XPR Precision Balances

Peak Performance, Effortless Compliance

Outstanding Performance

The supreme stability provided by SmartPan™ Pro and the superior weighing cell ensure fast settling times for high throughput even in harsh conditions.

Consistent Workflows

To simplify tasks and ensure consistent, efficient workflows, the method library has templates to save settings and tolerances as individual weighing methods. Users all follow the same procedures and results are always within tolerance.

Audit-Proof Results

The StatusLight™, LevelControl, and GWP Approved provide at-a-glance information to verify your results are valid and ready for audit any time.

Go Digital

LabX offers onscreen user guidance, automatic documentation, and central management of users and tasks. Weighing results and metadata are saved in a secure database, ensuring traceability, data integrity, and assisting in compliance with 21 CFR part 11.

Exceptional Results
And Smart Quality Assurance

XPR small platform precision balances deliver outstanding weighing performance and support the highest requirements for data integrity and compliance.

Thanks to the extraordinary stability provided by the unique SmartPan Pro weighing pan, results are delivered up to twice as fast even under tough weighing environments. Repeatability is improved up to two-fold.

The state-of-the-art user interface offers intelligent functions to simplify and support your processes at every step. With smart quality assurance features automatically monitoring the status of your balance, you can rest assured that your results are valid.

METTLER TOLEDO

Specifications

	XPR204S	XPR404S	XPR504S	XPR2004SC
Limit values				
Capacity	210 g	410 g	510 g	2.3 kg
Readability	0.1 mg	0.1 mg	0.1 mg	0.1 mg
Capacity of fine range	–	–	–	–
Readability in fine range	–	–	–	–
Repeatability	0.2 mg	0.1 mg	0.1 mg	0.6 mg
Repeatability in fine range	–	–	–	–
Linearity deviation	0.2 mg	0.2 mg	0.3 mg	1 mg
Typical values				
Repeatability	0.12 mg	0.06 mg	0.07 mg	0.3 mg
Repeatability in fine range	–	–	–	–
Linearity deviation	0.06 mg	0.06 mg	0.2 mg	0.5 mg
Sensitivity offset (at nominal load) ▲	0.4 mg	0.48 mg	0.3 mg	6.8 mg
Minimum weight (USP, tolerance = 0.10%) ▼	240 mg	120 mg	140 mg	600 mg
Minimum weight (tolerance = 1%) ▼	24 mg	12 mg	14 mg	60 mg
Settling time	2 s	2 s	2 s	3.5 s
Dimensions and other specifications				
Weighing pan dimensions (W × D)	90 × 90 mm	90 × 90 mm	90 × 90 mm	90 × 90 mm
Weighing pan diameter	–	–	–	130 mm

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

	XPR5004SC	XPR3004SD5	XPR303SN	XPR303S
Limit values				
Capacity	5.1 kg	3.1 kg	310 g	310 g
Readability	0.1 mg	0.5 mg	1 mg	1 mg
Capacity of fine range	–	–	–	–
Readability in fine range	–	–	–	–
Repeatability	1.3 mg	0.8 mg	0.8 mg	0.8 mg
Repeatability in fine range	–	–	–	–
Linearity deviation	3 mg	4 mg	2 mg	2 mg
Typical values				
Repeatability	0.8 mg	0.4 mg	0.4 mg	0.4 mg
Repeatability in fine range	–	–	–	–
Linearity deviation	1 mg	1 mg	0.6 mg	0.6 mg
Sensitivity offset (at nominal load) ▲	8 mg	5 mg	1.2 mg	1.2 mg
Minimum weight (USP, tolerance = 0.10%) ▼	1600 mg	800 mg	820 mg	820 mg
Minimum weight (tolerance = 1%) ▼	160 mg	80 mg	82 mg	82 mg
Settling time	10 s	2 s	1.5 s	1.5 s
Dimensions and other specifications				
Weighing pan dimensions (W × D)	90 × 90 mm	127 × 127 mm	127 × 127 mm	127 × 127 mm
Weighing pan diameter	130 mm	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

	XPR603SN	XPR603S	XPR1203SN	XPR1203S
Limit values				
Capacity	610 g	610 g	1210 g	1210 g
Readability	1 mg	1 mg	1 mg	1 mg
Capacity of fine range	–	–	–	–
Readability in fine range	–	–	–	–
Repeatability	0.8 mg	0.8 mg	0.8 mg	0.8 mg
Repeatability in fine range	–	–	–	–
Linearity deviation	2 mg	2 mg	2 mg	2 mg
Typical values				
Repeatability	0.4 mg	0.4 mg	0.4 mg	0.4 mg
Repeatability in fine range	–	–	–	–
Linearity deviation	0.6 mg	0.6 mg	0.6 mg	0.6 mg
Sensitivity offset (at nominal load) ▲	1.2 mg	1.2 mg	4 mg	4 mg
Minimum weight (USP, tolerance = 0.10%) ▼	820 mg	820 mg	820 mg	820 mg
Minimum weight (tolerance = 1%) ▼	82 mg	82 mg	82 mg	82 mg
Settling time	1.5 s	1.5 s	1.5 s	1.5 s
Dimensions and other specifications				
Weighing pan dimensions (W × D)	127 × 127 mm	127 × 127 mm	127 × 127 mm	127 × 127 mm
Weighing pan diameter	–	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

	XPR2003S	XPR3003S	XPR5003S
Limit values			
Capacity	2.1 kg	3.1 kg	5.1 kg
Readability	1 mg	1 mg	1 mg
Capacity of fine range	–	–	–
Readability in fine range	–	–	–
Repeatability	1 mg	0.9 mg	1.4 mg
Repeatability in fine range	–	–	–
Linearity deviation	3 mg	6 mg	6 mg
Typical values			
Repeatability	0.6 mg	0.6 mg	0.9 mg
Repeatability in fine range	–	–	–
Linearity deviation	1 mg	2 mg	2 mg
Sensitivity offset (at nominal load) ▲	4 mg	1.8 mg	3 mg
Minimum weight (USP, tolerance = 0.10%) ▼	1.2 g	1.2 g	1.8 g
Minimum weight (tolerance = 1%) ▼	120 mg	120 mg	180 mg
Settling time	1.5 s	2 s	2 s
Dimensions and other specifications			
Weighing pan dimensions (W × D)	127 × 127 mm	127 × 127 mm	127 × 127 mm
Weighing pan diameter	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

	XPR10003SC	XPR6003SD5	XPR12003SD5
Limit values			
Capacity	10.1 kg	6.1 kg	12.1 kg
Readability	1 mg	5 mg	5 mg
Capacity of fine range	–	–	–
Readability in fine range	–	–	–
Repeatability	3.5 mg	6 mg	6 mg
Repeatability in fine range	–	–	–
Linearity deviation	7 mg	7 mg	20 mg

	XPR10003SC	XPR6003SD5	XPR12003SD5
Typical values			
Repeatability	2 mg	3 mg	3 mg
Repeatability in fine range	–	–	–
Linearity deviation	3.2 mg	2 mg	6 mg
Sensitivity offset (at nominal load) ▲	34 mg	5 mg	30 mg
Minimum weight (USP, tolerance = 0.10%) ▼	4 g	6 g	6 g
Minimum weight (tolerance = 1%) ▼	0.4 g	600 mg	600 mg
Settling time	3.5 s	2 s	2 s
Dimensions and other specifications			
Weighing pan dimensions (W × D)	127 × 127 mm	170 × 203 mm	170 × 203 mm
Weighing pan diameter	130 mm	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

	XPR1202S	XPR2002S	XPR4002S
Limit values			
Capacity	1210 g	2.1 kg	4.1 kg
Readability	0.01 g	0.01 g	10 mg
Capacity of fine range	–	–	–
Readability in fine range	–	–	–
Repeatability	8 mg	8 mg	8 mg
Repeatability in fine range	–	–	–
Linearity deviation	20 mg	20 mg	20 mg
Typical values			
Repeatability	4 mg	4 mg	4 mg
Repeatability in fine range	–	–	–
Linearity deviation	6 mg	6 mg	6 mg
Sensitivity offset (at nominal load) ▲	15 mg	25 mg	25 mg
Minimum weight (USP, tolerance = 0.10%) ▼	8.2 g	8.2 g	8.2 g
Minimum weight (tolerance = 1%) ▼	820 mg	820 mg	820 mg
Settling time	1.2 s	1.2 s	1.2 s
Dimensions and other specifications			
Weighing pan dimensions (W × D)	170 × 203 mm	170 × 203 mm	170 × 203 mm
Weighing pan diameter	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

	XPR6002SDR	XPR6002S	XPR8002S	XPR12002S
Limit values				
Capacity	6.1 kg	6.1 kg	8.1 kg	12.1 kg
Readability	0.1 g	0.01 g	0.01 g	0.01 g
Capacity of fine range	1200 g	–	–	–
Readability in fine range	0.01 g	–	–	–
Repeatability	60 mg	8 mg	8 mg	8 mg
Repeatability in fine range	8 mg	–	–	–
Linearity deviation	60 mg	20 mg	20 mg	20 mg
Typical values				
Repeatability	40 mg	4 mg	4 mg	4 mg
Repeatability in fine range	5 mg	–	–	–
Linearity deviation	20 mg	6 mg	6 mg	6 mg
Sensitivity offset (at nominal load) ▲	30 mg	12 mg	12 mg	30 mg
Minimum weight (USP, tolerance = 0.10%) ▼	10 g	8.2 g	8.2 g	8.2 g
Minimum weight (tolerance = 1%) ▼	1 g	820 mg	820 mg	820 mg
Settling time	1.2 s	1.2 s	1.5 s	1.5 s

	XPR6002SDR	XPR6002S	XPR8002S	XPR12002S
Dimensions and other specifications				
Weighing pan dimensions (W × D)	170 × 203 mm	170 × 203 mm	170 × 203 mm	170 × 203 mm
Weighing pan diameter	–	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

	XPR4001S	XPR8001S	XPR12001S
Limit values			
Capacity	4.1 kg	8.1 kg	12.1 kg
Readability	0.1 g	0.1 g	0.1 g
Capacity of fine range	–	–	–
Readability in fine range	–	–	–
Repeatability	80 mg	80 mg	80 mg
Repeatability in fine range	–	–	–
Linearity deviation	60 mg	100 mg	100 mg
Typical values			
Repeatability	40 mg	40 mg	40 mg
Repeatability in fine range	–	–	–
Linearity deviation	20 mg	30 mg	30 mg
Sensitivity offset (at nominal load) ▲	50 mg	120 mg	300 mg
Minimum weight (USP, tolerance = 0.10%) ▼	82 g	82 g	82 g
Minimum weight (tolerance = 1%) ▼	8.2 g	8.2 g	8.2 g
Settling time	0.8 s	1 s	1 s
Dimensions and other specifications			
Weighing pan dimensions (W × D)	190 × 223 mm	190 × 223 mm	190 × 223 mm
Weighing pan diameter	–	–	–

▲ after adjustment with internal weight

▼ determined at 5% load, k = 2

Features

Outstanding Performance

- Max capacity from 200 g to 64 kg
- Readability from 0.1 mg to 1 g
- High performance models from 2 kg to 5 kg (0.1 mg) to 10 kg (1 mg)
- SmartPan™ Pro and LevelMatic weighing pans

Quality Assurance

- GWP Approved built-in quality assurance monitoring
- Customizable tolerance profiles
- MinWeigh warning function
- Adjustment and routine test history
- Balance ready StatusLight™

- LevelControl: level warning with graphical leveling guide
- Temperature and time programmable automatic adjustment (proFACT)
- User Management, individual profiles password protected
- Change history log

Efficient Operation

- 7 inch color capacitive touchscreen terminal, glove compatible
- Storage of weighing methods (including sample series and tolerances)
- SmartTrac dosing guide
- Integrated result notepad

Seamless Process

- Easy connectivity and data export: 4 x USB, 1 LAN
- Easy connection of peripheral devices: printers, PC, barcode readers, footswitches and sensors
- Integrated label editor, alphanumeric and barcode
- Export of process and results data to XML or Excel

Sustainable Value

- Integrated overload protection
- Chemically resistant materials
- Designed for easy cleaning

LabX™ – digital data handling and automatic documentation

Connect your XPR Precision Balance to LabX laboratory software to benefit from a fully integrated solution which can satisfy all your data handling needs.

- SOP user guidance on the instrument
- Automatic data handling and calculations
- Easy data access and documentation
- Full process and results traceability
- Centralized management of multiple instruments

Selected Accessories

Antistatic Kit

Eliminate electrostatic charges on samples and containers by passing them through the freestanding ionizer.

Terminal Stand

Place your terminal on a stand which is quickly mounted at the back of your balance. The display is easier to read and good posture is maintained.

Hand/foot Switches

Keep your hands free to handle your sample and equipment: use a remote switch to perform selected balance operations.

Protective Covers

Disposable terminal and platform covers protect your balance and help avoid cross-contamination. A dust cover shields your balance against soiling.

Printers

The P-50 family of printers generate fast, highquality printouts on paper, continuous label and individual labels with IDs and barcodes.

Barcode Reader

Read in sample and user IDs quickly and without error with a handheld barcode reader.

Accessory Material Numbers

Compact ionizer with stand (USB)	30499859
Terminal stand for placement of the terminal 30 cm above the weighing pan, S platform	30125077
Foot switch, optional switch for remote operation (USB connection)	30312558
ErgoSens, optical sensor for remote operation (USB connection)	30300915
Protective cover for 5 mg, 10 mg and 0.1 g models with S weighing platform	30300966
Protective cover for 0.1 mg and 1 mg models with S weighing platform	30300967
Protective cover for XPR terminal	30125377
P-56RUE thermal printer with RS232C, USB and Ethernet connections, simple print-outs, date and time	30094673
P-58RUE thermal printer with RS232C, USB and Ethernet connections, simple print-outs, date and time, label printing, balance applications, e.g., statistics, formulation, totaling	30094674
Corded USB barcode reader	30417466

CarePacs

CarePac ASTM	11123106
CarePac OIML	30550617
OIML / ASTM Weights (with calibration certificate) ▶ www.mt.com/weights	

www.mt.com/XPR-precision

For more information

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