

Precision Analytical Balance Sub Milligram Laboratory
Electronic Weighing Scale

Item Number: KT-FX



Introduction

This high precision analytical balance delivers dependable accuracy with an electromagnetic sensor, transparent glass draft shield, linear calibration, automatic fault detection, overload protection, and serial communication for demanding laboratory testing and research operations.

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Application	Description	Key Benefit
Pharmaceutical Formulation & Dosing	Gravimetric preparation of active pharmaceutical ingredients (APIs), excipients, and reference standards requiring high dilution accuracy.	Eliminates batch compounding errors down to 0.1 mg, ensuring strict compliance with pharmacopeial dosage tolerances.
Analytical Chemistry & Reagent Synthesis	Precise mass determination of analytical reagents, titrants, and organic synthesis precursors prior to chromatographic or spectroscopic evaluation.	Maintains traceable linearity across the entire working capacity, preventing calibration drift during critical standard preparations.
Precious Metals & Gemological Testing	Accurate quantification of precious stones, bullion alloys, and jewelry components utilizing metric carat and gold ounce measurement units.	Delivers dual unit flexibility with instantaneous conversion, eliminating manual math errors in commercial valuation and appraisal.
Materials Science & Nanomaterial Synthesis	Measurement of low-mass powder samples, carbon nanomaterials, and catalytic substrates subjected to high-temperature or chemical treatments.	Minimizes static and draft interference via the four-sided ultra-white glass enclosure to capture true sub-milligram material yields.
Micro-Component Quality Control	High-precision piece counting and tolerance verification for miniature electronic terminals, watchmaker gears, and micro-molded medical parts.	Accelerates batch verification and parts sorting with intelligent sample-based counting algorithms that eliminate human counting fatigue.
Environmental & Particulate Trace Analysis	Filter membrane pre-weighing and post-sampling gravimetric measurement for aerosol collection, airborne particulate monitoring, and wastewater residue testing.	High sensitivity and rapid stabilization ensure consistent filter mass readings without environmental moisture or draft disruption.
Academic Research & University Laboratories	General analytical weighing support for advanced physical chemistry, biochemistry laboratories, and higher-education research programs.	Combines rugged overload protection with intuitive automatic calibration routines, resisting accidental operator mishandling.

Parameter	Specification Details
Product Item Number	KT-FX
Weighing Capacity	100 g
Readability / Resolution	0.0001 g (0.1 mg)
Applicable Weighing Range	0.0001 g to 100 g
Display Value	0.0001 g
Sensor Technology	New-Generation Electromagnetic Force Restoration Sensor
Draft Shield Construction	Four-sided transparent ultra-white optical glass enclosure
Calibration System	Automatic calibration, external calibration weights, linear four-point calibration
Diagnostic Functions	Automatic fault self-detection and electronic status alerts

Parameter	Specification Details
Overload Protection	Integrated mechanical limit stops and electronic load protection
Operating Modes	Standard weighing, piece counting, stability indication, full-range tare
Selectable Units	Metric Grams (g), Metric Carats (ct), Gold / Troy Ounces (oz)
Stability Detection	Dynamic digital stability filtering with real-time on-screen indicator
Tare Range	0 to 100 g (100% full-scale subtractive taring)
Digital Interface	Built-in industrial RS232C serial communication port
Peripheral Compatibility	External personal computers, dedicated data printers, peripheral loggers