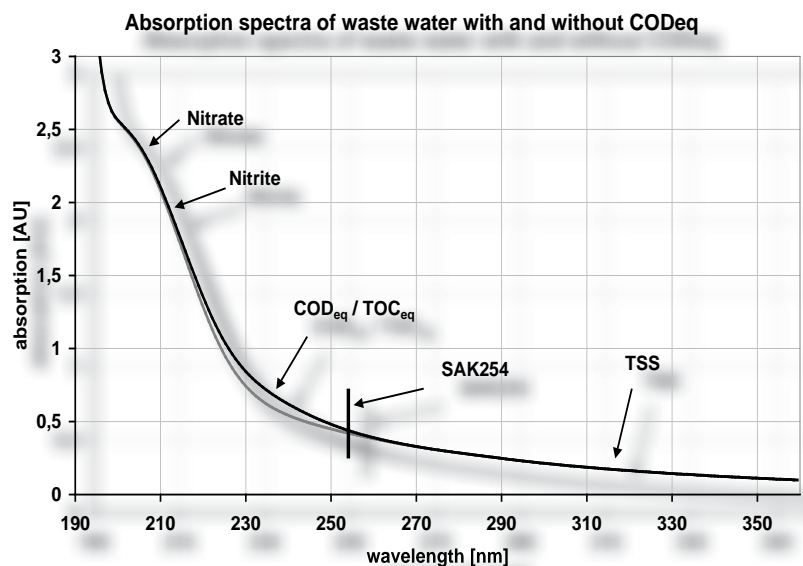# GEO-OPUS
Water Quality UV/VIS spectral analyser

GEO-OPUS is the newest generation of spectral photometer for online analysis of organic loads and nitrogen components. Using full spectrum analysis, GEO-OPUS is able to give reliable readings for various parameters like NO_3-N, NO_2-N, CODeq, BODeq, TOCeq, TSSeq and even HS^-. Using a unique police function to monitor unexpected spectral signatures, the GEO-OPUS can trigger alarms and protect your application. Within minutes you can configure your GEO-OPUS to fit to your need. Select from a variety of interfaces and protocols. Select outputs, enter calibration factors, get housekeeping information from your GEO-OPUS, or start measurement. Integration into existing systems has never been so easy. GEONICA Datalogger HYDRODATA allows to build AQUALERT System consisting of water quality stations network managed by means of Geonica Suite Software from a Data Receiving Center.
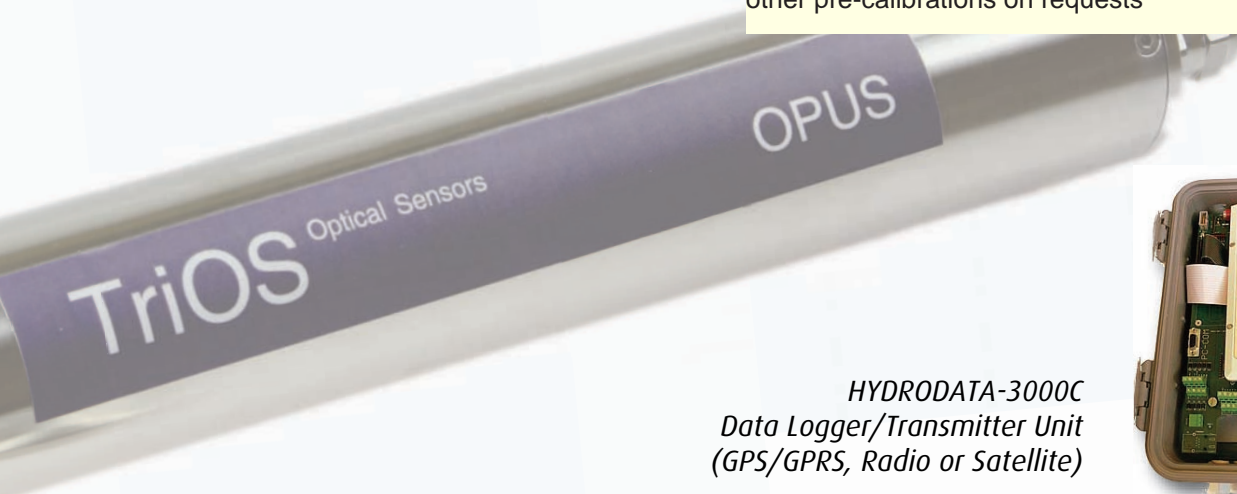

Applications:
- WWTP
- environmental monitoring
- drinking water monitoring
- industrial applications

Absorption spectra of waste water with and without CODeq

Parameter

NO3-N	0..100 mg/L (*)
NO2-N	0..200 mg/L (*)
CODeq	0..5,000 mg/L (*)
TOCeq	0..500 mg/L (*)
BODeq	0..5,000 mg/L (*)
DOCeq	0..1,000 mg/L (*)
NH_2CL	0..250 mg/L (*)
HS-	0..100 mg/L (*)
others	ask for possibilities

(*) typ. ranges and detection limits. Both are depending on water matrix and components
other pre-calibrations on requests

HYDRODATA-3000C
Data Logger/Transmitter Unit
(GPS/GPRS, Radio or Satellite)

Product versions:

pathlength	wavelength	material	interface	connector
1 mm*	UV 200..350nm	VA stainless steel	D RS232 RS485	C fixed 10m cable with M12
2 mm*				
5 mm*	UV/VIS 200..720nm			
10 mm*				
* user changeable by spareparts		Ti titanium	A 2x 4..20mA 0..5VDC 0..10VDC	S SUBCONN 8pin micro

Info

	GEO-OPUS
detector type	high-end miniature spectrometer, 256 channels UV: 200-360nm @ 0.8nm/pixel UV/VIS: 200-720nm @ 2.2nm/pixel
light source	Xenon-flashlamp
telemetry interface	network TCP/IP RS-232/RS485, various protocols (e.g. Modbus, etc.)
power supply	9 - 28 VDC
housing	stainless steel (1.4571) or titanium
optical pathlengths	1mm, 2mm, 5mm or 10mm
dimensions	d= 48mm, length= 460mm (without connector)
depth range	300m
connector	SubConn micro series 8 pin male or fixed cable with M12 industrial connector
operation temperature	0 - 40°C
	internal temperature sensor
memory	2 GB internal micro-SD card
cleaning	nano coated lenses, airblast

- low power consumption
- integrated temperature compensation
- easy to use

- nano coated lenses
- airblast cleaning
- customizable path length

A wide range of accessories is availabe (flowcells, panels, power supplies, handheld devices...)