

Key New Features at a Glance

Titration Excellence 3.1



Liquid Handler

The automated dosing system copes with an important part in titration analytics: the accurate and precise sampling of a representative aliquot of sample solution. It provides unsurpassed flexibility in automated dosing and pipetting of sample solutions combined with a superior ruggedness. *)

Method ID	M400
Comment	
Number of samples	40
Continuous run	<input checked="" type="checkbox"/>
Cancel	Print

Continuous Run

One check mark can save a lot of work: "Continuous run" enables a series to be automatically started an unlimited number of times. As soon as the series of analyses is completed it is started again. Repeat analyses can now be performed without any user interaction. In combination with the Liquid Handler, even sampling is automated. *)



Connect other Instruments

The intelligent RS interface is able to send out and receive results or ASCII code. The titrator can therefore trigger other instruments, such as density, refractive index or turbidity meters and include their results in the report or save them in the database using LabX® titration PC software.



Sensor Test

The sensor test, designed in line with GLP principles, ensures that the sensor complies with applicable specifications. It is easily performed prior to each titration series or according to the company's standards. This increases reliability and accuracy of analyses.



Solvent Manager

Work safely, because the Solvent Manager protects the user against contact with liquid chemicals. Fully controlled by the titrator, titration beakers can be drained without user intervention.



Titration Excellence version 3.1

The new Titration Excellence line version 3.1 offers advanced automation possibilities and improvements that make titration even simpler and more secure.

- Powerful automation: Accurate dosing and pipetting with the Liquid Handler, fully controlled by the titration method.
- Save time and let the titration system work independent of any user interaction: Run series repeatedly with "Continuous Run".
- Make the titrator the center of a multiparameter measuring system: Connect other instruments, trigger measurements and exchange results. Just run the titrator method and collect all different data in one report.
- Improve security and confidence: Quickly check if the sensor is OK with the GLP compliant sensor test.
- Avoid contact with chemicals: Empty the titration beaker after analysis with the Solvent Manager.
- And much more, see also back page

*) supported by T70 and T90 titrator models

Additional features of Titration Excellence version 3.1

Abstract	Description											
LabX® titration 3.1	The new version of LabX® titration PC software is fully compatible and supports all new features of Titration Excellence. In addition it offers new functionality like Smartcodes™ that are most powerful in combination with Liquid Handler. The sample labelled with a Smartcode™ is just placed on the sample changer and the correct titration method is automatically chosen by the system. (See also LabX® titration 3.1 datasheet)											
Result export	Titration results can be automatically exported to a USB memory stick.											
More method functions (T90 only)	In order to control a Liquid Handler and a sample handler the following maximum number of method functions (MF) is possible: 24 MF Titration Stand, 20 MF Pump, 20 MF Stir and 60 MF Auxiliary Instruments.											
Formulas for titration termination parameters	For all titration termination parameters, formulas and auxiliary values can be used. It is therefore possible to terminate the titration dependent of sample, system or titration parameters and any calculation of them.											
Tendency in segmented evaluation	The segmented Equivalence point (EQP) evaluation gives the possibility to enter a tendency for the recognition of an EQP.											
More digits in volume display	Depending of the burette volume the measured value table shows more digits. Manual evaluation of measured value tables using microtitration is now even more exact. (The automatic evaluation is not changed.)	<table border="1"> <thead> <tr> <th>Burette size</th> <th>Displayed volume steps</th> </tr> </thead> <tbody> <tr> <td>1 mL</td> <td>0.05 µL</td> </tr> <tr> <td>5 mL</td> <td>0.25 µL</td> </tr> <tr> <td>10 mL</td> <td>0.5 µL</td> </tr> <tr> <td>20 mL</td> <td>1 µL (unchanged)</td> </tr> </tbody> </table>	Burette size	Displayed volume steps	1 mL	0.05 µL	5 mL	0.25 µL	10 mL	0.5 µL	20 mL	1 µL (unchanged)
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1 mL	0.05 µL											
5 mL	0.25 µL											
10 mL	0.5 µL											
20 mL	1 µL (unchanged)											
Show calibration results	After a sensor calibration the calibration data is shown on the screen.											
Warning when limits are exceeded	For calibration, titer determination, auxiliary value and blank determinations limits can be defined. The method setup defines if the method is paused with a message when the limit is exceeded, improving result security.											
Online screen settings saved	The online screen settings are saved and kept for all samples of a loop.											
KF automatic solvent exchange	The Karl Fischer Solvent Control offers the possibility to automatically exchange the solvent without user interaction whenever the solvent is due.											
Re-assignment of burettes	Plug & Play burettes with an assigned titrant can be re-assigned to a different titrant. The burette can then be used for a different titrant if necessary and the data on the burette chip is easily changed.											
Shortcuts in memory copy	The memory copy includes Shortcuts, making transition of data to another Excellence Titrator easier.											
Empty password (no characters)	The user management allows passwords with no characters. Administrators can use a password, while Routine users can log in without password.											
Initial operation date editable	The date of initial operation of burettes and sensors can be edited.											
More USB standard printers	More standard USB PCL printers are supported. Check the list of tested printers: www.mt.com/titration-printers											
Korean printouts	Printouts in Korean language using a standard USB printer are enabled.											
Compact method printouts	The compact paper roll printer USB-P25 can also print out methods.											
NewClassic balances	METTLER TOLEDO NewClassic balances are supported.											



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