

xylem



# TitroLine® 5000

BROCHURE  
XA00002



a xylem brand

# TitroLine® 5000

## The new automatic titrator

The predecessor of the TitroLine® 5000, TitroLine® easy, has always been the first choice for those looking for a simple to use automatic titrator for any application. A special training or a deeper knowledge of automatic titration was not necessary to get precise and quick results. The new TitroLine® 5000 lives up to these demands and much more:

- ▶ High resolution pH/mV-measurement input for pH-, ORP-, silver - and further mV-electrodes
- ▶ Pt 1000 and NTC 30 temperature measurement input for automatic temperature compensation
- ▶ Pre-installed standard methods for FOS/TAC, alkalinity, total acidity in drinks, chloride etc.
- ▶ Linear and dynamic titration to equivalence points
- ▶ Titration to pH and mV-endpoints
- ▶ Same manual titration and dosing function as the piston burette TITRONIC® 300



TitroLine® 5000

# The easiest titration ever...

## Typical applications of water/wastewater and environmental analysis

- ▶ pH-value, alkalinity (p+m-value)
- ▶ FOS/TAC (see titration curve and result screen as example)
- ▶ Total Kjeldahl nitrogen
- ▶ Permanganate index and COD
- ▶ Chloride in wastewater

**Device is filling**  
FOS TAC

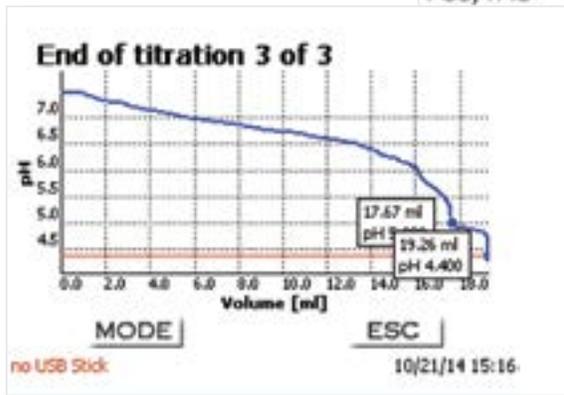
EP1	17.668 ml / pH 5.000
TAC	4417.00
EP2	19.263 ml / pH 4.400
FOS	1248.85

**ESC**  
10/21/14 15:15

**End of titration 2 of 3**  
FOS TAC

0.28  
pH 7.481/ 25.0 °C  
pH 4.261/ 25.0 °C

**ESC**  
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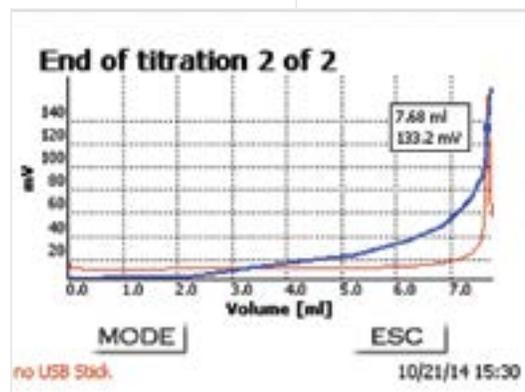
## Typical applications of food analysis

- ▶ Salt content (chloride, sodium chloride, see titration curve as example)
- ▶ pH-value, total acidity in wine, drinks and other food products
- ▶ Ascorbic acid
- ▶ Protein determination (Kjeldahl-nitrogen in milk and dairy products)
- ▶ Iodine and peroxide value

**End of titration 1 of 2**  
Chloride in %

EQ	7.680 ml / 133.2 mV
Chloride	13.61 %
Start mV	3.0 mV
End mV	168.9 mV

**ESC**  
10/21/14 15:31



# Specifications - TitroLine® 5000

Features	
Measurement input pH/mV	pH/mV-input with electrode socket according to DIN 19 262 or additional with BNC socket insert (Z 860)
Measurement input temperature	Pt 1000/NTC 30: (socket 2 x 4 mm)
Interfaces	1 x USB-A and 1 x USB-B, 2 x RS-232-C
Stirrer connection	TM 50 power supply directly through piston burette
Keyboard	The unit is operated using the keys on the device itself, the controller TZ 3880 and optional PC-keyboard (USB)
Display	Graphics-capable TFT display
Volume display	0000,000...9999,999 mL
Display resolution	0.005-0.025 mL (depending on dosing unit)
Dosing speed	Max. 100 mL/min (with 50 mL unit)
Filling speed	Min. 30 s to 999 s adjustable (time according to the cylinder volume)
Dosing units	20 mL or 50 mL dosing unit, interchangeable
Burette resolution	8000
Dosing accuracy	Systematic error 0.15 %, random error 0.05 % in compliance with EN ISO 8655-6
Power supply	100 -240 V~; 50/60 Hz, power input 30 VA
Conformity	ISO 8655, part 6
CE-mark	EMC: 2004/108/EG; safety EG- Directive 2006/95
Dimensions	135 x 310 x 205 mm (W x H x D), including dosing unit, without stirrer
Weight	2.3 kg (without stirrer)
Ambient conditions	Ambient temperature: + 10 ... + 40 °C for operation and storage. Humidity according to EN 61 010, Part 1: Max. relative humidity 80 % for temperatures up to 31 °C, linear decrease down to 50 % relative humidity at a temperature of 40 °C

## Ordering information - TitroLine® 5000

Type-No.	Order-No.	Description
TL 5000/20 M1	285230100	<b>TitroLine® 5000 with 20 mL dosing unit</b> Basic unit without electrode, with ready-to-use assembled 20 mL dosing unit, manual controller, titration clamp, stand rod, magnetic stirrer TM 50 and power supply 100-240 V
TL 5000/50 M1	285230150	<b>TitroLine® 5000 with 50 mL dosing unit</b> Basic unit without electrode, with ready-to-use assembled 50 mL dosing unit, manual controller, titration clamp, stand rod, magnetic stirrer TM 50 and power supply 100-240 V
TL 5000/20 M2	285230110	<b>TitroLine® 5000 with 20 mL dosing unit</b> Basic unit with pH electrode and buffer set, with ready-to-use assembled 20 mL dosing unit, manual controller, titration clamp, stand rod, magnetic stirrer TM 50 and power supply 100-240 V
TL 5000/50 M2	285230160	<b>TitroLine® 5000 with 50 mL dosing unit</b> Basic unit with pH-electrode and buffer set, with ready-to-use assembled 50 mL dosing unit, manual controller, titration clamp, stand rod, magnetic stirrer TM 50 and power supply 100-240 V
TL 5000/20 M3	285230120	<b>TitroLine® 5000 with 20 mL dosing unit</b> Basic unit with Ag-electrode, with ready-to-use assembled 50 mL dosing unit, manual controller, titration clamp, stand rod, magnetic stirrer TM 50 and power supply 100-240 V

## Accessories - TitroLine® 5000

Type-No.	Order-No.	Description
TZ 3835	285220410	<b>USB-keyboard</b>
TZ 3830	285220420	<b>USB-HUB</b>
TZ 3803	285220590	<b>Reagent bottle, amber, 1L</b>



YSI, a Xylem brand  
1725 Brannum Lane  
Yellow Springs, OH 45387

+1.937.767.7241  
info@ysi.com  
YSI.com

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