkeit wird als Standardabweichung von 10 Wägezyklen ausgedrückt. Die Stabilisierungszeit ist abhängig von den Umgebungsbedingungen und der Geschwindigkeit bei Auflegen der Last auf der Waagschale; für FAST-Profil definiert.

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



## Zubehör

Halterungen für Kolben  
Barcodescanner  
Anschlusskabel für Zigarettenanzünder  
Dichtebestimmungsset  
USB-Kabel (Waage – Drucker)  
Professioneller Wägetisch

Displays  
Weighing dishes  
Ionisatoren  
Thermische Drucker  
Ausgang der Stromschnittstelle AP2-1  
RPANEL BOX

Halter für Reagenzgläser und Filter  
Arbeitsplatz für Pipettenkalibrierung  
Netzteile  
Antivibrationstische

Kabel RS 232, RS 485  
Gestell für Unterflurwägen  
Kabel RS 232 (Waage – Drucker)  
Unterflurwägung

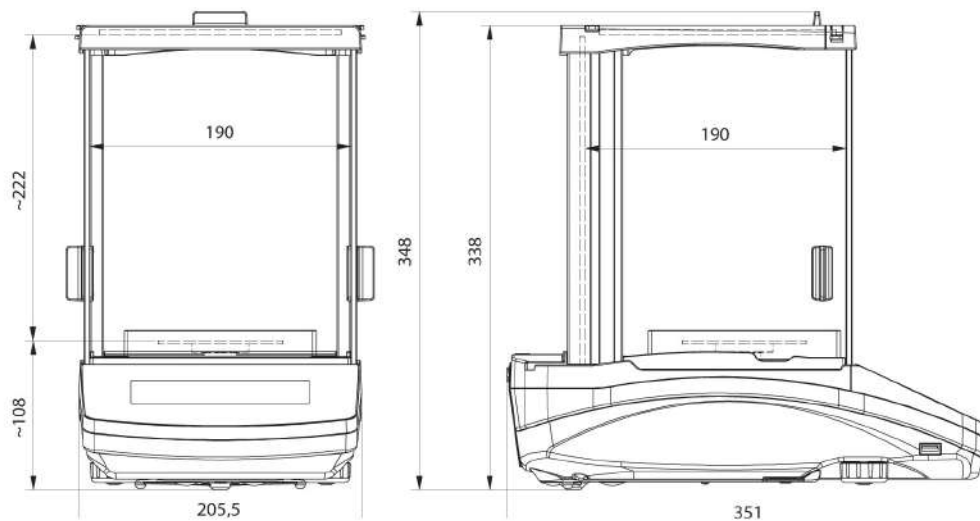
## Software

RAD KEY  
R Panel  
R-LAB  
E2R System

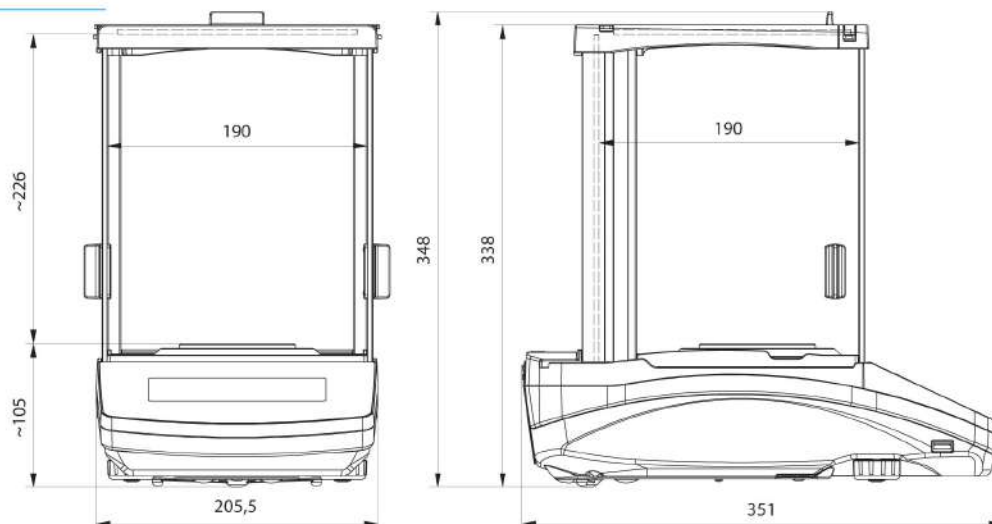
LabVIEW Driver  
Alibi Reader  
RADWAG Development Studio  
R.Barcode

## Abmessungen des Geräts

Analysenwaage AS 220.R1 PLUS



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg



Analysenwaage AS 310.R2 PLUS, Analysenwaage AS 60/220.R2 PLUS, Analysenwaage AS 220.R2 PLUS

More information on the website  
[radwag.com/de/info,w1,NQ5](http://radwag.com/de/info,w1,NQ5)



Analysenwaage AS 310.R2 PLUS  
Analysenwaage AS 220.R2 PLUS



Analysenwaage AS 60/220.R2 PLUS

The drawings, photos and graphics used are for illustrative purposes only.

## Funktionen



Autotest



Dosing



Percent Weighing



Totalizing



Parts counting



Peak hold



Newton unit  
measurement



Statistics



Checkweighing



Under-pan weighing



GLP Procedures



Animal weighing



Density determination

# Technische Daten

	Analysenwaage AS 60/220.R2 PLUS	Analysenwaage AS 220.R2 PLUS	Analysenwaage AS 310.R2 PLUS
<b>Messtechnische Parameter</b>			
<b>Wägebereich [Max]</b>	60 / 220 g	220 g	310 g
<b>Min. Belastung</b>	1 mg	10 mg	10 mg
<b>Zifferschnitt [d]</b>	0,01 / 0,1 mg	0,1 mg	0,1 mg
<b>Eichwert [e]</b>	1 mg	1 mg	1 mg
<b>Tarierbereich</b>	-220 g	-220 g	-310 g
<b>Standard Wiederholbarkeit [5% Max]</b>	0,012 mg	0,07 mg	0,08 mg
<b>Standard Wiederholbarkeit [Max]</b>	0,08 mg	0,08 mg	0,12 mg
<b>Min. Einwaage (USP)</b>	24 mg	140 mg	160 mg
<b>Min. Einwaage (U=1%, k=2)</b>	2,4 mg	14 mg	16 mg
<b>Garantierte Wiederholbarkeit [5%]</b>	0,02 mg	0,09 mg	0,12 mg
<b>Garantierte Wiederholbarkeit [Max]</b>	0,1 mg	0,1 mg	0,15 mg
<b>Linearität</b>	±0,05/0,2 mg	±0,2 mg	±0,2 mg
<b>Stabilisierungszeit</b>	2 s	2 s	2,5 s
<b>Justierung</b>	intern (automatisch)	intern (automatisch)	intern (automatisch)
<b>OIML-Klasse</b>	I	I	I
<b>Physikalische Parameter</b>			
<b>Nivellierungssystem</b>	manual	manual	manual
<b>Display</b>	LCD (hinterleuchtet)	LCD (hinterleuchtet)	LCD (hinterleuchtet)
<b>Schutzart</b>	IP 43	IP 43	IP 43
<b>Komponenten der Lieferung</b>	Waage, Waagschale, Waagschalenabdeckung, Zentrierung, Bodenabdeckung, Netzteil, Stoffabdeckung.	Waage, Waagschale, Waagschalenabdeckung, Bodenabdeckung, Netzteil.	Waage, Waagschale, Waagschalenabdeckung, Bodenabdeckung, Netzteil.
<b>Waagschale</b>	ø90 + ø85 (optional) mm	ø100 mm	ø100 mm
<b>Verpackungsgröße</b>	545×455×575 mm	495×400×515 mm	495×400×515 mm
<b>Nettogewicht</b>	7 kg	7,3 kg	7,3 kg
<b>Bruttogewicht</b>	11 kg	9,3 kg	9,3 kg
<b>Kommunikationsschnittstelle</b>			
<b>Schnittstelle</b>	2×RS232 <sup>1</sup> , 2×USB-A (Zugangsport vorne und hinten), USB-B, Wi-Fi (optional)	2×RS232 <sup>1</sup> , 2×USB-A (Zugangsport vorne und hinten), USB-B, Wi-Fi (optional)	2×RS232 <sup>1</sup> , 2×USB-A (Zugangsport vorne und hinten), USB-B, Wi-Fi (optional)
<b>Elektrische Parameter</b>			
<b>Stromversorgung</b>	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Waage: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Waage: 12 – 15V DC 0,4A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Waage: 12 – 15V DC 0,4A max
<b>Maximaler Leistungsaufnahme</b>	3 W	3 W	3 W
<b>Umgebungsbedingungen</b>			
<b>Umgebungstemperatur</b>	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C

Wiederholbarkeit wird als Standardabweichung von 10 Wägezyklen ausgedrückt. Die Stabilisierungszeit ist abhängig von den Umgebungsbedingungen und der Geschwindigkeit bei Auflegen der Last auf der Waagschale; für FAST-Profil definiert. 1 Barcode scanners, available as weighing instrument accessory, communicate with the instrument via RS232 interface exclusively.

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



# Zubehör

Antivibrationstische  
Halterungen für Kolben  
Barcodescanner  
Anschlusskabel für Zigarettenanzünder  
Dichtebestimmungsset  
USB-Kabel (Waage – Drucker)  
Professioneller Wägetisch  
Halter für Reagenzgläser und Filter  
Arbeitsplatz für Pipettenkalibrierung  
Netzteile

Displays  
Schutzhauben  
Weighing dishes  
Ionisatoren  
Thermische Drucker  
RPANEL BOX  
Kabel RS 232, RS 485  
Gestell für Unterflurwägen  
Kabel RS 232 (Waage – Drucker)  
Unterflurwägung

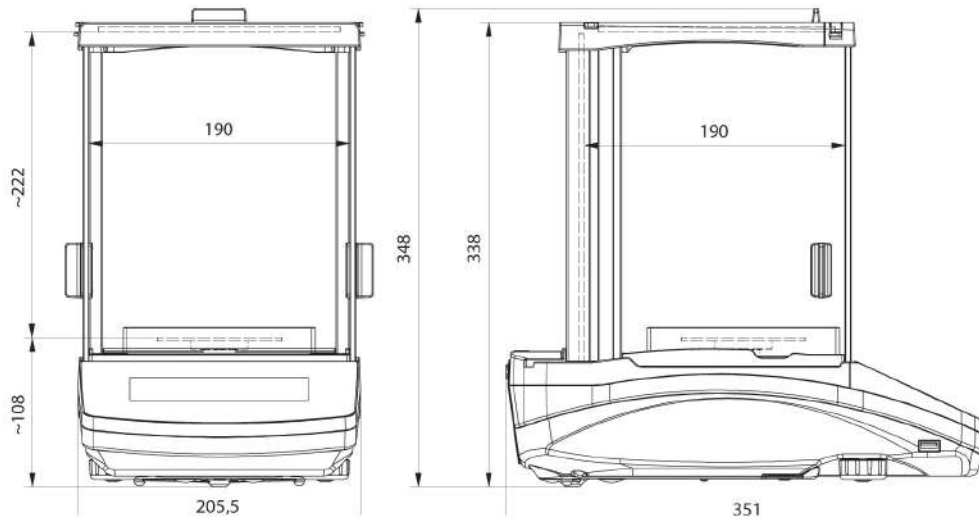
# Software

RAD KEY  
R Panel  
R-LAB  
E2R System

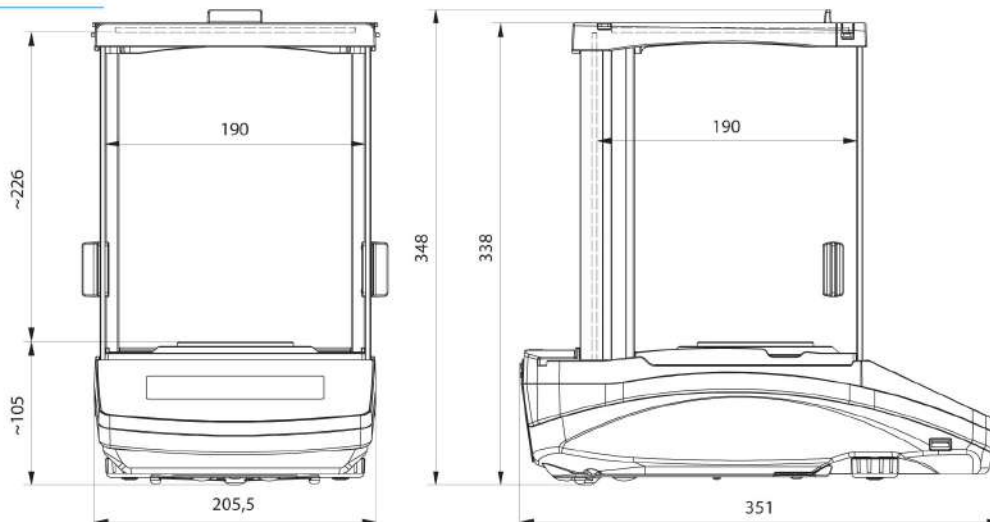
LabVIEW Driver  
Alibi Reader  
RADWAG Development Studio  
R.Barcode

# Abmessungen des Geräts

Analysenwaage AS 310.R2 PLUS, Analysenwaage AS 60/220.R2 PLUS, Analysenwaage AS 220.R2 PLUS



AS R2, d = 0.01 mg



AS R2, AS R1 d = 0.1 mg