TresCon® Uno

Online-Analysis –
reliable · compact · economical

- Reliable TresCon® Technology
- Compact dimensions
- Economical
- Simple operation
- Easy to Use
- Easy Service Access
- Connection to PROFIBUS-DP possible

The new **TresCon® Uno** uses a single channel version of our popular multi channel **TresCon® Analyzer**.
The **TresCon® Uno** instruments are designed for control and monitoring at waste water treatment plants. The compact size of **TresCon® Uno** at a reasonable price offers to the user a good price-performance-ratio for the measurement of nutrient parameters.

System Description:

TresCon® Uno consits of a basic unit ① , an analyzer-module ② , and a reagent tray ③ . System can be wall mounted.

ON 210/OS 210

Nitrate Analyzer Module / Nitrate/SAC Analyzer Module

Nitrate/SAC measurement

- Regulating nitrate degradation in denitrification
- Continuous monitoring of nitrate effluent values
- Organic pollution SAC (OS 210)

Measuring Principle Nitrate

The ability of nitrate ions to absorb UV light of certain wavelengths is used for measuring the nitrate. The ultraviolet light from a pulsed photoflash lamp passes through a flow-thru measuring cuvette where it is partially absorbed by the nitrate ions present in the sample flow. The intensity of the attenuated light is measured at a measuring wavelength and at a reference wavelength and evaluated electronically. The 4-beam measuring method used ensures a high degree of long-term stability and absolute accuracy; interfering background influences are efficiently compensated.

SAC measuring principle

Absorption measurement of aqueous sample in UV range. The SAC (**s**pectral **a**bsorption **c**oefficient) represents the organic water pollution.

- **Reagent-free measuring method**
- **Insensitive to interfering substances**
- **4-beam measuring method for optimal background compensation**
- **Can be used in weakly polluted water without sample preparation**
- **Simultaneous nitrate and SAC determination (OS 210)**

Measuring Range		
	mg/l	µmol/l
NO_3-N	0.1 - 60	0 - 4000
NO_3	0.1 - 250	0 - 4000
SAC	0.1 - 200 m^{-1}	

Technical Data

Resolution (Display)	Nitrate:	Range: 0.1 ... 100 mg/l :	0.1 mg/l
		100 ... 250 mg/l :	1 mg/l
	SAC:	0.1 m^{-1} (only OS 210)	
Coefficient of variation for method	2 %		
Response Time	30 s (after alteration in concentration at module input)		
Measuring interval	Continuous mode and 5, 10, 15, 20, 25, 30 min intervals selectable, AutoAdapt, Interval-Program		
Calibration	Automatic zero balance, works calibration		
Sample Flow Rate	0.5 l/hr approx., suspended solids content <50 mg/L		
Consumption	Distilled water, 10 l:	130 days with 24 h interval for zero balance	
	Cleaning solution, 1.5 l:	120 days with 24 h cleaning interval	
Maintenance Interval	Every 6 months		

Ordering Information

		Order No.
Separate TresCon® analyzer module for nitrate (+ SAC) for extension of an existing TresCon® system (requires 1 measuring place)		
ON210	Nitrate	820 007
OS 210	Nitrate + SAC	820 010
TresCon® basic instrument with analysis module ON 210 (nitrate) or OS 210 (nitrate + SAC) (wall mounting, space for 2 further modules)		
TresCon® N 211	Nitrate	8A-20030
TresCon® S 211	Nitrate + SAC	8A-70030
TresCon® Uno single parameter system nitrate or nitrate + SAC with analysis module ON 210 or OS 210		
TCU/N211	TresCon® Uno nitrate	820 102
TCU/S211	TresCon® Uno nitrate + SAC	820 107
	Accessories and consumables see brochure "Product Details"	

For information visit **www.WTW.com** for a customer care center near you or inside US: call **WTW 800 645 5999.**

Operation safe and Service friendly:

Many automatic diagnosis functions help the user with operation and maintenance. The modular design allows for the quick and easy exchange or replacement of modules.

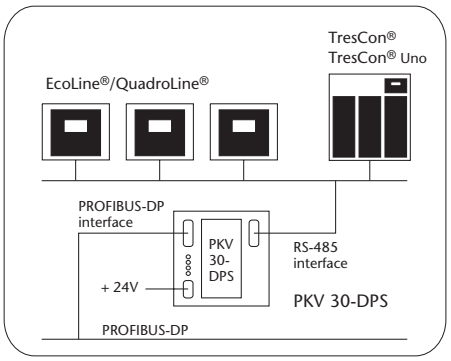
Maintenance and Service

TresCon® systems are service-friendly requiring little or no maintenance. The numerous useful system functions are easily accessed and changed. The operator is also prompted as to service intervals automatically. It has also been designed for easy access and maintenance.

The Instruments include:

· big graphical display
· three 0/4-20 mA outputs
· 12 relay interfaces
· RS 232 interfaces
· RS 485 interfaces
· different controller functions (PID, pulse-width, frequency)

Connection to PROFIBUS-DP via Protocol Converter



Technical Data

	TresCon® Uno		
Measuring ranges	Ammonium:	0.10 ... 1000	mg/l NH_4-N
	Nitrate:	0.10 ... 60	mg/l NO_3-N
	Nitrite:	0.05 ... 1.200	mg/l NO_2-N
	Orthophosphate Range 1:	0.05 ... 3.00	mg/l PO_4-P
	Orthophosphate Range 2:	0.10 ... 10.0	mg/l PO_4-P
	Orthophosphate Range 3:	0.10 ... 25.0	mg/l PO_4-P
	Nitrate/SAC:	0.10 ... 60	mg/l NO_3-N / 0.10 ... 200 m^{-1}
Calibration	Automatic 2-point-calibration (works calibration for N211 and S211)		
Measurement intervals	Cont., 5, 10, 15, 20, 25, 30 min to be set depending on the parameter		
Sample preparation	Depending on the application: none, PurCon® or PurCon® IS		
Mains	230 VAC ± 10%; 50 Hz / 115 VAC ± 10%; 50/60 Hz		
Operation temperature:	32 … 104 °F (0 ... 40 °C)		
Dimensions, weight (W x H x D, lb/kg)	Analyzer:	24.1 x 30.5 x 13 in. (612 x 775 x 329 mm), approx. 77.2 lb / 35 kg	
	Reagent tray:	23.2 x 2 x 14.2 in. (590 x 50 x 360 mm), approx. 37.5 lb / 17 kg	

Ordering Information

			Order No.
TCU/A111	TresCon® Uno - Ammonium	NH_4-N	820 101
TCU/N211	TresCon® Uno - Nitrate	NO_3-N	820 102
TCU/N511	TresCon® Uno - Nitrite	NO_2-N	820 103
TCU/P211-MB1	TresCon® Uno - Orthophosphate Range 1	PO_4-P/MB1	820 104
TCU/P211-MB2	TresCon® Uno - Orthophosphate Range 2	PO_4-P/MB2	820 105
TCU/P211-MB3	TresCon® Uno - Orthophosphate Range 3	PO_4-P/MB3	820 106
TCU/S211	TresCon® Uno - Nitrate/SAC	NO_3-N / SAC	820 107

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