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# Titration

TITRATORS FOR BOTH VOLUMETRIC AND KARL FISCHER TITRATION

SI Analytics  
a **xylem** brand

## 4. Universal Titrators for Volumetric and for Karl Fischer Titration

### TitroLine® 7750 – One for all

The Titroline® 7750 is the all-rounder for both potentiometric titration and volumetric KF titration.

The TitroLine® 7750 combines the features of the potentiometric titrator TitroLine® 7000 and the volumetric Karl Fischer titrator TitroLine® 7500.



*TitroLine® 7750 with accessories for potentiometric titration*

The TitroLine® 7750 is characterized as follows:

- Highly visible full color display, that can be easily viewed from a distance and extreme angles
- With interchangeable modules which can store all relevant reagent and unit data
- Expandable thanks to the 2 x USB-host, 1 x USB-PC, 1 x LAN and 2 x RS232 ports. Connectable are e.g., USB keyboard, USB printer, bar-code reader, USB flash drives, balances, PC and further SI Analytics devices such as piston burettes and sample changers
- Storage of results via USB or LAN connection, including method transfer.
- Storage of results using USB port (PDF - and CSV -format) including method transfer
- With standard methods for potentiometric and KF titration

→ Please refer to page 22 (TitroLine® 7000) and page 34 (TitroLine® 7500 KF) for more basic details of TitroLine® 7750.



*TitroLine® 7750 with accessories for KF titration*

# TitroLine® 7800 - The universal titrator with IDS technology

The TitroLine® 7800 enhanced the universal features of the TitroLine® 7750 with an additional IDS measurement input.

Hence the TitroLine® 7800 is able to perform potentiometric titrations with analogue or IDS electrodes up to volumetric Karl Fischer titrations. The IDS measuring input is multifunctional. Digital sensors for the determination of pH and ORP value, the conductivity up to the dissolved oxygen can be connected.

IDS stands for „intelligent, digital sensors“ and means that the analog measuring signal is converted into a digital measuring value in the sensor. This protects the signal from external interferences, such as moisture, electromagnetic fields or pulses. The higher measuring accuracy raises confidence in your readings to a whole new level.



*TitroLine® 7800 with accessories*



## TitroLine® 7800 Benefits

- ★ Highly visible full color display, that can be easily viewed from a distance and extreme angles
- ★ With new interchangeable modules which all relevant reagent and unit data can be stored
- ★ Expandable thanks to the 2 x USB-host, 1 x USB-PC, 1 LAN and 2 x RS232 ports. Connectable are e.g., USB keyboard, USB printer, barcode reader, USB flash drives, balances, PC and further SI Analytics devices such as piston burettes and sample changers
- ★ Storage of results using via USB port (PDF - and CSV -format) including method transfer
- ★ With standard methods for potentiometric and KF titration
- ★ Second digital measuring port for Intelligent Digital Sensors (IDS)



# TitroLine® 7800 – Featuring enhanced automation and additional methods

Besides the high specification of the overall series, the TitroLine® 7750 and 7800 models provide even more functions.

## Measurement and calibration with the highest accuracy

The wireless sensor recognition automatically recognizes ID and IDS electrodes which instantly send the specific data to the titrator. Therefore TitroLine® 7800 always uses correct calibration data. Erroneous measurements are eliminated.



Rear panel

## Ideal for measurements and titration tasks with pH and Conductivity

The TitroLine® 7800 is ideally suited for use in water analysis. A typical example is the measuring of the pH and conductivity. Subsequently, as a rule the Alkalinity or Carbonate/Hydrogen carbonate hardness is determined.

Conductivity and temperature are measured immediately after the two measuring electrodes are immersed in the sample. This will take a few seconds. Then the pH value is determined by drift control. This can take more than a minute for low-ion water samples. There is no mutual influence on the pH and the LF value due to the use of the digital conductivity electrode. The acid capacity  $KS_{8.2}$  and  $KS_{4.3}$  are then titrated with hydrochloric acid 0.02-0.1 mol / l. The titration is carried out to a pH of 4.3 (4.5) and the consumption is determined at pH 8.2 and 4.3 (or 4.5).

End of titration 1 of 4	
Alkalinity (p+m) - Probe	
EP1	0.000 ml / pH 8.200
p-value	0.00 mmol/l
EP2	2.178 ml / pH 4.300
m-value	2.18 mmol/l
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<div>MODE</div> <div>ESC</div>	

End of titration 2 of 4	
Alkalinity (p+m) - Probe	
Start pH (A)	pH 7.429
Start tempe...	22.7 °C
Start cond. ...	357.2 µS/cm
Start tempe...	22.7 °C
next Page	
Back	
<div>MODE</div> <div>ESC</div>	

This application is very easy to automate with a sample changer. If many samples have to be measured per day, the TW 7200 and TW 7450 are used. It is also possible to calibrate the pH electrode in the sample changer at startup.

