

## Titrate High Sample Numbers Automated and Reliably



### Maximized throughput

The Sample Handler enables efficient titration of 42x100 mL or 80x80mL samples in single or multiple sample series. Simply place your beakers on the compact FlipRack™, start your pre-defined sample series and use the large time gain for other important tasks: the Sample Handler together with the Excellence titrator keep it under control.



### Flexible automation

Let the direct version of the Sample Handler individually automate your sample preparation, titration, rinsing, conditioning as well as disposal steps. If separation of measurements such as conductivity and pH and automated volume adjustment is required, use the power of the aliquot version. The Sample Handler flexibly adapts to your requirements.



### Full software control

Depending on your demands two options for full PC software control of the automation sequence and titration are available. The Sample Handler software includes both and is ideal for daily operation. The Gilson Trilution® LH together with LabX titration software provide highest flexibility in individual Sample Handler control and titration.



### Ruggedness and Reliability

The hardware of the Sample Handler is optimized for intensive use. The robust double stack z-arm drive and the stepper motor controlled xy-arm precisely carry the titration equipment from one beaker to the other. The various rinsing and conditioning steps avoid carry-over and sensor malfunction and LabX titration PC software ensures secure result management.



### The METTLER TOLEDO Sample Handler and Excellence titrator

The automated titration system consisting of two units that perfectly match to cope with the demanding requirements of high sample numbers in titration. The rugged Gilson GX271 xyz based sample changer is equipped with METTLER TOLEDO hardware and reliably performs all sample changing tasks, whereas the Excellence titrator T70 or T90 controls all sample preparation and titration aspects. The full software control merges both units to one easy-to-use and powerful automation solution that suits specific automation requirements in various industry segments such as water or environmental labs, pharma, petrochemistry or food and beverages.

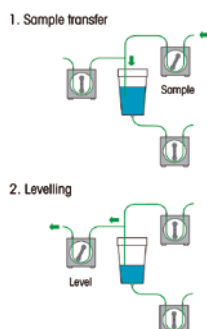
## Sample Handler Versions

### direct 42/direct 80



- Automated direct titration of 42x100 mL or 80x80 mL samples placed on the double-sided FlipRack™.
- High result integrity ensured by various efficient rinse procedures with PowerShower™ functionality: rinse in actual beaker, rinse in actual beaker with aspiration of rinse solution by peristaltic pump into waste, repeated rinse into special rinse beaker with aspiration.
- Thorough conditioning procedures for proper sensor maintenance: up to three subsequent conditioning steps in dedicated beakers containing solvents of different polarity.
- Application examples: TAN/TBN of oil, pH, acidity or chloride content of food.

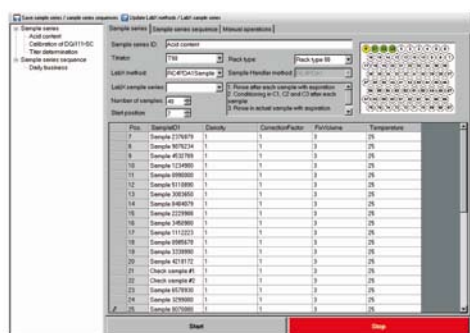
### aliquot



- The aliquot version of the Sample Handler provides automated volume adjustment: an excessive sample volume is pumped from the beaker on the rack into the aliquoting beaker at the titrator. There the volume is accurately adjusted to a pre-defined level by pumping the excess into waste.
- The sample transfer functionality enables separation of conductivity measurement in the beaker on the rack from pH measurement and subsequent titrations in the aliquoting beaker at the titrator.
- Automated multi-parameter determinations are possible: option to measure turbidity with 3rd party device integrated by flow-through cell.
- Application example: Conductivity, pH, acidity/alkalinity, chloride content of water.

## Sample Handler Operational Options

### Option 1: Sample Handler PC Software



- This software is an easy-to-use application consisting of Sample Handler Manager, LabX titration pro and LabX connect for control of both Sample Handler and titrator.
- Individual sample series are set up by selecting from more than 70 Sample Handler/titrator method couples and defining the number of samples. Ideal for daily routine operation the sample series can be stored and started in One Click™.
- Complete titration workflows comprising sensor calibration, titer determination, titration of sample series, check samples, etc. can be automated by setting up of appropriate sequences of individual sample series.
- LabX offers much for the management of large amount of data such as secure data archiving, efficient data management with control charts and individual search filters. Integration into a LIMS is possible thanks to LabX connect.

### Option 2: Gilson Trilution® LH PC Software

- Trilution® LH enables full control of the Sample Handler and utmost flexibility in programming of complex automation sequences. Together with LabX titration for the control of the Excellence titrator, a powerful and flexible automation system is set up.

## Sample Handler System Configurations

Depending on the selected operational option the following configurations are possible:

### Configuration 1

<b>Software</b>	Sample Handler Manager
	LabX pro titration
	LabX connect
<b>Titration</b>	Excellence T70 or T90
<b>Sample Handler</b>	Gilson GX271-RS232
<b>direct 42/direct 80 version</b>	direct 42 kit/direct 80 kit
<b>aliquot version</b>	direct 42 (80) kit + aliquot upgrade kit

### Configuration 2

<b>Software</b>	Gilson Trilution® LH license
	Gilson Trilution® LH media
	Oracle data base
	LabX light titration or LabX pro titration
<b>Titration</b>	Excellence T70 or T90
<b>Sample Handler</b>	Gilson GX271-Ethernet
<b>direct 42/direct 80 version</b>	direct 42 kit/direct 80 kit
<b>aliquot version</b>	direct 42 (80) kit + aliquot upgrade kit



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