

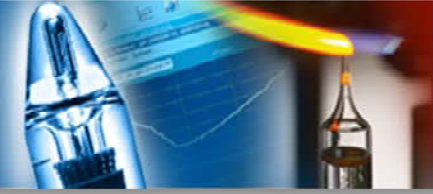
*The first address for
Titration*

TitroLine® 6000

TitroLine® 7000

TITRONIC® 500

www.si-analytics.com



TitroLine® 6000, TitroLine® 7000 and TITRONIC® 500 The new titration devices from SI Analytics

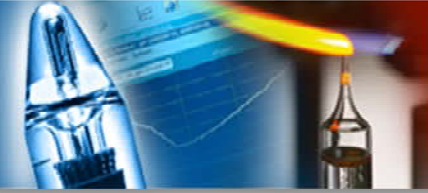




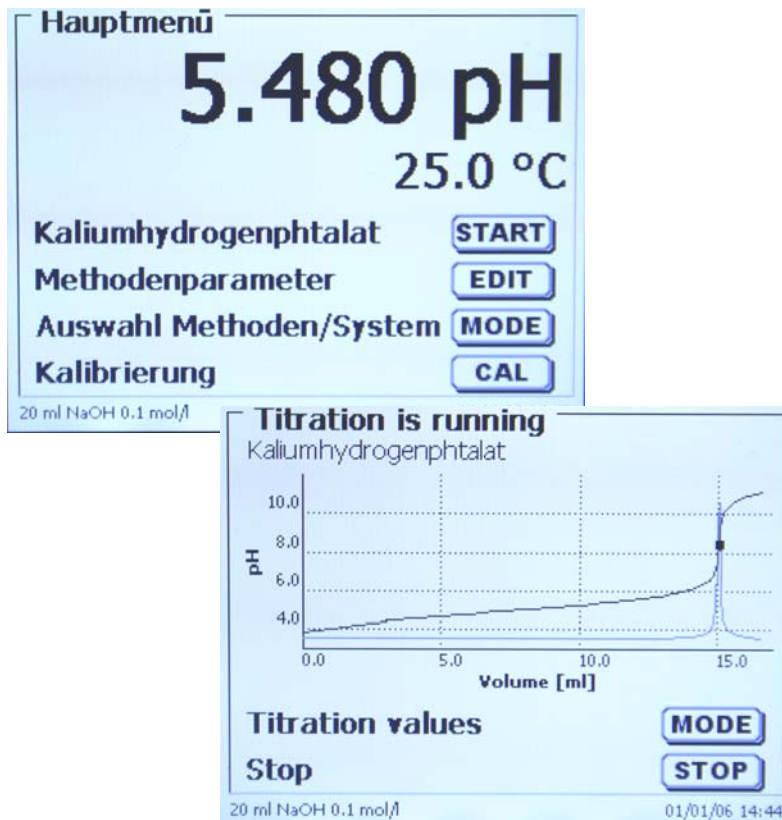
TitroLine® 6000, TitroLine® 7000 and TITRONIC ® 500 General Informations



- ▶ high contrast display
- ▶ touch sensitiv operator panel made out of glass with up to 11 buttons
- ▶ new exchangeable, intelligent dosing units
- ▶ very communicable due to 3 USB and 2 RS-232 ports
- ▶ versatile applicable



TitroLine® 6000, TitroLine® 7000 und TITRONIC ® 500 High Contrast Display



- ▶ high contrast graphic display
- ▶ allows perfect readout even from the side
- ▶ the titration curves are displayed with the 1. derivation
- ▶ and the values of the equivalence points are also displayed in the titration curve



TitroLine® 6000, TitroLine® 7000 und TITRONIC® 500 Touch Sensitive Operator Panel made out of Glass



▶ the operator panel of the TitroLine® 6000 and 7000 has 11 buttons

▶ the 4 arrow keys allows a quick navigation



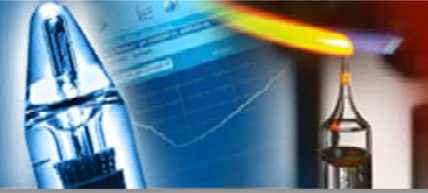
▶ the operator panel of the TITRONIC® 500 has 10 buttons



TitroLine® 6000, TitroLine® 7000 und TITRONIC ® 500 New Intelligent Exchange Units



- ▶ with a size of 5, 10, 20 and 50 ml
- ▶ compact and space-saving
- ▶ all relevant reagent- and exchange unit data are stored in the RFID chip:
 - unit size
 - name of reagent
 - concentration of reagent
 - factor of reagent
 - miscellaneous data specifications such as date of production or expiry date of the reagent



TitroLine® 6000, TitroLine® 7000 und TITRONIC ® 500 Very Communicable



- ▶ through 2 USB-A („Master“) and 1 x USB-B („Slave“) - ports
- ▶ through additional 2 x RS232-ports
- ▶ allows the connection of:
 - USB magnetic stirrer TM 235 and USB hand controller
 - USB printer (HP-PCL a. EPSON POS)
 - USB keyboard
 - USB storage media and USB hub
 - balance and PC
 - and further devices from SI Analytics



TitroLine® 6000 Specific features (Hardware)



- ▶ 1 x pH/mV measuring input (DIN/BNC)
- ▶ 1 x reference input (1 x 4 mm)
- ▶ Dead stop (μ A)-measuring input (2 x 4 mm socket)
- ▶ Temperature measuring input Pt 1000 (2 x 4 mm socket)



TitroLine® 7000 Specific features (Hardware)



- ▶ 1 x pH/mV measuring input (DIN/BNC)
- ▶ 1 x reference input (1 x 4 mm)
- ▶ Dead stop (μ A)-measuring input (2 x 4 mm socket)
- ▶ Temperature measuring input Pt 1000 (2 x 4 mm socket)
- ▶ wireless sensor recognition for SCHOTT® Instruments ID-sensors



TitroLine® 6000 Specific features (Software)



- ▶ titration to mV and pH-endpoint (2 EP)
- ▶ titration to μ A-endpoint (1 EP)
- ▶ titration to mV and pH-equivalence point (1 EQ)
- ▶ manual titration with hand controller
- ▶ dosing tasks
- ▶ standard formulae
- ▶ > 10 methods



TitroLine® 7000 Specific features (Software)



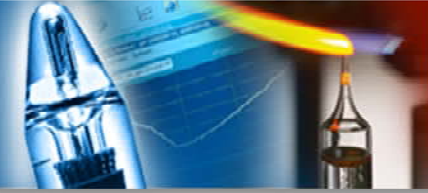
- ▶ titration to mV and pH-endpoint (2 EP)
- ▶ titration to μA -endpoint (1 EP)
- ▶ titration to mV and pH-equivalence point (2 EQ)
- ▶ manual titration with hand controller
- ▶ dosing tasks
- ▶ standard formulae
- ▶ 50 methods
- ▶ especially suitable for non aqueous titrations
- ▶ pH-stat-titration
- ▶ predosing with 1 x connected burette



TITRONIC® 500 Specific features (Software)



- ▶ manual titration with Hand controller
- ▶ dosing tasks
- ▶ standard formulae
- ▶ 5 methods
- ▶ sample preparation:
preparation of solutions

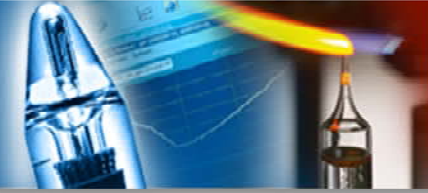


TitroLine® 6000, TitroLine® 7000 und TITRONIC® 500 Applications: Analysis of Water - and Waste Water

Application	TITRONIC® 500 (man. titration)	TitroLine® 6000 (man. and autom. titration)	TitroLine® 7000 (man. and autom. titration)
Alkalinity and carbon dioxide (p+m-value)	1)	✓	✓
COD	1)	✓	✓
Permanganate index (oxidation number)	1)	✓	✓
FOS/TAC	1)	✓	✓
Ammonium (after distillation)	1)	✓	✓
Kjeldahl-nitrogen	1)	✓	✓
Chloride in drinking and waste water	1)	✓	✓
Chlorine in drinking water	1)	✓	✓
Calcium- and magnesium hardness (2 equivalence points)	1)	-	✓
Total hardness (Sum Ca/Mg; 1 equivalence point)	1)	✓	✓

- 1) The applicability of the manual titration have to be checked for individual case
 2) Application possible with restrictions. Have to be checked for individual case.

- ✓ Application possible without restrictions
 - Application is not possible

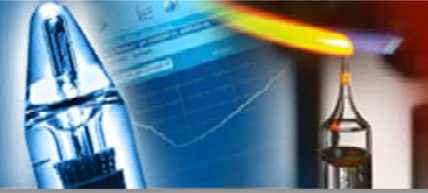


TitroLine® 6000, TitroLine® 7000 und TITRONIC® 500 Applications: Foods Analysis

Application	TITRONIC® 500 (man. titration)	TitroLine® 6000 (man. and autom. titration)	TitroLine® 7000 (man. and autom. titration)
Total acidity in wine and beverages	1)	✓	✓
Total acidity in foods (ketchup, mayonnaise, mixed vinegar...)	1)	✓	✓
Ash alkalinity	1)	✓	✓
Chloride ("salt") in foods and mineral water	1)	✓	✓
Sulfurous acid (SO ₂), free and total	1)	✓	✓
Volatile Acid	1)	✓	✓
Soxlet Henkel (SH-; acid-) value in milk	1)	✓	✓
Reducing sugar	1)	✓	✓
Ascorbic acid (Vitamin C)	1)	✓	✓

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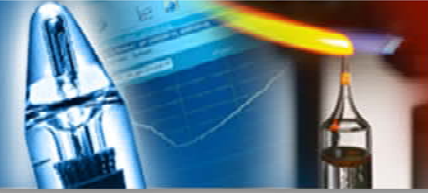


TitroLine® 6000, TitroLine® 7000 und TITRONIC® 500 Applications: Foods Analysis

Application	TITRONIC® 500 (man. titration)	TitroLine® 6000 (man. and autom. titration)	TitroLine® 7000 (man. and autom. titration)
Calcium in milk and dairy products	1)	✓	✓
Calcium and magnesium in mineral water	1)	–	✓
Formol number	1)	✓	✓
Nitrite content in pickling salt	1)	✓	✓
Iodine number	1)	✓	✓
Peroxide number	1)	✓	✓
Saponification number	1)	✓	✓
Acid number (FFA) in fats and oils	1)	2)	✓

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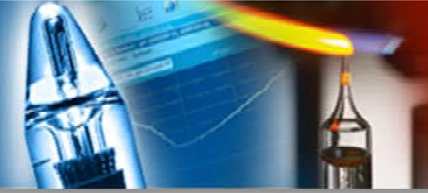


TitroLine® 6000, TitroLine® 7000 und TITRONIC® 500 Applications: Technical Products

Application	TITRONIC® 500 (man. titration)	TitroLine® 6000 (man. and autom. titration)	TitroLine® 7000 (man. and autom. titration)
Titration of acids and bases (1 equivalence points)	1)	✓	✓
Phosphoric acid (2 equivalence points)	1)	–	✓
Hydroxy number	1)	2)	✓
NCO (isocyanate)-number	1)	2)	✓
Epoxide number	1)	2)	✓
Acid number in resins and other technical products	1)	2)	✓
Acid - and base number in oil (max. 2 equivalence points)	1)	–	✓
Total base number in oil	1)	–	✓

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 2) Application possible with restrictions. Have to be checked for individual case.

- ✓ Application possible without restrictions
 – Application is not possible



TitroLine® 6000, TitroLine® 7000 und TITRONIC® 500 Applications: Miscellaneous

Application	TITRONIC® 500 (man. titration)	TitroLine® 6000 (man. and autom. titration)	TitroLine® 7000 (man. and autom. titration)
Detergents	1)	✓	✓
Metals (redox)	1)	✓	✓
Metals (zinc, copper a.s.o.; complexometric)	1)	✓	✓
Perchloric acid titrations (non aqueous titrations)	1)	2)	✓
Gen. potentiometric titration to 1 equivalence point	1)	✓	✓
Gen. potentiometric titration to 2 equivalence points	1)	–	✓

1) The applicability of the manual titration have to be checked for individual case
2) Application possible with restrictions. Have to be checked for individual case.

✓ Application possible without restrictions
– Application is not possible