

# **Taking Weighing to New Limits**

Follow the Green Light



# **Taking Weighing to New Limits**Follow the Green Light

Laboratory projects involving expensive, rare or toxic substances demand that only the smallest possible sample quantities are used. Not only do you have the challenge to prevent waste by weighing out just a few milligrams, but you also need to avoid out-of-specification results and costly reworking.

METTLER TOLEDO's new XPR microbalances incorporate a range of innovative new technologies to deliver the highest accuracy in their class and to help make your micro-weighing tasks simpler, safer and more secure.

#### Valid results guaranteed



- Minimum weight as low as 30 µg
- Repeatability improved by 25%
- Continuous QA monitoring
- Balance ready StatusLight™

### Safe operation



- Small space-saving footprint
- Two-terminal concept
- Touch-free operation
- Easy cleaning

#### Efficient processes



- User guidance
- Built-in results notepad
- Customized method library
- Direct data transfer



The XPR microbalance line takes the worry out of weighing in the micro-range with active quality assurance features that ensure you get valid results – every time.

### **Valid Results Guaranteed**

# Because Successful Analysis Starts Here

With precious samples available only in the smallest quantities, you need to get your analyses right first time to avoid wasting material, money and time. Industry-wide standards, such as those from the US Pharmacopeia or Euramet, put extra pressure on laboratories to deliver traceable and compliant results.

Thanks to unique design features, XPR balances deliver unmatched accuracy. In addition, built-in active quality assurance functions give you the peace of mind that your results are valid and meet all your requirements. With fully traceable, valid results you can be sure of satisfying your auditors too.

### Accuracy is the cornerstone of your success



Even under challenging weighing conditions, XPR microbalances deliver a unique level of precision with exceptionally low minimum weights. The XPR6UD5 offers 0.5 µg readability with repeatability improved by 25%.

### Patented cooling delivers top performance



Heat from the electronics at the back of the XPR is removed via the patented Active Temperature Control (ATC<sup>TM</sup>) system. The resulting increase in temperature stability enables the XPR to deliver an outstanding level of weighing performance.

### Tolerance Profiles ensure traceable results



By setting up Tolerance Profiles you can ensure weighing tasks meet defined quality requirements and regulations. In addition, as the same profile is used each time a specific task is carried out, you can be sure of consistent settings to guarantee traceable results.



Pharmaceutical research and development laboratories typically have just a very small amount of each active ingredient they are investigating, often no more than 50 – 100 mg. As there are many different analyses to be carried out, each substance must be used sparingly. Low minimum weights make the most of such limited and valuable substances.

# Rely on GWP® for daily quality



The GWP Approved function actively monitors the balance status and ensures you always weigh within the safe weighing range. The on-screen icon is your reassurance of accurate, reproducible results. Ask us to activate GWP Approved in your balance.



#### GWP® – The Highest Quality Standard in Weighing

- Reproducible analytical processes
- No rework or out of specification results
- Every audit passed easily.

www.mt.com/gwp-library

### **Safe Operation**

# Because Nothing is More Important

Around half of all microbalances are used to weigh out toxic or potentially hazardous substances, including active pharmaceutical ingredients. User safety guidelines demand that such applications take place in a protected environment, presenting further challenges for microbalance users.

Now, you can save space in your safety cabinet thanks to the XPR's compact footprint and a main terminal which can be placed away from the balance. Simply setup your task using the modern capacitive touchscreen on the main terminal and carry it out using the basic functions on the smaller SmartView terminal.

### Sensors reduce cross-contamination risk



SmartSens infrared sensors enable you to operate the draft shield doors with the wave of a hand. This touch-free balance operation reduces the risk of crosscontamination.

### Two-terminal concept simplifies operation



The SmartView terminal is right where you need it as you carry out your weighing tasks. With on-screen user guidance, all the basic functions you need are at your fingertips: tare, zero, open door and accept weight result.

# New design concept makes cleaning easy



The newly designed draft shield provides easy access to the weighing pan. There are no edges and corners where sample material could become trapped. All parts can be removed, cleaned and replaced in a few simple steps.

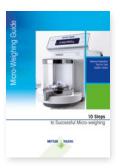


User safety is critical in compound analysis laboratories. Exposure to potential drug candidates must be avoided and investigations are therefore carried out within a protected environment. Often, this means weighing out just a few milligrams of the drug compound under challenging conditions.

# Compact footprint saves valuable space



The XPR has the smallest footprint of any microbalance on the market and has the added convenience of being able to place the main terminal wherever it is most easily accessible — even outside your safety cabinet.



Download our free guide: 10 Steps to Successful Micro-weighing.

www.mt.com/microweighing-guide

### **Efficient Processes**

# Because Time and Money Matter

Business demands for high sample throughput, as well as accurate and reliable results to deliver to customers, place increasing pressure on microbalance users. XPR balances can support you to complete your tasks efficiently without compromising on accuracy or safety.

The modern capacitive touchscreen with its user-friendly interface allows you to 'swipe' through settings and start methods. Data entry for tasks and settings is fast and easy. Your own task methods can be stored and quickly accessed, saving you time and providing higher process security.

### Results notepad simplifies documentation



As you carry out your tasks, all parameters are automatically recorded on the built-in results notepad. You can choose a simple or expanded list and even add your own comments. Simply transfer to a PC or print it out to complete your documentation.

### Method library ensures consistent processes



To ensure consistent processes, store regularly used task methods in your own method library. Simply touch the method name to access all the details and then start the method. Also suitable for methods which include several samples or a test series.

### New touchscreen works like your smartphone



The new capacitive touchscreen enables you to 'swipe' through your tasks as well as use multiple fingers to type in data. The screen is operable even through thick chemically resistant gloves, such as those in glove boxes.



To be successful, service providers and testing laboratories must deliver accurate results on time and in accordance with customers' specific quality standards. Efficiency is key to keeping internal processing costs down and external customers happy.

### Direct data transfer saves time



You no longer need to record results by hand or spend time typing-in data. Simply transfer task parameters and results to a PC or software application via USB. Transcription errors are completely eliminated and the integrity of your data is preserved.



Download our free checklist to learn how to optimize your laboratory workflows.

www.mt.com/lab-smart-weighing

### **METTLER TOLEDO Services**

# **Because Trust Means Everything**

Accurate micro-weighing is about more than just the balance itself. METTLER TOLEDO Sales and Service team can help you select, install and calibrate your balances in accordance with our globally recognized Good Weighing Practice™, GWP®. Our expertise means you can enjoy excellent performance, maximum uptime and full compliance with the norms and standards relevant to your industry.

#### **Evaluation and selection**



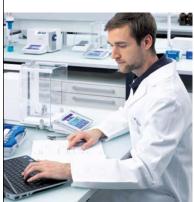
Our GWP® Recommendation service helps you select the right balance according to your specific process and quality requirements. Documentary evidence is provided to show that the selected balance meets metrological, environmental and regulatory requirements.

#### Installation



We document the installation and qualification of your balance in accordance with the relevant industry regulations. Operator training right after installation leads to improved productivity.

#### Calibration



Balance calibration is at the core of accurate weighing results. Each calibration certificate declares the balance's minimum weight and measurement uncertainty – essential information for reliable weighing processes.



Global Reach – Local Presence! A team of 5,000 specialists represent METTLER TOLEDO Sales and Service in more than 140 countries worldwide.

#### **Routine operation**



GWP® Verification provides clear guidance for performance verification of your balance to save you time and money. Included is an optimal routine testing and calibration schedule, specifications of the required test weights, and the ideal maintenance plan.



#### Good Weighing Practice™

METTLER TOLEDO developed GWP®\* (Good Weighing Practice™) as a standardized scientific methodology for the secure selection, operation and calibration of weighing equipment. GWP® is applicable to all weighing equipment from any manufacturer.

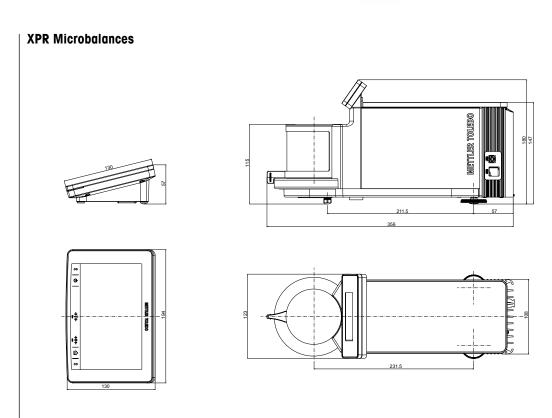
www.mt.com/service

<sup>\*</sup> The registered trademark GWP is a trademark of METTLER TOLEDO in the European Community, US, China and 11 further countries.

# **XPR Microbalances**

# **Technical Specifications**





	XPR2U	XPR6U	XPR6UD5
Maximum capacity	2.1 g	6.1 g	6.1 g
Readability	0.0001 mg	0.0001 mg	0.0005 mg
Repeatability* (5% load)	0.00015 mg	0.00015 mg	0.0003 mg
Settling time*	< 10 s	< 15 s	< 8 s
Minimum weight* (5% load, k=2, U=1.0%)	0.03 mg	0.03 mg	0.06 mg
USP minimum weight* (5% load, k=2, U=0.10%)	0.3 mg	0.3 mg	0.6 mg

	XPR10	XPR2
Maximum capacity	10.1 g	2.1 g
Readability	0.001 mg	0.001 mg
Repeatability* (5% load)	0.0004 mg	0.0005 mg
Settling time*	< 8 s	< 8 s
Minimum weight* (5% load, k=2, U=1.0%)	0.082 mg	0.1 mg
USP minimum weight* (5% load, k=2, U=0.10%)	0.82 mg	1.0 mg

<sup>\* =</sup> typical value

### Features

<u>r carares</u>	
Accurate Results	Active Temperature Control system (ATC™)
	Magnetic Force Restoration weighing sensor with high resolution
	MinWeigh warning function
Efficient Operation	Storage of methods
	Built-in results notepad
	Capacitive colored touchscreen with gesture control, glove compatible
Quality Assurance	GWP Approved built-in quality assurance monitoring
	Tolerance Profiles
	Password protection
	User management
	Change history
	Adjustment and routine test history
	Balance ready StatusLight™
	LevelControl: Level warning with graphical levelling guide
	Temperature and time programmable proFACT
Seamless Process	Efficient operation via SmartView terminal
	Storage of SOPs in method library (including sample series and tolerances)
	Multiple ports for easy connectivity and data export: 4 x USB, 1 x LAN
Sustainable Value	Compact design with small footprint
	Optimized draft shield for easy cleaning
	Overload protection
	J

# Small Details. Big Difference.

# Accessories and Options

METTLER TOLEDO balances can be customized with accessories and peripheral devices to meet the needs of virtually any application.

Our carefully designed accessories make your work easier and more convenient. You benefit further from improved efficiency and productivity.

#### Protect results from static



To help to address one of the major challenges in micro-weighing, the freestanding ionizer removes electrostatic charges on samples and containers.

#### Fast filter determination



Mount this filter kit on your microbalance in seconds for accurate and convenient determination of particulate matter on filters.

#### **Easy documentation**



Results, process data, labels: Generate fast, high quality printouts on paper, self-adhesive labels and continuous selfadhesive paper (including barcodes).

Description of selected key accessories	Part No.	
Antistatic solutions		
AntiStatic Kit Microbalance: Includes one stand and one Compact Electrode	30215452	
Compact Electrode: Optional second electrode for AntiStatic Kit Microbalance	30300921	
Universal Antistatic Kit: U-shaped electrode and power supply unit	11107767	
U-shaped Electrode: Optional second U-shaped electrode* for the Universal Antistatic Kit	11107764	
*Requires additional power supply unit	11107766	
Filter Kit		
Filter Kit: Suitable for 47 and 70 mm filters, includes tweezers	30300922	
Filter Pan: Suitable for 50 mm filters	211214	
Printers		
P-56RUE: Thermal direct printer, RS232, USB, Ethernet, optional BT	30094673	
RS-P42: Dot matrix printer, RS232	229265	
Sensors and switches		
ErgoSens: Infrared sensor for touch-free remote operation (USB connection)	30300915	
Footswitch: Switch for remote operation (USB connection)	30312558	
Special sample holder		
Special Weighing Pan: Suitable for small, tubular samples; includes holder, pan and wind-ring	30113498	
Special Weighing Pan Set: Set of 10 Special Weighing Pans	30215425	
Essential weighing tools		
Spatula Set Micro: Set of 2 stainless steel spatulas	30064490	
Cables and interfaces		
USB-RS232 Converter: Connects peripheral devices to the balance via RS232	64088427	
Terminal cable: Length 4.5 m	30300920	

### Footswitch keeps hands free



Open or close the draft shield door with a tap of your foot and keep your hands free to carry out your weighing task.

### Special sample holder



This flexible holder is perfect for ensuring that tubular shaped samples can be placed securely on the balance (e.g. stents).

### Tools for micro-samples



Our spatulas and tweezers have been specially designed for micro-weighing tasks.

### **Benefit From Our Weighing Expertise**

With decades of experience in laboratory weighing, METTLER TOLEDO can offer you a wide range of online learning resources. Take advantage of our expertise to enhance your weighing know-how and make the most of your balance. Check out the documentation on our internet page for a range of relevant materials.



#### **Laboratory Expertise**

Valuable know-how is at your fingertips on our competence pages. Learn about:

- USP Revisions
- Electrostatic Influences
- Calibrating Your Weighing Device

www.mt.com/lab-expertise



#### eLearning

Online training is a cost effective way to train new employees and fulfill GLP/GMP/ISO re-training requirements. Get going with:

- USP Compliance
- Lab Balances External Influences and Cleaning

www.mt.com/lab-elearning



#### **On-demand Webinars**

Learn directly from our weighing experts and guest speakers. It's easy to register.

For starters, we recommend:

- Minimizing Out-of-Specification Errors
- Good Weighing Practice
- Calibration of Laboratory Instruments

www.mt.com/webingrs

### www.mt.com/xpr-microbalances

For more information

Mettler-Toledo GmbH

Laboratory Weighing 8606 Greifensee, Switzerland Tel. +41 44 944 22 11 Fax. +41 44 944 30 60

Subject to technical changes © 07/2016 Mettler-Toledo GmbH 30316997B Global MarCom 1874 PH/MD



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

