

## One Click™ Water Determination Simple & Secure Routine Analysis



### One Click™ User Interface

The large color Touchscreen features the simple-to-understand and fast-to-operate One Click™ user interface. All users have their own Homescreen with dedicated Shortcut buttons to directly start specific routine tasks.



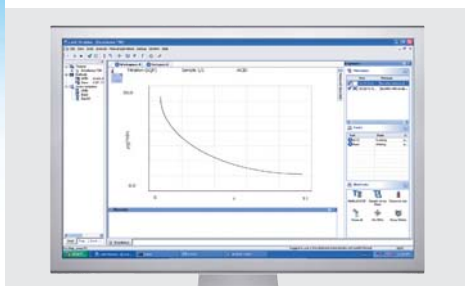
### Solvent Manager

Users are protected against contact with chemicals using the Solvent Manager liquid handling device. It is fully controlled by the titrator and offers solvent exchange at One Click™ without additional user interaction.



### Intelligent Burettes

The titrant is automatically recognized, when the burette is put on the titrator. Important data such as concentration or lifetime is saved on the RFID chip and directly transferred to the titrator, where it is stored and can be monitored. Using the wrong or an expired titrant is impossible.



### PC software LabX titration

Full control over the titrator, secure database archiving, networking, efficient result management with control charts and individual search filters or rapid and clear method development are only some aspects of the powerful LabX titration PC software.



### V20 Compact Volumetric KF Titrator

The Routine Karl Fischer titrator combines fast and precise water content determination with easy operation. Samples from any industry with a water content between 100 ppm and 100% are analyzed in single measurements or sample series with statistics.

- Color Touchscreen with One Click™ user interface
- User interface in English, German, French, Spanish, Italian, Chinese, Russian, Polish and Korean
- Intelligent burettes with RFID chip saving all relevant titrant data
- Connectivity to LabX titration PC software via USB or direct Ethernet (TCP/IP)
- Common USB printers or the USB-P25 compact paper roll printer for secure and GLP-compliant paper recording

**METTLER TOLEDO**

## V20 Functionality Overview

<b>Application</b>	Solid, liquid and gaseous samples	•
	Resources and method database	•
	KF titrants	100
	KF standards	50
<b>One Click™ Titration</b>	User specific Home Screen with Shortcuts	•
	Shortcuts per user	4
	Solvent Control	○
<b>Hot Plug &amp; Play</b>	Solvent Manager	•
	Burette recognition with titrant, concentration and monitoring data	•
	External Dosing Unit for addition of auxiliary reagents	○
	USB printer DIN-A4/US letter / USB-P25 compact paper roll printer	•
	USB memory stick / USB barcode reader / USB hub	•
<b>Automation</b>	Stromboli oven sample changer	○
<b>User Management</b>	Expert – Routine	○
	Preprogrammed METTLER TOLEDO methods	○
	KF standard methods	2
	Max. number of user methods	5
<b>Methods and series</b>	External extraction/dissolution dedicated method type	○
	Number of samples per series	120
	Autostart: automatic start after sample addition	•
	Drift stop for endpoint recognition (absolute and relative, tmax, delay)	•
	Max. number of calculations/results per method	3
	User defined calculations	○
	Statistics of up to 120 samples including result limits check, outlier test	•
	Extra statistical functions as max. srel and multiple determinations	○
	Recalculation of results	•
	Data in Online Screen: time, water count, potential, stirrer speed, volume, drift	•
	Data in measured value table: time, water count, potential, volume, drift	•
	Curves in Online Screen and printout: E-V, E-t, V-t, drift-t, water count-t	•
<b>Task list</b>	Number of tasks queued	○
<b>Online Help</b>	Context sensitive parameter explanation	•
<b>Languages</b>	User interface and printouts in English, German, French, Spanish, Italian, Chinese, Russian, Polish, Korean	•
<b>PC software</b>	LabX titration light and pro	•
<b>Homogenizer</b>	TTL	○
<b>Communication</b>	Ethernet (TCP/IP)	1
	COM (serial balance connection)	1
	USB host (printer, memory stick, barcode reader, hub)	2
	USB client (PC)	1
	Integrated Magnetic Stirrer	1
	Pump / Stirrer	1

○ exclusive V30 functionality

## V20 Technical Specifications

<b>Polarized sensor input</b>	Measurement range	-2000...+2000 mV
	Resolution	0.1 mV
	Limits of error	2 mV
	Polarization current range	0...24 µA
	Polarization current resolution	0.1 µA
	Polarization current limits of error	1 µA
<b>Burette drive</b>	Drive resolution	20'000 steps
	Burette resolution (for 5 mL burette)	0.25 µL
	Limits of error	0.3% of the respective volume
	Resolver	32 pulses / mm stroke
	Resolver resolution	0.0625% of burette volume
	Filling time and discharge time	20 s at 100% filling rate
<b>Environment</b>	Ambient temperature	+5...+40 °C
	Atmospheric humidity	max. 80% at 31 °C
<b>Titration dimensions</b>	Width x depth x height / Weight	210 x 333 x 320 mm / 4.2 kg
	Glass beaker	150 mL
<b>Control and display</b>	Touchscreen	QVGA 5.7" color TFT, 320 x 240 pixel
<b>Application*</b>	Drift measurement	Online, < 5 µg/min
	Measurement range	100 ppm...100%
	Repeatability	0.3% at >10 mg H <sub>2</sub> O

\* depends on the environment and handling



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