

Knows No Alternative



Perfect Positioning

ErgoClips facilitate the accurate positioning and fastening of different tare containers to enable quick and secure weighing operations.

The unique SmartGrid weighing pan minimizes the effects of air turbulence, so that stabilization time is reduced.



Ergonomic Operation

SmartSens infrared sensors on each side of the balance display mean the weighing chamber can be opened on the side you want to be hands-free. This enables safe handling of toxic substances.



Optimum Dosing

The MinWeigh Door has a freely adjustable opening which, especially when combined with ErgoClips, enables quick targeted dosing with minimal opening of the draft shield.



Easy Traceability

Integrated security functions such as password protection and minimum weight control make the XP Analytical Balance the ideal weighing solution for strictly regulated environments.



Excellence Plus XP

High-Performance Analytical Balances

METTLER TOLEDO XP Balances meet all weighing requirements quickly and securely, particularly in strictly regulated areas, such as the pharmaceutical industry.

Use of innovative XP Balance equipment such as SmartGrid, MinWeigh Door and ErgoClips reduces stabilization time, makes direct weighing into the desired container easier and helps obtain the lowest possible value for the minimum initial weight. Optimized sample transfer reduces waste and, particularly with valuable materials, leads to considerable cost savings. The numerous application-specific solutions enable ergonomic work and ensure efficient weighing processes.

Comprehensive QM equipment meets quality assurance requirements.

XP Analytical Balances give the highest possible weighing performance – even under the most challenging laboratory conditions.

Excellence Plus XP

High-Performance Analytical Balances



Intelligent Functionality

LevelControl ensures correct balance leveling



Intuitive User Interface

Customizable touchscreen with the latest TFT technology

Standard Equipment:

- SmartSens – sensor for hands-free operation
- SmartGrid – weighing pan for fast and highly accurate results
- SmartScreen – color touchscreen for comfortable and secure operation
- ErgoClips – holders for different tare containers
- MinWeigh – warning signal when the minimum weight has not been reached
- DeltaTrac Color – weighing range displayed in color
- LevelControl – warning signal when the balance is not level
- BalanceCheck – automatic prompt to check with external weights
- proFACT – automatic time and temperature controlled adjustment and linearization
- Communication in 8 languages (EN, DE, FR, IT, SP, RU, JP, CN)
- Seven applications with on-screen user guidance (simple weighing, piece counting, formulation, percent weighing, statistics, density determination, differential weighing)
- UserManagement for assigning access rights
- Representation of various units of measurement, units can be customized
- Individual reports can be assigned up to 4 IDs
- GxP-compliant, seamless, traceable documentation
- Simple PC connection (software: LabX, Hyperterminal, SQC, etc.)
- Built-in RS232 interface and two auxiliary outputs
- Slot for a second interface (7 options), including Bluetooth and Ethernet
- Freely positionable terminal with exchangeable protective cover
- Overload protector
- Below-the-balance weighing device

Accessories

Printer RS-P42 with RS232 connection	00229265
Printer BT-P42 with wireless Bluetooth connection	11132540
Foot Switch: switch for balance functions	11106741
ErgoSens: hands-free sensor for balance functions	11132601
Terminal Extension Cable 4.5 m	11600517
Density Kit	11106706
Integrable Antistatic Kit, complete	11107761
ErgoClip Flask (measuring flask holder)	11106764
MinWeigh Door	11106749
ErgoClip Tube (tube holder)	11106784
ErgoClip Titration Basket	11106883
ErgoClip Weighing Boat	11106748
ErgoClip Round Bottom Flask	11106746
ErgoClip Basket, small	11106747
Weighing Kit – Set of ErgoClips	11106707
Moisture Trap (20 ml)	11140043
Moisture Trap (100 ml)	11138440
ErgoClip Filter Holder (∅ 110–150 mm)	11140185
Filter Weighing Kit (up to ∅ 110 mm)	11140000

Model	XP105DR	XP205	XP205DR	XP204	XP504	XP504DR
Maximum load	120 g	220 g	220 g	220 g	520 g	520 g
Max. load of the fine range	31 g	–	81 g	–	–	101 g
Readability	0.1 mg	0.01 mg	0.1 mg	0.1 mg	0.1 mg	1 mg
Readability in the fine range	0.01 mg	–	0.01 mg	–	–	0.1 mg
Repeatability – at nominal load	0.06 mg (100 g)	0.03 mg (200 g)	0.06 mg (200 g)	0.07 mg (200 g)	0.12 mg (500 g)	0.6 mg (500 g)
– at low load	0.05 mg (10 g)	0.015 mg (10 g)	0.05 mg (10 g)	0.05 mg (10 g)	0.1 mg (10 g)	0.5 mg (10 g)
– at low load in the fine range	0.015 mg (10 g)	–	0.015 mg (10 g)	–	–	0.1 mg (10 g)
Linearity	0.15 mg	0.1 mg	0.15 mg	0.2 mg	0.4 mg	0.5 mg
Corner-load deviation (test load) ¹⁾	0.2 mg (50 g)	0.2 mg (100 g)	0.25 mg (100 g)	0.25 mg (100 g)	0.4 mg (200 g)	0.5 mg (200 g)
Sensitivity deviation	4x10 ⁻⁶ ·Rnt	2x10 ⁻⁶ ·Rnt	2.5x10 ⁻⁶ ·Rnt	3x10 ⁻⁶ ·Rnt	3x10 ⁻⁶ ·Rnt	4x10 ⁻⁶ ·Rnt
Temperature drift of sensitivity ²⁾	1x10 ⁻⁶ /°C·Rnt	1x10 ⁻⁶ /°C·Rnt	1x10 ⁻⁶ /°C·Rnt	1x10 ⁻⁶ /°C·Rnt	1x10 ⁻⁶ /°C·Rnt	1x10 ⁻⁶ /°C·Rnt
Stability of sensitivity ³⁾	1x10 ⁻⁶ /a·Rnt	1x10 ⁻⁶ /a·Rnt	1x10 ⁻⁶ /a·Rnt	1x10 ⁻⁶ /a·Rnt	1x10 ⁻⁶ /a·Rnt	1x10 ⁻⁶ /a·Rnt
Minimum initial weight (typical, acc. to USP)	21 mg+4.5x10 ⁻⁴ ·Rgr	21 mg+1.8x10 ⁻⁴ ·Rgr	21 mg+3.6x10 ⁻⁴ ·Rgr	120 mg+1.5x10 ⁻⁴ ·Rgr	120 mg+1.8x10 ⁻⁴ ·Rgr	120 mg+6x10 ⁻⁴ ·Rgr
Minimum initial weight* (typical, U=1%, 2 sd)	1.4 mg+3x10 ⁻⁵ ·Rgr	1.4 mg+1.2x10 ⁻⁵ ·Rgr	1.4 mg+2.4x10 ⁻⁵ ·Rgr	8 mg+1x10 ⁻⁵ ·Rgr	8 mg+1.2x10 ⁻⁵ ·Rgr	8 mg+4x10 ⁻⁵ ·Rgr
Stabilization time (coarse / fine range)	1.5 s/2.5 s	2.5 s	1.5 s/2.5 s	1.5 s	1.5 s	1.5 s/1.5 s

¹⁾ acc. to OIML R76 ²⁾ in the temperature range 10...30°C ³⁾ Stability of sensitivity with proFACT self-adjustment switched on

s: seconds a: year (annum) Rgr: gross weight Rnt: net weight sd: standard deviation

* Repeatability and minimum initial weight can be improved by the following measures:

Selection of appropriate weighing parameters, choice of a better location and use of smaller tare containers

www.mt.com/XP-analytical

For further information



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Environment certificate ISO 14001
Worldwide service



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GWP®
Good Weighing Practice™

The global weighing guideline GWP® reduces risks associated with your weighing processes and helps to

- choose the appropriate balance
- reduce costs by optimizing testing procedures
- comply with the most common regulatory requirements

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