

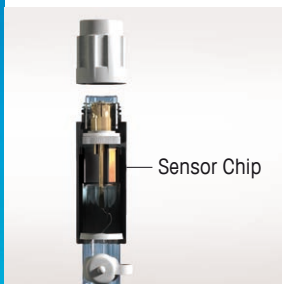
One Click® Titration

Efficient, Secure and Modular



Touchscreen terminal with StatusLight™

The terminal has a brilliant, high-resolution touchscreen that can be freely and conveniently positioned thanks to the cable connection. Combined with the intuitive StatusLight™ concept and the adjustable display angle, this guarantees an ergonomic and stress-free working environment.



Plug & Play sensors and burettes

The most important titration peripherals are automatically recognized by the titrator, minimizing user intervention. Important data such as sensor calibration or titrant concentration are saved in the sensor and burette chips and automatically transferred to the titrator. Using the wrong titrant or electrode is impossible.



SmartSample™ flexibility

A SmartSample reader is installed as standard on all Excellence titrators. Wireless data transfer from balance to titrator eliminates transcription errors caused by manual entry. Sample mix-ups are impossible because the sample data is saved on a tag on the titration beaker.



Preconfigured system application packages

Everything you need for your analysis in two different packages:

- T5 with manual titration stand
- T5 Rondolino with automated titration stand for up to 10 samples.



T5 – Convenient and Versatile Titration Excellence line

The Titration Excellence line offers many advantages such as One Click® Titration, Plug & Play and the method database. The T5 is the ideal entry-level model in this line and offers much more than a simple titrator:

- Touchscreen terminal with StatusLight™
- Plug & Play sensors and burettes
- Comprehensive communication connections
- Security with Level Sensor and Fingerprint Reader
- SmartSample™ flexibility

METTLER TOLEDO

Functionality Overview		T5
One Click® Titration	Shortcuts per user	24
	Plug & Play sensor recognition	•
	Automatic burette recognition with titrant and titer	•
Hot Plug & Play	Burette drive	•
	USB printer	•
	Memory stick	•
	USB barcode reader	•
Security	LevelSens	•
	LogStraight Fingerprint Reader	•
Automation	Rondolino automated titration stand	•
	InMotion Autosamplers	•
	InMotion KF Oven Autosamplers	–
Burette drives	Max. number to dose and titrate	1 internal + 1 optional
	Max. number to dose only	+ 2 optional
Method and series	Learn titration	•
	Number of method functions per method	15
	Number of loops per method	1
	Number of samples per series	303
	Predefined METTLER TOLEDO methods	>60 (incl. KF methods)
Data Export / Printing	Max. number of methods	150
Sensor Boards	RS-232, USB, Network	•
	Analog, conductivity or coulometer	1
Sensor inputs	Potentiometric	2
	Polarized	1
	Reference	1
	PT1000	1
	Conductivity / NTC	1 optional
Communication	Ethernet	1
	COM	3
	USB host (printer, memory stick, barcode reader, hub)	3
	USB client	1
	CAN Bus	•
	TTL-I/O	1
	Pump / Stirrer	3
PC software	LabX® Express and Server	•
Homogenizer		RS / TTL

Technical Specifications

Potentiometric sensor inputs	Measurement range	± 2000 mV
	Resolution / Error limit	0.1 mV / 0.2 mV
Polarized Sensor input	Measurement range I _{pol} / U _{pol}	0 ... 2000 mV / 0 ... 200 µA
	Resolution I _{pol} / U _{pol}	0.1 mV / 0.1 µA
	Error limit I _{pol} / U _{pol}	2.0 mV / 0.2 µA
	Current source range I _{pol} / U _{pol}	0–24 µA AC / 0–2000 mV AC
	Current source resolution I _{pol} / U _{pol}	0.1 µA / 0.1 mV
Temperatur-Sensor PT1000	Measuring range	–20 ... 130 °C
	Resolution / Error limit	0.1 °C / 0.2 °C
Burette drive	Burette resolution (for 10 mL burette)	0.5 µL (1/20 000 of the burette volume)
	Error limit	0.2% of the burette volume
	Resolver resolution	0.0625% of burette volume
	Filling time and discharge time	20 s at 100% filling rate
Titrator dimensions	Width x depth x height	210 x 246 x 250 mm
	Weight	4.3 kg
Terminal	Control	Touch control
	Screen	WVGA 7" color TFT
	Resolution	800 x 480 pixel
	Angle	Adjustable

METTLER TOLEDO Group

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For more information

One Click is a Registered Trademark of METTLER TOLEDO in Switzerland, the European Union, Russia and Singapore.
LabX is a Registered Trademark of METTLER TOLEDO in Switzerland, USA, China, Germany and a further 13 countries.



Put Your Lab InMotion Flexible and Efficient



SevenExcellence pH meter with InMotion Flex, Excellence Refractometer with InMotion Pro and T9 Titrator with InMotion Max.

Automation in a laboratory today has high demands for a variety of samples and workflows. From eliminating process order and transcription errors of sample information to complex cleaning and environmental control and protection for analysis, our autosamplers are designed to assist in every way for flexible workflows and efficient analysis.

Maximum Throughput

Designed to maximize throughput in minimal space, InMotion Autosamplers increase productivity without sacrificing laboratory bench space. The innovative robotic arms of the Pro and Max series reach into the sample tray optimizing space.

Flexible Workflows

Intuitive and flexible programming in our instruments allows for tailored workflows of your samples. Use the PowerShower™ and conditioning sequences for effective cleaning and to maintain sensors for secure operations or parallel tasks for ultimate efficiency.

Modular and Tailored for Your Samples

Build your autosampler according to your sample needs with modular boards for extra pumps, CoverUp™ system for protecting your samples and operators as well as the water bath sample trays for temperature control of your samples.

Clever Automation Through Tailored Accessories

Rack Kits

Base	Number of Samples	Beaker Size (mL)	Part Number
Flex	50	25	30094124
	27	80	30094125
	18	100	30094126
	15	180	30094127
	11	250	30094128
Pro	182	25	30094129
	69	80	30094130
	34	100	30094131
	23	180	30094132
Max	303	25	30094134
	113	80	30094135
	55	100	30094136
	43	180	30094137
	24	250	30094138
Water Bath			
Flex	18	100	30094139
Pro	61	80	30094140
	29	100	30094141

Beakers

Description	Quantity	Part Number
25 mL Glass Tubes	100	51190936
80 mL Polypropylene	30	51108030
80 mL Polypropylene	1352	51109328
100 mL Polypropylene	120	51109388
100 mL Polypropylene	480	51109389
100 mL Polypropylene	1400	101974
100 mL Polypropylene red	1400	25777
100 mL Glass	20	101446
20 mL Glass Micro-Titration	20	51108125
180 mL Polypropylene	250	30094245
250 mL Polypropylene	500	23829
For Aliquot Kit and Manual Titration Stands		
20 mL Aliquot Beaker	1	51108314
100 mL Aliquot Beaker	1	51108161
100 mL Thermostatable Glass	1	23517

Bundles – Base and Rack

Autosampler	Part Number
Flex Base Titration ¹⁾ with 80 mL Rack Kit	30276336
Flex Base Titration ¹⁾ with 100 mL Rack Kit	30094120
Flex Base Density and Refractometry ²⁾ with 100 mL Rack Kit	30094290

Bases

Base Type	Part Number
Flex – Titration ¹⁾	30094121
Pro – Titration ¹⁾	30094122
Max – Titration ¹⁾	30094123
Flex – Density and Refractometry ²⁾	30094291
Pro – Density and Refractometry ²⁾	30094292
Max – Density and Refractometry ²⁾	30094293

¹⁾ also suitable for SevenExcellence (only when connected to LabX software)

²⁾ also suitable for UV/VIS Excellence (Standalone and LabX)





Stirrers

Type	Part Number
Overhead compact stirrer and propeller	51109150
Under mounted magnetic stirrer (mounting plate sold separately)	30094263
Under rack mounting plate	30094264

2nd Tower

Base	Part Number
Flex	30094160
Pro	30094236
Max	30094232

SmartSens™
Hands free Tower Lift

Sample Data Options

Description	Part Number
Barcode Reader (1D and 2D)	30094235
SmartSample™ RFID Reader Kit	30094251
SmartSample Sleeve and Tag (20 pcs.)	30094269
SmartSample RFID Tags (100 pcs)	30094271

Kits

Description	Part Number
Chemical Oxygen Demand kit	30094249
Karl Fischer Direct Titration kit	30094250
Aliquot Kit (DispenSix liquid handler, rack and stand sold separately)	30094248
Pro to Max Upgrade Kit (service required)	30094286

CoverUp™

Base	Rack Type	Part Number
Flex	80, 100, and 180 mL	30094252
Pro	80 mL	30094253
	100 mL	30094254
	180 mL	30094255

* CoverUp is not compatible with UV/VIS and pH

Liquid Sampling

Description	Part Number
TV6 Liquid Sampling Valve	30026544
DispenSix liquid handler	30673118

Pumps

Type	Name	Flow Rate (mL/min)	Part number
Peristaltic – 2 rates	SP280	280 (140)	30094237
Peristaltic – Fine rate and reversible	SPR200	20 - 200	30094285
Diaphragm / Membrane – 2 rates	SD660	660 (330)	30094165
Air Suction / Delivery	Solvent Manager	~ 180	51105652

Boards

Type	Part Number
CoverUp/Stirrer/Pump Option	30094234
Barcode/SmartSample Option	30094233

Miscellaneous

Description	Part Number
DH100 Heating Element (110V)	51108779
DH100 Heating Element (230V)	51108780
Parallel Titration Sync Cable	30094246
Y Cable – Stirrer/Pump Splitter, 6 pin	30094247

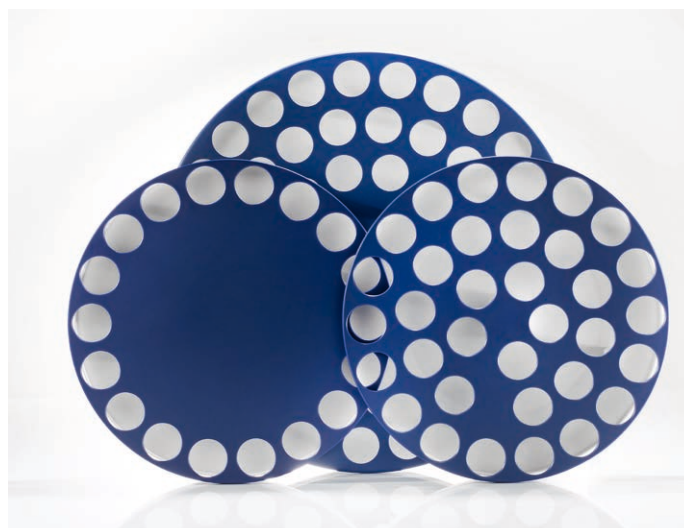
Compatibility Guide

Feature	Instrument				Base Model		
	Titration Excellence	Density Meters and Refractometers	UV/Vis	SevenExcellence	Flex	Pro	Max
Additional Tower	Yes	-	-	-	Yes (not with 25 mL Racks)		
PowerShower	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Line Rinse/Rinse	Yes	Yes	Yes	-	Yes	Yes	Yes
Conditioning	Yes	-	-	-	Yes	Yes	Yes
Automated Sensor Park	Yes	Yes	-	-	Yes	Yes	Yes
LED Status Light	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stirrer/Pump Ports	2 to 6	2 to 4	2 to 4	2 to 6	2 (expandable to 6)		
SmartSample*/**	Yes	-	-	-	Yes	Yes (outer 2 rows)	-
Barcode Reader (1D and 2D) */**	Yes	Yes	Yes (with LabX)	Yes	Yes	Yes (outer row)	-
Aliquot Kit	Yes	-	-	-	-	Yes (25 mL Rack)	-
Chemical Oxygen Demand Kit	Yes	-	-	-	Yes	-	-
Karl Fischer Kit	Yes	-	-	-	Yes	Yes	-
Water Bath Rack	Yes	Yes	Yes	Yes	Yes	Yes	-
Magnetic Stirrer*	Yes	Yes	Yes	-	Yes	Yes (outer 2 rows)	-
Compact Stirrer	Yes	-	-	Yes	Yes	Yes	Yes

* Not with Water Bath Racks / ** Not with 25 mL Racks

Technical Specifications

Power Supply	Input voltage	100–240V AC
	Input frequency	47–63 Hz
Power Consumption	Idle	8 VA
	Maximum	70 VA
Dimensions (Flex/Pro Base)	Width	420 mm
	Depth	534 mm
	Height (incl. Tower)	563 mm
Dimensions (Max Base)	Width	420 mm
	Depth	588 mm
	Height (incl. Tower)	563 mm
Rack Diameter	Flex/Pro Rack	420 mm
	Max Rack	570 mm
Rack Hole Diameter	25 mL	20.5 mm
	80 mL	36.6 mm
	100 mL	49.4 mm
	180 mL	62.3 mm
	250 mL	82.5 mm
Weight	Base	8.0 kg
	Flex Tower	2.6 kg
	Pro/Max Tower	4.2 kg
	Flex/Pro Rack	1.5 kg
	Max Rack	2.3 kg
Materials	Base housing	Polypropylene
	Tower housing	Stainless Steel Polymer Coated
	Flex/Pro Rack	Polypropylene
	Max Rack	Aluminum Polymer Coated
	Pump housing	Polypropylene
	Titration head	Polypropylene
	PowerShower	Polypropylene
	PowerShower O-rings	FKM, Fluoroelastomer



Flex, Max and Pro 100 mL Racks.



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