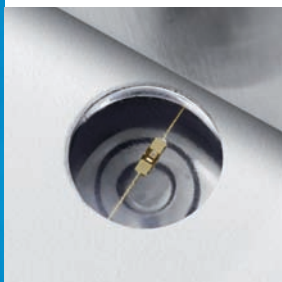# Higher Security
Lower Risks

Compliance made easy
With built-in QM tools, XP balances meet the demands of the most regulated environments. User management options include password protection for up to eight users. Security features, such as LevelControl and MinWeigh, ensure weighing processes are reliable.

Flexible software solutions
LabX software provides full user guidance, central data management, and automatic documentation for all your weighing applications. SOP adherence is assured. Accessories, such as a label printer, Ethernet interface or barcode reader, optimize each individual solution.

Ergonomic workplace
Smart features and clever accessories offer a truly ergonomic workplace: work hands-free and avoid cross-contamination using the SmartSens sensors; red and green indicators on the SmartTrac weighing guide guarantee process tolerances; a terminal stand saves space and makes the terminal easier to read.

Secure routine testing
The embedded GWP® Excellence software ensures balance testing is always done in accordance with your SOPs and provides full instructions for tests such as sensitivity, eccentricity and repeatability. The built-in ProFact Advanced programmable sensitivity test reduces the amount of external testing required.

Excellence Plus XP-S
High Performance Precision Balances

The XP Precision Balance Line provides the highest possible weighing performance coupled with a level of security that meets the demands of even highly regulated environments. Built-in Quality Management tools enforce quality guidelines as well as manage passwords and access rights for up to eight users. With GWP® Excellence embedded software, customer-specific routine testing procedures can be easily implemented and users are guided through tests and applications with step-by-step instructions on the color touchscreen. With hands-free operation and Bluetooth wireless data transfer, weighing toxic substances is safer than ever before.

XP-S Precision Balances –
focused on safety and performance.

METTLER TOLEDO

Technical data
Excellence Plus XP-S Precision Balances (Small Platform)
High-performance Precision Balances

Balance model	XP204S	XP404S	XP404SDR
Part no.	11130052	11130076	11130082
Limit values			
Maximum capacity; fine range	210 g; —	410 g; —	410 g; 80 g
Readability; fine range	0.1 mg; —	0.1 mg; —	1 mg; 0.1 mg
Repeatability [1]; fine range	0.2 mg; —	0.1 mg; —	0.6 mg; 0.1 mg
Linearity deviation	0.2 mg	0.2 mg	0.6 mg
Sensitivity offset (test weight)	1 mg (200 g)	2 mg (400 g)	2 mg (400 g)
Typical values			
Repeatability; fine range	0.12 mg; —	0.06 mg; —	4 mg; 0.06 mg
Linearity deviation	0.07 mg	0.07 mg	0.07 mg
Sensitivity offset (test weight)	0.4 mg (200 g)	0.48 mg (400 g)	0.48 mg (400 g)
Minimum sample weight[2]; fine range	360 mg; —	180 mg; —	12 g; 0.18 g
Minimum sample weight[3]; fine range	24 mg; —	12 mg; —	800 mg; 12 mg
Settling time	2 s	2 s	2 s
Dimensions			
Balance dimensions (WxDxH)	214x395x363 mm	214x395x363 mm	214x395x363 mm
Weighing platform dimensions	$\varnothing$ 90 mm	$\varnothing$ 90 mm	$\varnothing$ 90 mm

Balance model	XP203S	XP603S	XP603SDR
Part no.	11130022	11130020	11130040
Limit values			
Maximum capacity; fine range	210 g; —	610 g; —	610 g; 120 g
Readability; fine range	1 mg; —	1 mg; —	10 mg; 1 mg
Repeatability [1]; fine range	0.9 mg; —	0.9 mg; —	6 mg; 1 mg
Linearity deviation	2 mg	2 mg	6 mg
Sensitivity offset (test weight)	5 mg (200 g)	4.5 mg (600 g)	9 mg (600 g)
Typical values			
Repeatability; fine range	0.5 mg; —	0.5 mg; —	4 mg; 0.8 mg
Linearity deviation	0.65 mg	0.7 mg	0.7 mg
Sensitivity offset (test weight)	3.2 mg (200 g)	2.4 mg (600 g)	6 mg (600 g)
Minimum sample weight[2]; fine range	1.5 g; —	1.5 g; —	12 g; 2.4 g
Minimum sample weight[3]; fine range	100 mg; —	100 mg; —	0.8 g; 0.16 g
Settling time	1.5 s	1.5 s	1.5 s
Dimensions			
Balance dimensions (WxDxH)	198x392x276 mm	198x392x276 mm	198x392x276 mm
Weighing platform dimensions (WxD)	127x127 mm	127x127 mm	127x127 mm

Balance model	XP1203S	XP2003SDR	XP5003SDR
Part no.	11130000	11130088	11130094
Limit values			
Maximum capacity; fine range	1210 g; —	2.1 kg; 0.5 kg	5.1 kg; 1 kg
Readability; fine range	1 mg; —	10 mg; 1 mg	10 mg; 1 mg
Repeatability [1]; fine range	0.8 mg; —	6 mg; 1 mg	6 mg; 1 mg
Linearity deviation	2 mg	6 mg	6 mg
Sensitivity offset (test weight)	6 mg (1200 g)	10 mg (2 kg)	20 mg (5 kg)
Typical values			
Repeatability; fine range	0.4 mg; —	4 mg; 0.6 mg	4 mg; 0.6 mg
Linearity deviation	0.7 mg	0.7 mg	1 mg
Sensitivity offset (test weight)	2.9 mg (1200 g)	3.2 mg (2 kg)	10 mg (5 kg)
Minimum sample weight[2]; fine range	1.2 g; —	12 g; 1.8 g	12 g; 1.8 g
Minimum sample weight[3]; fine range	80 mg; —	0.8 g; 0.12 g	0.8 g; 0.12 g
Settling time	1.5 s	2 s	2 s
Dimensions			
Balance dimensions (WxDxH)	198x392x276 mm	214x395x363 mm	214x395x363 mm
Weighing platform dimensions (WxD)	127x127 mm	127x127 mm	127x127 mm

[1] at nominal load; [2] acc. to USP; [3] U=1%, k=2

Balance model	XP802S	XP1202S	XP2002S	XP4002S	XP4002SDR	XP6002S
Part no.	11130061	11130070	11130060	11130102	11130039	11130100
Limit values						
Maximum capacity; fine range	810 g; —	1210 g; —	2.1 kg; —	4.1 kg; —	4.1 kg; 0.8 kg	6.1 kg; —
Readability; fine range	10 mg; —	10 mg; —	10 mg; —	10 mg; —	100 mg; 10 mg	10 mg; —
Repeatability[1]; fine range	8 mg; —	8 mg; —	8 mg; —	8 mg; —	60 mg; 8 mg	8 mg; —
Linearity deviation	20 mg	20 mg	20 mg	20 mg	60 mg	20 mg
Sensitivity offset (test weight)	60 mg (800 g)	60 mg (1200 g)	60 mg (2 kg)	60 mg (4 kg)	60 mg (4 kg)	60 mg (6 kg)
Typical values						
Repeatability; fine range	4 mg; —	4 mg; —	4 mg; —	4 mg; —	40 mg; 4 mg	4 mg; —
Linearity deviation	7 mg	7 mg	7 mg	7 mg	7 mg	7 mg
Sensitivity offset (test weight)	32 mg (800 g)	24 mg (1200 g)	32 mg (2 kg)	32 mg (4 kg)	32 mg (4 kg)	30 mg (6 kg)
Minimum sample weight[2]; fine range	12 g; —	12 g; —	12 g; —	12 g; —	120 g; 12 g	12 g; —
Minimum sample weight[3]; fine range	800 mg; —	800 mg; —	800 mg; —	800 mg; —	8 g; 0.8 g	800 mg; —
Settling time	1.2 s	1.2 s	1.2 s	1.2 s	1.2 s	1.2 s
Dimensions						
Balance dimensions (WxDxH)	194x392x96 mm	194x392x96 mm	194x392x96 mm	194x392x96 mm	194x392x96 mm	194x392x96 mm
Weighing platform dimensions (WxD)	170x205 mm	170x205 mm	170x205 mm	170x205 mm	170x205 mm	170x205 mm

Balance model	XP6002SDR	XP8002S	XP10002S	XP10002SDR	XP12002SDR
Part no.	11130101	11130201	11130200	11130206	30006911
Limit values					
Maximum capacity; fine range	6.1 kg; 1.2 kg	8.1 kg; —	10.1 kg; —	10.1 kg; 2 kg	12.1 kg; 2.4 kg
Readability; fine range	100 mg; 10 mg	10 mg; —	10 mg; —	100 mg; 10 mg	100 mg; 10 mg
Repeatability[1]; fine range	60 mg; 8 mg	8 mg; —	8 mg; —	60 mg; 8 mg	60 mg; 10 mg
Linearity deviation	60 mg	20 mg	20 mg	50 mg	60 mg
Sensitivity offset (test weight)	150 mg (6 kg)	60 mg (8 kg)	50 mg (10 kg)	100 mg (10 kg)	96 mg (12 kg)
Typical values					
Repeatability; fine range	40 mg; 5 mg	4 mg; —	4 mg; —	40 mg; 5 mg	40 mg; 6 mg
Linearity deviation	7 mg	7 mg	6.5 mg	4 mg	7 mg
Sensitivity offset (test weight)	30 mg (6 kg)	32 mg (8 kg)	30 mg (10 kg)	30 mg (10 kg)	60 mg (12 kg)
Minimum sample weight[2]; fine range	120 g; 15 g	12 g; —	12 g; —	120 g; 15 g	120 g; 18 g
Minimum sample weight[3]; fine range	8 g; 1 g	800 mg; —	800 mg; —	8 g; 1 g	8 g; 1.2 g
Settling time	1.2 s	1.5 s	1.5 s	1.5 s	1.8 s
Dimensions					
Balance dimensions (WxDxH)	194x392x96 mm	194x392x96 mm	194x392x96 mm	194x392x96 mm	194x392x96 mm
Weighing platform dimensions (WxD)	170x205 mm	170x205 mm	170x205 mm	170x205 mm	170x205 mm

Balance model	XP2001S	XP4001S	XP6001S	XP8001S	XP10001S
Part no.	11130152	11130141	11130140	11130221	11130220
Limit values					
Maximum capacity; fine range	2.1 kg; —	4.1 kg; —	6.1 kg; —	8.1 kg; —	10.1 kg; —
Readability; fine range	100 mg; —	100 mg; —	100 mg; —	100 mg; —	100 mg; —
Repeatability[1]; fine range	80 mg; —	80 mg; —	80 mg; —	80 mg; —	80 mg; —
Linearity deviation	60 mg	60 mg	60 mg	100 mg	100 mg
Sensitivity offset (test weight)	150 mg (2 kg)	240 mg (4 kg)	240 mg (6 kg)	600 mg (8 kg)	500 mg (10 kg)
Typical values					
Repeatability; fine range	40 mg; —	40 mg; —	40 mg; —	40 mg; —	40 mg; —
Linearity deviation	20 mg	13 mg	19 mg	34 mg	34 mg
Sensitivity offset (test weight)	80 mg (2 kg)	160 mg (4 kg)	140 mg (6 kg)	320 mg (8 kg)	300 mg (10 kg)
Minimum sample weight[2]; fine range	120 g; —	120 g; —	120 g; —	120 g; —	120 g; —
Minimum sample weight[3]; fine range	8 g; —	8 g; —	8 g; —	8 g; —	8 g; —
Settling time	0.8 s	0.8 s	0.8 s	1 s	1 s
Dimensions					
Balance dimensions (WxDxH)	194x392x96 mm	194x392x96 mm	194x392x96 mm	194x392x96 mm	194x392x96 mm
Weighing platform dimensions (WxD)	190x223 mm	190x223 mm	190x223 mm	190x223 mm	190x223 mm

[1] at nominal load; [2] acc. to USP; [3] U=1%, k=2

Features

MonoBloc [Highspeed]
High-performance technology for outstanding weighing performance

Connectivity
Built-in RS232, 7 options for second slot e.g. Bluetooth, Ethernet

LevelControl
Warning function and visual leveling guidance

Reliability
Solid metal, chemically resistant body offers IP54 In-Use protection

proFACT Advanced Automatic, time and temperature controlled internal adjustment – GxP compliant

QM Toolbox
Maximum security with passwords, user management and MinWeigh

SmartSens and ErgoSens
Programmable infra-red sensors for hands-free balance operation

SmartScreen
Color touchscreen display with user-guidance for safety and comfort

GWP® Excellence Integrated procedures ensure routine tests are performed in accordance with SOPs

DeltaTrac color
Graphical functions show remaining capacity and make weighing-in easy

Weighing Settings
Optimal balance adjustment for difficult weighing conditions

Production certificate
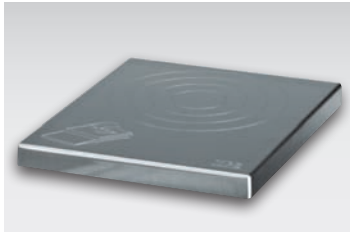Manufacturing certificate for equipment qualification

Applications

Piece counting, percent weighing, statistics, formulation, dynamic weighing, density, differential weighing, factor calculation

LabX balance: PC software providing full user guidance on the balance screen, central data management and automatic documentation for customer-specific applications **www.mt.com/LabX**

Accessories

MPS Weighing Pan*
The Magnetic Protection Shield Weighing Pan (MPS) prevents interference from magnetic forces, ensuring reproducible and accurate results.

Weighing Pan Protective Cover*
The easy to change PET cover provides effective protection against chemicals and difficult to clean samples without interfering with balance operation.

Terminal Stand
Mount the terminal on a stand at the rear of the balance to save space, protect it from contamination and make it easier to read – perfect ergonomics.

Density Kit**
Excellence Balances can be quickly and easily converted for density determination.

BT-P42 Printer
Wireless printer with Bluetooth interface, for quick and error-free data transfer.

CarePac®
CarePac certified weight sets fully support routine testing to limit the risk of working outside process tolerances.

* For 10 mg and 0.1 g models only
** For 0.1 mg and 1 mg models only

www.mt.com/XP-precision

For more information

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

www.mt.com/GWP