

Sartorius SE2 and ME5 The highest possible accuracy for the smallest samples available

Sartorius ultra-micro- and microbalances are the first choice for measuring the smallest sample quantities

Once again, Sartorius brings uncompromising quality in weighing technology to the forefront in its new generation of microbalances. These instruments combine incomparably fast response times and extremely high repeatability to meet the very highest demands on accurate weighing. Sartorius ultra-micro- and microbalances deliver results that measure up to the strictest requirements of both legal regulations and quality management systems without exception.

Astonishingly fast response times

The time spent on weighing procedures is dramatically reduced by a stabilization time of only 10 seconds. Full resolution over the entire weighing capacity, from 0.1 mg to 2.1 g in the SE2 and 1 mg to 5.1 g in the ME5, makes all weighing processes uncomplicated – and that saves valuable time with every sample weighed.

Intelligent draft shield

The motorized all-glass draft shield has no frame components to interfere with the view “of what’s going on” inside the weighing chamber. A special conductive coating on the glass prevents build-up of static electricity, and all of the draft shield components can be removed from the balance in just a few quick steps for fast and easy cleaning. With the intelligent learning function, the draft shield can be adapted to any work routine at the press of a key. Large keys on the optimized display and control unit can be pressed with the ball of the hand to open and close the draft shield, for even faster operation.

Operating elements that are easy to “grasp”

The backlit, graphic display ensures a high-contrast presentation of all text input and excellent readability of weighing results. Ergonomically designed “bubble” keys provide positive feedback for confident operation.

Ideal test and measuring equipment

The “isoCAL” function for fully automatic calibration and adjustment ensures consistently high accuracy and provides unparalleled support for use in quality management systems. This function can be triggered by a change in temperature or automatically activated at defined intervals or specific times of day. ISO | GLP-compliant user-definable documentation, calibration record memory, and the SQmin function for monitoring minimum initial sample weight in accordance with tough USP standards form the basis for complete reliability.

Versatile application programs built in

A total of 14 applications programs are integrated into our premium microbalances. In addition to the standard laboratory applications, other programs particularly important for microweighing include, for example, air buoyancy correction for exact absolute measurement, or for determining the diameter of microscopically fine wires. A flexible differential weighing program, for up to 999 samples with sample and batch IDs, plus a powerful statistics program offer every convenience for reliable and fast evaluations. This comprehensive software package is rounded off by programs for calculation of weights by a factor and time-controlled functions.

Specialists for a highly special weighing application

The SE2-F and ME5-F are specially designed for highly accurate weighing of filters of sizes up to 90 mm. Both models are equipped with a special low-profile stainless steel draft shield to reduce the effects of static electricity to a minimum when weighing filters.

To ensure fast and user-friendly operation, the draft shield has a cover that easily rotates open manually and is conveniently adaptable for both left- and right-handed users. A choice of weighing pan diameters (50 mm standard; 75 mm or 90 mm optional) enable flexible adaptation of the SE2-F and ME5-F to a variety of filter sizes.

All micro- and ultra-microbalances come with both an RS-232C communication port and an additional printer port.



Sartorius Competence CP2P Microbalance

An introduction to the world of microweighing

Our new Competence microbalance is designed for users who do not process a high volume of samples, and only occasionally work with the miniscule sample quantities that must be analyzed with microgram accuracy. This is an "entry-level" model that offers incomparable value for money. The new structure of the operating elements, built-in motorized calibration weight, and unique draft shield focused on functionality offer real advantages for the user.

Microweighing has never been so easy

The first microbalance equipped with a monolithic weigh cell, the CP2P, provides a combination of the highest precision and fast response times with 100% reliability. Moreover, the mechanical ruggedness of monolithic weighing technology is unbeatable in this performance class.

Our 5-point program for maximum quality

The PolyRange structure provides weighing capacities of 0.5 | 1 | 2 mg with readabilities of 1 mg | 2 mg | 5 mg. In addition, the finest range can be shifted, which means the best resolution can be used even with heavy tare containers.

Thanks to the built-in motorized calibration weight, calibration and adjustment can be performed automatically at the press of a key, ensuring that the balance always operates with the highest possible accuracy.

The new manual draft shield has been specially designed for practical operation in the handling of exceptionally small samples. The smooth-action draft shield doors glide open quietly to facilitate fast and ergonomic work routines when handling "micro-samples."

The high-grade, polished metal surfaces inside the weighing chamber and the stainless steel work area are highly practical features for keeping the microbalance clean. They make it easy to comply with stringent requirements for cleanliness in microweighing applications.

The "operating philosophy" followed by the successful Competence laboratory balance series from Sartorius provides state-of-the-art support for error-free operation of the microbalance, which is especially important in precision microweighing.

Take advantage of our competence in microweighing for the reliability required in quality management systems. The Competence CP2P from Sartorius is an investment in the high quality of both processes and results in today's microweighing applications.

A special choice for filter weighing

The CP2P-F model version is the one to choose for tasks generally involved in the measurement of particulate residues. This model can be used with filters of up to 120 mm in diameter, thanks to its separate filter pan cover, and allows no interference from static electricity. The low-profile stainless steel draft shield permits fast work and easy cleaning in accordance with the strictest requirements.



Product line-up

Model	SE2	ME5	MC21S
Weighing range structure	SuperRange	SuperRange	SuperRange
Maximum weighing capacity	g 2.1	5.1	21
Readability	µg 0.1	1	1
Tare range (subtractive)	g 2.1	5.1	21
Repeatability	µg ± 0.25	± 1	± 2
Weighing ranges	g		
Max. linearity	µg ± 0.9	± 4	± 15
Stabilization time (avg.)	s 10	10	10
Adaptation to ambient conditions	By selection of 1 of 4 optimized filter levels (available on all models)		
Calibration weight	Built-in isoCAL	Built-in isoCAL	Built-in isoCAL
Allowable ambient operating temperature	°C +5 to +40	+5 to +40	+5 to +40
Pan size (dia. = Ø)	mm 20	30	30
Dimensions			
Weigh cell (W×D×H)	mm 122×315.5×121.5	122×315.5×121.5	219×408×318
Electronic unit (W×D×H)	mm 254×320×106	254×320×106	213×306×106.5
Weighing chamber (Dia.×H W×D×H)	mm Ø 80×H 77	Ø 80×H 77	195×155×260
Net weight, approx.			
Weigh cell	kg 3.3	3.3	11.1
Electronic unit	kg 3.5	3.5	3.1
Data interface port(s)	RS-232C + printer	RS-232C + printer	RS-232C
Models verified for use in legal metrology in the EU ¹⁾	SE2-OCE	ME5-OCE	-
Operating range acc. to CD ²⁾	g 0.0001 – 2.1	0.0001 – 5.1	-

¹⁾ including the Signatories of the Agreement on the European Economic Area

²⁾ Council Directive 90/384/EEC

* with standard 20 mm Ø pan

** with standard 30 mm Ø pan

The ultra-microbalance ranks at the top of the line, with full, 0.1-µg resolution throughout the entire weighing range up to a 2.1-g capacity

The microbalance with the convenient all-glass draft shield and full, 1-µg resolution throughout the entire weighing range up to a 5.1-g capacity

The balance featuring an amazing 21-g weighing capacity with full, 1-µg resolution throughout the entire weighing range; with a manually operable draft shield



CP2P	SE2-F Filter Weighing	ME5-F Filter Weighing	CP2P-F Filter Weighing
PolyRange	SuperRange	SuperRange	PolyRange
0.5 1 2	2.1	5.1	0.5 1 2
1 2 5	0.1	1	1 2 5
2	2.1	5.1	2
± 1 2 3 0.5 1 2	± 0.25*	± 1**	± 2 3 4 0.5 1 2
± 2 4 5	± 0.9*	± 4**	± 2 4 5
10	10*	10**	10
By selection of 1 of 4 optimized filter levels (available on all models)			
Built-in isoCAL	Built-in isoCAL	Built-in isoCAL	Built-in isoCAL
+5 to +40	+5 to +40	+5 to +40	+5 to +40
20	50 or 20 75 and 90 optional	50 or 30 75 and 90 optional	120 or 20
213×342×151	122×318×106	122×318×106	213×342×115
-	254×320×106	254×320×106	-
54×49.5×55.5	∅ 106 × H 40	∅ 106 × H 40	12
4.35	4.2	4.2	5.0
-	3.5	3.5	-
RS-232C	RS-232C + printer	RS-232C + printer	RS-232C
-	-	-	-
-	-	-	-

The economical microbalance featuring a resolution of 1 µg and an electronic weighing range of up to 2 g

The filter weighing ultra-microbalance with full, 0.1-µg resolution up to 2.1 g, specially designed for weighing filters of up to 50 mm ∅ (optionally up to 90 mm ∅)

The filter weighing microbalance with full, 1-µg resolution up to 5.1 g, specially designed for weighing filters of up to 50 mm ∅ (optionally up to 90 mm ∅)

The filter weighing balance for convenient and high-precision measurement of residual quantities; for filters of up to 120 mm ∅



Accessories for ultra-micro- and microbalances

Model	SE2	ME5	MC21S	CP2P
Data printer	YDP03-OCE	YDP03-OCE	YDP03-OCE	YDP03-OCE
Remote display	YRD12Z	YRD12Z	YRD12Z	YRD12Z
Carrying case				YDB01M
Balance table (wooden frame with cast stone slab inset)	YWT01	YWT01	YWT01	YWT01
Balance table, completely made of cast stone	YWT03	YWT03	YWT03	YWT03
Rechargeable battery pack	YRB05Z	YRB05Z	YRB05Z	
SartoConnect program software for direct data transfer to a PC	YSC01	YSC01	YSC01	YSC01
Weight set for determination of the air density	*	YSS35	*	
Pipette calibration set	*	*	*	
Foot switch for opening/ closing the draft shield, taring and printing	YPE01RC	YPE01RC		
Foot switch for taring	YFS01	YFS01	YFS01	YFS01
Ionizing blower for eliminating static electricity	YIB01-ODR	YIB01-ODR	YIB01-ODR	YIB01-ODR

Model	SE2-F	ME5-F		CP2P-F
Data printer	YDP03-OCE	YDP03-OCE		YDP03-OCE
Remote display	YRD12Z	YRD12Z		YRD12Z
Carrying case				YDB01M
Balance table (wooden frame with cast stone slab inset)	YWT01	YWT01		YWT01
Balance table, completely made of cast stone	YWT03	YWT03		YWT03
SartoConnect program software for direct data transfer to a PC	YSC01	YSC01		YSC01
Foot switch for taring	YFS01	YFS01		YFS01
Ionizing blower for eliminating static electricity	YIB01-ODR	YIB01-ODR		YIB01-ODR
Filter weighing pan, 75 mm Ø	VF2562	VF2562		
Filter weighing pan, 90 mm Ø	VF2880	VF2880		

* available on request

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