



Entris[®]

Benefits

- Monolithic weigh cell for long-term high accuracy
- Built-in applications and function keys for convenient operation
- Backlit, high-contrast display for user-friendly guidance



Product Information

Get the reliability and quality of a Sartorius balance, but only pay for the features you really need.

Entris[®] has been specially designed to deliver effective and reliable weighing results in your daily work. The easy and clearly structured user interface, the logical key assignment and excellent readability are ideal features for error-free operation.

Technical Specifications

Specifications

Int. weight circuit calibration	All models with the designation ENTRIS...i-1xx are equipped with an internal weight
Mains connection, voltage, frequency	via desktop power supply, 100–240 V AC, $\pm 10\%$, 50 – 60 Hz
Power consumption	maximum 16 VA; average 8 VA (including power supply)
Operating time with external battery YRB11Z (display backlighting on)	approx. 35 h

Standard Equipment

Levelling	Glass level indicator with air bubble for centering
Calibration	External calibration
Selectable weight units ¹⁾	Grams, Kilograms, Carats, Pounds, Ounces, Troy ounces, Hong Kong taels, Singapore taels, Taiwan taels, Grains, Pennyweights, Milligrams, Parts per pound, China taels, Mommies, Austrian carats, Tola, Baht, Mesghal, Tons, Pounds: ounces, Newton
Interface	RS232C 25-pin
Display	White backlit, high-contrast display with 15 mm digits
Standard built-in applications	Weighing, Density, Percentage, Counting, Animal Weighing, Conversion
Languages	English, French, German, Italian, Polish, Russian, Spanish
Anti-theft lock	Lockdown capability for cable or chain
Underfloor weighing	Integrated

Ambient Conditions

The specifications apply when the following ambient conditions are in place:

Environment	for indoor use only
Ambient temperature*	+10° C ... +30° C (+50° F ... +86° F)
Operational capacity	guaranteed between +5° C ... +40° C (+41° F ... +104° F)
Storage and shipping	-10° C ... +60° C (+14° F ... +140° F)
Elevation	up to 3000 m above sea level
Relative humidity	15% to 80% for temperatures up to 31 °C; non-condensing, decreasing linearly to 50% relative humidity at 40 °C and 20% at 50 °C

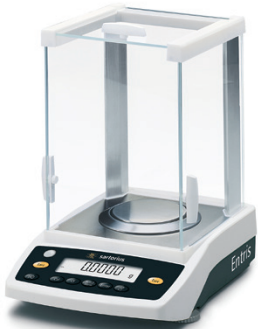
Safety of electrical equipment	in accordance with EN 61010-1/IEC 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements
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Electromagnetic compatibility	in accordance with EN 61326-1/IEC 61326-1 Electrical equipment for measurement, control, and laboratory use – EMC requirements - Part 1: General requirements
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Defined immunity to interference	Suitable for use in industrial areas
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Interference emission	Class B (suitable for use in residential areas and areas that are connected to a low voltage network that also supplies residential buildings). The device can therefore be used in both areas.
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¹⁾ Depending on country-specific model



Design 1



Design 2



Design 3



Design 4

Analytical Balances Entris®

Model		ENTRIS224i-1x ¹⁾	ENTRIS124i-1x ¹⁾	ENTRIS64i-1x ¹⁾
Design		1	1	1
Weighing capacity	g	220	120	60
Readability	mg	0.1	0.1	0.1
Repeatability (standard deviation)	mg	0.1	0.1	0.1
Linearity deviation	mg	0.2	0.2	0.2
Sensitivity drift between +10 °C and +30 °C	± ppm/K	3	3	3
Typical stabilization time	s	2.5	2.5	2.5
Weighing pan size	mm	Ø 90	Ø 90	Ø 90
Weighing chamber height*	mm	230	230	230
Net weight, approx.	kg	4.8	4.8	4.8
Calibration		Internal	Internal	Internal

Precision Balances Entris®

Model		ENTRIS 623i-1x ¹⁾	ENTRIS 423i-1x ¹⁾	ENTRIS 323i-1x ¹⁾	ENTRIS 153i-1x ¹⁾	ENTRIS 6202i-1x ¹⁾	ENTRIS 4202i-1x ¹⁾	ENTRIS 3202i-1x ¹⁾	ENTRIS 2202i-1x ¹⁾
Design		2	2	2	2	4	4	4	4
Weighing capacity	g	620	420	320	150	6,200	4,200	3,200	2,200
Readability	mg	1	1	1	1	10	10	10	10
Repeatability (standard deviation)	mg	1	1	1	1	10	10	10	10
Linearity deviation	mg	2	2	2	2	30	30	30	30
Sensitivity drift between +10 °C and +30 °C	± ppm/K	3	3	3	3	4	4	4	4
Typical stabilization time	s	1.0	1.0	1.1	1.3	1.5	1.5	1.5	1.5
Weighing pan size	mm	Ø 115	Ø 115	Ø 115	Ø 115	180 × 180	180 × 180	180 × 180	180 × 180
Weighing chamber height*	mm	50	50	50	50	–	–	–	–
Net weight, approx.	kg	3.6	3.6	3.6	3.0	3.5	3.5	3.5	3.5
Calibration		Internal	Internal	Internal	Internal	Internal	Internal	Internal	Internal

Model		ENTRIS822i-1x ¹⁾	ENTRIS8201i-1x ¹⁾	ENTRIS5201i-1x ¹⁾	ENTRIS2201i-1x ¹⁾
Design		3	4	4	4
Weighing capacity	g	820	8,200	5,200	2,200
Readability	mg	10	100	100	100
Repeatability (standard deviation)	mg	10	100	100	100
Linearity deviation	mg	30	300	300	300
Sensitivity drift between +10 °C and +30 °C	± ppm/K	4	8	8	8
Typical stabilization time	s	1.5	1.5	1.5	1.5
Weighing pan size	mm	Ø 150	180 × 180	180 × 180	180 × 180
Net weight, approx.	kg	2.6	3.5	3.5	3.5
Calibration		Internal	Internal	Internal	Internal

* Upper edge of the weighing pan to the lower edge of the upper draft shield panel

¹⁾ Possible terms for country-specific models:
 x = S: Standard balances without country-specific additions
 x = SUS: Standard balances with country-specific additions for USA

Analytical Balances Entris®

Model		ENTRIS224-1x ¹⁾	ENTRIS124-1x ¹⁾	ENTRIS64-1x ¹⁾
Design		1	1	1
Weighing capacity	g	220	120	60
Readability	mg	0.1	0.1	0.1
Repeatability (standard deviation)	mg	0.1	0.1	0.1
Linearity deviation	mg	0.2	0.2	0.2
Sensitivity drift between +10 °C and +30 °C	± ppm/K	3	3	3
Typical stabilization time	s	2.5	2.5	2.5
Weighing pan size	mm	∅ 90	∅ 90	∅ 90
Weighing chamber height*	mm	230	230	230
Net weight, approx.	kg	4.4	4.4	4.4
Calibration		External	External	External

Precision Balances Entris®

Model		ENTRIS 623-1x ¹⁾	ENTRIS 423-1x ¹⁾	ENTRIS 323-1x ¹⁾	ENTRIS 153-1x ¹⁾	ENTRIS 6202-1x ¹⁾	ENTRIS 4202-1x ¹⁾	ENTRIS 3202-1x ¹⁾	ENTRIS 2202-1x ¹⁾
Design		2	2	2	2	4	4	4	4
Weighing capacity	g	620	420	320	150	6,200	4,200	3,200	2,200
Readability	mg	1	1	1	1	10	10	10	10
Repeatability (standard deviation)	mg	1	1	1	1	10	10	10	10
Linearity deviation	mg	2	2	2	2	30	30	30	30
Sensitivity drift between +10 °C and +30 °C	± ppm/K	3	3	3	3	4	4	4	4
Typical stabilization time	s	1.0	1.0	1.1	1.3	1.5	1.5	1.5	1.5
Weighing pan size	mm	∅ 115	∅ 115	∅ 115	∅ 115	180 × 180	180 × 180	180 × 180	180 × 180
Weighing chamber height*	mm	50	50	50	50	–	–	–	–
Net weight, approx.	kg	3.2	3.2	3.2	2.6	3.1	3.1	3.1	3.1
Calibration		External	External	External	External	External	External	External	External

Model		ENTRIS822-1x ¹⁾	ENTRIS8201-1x ¹⁾	ENTRIS5201-1x ¹⁾	ENTRIS2201-1x ¹⁾
Design		3	4	4	4
Weighing capacity	g	820	8,200	5,200	2,200
Readability	mg	10	100	100	100
Repeatability (standard deviation)	mg	10	100	100	100
Linearity deviation	mg	30	300	300	300
Sensitivity drift between +10 °C and +30 °C	± ppm/K	4	8	8	8
Typical stabilization time	s	1.5	1.5	1.5	1.5
Weighing pan size	mm	∅ 150	180 × 180	180 × 180	180 × 180
Net weight, approx.	kg	2.0	2.7	2.7	2.7
Calibration		External	External	External	External

* Upper edge of the weighing pan to the lower edge of the upper draft shield panel

¹⁾ Possible terms for country-specific models:

x = S: Standard balances without country-specific additions

x = SUS: Standard balances with country-specific additions for USA

Optional Accessories

Printer	
Data printer	YDP20-OCE
Paper rolls, 5 units, each with 40 m	6906937
Ink ribbon cassette	6906918
Data Cable	
RS232 25pin male USB-cable type A, length approx. 1.8 m	YCC01-USBM2
RS232 25pin male 25pin female, length approx. 1.5 m	7357312
RS232 25pin male 9pin female, length approx. 2.0 m	7357314
RS232 25pin male 9pin female, length approx. 0.5 m	6965619
Density Determination	
Density determination kit for balances with a readability of 0.1 mg	YDK03
In-use Dust Cover	
for models with a rectangular weighing pan	6960ED01
for models with a round weighing pan (∅ 150 mm)	6960ED02
Dust Cover	
for models with a readability of 0.1 mg	6960BP08
Weighing Table	
made of wood with stone plate	YWT09
made of stone, with vibration dampening	YWT03
Console	
Wall mounting console	YWT04
General	
Remote display, reflective (for connection to data interface port)	YRD03Z
External rechargeable battery pack	YRB11Z
Ionizing blower for eliminating static electricity	
– 220 – 240 V AC	YIB01-ODR
– 110 – 120 V AC	YIB01-OUR
Stat-Pen anti-static device for eliminating electrostatic charges on samples and containers (100 – 240 V AC, 50 60 Hz)	YSTP01

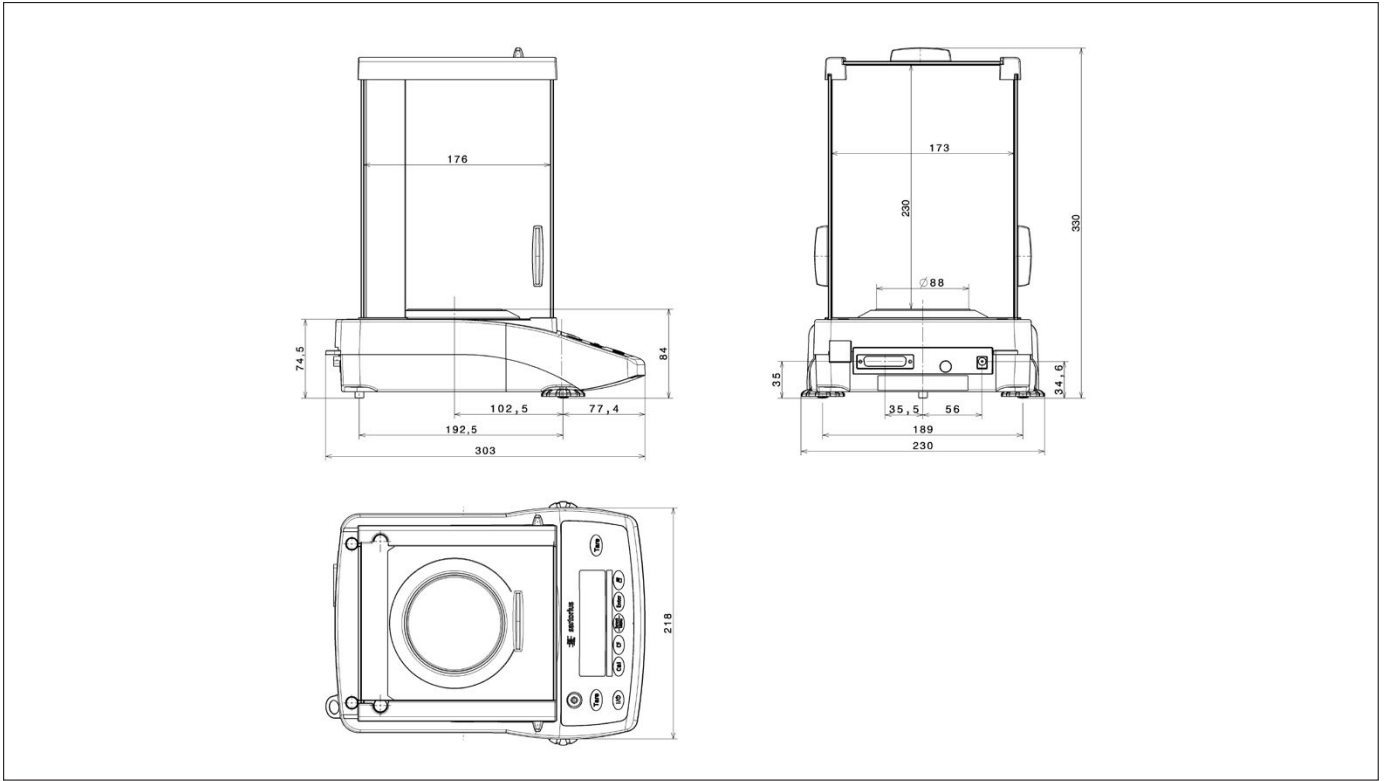
Calibration Weights	
Calibration for lab balance model 224 – Proof Line knob weight 200 g, OIML class E2, with DAkkS certificate	YCW522-AC-02
Calibration for lab balance model 124 – Proof Line knob weight 100 g, OIML class E2, with DAkkS certificate	YCW512-AC-02
Calibration for lab balance model 64 – Proof Line knob weight 50 g, OIML class E2, with DAkkS certificate	YCW452-AC-02
Calibration for lab balance model 623 – Proof Line knob weight 500 g, OIML class F1, with DAkkS certificate	YCW553-AC-02
Calibration for lab balance model 423; 323 – Proof Line knob weight 200 g, OIML class F1, with DAkkS certificate	YCW523-AC-02
Calibration for lab balance model 153 – Proof Line knob weight 100 g, OIML class F1, with DAkkS certificate	YCW513-AC-02
Calibration for lab balance model 6202 – Proof Line knob weight 5 kg, OIML class F1, with DAkkS certificate	YCW653-AC-02
Calibration for lab balance model 4202; 3202; 2202 – Proof Line knob weight 2 kg, OIML class F1, with DAkkS certificate	YCW623-AC-02
Calibration for lab balance model 822 – Proof Line knob weight 500 g, OIML class F2, with DAkkS certificate	YCW554-AC-02
Calibration for lab balance model 8201; 5201 – Proof Line knob weight 5 kg, OIML class F2, with DAkkS certificate	YCW654-AC-02
Calibration for lab balance model 2201 – Proof Line knob weight 2 kg, OIML class F2, with DAkkS certificate	YCW624-AC-02



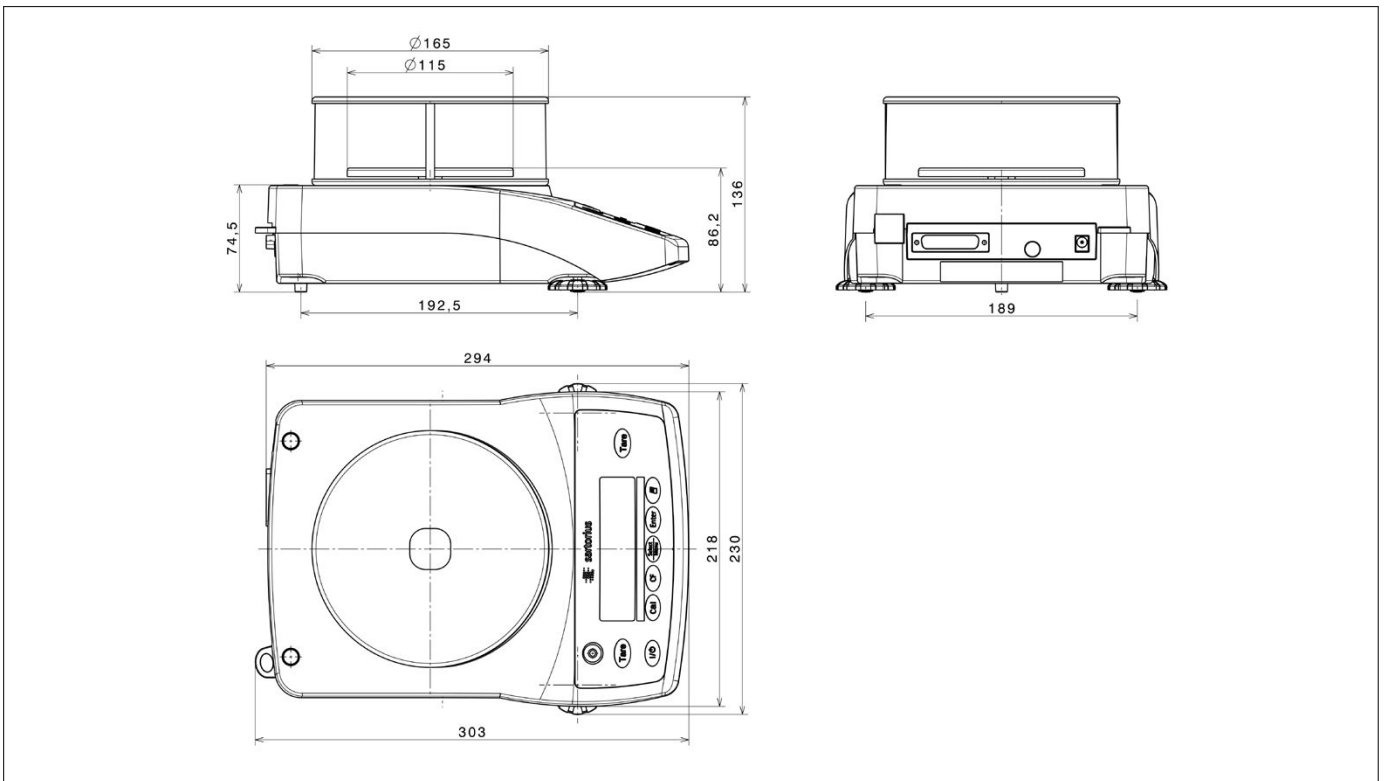
YDP20-OCE, Data printer

Technical Drawings

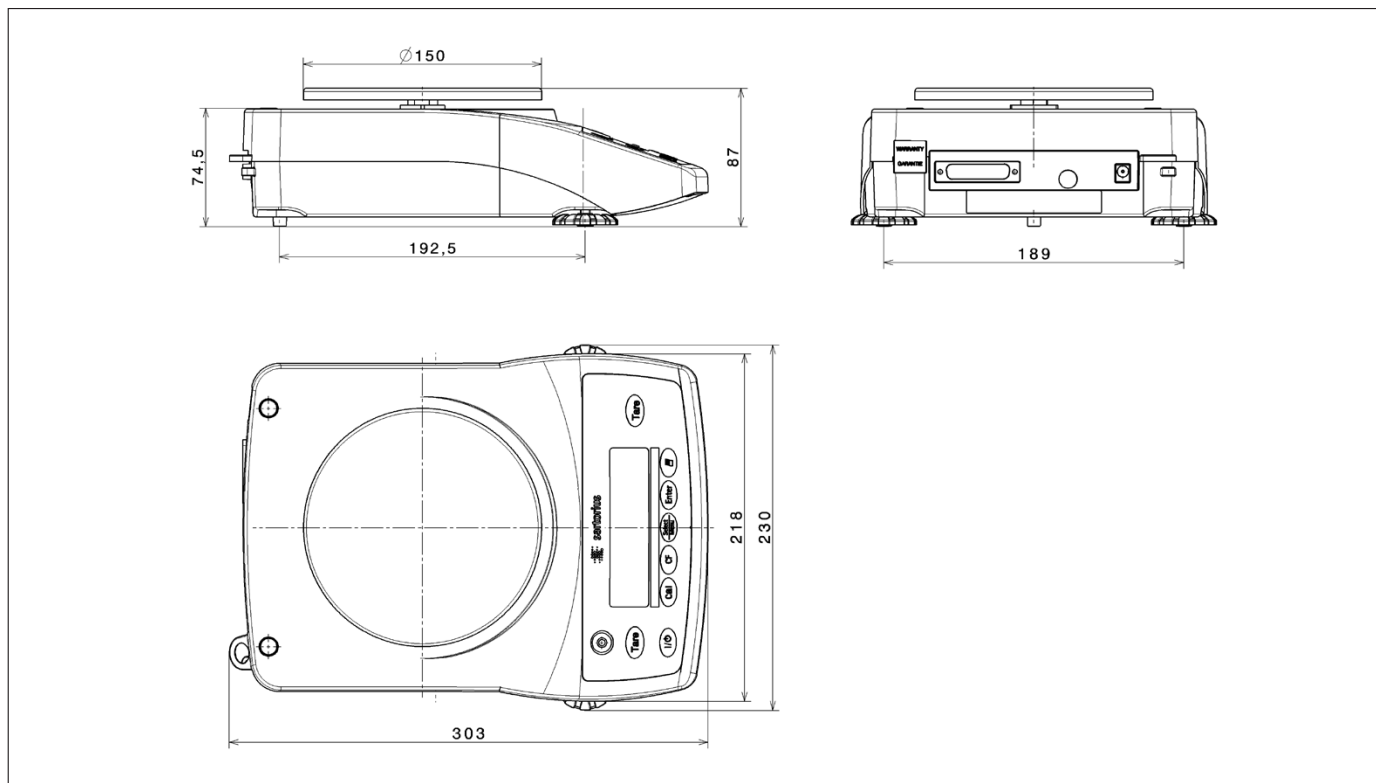
Models with a readability of 0.1 mg, in mm



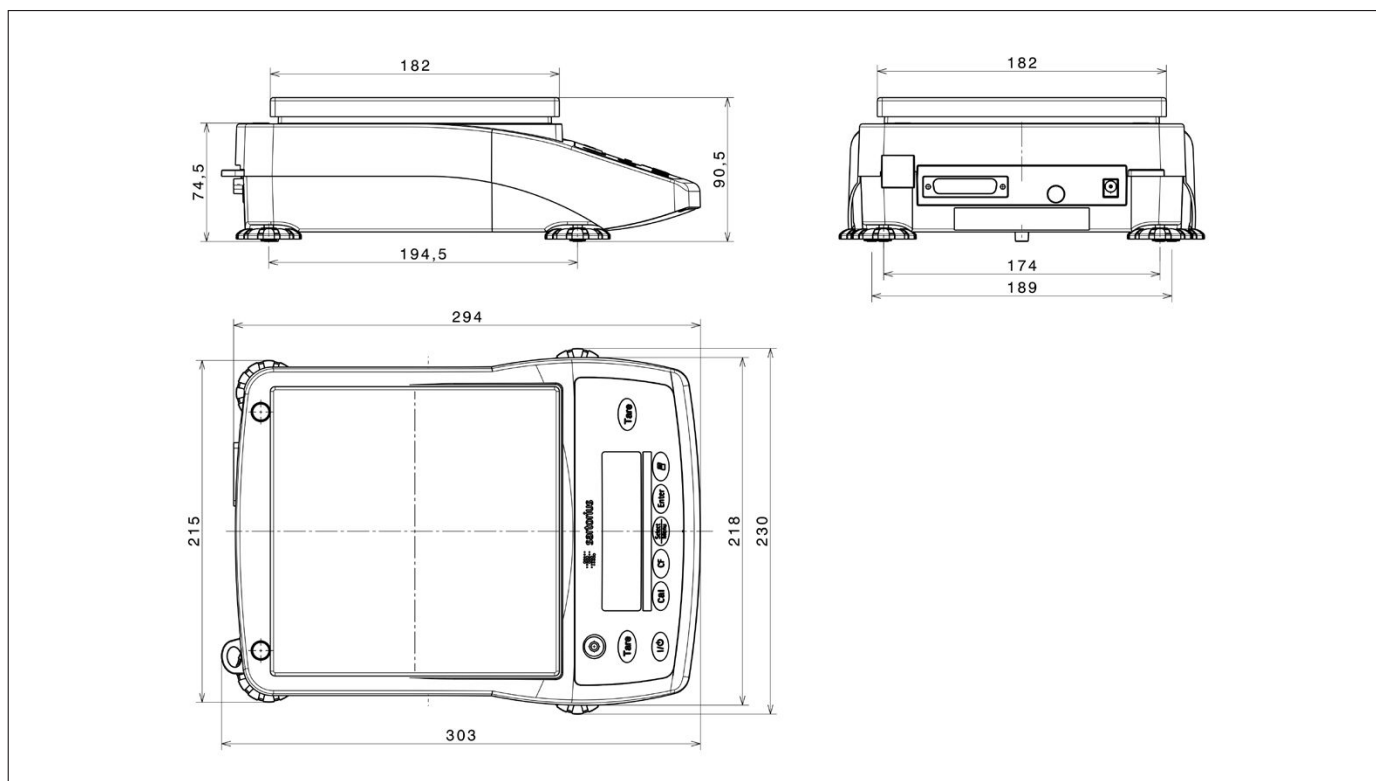
Models with a readability of 1 mg, in mm



Models with a readability of ≥ 10 mg (in mm) and round weighing pan



Models with a readability of ≥ 10 mg (in mm) and rectangular weighing pan



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