

Unlimited possibilities with parallel titration

Active tasks		
No.	Type	Name
A	M	ACID
B	M	CALIBRATION

Titrants	Titrant 1
Concentration	0.1 mol/L
Volume	1.0 mL
Dosing rate	60.0 mL/min
Condition	<input checked="" type="checkbox"/>
Formula	E > 7.0
<input type="button" value="Cancel"/> <input type="button" value="Delete"/>	

z	z[Natriumhydro
Decimal places	3
Result limits	<input type="checkbox"/>
Send to buffer	<input checked="" type="checkbox"/>
Condition	<input type="checkbox"/>
<input type="button" value="Cancel"/> <input type="button" value="Delete"/>	

Series parameters		Tasks
Sample 3/3 > Selection > Series templates > Parameters		
Comment	Afternoon	A ₁ B ₂ C ₃
Number of sample	20	1 ₁ 2 ₂ 3 ₃
1. Sample series	Base	
Workspace	A	
2. Sample series	Conductivity	
Workspace	B	
<input type="button" value="Cancel"/> <input type="button" value="Delete"/> <input type="button" value="Print"/> <input type="button" value="Save"/>		

Parallel titration

With the T90, up to 30 tasks that have been started can be assigned to two analysis areas. This allows two titrations to run in parallel independent of one another. Two sample series of different methods on two Rondo sample changers is possible.

Conditions in method functions

The logical condition "if...then" enables the T90 to decide how the analysis should proceed. It can, for example, first measure the pH and then, on the basis of the result, decide whether acid or base should be dispensed.

Result buffer

A result can be optionally transferred to or loaded from the buffer. This allows results of an analysis to be included in the calculation of an analysis running in parallel. The parallel analyses can even be synchronized in this way.



T90 – Unlimited flexibility Titration Excellence line

Besides the many advantages of the Titration Excellence line such as One Click Titration™, Plug & Play, method database (see the One Click Titration™ family brochure) and the refinements of the T70 (see T70 data sheet), the T90 offers a number of other important features:

- Parallel titration
- Conditions in method functions
- Result buffer
- Series Sequence

Series Sequence

The Series Sequence function allows individual sample series of different methods to be combined. For example, all the analyses of a particular day can be started together and processed sequentially or in parallel, irrespective of the method used to perform them.

T90 Functionality Overview

One Click Titration™	Short Cuts per user	12
Hot Plug and Play	Automatic burette recognition with titrant and titer	yes
	Burette drive	yes
	Rondo sample changer	yes
	Rondolino Autom. titration stand	yes
Burette drives	Max. number to dose and titrate	1 (internal) + 7 external
Methods and series	Learn titration	yes
	Number of method functions per method	150
	Number of loops per method	6
	"If ... then" conditions	yes
	Express samples	yes
	Series sequences	10
	Number of samples per series	120
	Predefined METTLER TOLEDO Methods	>30
Task list	Max. number of methods	120
	Number of tasks	30
Sensor boards	Number of tasks running in parallel	8
	Analog or conductivity	1 standard and 2 optional
Sensor inputs	Potentiometric	2 standard and 4 optional
	Polarized	1 standard and 2 optional
	Reference	1 standard and 2 optional
	PT 1000	1 standard and 2 optional
	Conductivity / NTC	3 optional
Communication	Ethernet	1
	COM	3 standard and 2 optional
	USB host	1
	USB client	1
	CAN Bus	1
	TTL I/O	1
	Pump / Stirrer	3 standard and 2 optional

Technical specifications

Potentiometric sensor inputs	Measurement range	± 2000 mV
	Resolution	0.1 mV
	Error limit	0.2 mV
Polarized Sensor input	Measurement range	0 ... 2000 mV / 0 ... 200 µA
	Resolution	0.1 mV / 0.1 µA
	Error limit	0.2 mV / 0.3 µA
Temperature sensor input PT1000	Resolution	0.1 °C
	Error limit	0.2 °C
Burette drive	Burette resolution (for 10-mL burette)	0.5 µL (1/20'000 of the burette volume)
	Error limits	At 10 % 15 µm, at 30 % 15 µm, at 50 % 25 µm, at 100 % 50 µm
	Resolver	32 pulses/mm stroke
	Resolver resolution	0.0625 % of burette volume
	Filling time and discharge time	20 s at 100 % filling rate
Titration dimensions	Width x depth x height	210 x 246 x 250 mm
	Weight	4.3 kg



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