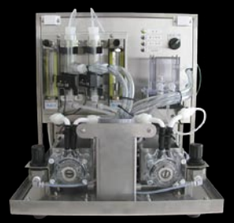
Specifications

Measurement item	Total Organic Carbon
Measurement principle	Continuous Wet Oxidation + NDIR Detection Method
Measurement range	Range A:0—2000ppb　Range B:0—30.0ppm Range C:0—50ppm　　Range SP:0—5000ppb Dilution measurement range(combine with optional dilution device)
Measuring period	Continuous measurement
Reaction time	Apprx. 5min. (with 90% response) Apprx. 10min. with high concentration inorganic carbon removal specification
Water pressure	0—0.5MPa(Analyzer adopted to grab sample automatically)
Sample flow rate	>100ml/min
Water temperature	5—50℃
Resolution	Range A:5ppb　Range B:0.1ppm　Range C:1ppm
Repeatability	Range A:±2%FS　Range B:±2%FS
Reagent	Phosphoric acid Apprx. 5L/month
Oxidant	Sodium persulfate is used in all ranges except Range A　Apprx. 5L/month
Calibrating solution	Potassium Hydrogen phthalate(KHP)
Carrier gas	High purified air(need option unit)
Alarm output	High and low TOC alarm value, 2 points relay contact, AC125V/0.5A
Signal output	4—20mA　TOC measurement value　Max. burden 600Ω
Installation environment	Ambient temperature 5—40℃ Ambient humidity 5—80%(non condensing)
Dimensions/Weight	1250(H)×480(W)×400(D)mm(exclude umbo)/Apprx.60kg
Power supply	Adjustable to foreign power supply　50/60Hz(Max.200VA)

Remarks: 1. Careful in handling instrument as phosphoric acid is used.
2. Drain should not have back pressure.(Atmospheric open)
3. Original designed dilution device as an option.
4. COD converter as an option.
＊ This item can be also used with other instruments.

Option



Dilution device　×10

×100

COD converter

T&C Technical Co.,Ltd.

Head office　40-12 Senjunakacho, Adachi-ku, Tokyo 120-0036 Japan　TEL +81-3-3870-7101
Toride office　448-1 Miyawada, Toride-shi, Ibaraki 300-1514 Japan　TEL +81-297-83-0721

http://www.tactec.co.jp

Technology and Communication
www.tactec.co.jp

T&C Technical

EVOLUTION-II
TOC ANALYZER

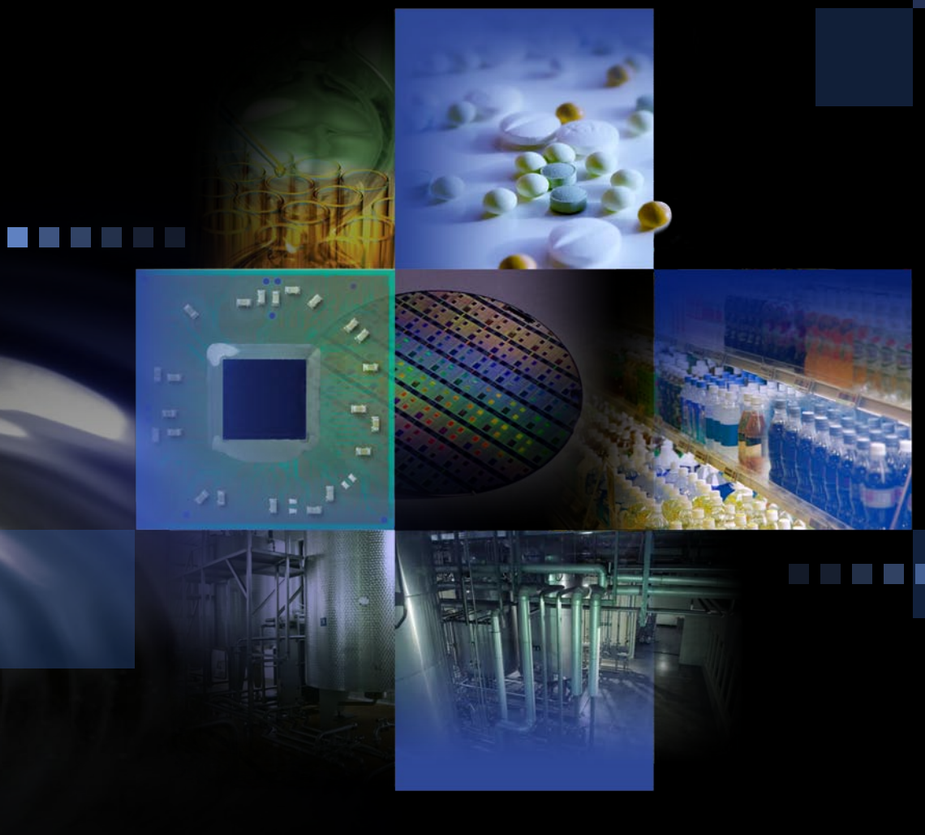
Measuring force cut in the world!

The analyzer which measures an amount of organic compounds dissolved
in water is all over the world in large numbers.
Even if a sense of values and languages are different,
always quick and accurate continuous measurement is widely supported across the borders.
It is of supreme happiness for us.

Therefore, we keep brushing up the performance of the On-Line
and continuous measurement TOC Analyzer, which it can be proud of in the world.

Our concepts of measurement apparatus are starting from
"Easy Operation", "Simple Design" and "Reliability",
plus the relief solutions "When & Where" to the every users.

Just like how the world-class manufacturer reminded us Japanese as
"Art of Design and Manufacturing", T&C Technical would love to offer prompt
and precise continuous measurement of TOC Analyzer.



Continuous 6-cylinder structure chamber for acid aeration system

TOC Analyzer with 6-cylinder structure chamber unit of our original design enables not only stable elimination of high inorganic carbon but also to measure production recovered water of those containing hydrogen peroxide or ozone continuously.

TOC Analyzer (Total Organic Carbon Analyzer) is to measure organic carbon in the sample water and plays an invaluable role for the wide range of water quality control in recent years.

Measurement principle

TAC-EVOLUTION-Ⅱ is the Analyzer that features continuous Wet Oxidation & NDIR detection method.

The measurement principle …

First phosphoric acid is added to sample water to adjust pH to below 2 to eliminate the concentration of inorganic carbon that contained in the sample water by bubbling nitrogen gas. Second if the measuring range is set to the high concentrated TOC then sodium persulfate is added to the sample water. After this procedure this sample will flow through the UV oxidation chamber to oxidize the TOC in the sample and then flow through the Separate chamber to separate the liquid and gas. The separated liquid flows to the drain and the gas will carry through the Mist Trap chamber and to Dehumidifier and to Halogen gas scrubber then finally to the NDIR to detect the amount of the CO_2. This CO_2 value is converted to TOC value continuously.

TOC ANALYZER EVOLUTION-Ⅱ

Applications

- ❖Amount of TOC in raw water
  (tap water, well water, industrial water, river water, lake water, groundwater etc.)
- ❖Monitoring TOC to prevent water pollution
- ❖Monitoring TOC (upper/lower) point in a factory or plant site drainage
- ❖Each industrial plant water in manufacturing for semi-conductor, pharmaceutical, food & beverage, make up water for power plant, etc.)
- ❖Recycled water (pure water, reuse water, raw water, rinse water, etc.)
- ❖Final effluent or wastewater in a factory or plant site

Feature

TAC-EVOLUTION-Ⅱ enables the high conductivity sample to measure TOC continuously, unlike UV oxidation or conductivity detection method (batch type).

The measuring time is approximately 5 minutes with 90% response to low concentrated TOC and 10 minutes to high concentrated TOC.

TAC-EVOLUTION-Ⅱ is the best application for Environmental drainage, high conductivity sample water, high concentrated TOC, penetrated RO water, diluted acid line, recycle water, discharged drain, and waste water.

- ◆High cost performance
- ◆Continuous measurement
- ◆Compact size
- ◆Automatic calibration
- ◆Optional printer
- ◆Selectable of all stainless housing for sanitary application
- ◆COD conversion functions
- ◆Automatic restart function to no sample and instant power failure
- ◆Laboratory use
- ◆Easy operation
- ◆Less reagent
- ◆Customizable