

Cubis® II: Your Balance, Your Way



Cubis® II: The New Generation of Modular Premium Balances

For scientists in R&D or analytical laboratories needing the most reliable lab weighing results, the Cubis® II platform from Sartorius is a completely configurable, high-performance portfolio of both lab weighing hardware and software. The Cubis® II will align with your unique demands and compliance requirements to help maximize your operational efficiency and experimental outcomes.

The Cubis® II platform is the only laboratory balance with fully customizable hardware, software, and connectivity. It offers modern user interfaces, pharmaceutical and GxP compliance, including data handling, data integrity and connectivity, ergonomic sample handling, easy process integration, and unlimited communication at the highest level of accuracy and precision.



Connectivity



Climate Monitoring



Workflow Integration with QApps





Pharma Compliance

Customizable Modularity

- Thousands of hardware and software configurations supporting your personal preferences.
- Thematically structured software packages for your optimized workflows.
- Seamless connectivity to diverse laboratory information systems without the need of additional software.
- Long-term flexibility guarantees adaptation of software and accessories to evolving regulatory and laboratory needs.

Intelligence by Design

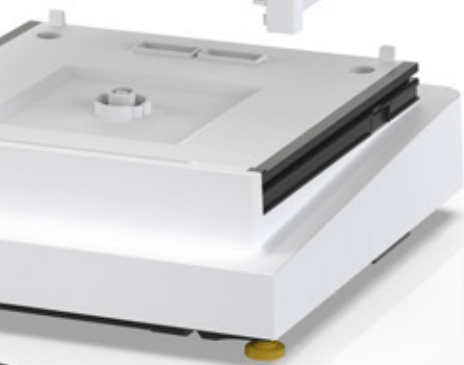
- Build-in applications guide you through your workflows.
- Fast and easy leveling guaranteed with automatic, motorized leveling function.
- Innovative draft shield technology with gesture sensor and memory functions.
- Climate sensor for environmental monitoring.
- Built-in ionizer for automatic electrostatic elimination.
- Status Center for user notifications and alerts*.
- Ultramicro- and micro balances with innovative technology for top-edge performance.



Integrated Ionizer

Confident Compliance*

- Full data integrity following ALCOA+ principles.
- Complete traceability via advanced audit trail and reporting function for efficient reviews.
- Submission-ready data with remote data selection on web browser.
- User management including centralized password management support („single-sign-on“ via LDAP), high security password configuration, login rules.
- Electronic signature in compliance with 21 CFR Part 11.



Automatic Motorized Leveling

Trusted Results

- Leading Performance
- High Speed Accuracy
- Error-Free Operations
- Full End-to-End Data Integrity
- Reliable Support

*available with the MCA interface

Customizable Modularity – Thousands of Configurations

In 2009, Sartorius offered the first modular balance with the Cubis®, and today continues that tradition by offering the Cubis® II, the first lab balance series featuring a completely modular design:

Weighing Modules

Choose from a range of 45 different weighing modules that best fit your preferences.

Draft Shields

Choose from 7 different options, depending on your balance type – each with unique features to support maximal balance performance and user-centric design.

Display

Choose between advanced and essential user interface, based on your weighing applications and requirements.

Software

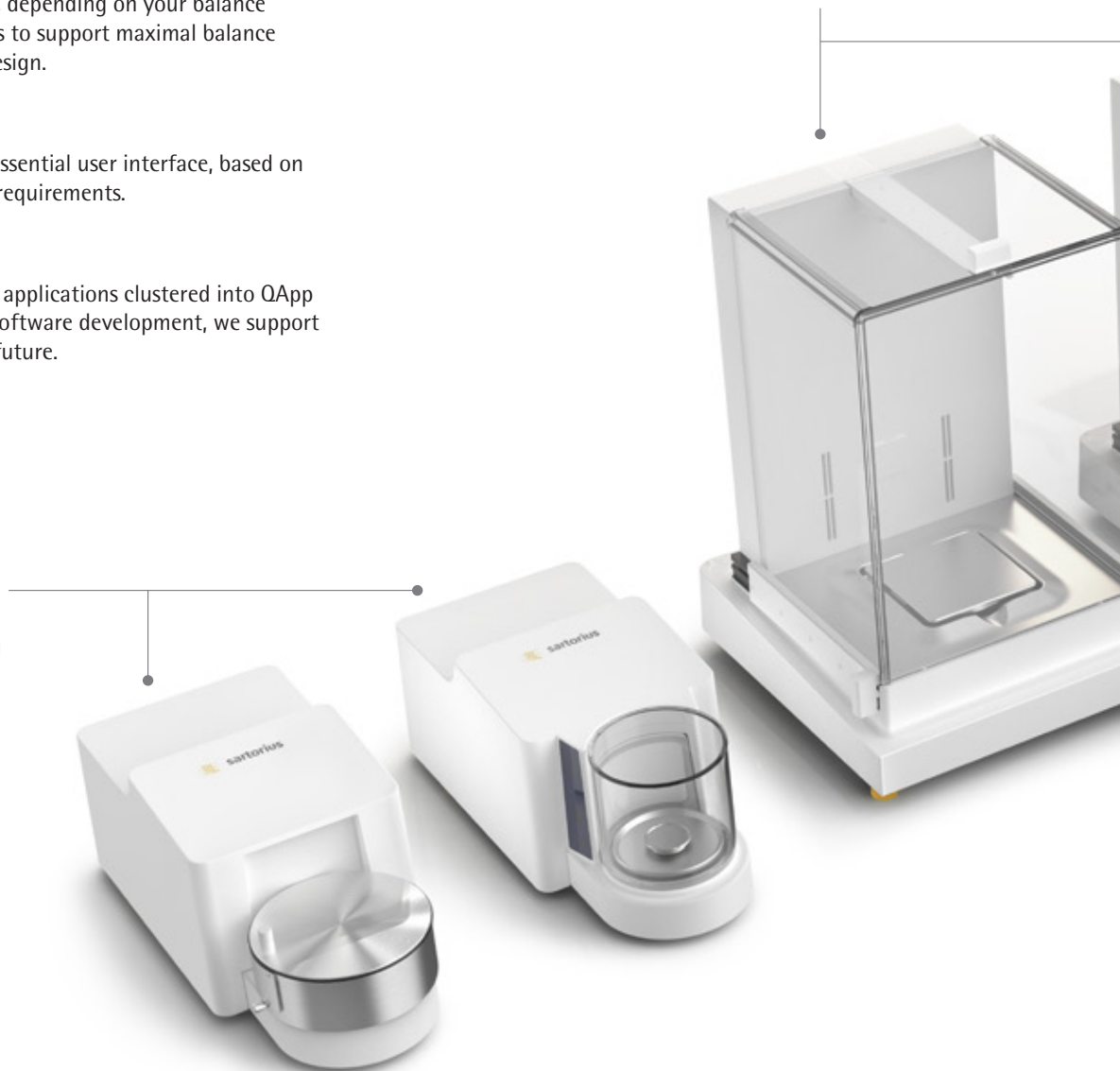
With up to 60 optional software applications clustered into QApp packages, and with continuous software development, we support your workflows now and in the future.

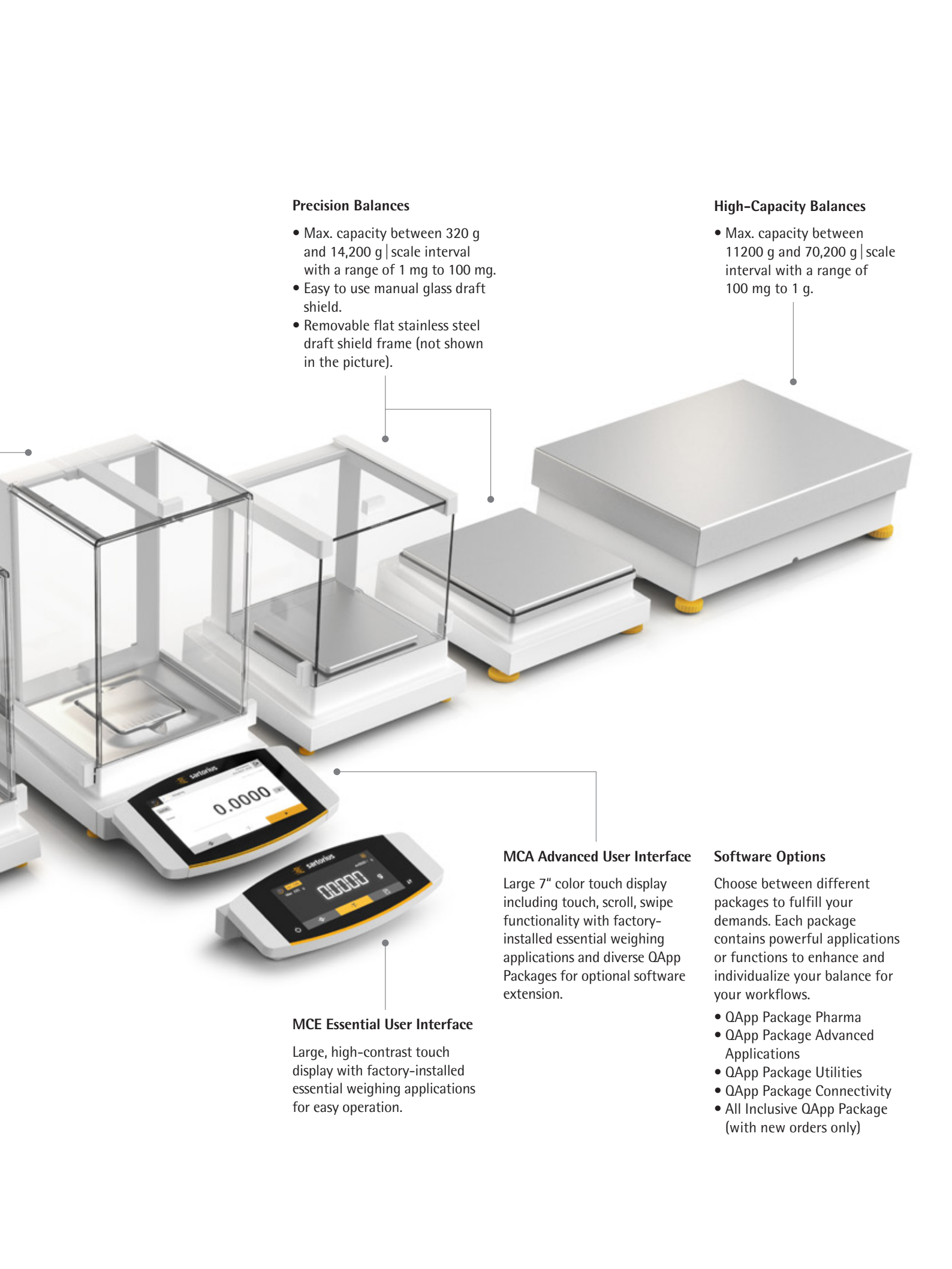
Ultra-Micro & Micro Balances

- Max. capacity between 2.1 g and 10.1 g | scale interval with a range of 0.1 µg to 1 µg.
- Automatic, motorized, round, glass draft shield with learning capability, illumination and integrated motion sensor.
- Manual stainless steel draft shield for filter weighing applications.

Semi-Micro & Analytical Balances

- Max. capacity between 120 g and 520 g | scale interval with a range of 0.01 mg to 0.1 mg.
- Automatic glass draft shield with or without integrated ionizer to eliminate interfering electrostatic charges on samples and sample containers.
- Manual glass draft shield with smooth-action doors.





Precision Balances

- Max. capacity between 320 g and 14,200 g | scale interval with a range of 1 mg to 100 mg.
- Easy to use manual glass draft shield.
- Removable flat stainless steel draft shield frame (not shown in the picture).

High-Capacity Balances

- Max. capacity between 11200 g and 70,200 g | scale interval with a range of 100 mg to 1 g.

MCA Advanced User Interface

Large 7" color touch display including touch, scroll, swipe functionality with factory-installed essential weighing applications and diverse QApp Packages for optional software extension.

Software Options

Choose between different packages to fulfill your demands. Each package contains powerful applications or functions to enhance and individualize your balance for your workflows.

- QApp Package Pharma
- QApp Package Advanced Applications
- QApp Package Utilities
- QApp Package Connectivity
- All Inclusive QApp Package (with new orders only)

MCE Essential User Interface

Large, high-contrast touch display with factory-installed essential weighing applications for easy operation.

Intelligence by Design – Adaptable Lab Balance to Your Specific Needs



Onboard QApp Center

Choose your applications or individual balance functions from QApp packages clustered by different topics. License your selected package and integrate them into the tasks you can run on the balance.

Automatic, Motorized Leveling

Avoid the burdensome process of preparing your balance for use with the Cubis® II balance's quick and easy, motorized, auto-levelling function.

Gesture Control

The gesture sensor recognizes four gestures and can be positioned near the balance, directly in the flow of motion at your work space. It allows you to open and close the automatic draft shield, start the ionizer, or send a document to a device.

Ultra-Micro and Micro Balances

The world's first ultra-micro and micro balances with automatic motorized levelling, motion controlled and illuminated draft shield, and titanium inner parts. Weighing ranges from 0.1 µg to 10.1 g.





Built-in Ionizer for Electrostatic Elimination

Remove balance stabilization frustrations caused by electrostatic effects with the built-in ionizing technology of the Cubis® II balance.

Electrostatic charges on samples and vessels are removed effectively, just by pressing one key or automatically when the draft shield door closes.



Climate Monitoring*,**

The climate sensor monitors influencing variables of the environment and ensures that temperature, pressure, and humidity do not negatively affect your results.



Status Center Notifications*

The Status Center shows all information about your balance and environmental conditions, e.g. calibration, leveling, temperature, humidity, air pressure and service, centralized in a dashboard. In case of warnings or errors, you get detailed help and support.

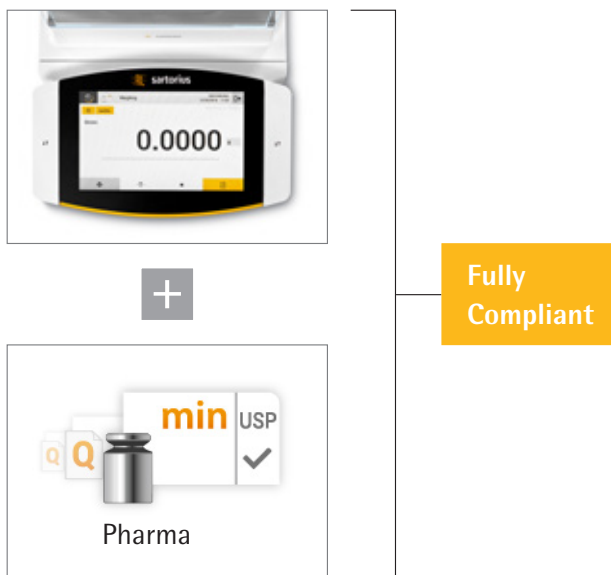


* available with the MCA interface

**available from July 2019

Confident Compliance – Complete Traceability

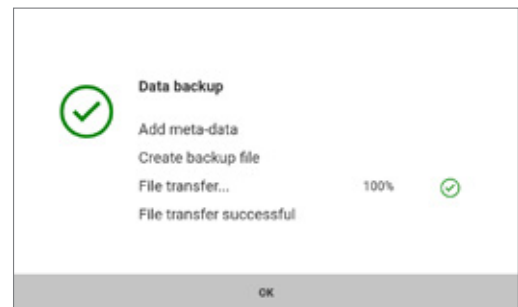
All data generated by the Cubis® II balance follow the key principles ALCOA (+), which defines data integrity standards and relates to GxPs. Therefore, the Cubis® II balance ensures safe and accurate data storage and supports all requirements for FDA directive 21 CFR part 11 and EU Annex 11 compliance.



The Cubis® II balance, with pharma package, contains all the technical controls to support compliance with common regulations. Full compliance can be achieved with additional procedural controls and systems for long-term data storage.

Backup

Cubis® II can automatically execute time-controlled actions for backup. The system is able to upload data on a file share or export the data to other systems. Archiving is easily possible and fully compliant.



Safe Data Transfer

An electronic record should be protected against any manipulation. The Cubis® II balance saves all files, together with a calculated MD5 checksum which is stored in the audit trail files and additionally in a separate MD5 file.



Audit Trail & Alibi Memory

The Cubis® II balance's audit trail is a tamper-protected time-stamped electronic logfile, that allows reconstruction of events related to the creation, modification, and |or deletion of records. The data can be displayed, filtered, and exported in an easy way.

Additionally, the Cubis® II balance contains an "Alibi Memory". The system automatically stores weighing data in a ring buffer.

Audit trail				
2019-02-27	11:58:12 (UTC)	Administrator	isoCAL	CALIBRATIONADJUSTMENT
2019-02-27	11:55:47 (UTC)	Administrator	Created	TASKMANAGEMENT
2019-02-27	11:54:50 (UTC)	Administrator	Created	QAPPMANAGEMENT
2019-02-27	10:20:41 (UTC)	Administrator	Operation End	CONNECTORMANAGEMENT
2019-02-27	10:05:44 (UTC)	Administrator	Electronic Signature	ACCESSCONTROL
2019-02-27	10:03:52 (UTC)	Administrator	Operation End	CONNECTORMANAGEMENT

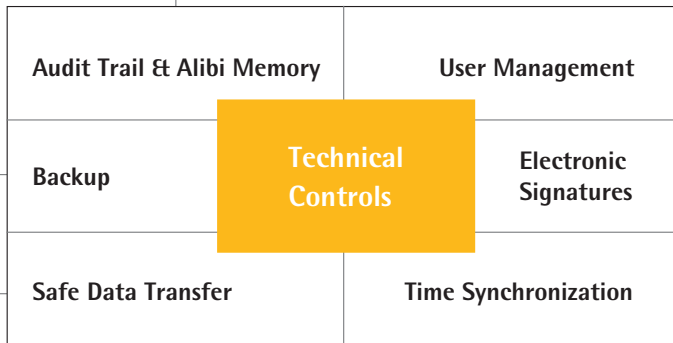
User Management

The Cubis® II balance provides two options for complete user management with access control.

The local user management can be configured in accordance with your password policy.

The password rules for 21 CFR Part 11 compliance are easily implemented. Moreover, Cubis® II can be integrated in the company's domain to allow single sign-on. In this case the company defined password rules are implemented automatically.

User management	
Administrator	User account for configuration and management
Guest	User account with restricted access
Operator	User account for everyday work
Service	User account for service technicians



Time Synchronization

The Cubis® II balance supports automatic time synchronization via Network Time Protocol (NTP). An accurate time stamp is elemental for trustable records.

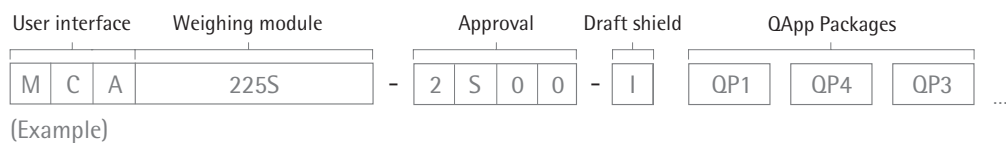
NTP configuration	
NTP operating status	Enabled
Server IP	172.125.14.39

Electronic Signatures

In the Cubis® II balance, an electronic signature can be used to sign the final report for weighing processes. Based on a secure password, the combination of username and password is fully compliant with 21CFR.

Electronic signature	
Sign report	On

Configure Your Cubis® II Balance



Balance type Weighing module*	Leveling		Approval			Draft shield				Software packages***		
	auto- matic	manual	S00, S01, CEU, CFR, CCN, OBR, OIN, OJP, ORU	A	E	F	I	M	R	U	O	QP1, QP2, QP3, QP4 or QP99
Ultramicro 2.7S	•		•			•		•				•
Micro 10.6S, 6.6S, 3.6P	•		•			•		•				•
Semimicro 225S, 225P, 125S, 125P	•		•	•			•			•		•
Analytical 524S, 524P, 324S, 324P, 224S, 124S	•		•	•			•			•		•
Precision 1 mg 5203S, 5203P, 3203S, 2203S, 2203P, 1203S, 623S, 623P, 323S	•		•	•	•		•		•	•		•
Precision 10 mg 5202S	•		•	•	•		•		•	•		•
Precision 10 mg 8202S, 6202S, 6202P, 4202S, 2202S, 1202S	•		•								•	•
Precision 10 mg 32202P**, 14202S, 14202P, 10202S		•	•								•	•
Precision 100 mg 5201S, 8201S	•		•								•	•
Precision 100 mg 12201S		•	•								•	•
High Capacity 70201S, 50201S, 36201S, 36201P, 20201S, 11201S, 70200S, 36200S		•	•								•	•

*All weighing modules available with MCA or MCE display
 **Weighing module 32202P available with approvals S00 or S01 only
 ***Software packages available for balances with MCA display only

User Interface	Description
MCA	Advanced user interface
MCE	Essential user interface

Draft Shield	Description
O	Balance without draft shield
E	Small glass draft shield
R	Stainless steel draft shield frame
U	Manual glass draft shield
A	Motorized draft shield
I	Motorized draft shield + Ionizer
M	Motorized draft shield micro balances
F	Filter draft shield micro balances

Approval	Description
S00	Standard version worldwide
S01	Standard only metric units
CEU	Verified version Europe (except FR)
CFR	Verified Version France
CCN	Verified Version China
OBR	Verifiable Version Brazil
OIN	Verifiable Version India
OJP	Verifiable Version Japan
ORU	Verifiable Version Russia

QApp Packages



Pharma

QP1 The Pharma software application package contains applications concerning the topic compliance with pharmaceutical-relevant guidelines as 21 CFR Part 11 and USP 39, Chapter 41. The Pharma package includes applications such as user management, digital signatures, audit trail, USP minimum weight.



Advanced

QP2 The Advanced software application package includes various complex weighing applications incl. evaluation. This includes applications used for density determination, percentage weighing, counting, backweighing, residual dirt analysis, residue on ignition, sieve analysis, filter weighing, checkweighing, formulation, averaging, etc.



Utilities

QP3 The Utility software application package contains weighing applications and function extensions such as bootscreen, color scheme, free formula, fiber coarseness, diameter determination, air buoyancy correction, paper weight, statistics and printing of QR | bar codes.



Connectivity

QP4 The Connectivity software application package includes applications for data exchange, for example to Windows file server, FTPS, StarLims, etc.

QP99 The software application package All inclusive includes 4 different sub-packages for compliance (Pharma (QP1)), complex weighing applications (Advanced (QP2)), weighing applications and helpful tools (Utilities (QP3)) and connectors for data exchange (Connectivity (QP4)).