

# Low-range TOC analyzer CA78

## Precise online TOC monitoring in power plants and semiconductor production



More information and current pricing:

[www.de.endress.com/CA78](http://www.de.endress.com/CA78)

### Benefits:

- **Real-time overview of water quality:**  
The online TOC analyzer measures continuously with a fast response time ( $t_{90}$ ) of 50 seconds. This enables you to react immediately to potential water contamination and to protect your product effectively.
- **CA78 uses proven UV oxidation and differential conductivity measurement** which is the most-established method for reliable TOC trace analysis in ultrapure water.
- **The analyzer's maintenance-friendly design** in combination with our worldwide service network offers you complete support for the measuring point, from commissioning throughout the entire lifespan of the device.
- **Perfect adaption to your process needs:**  
Select between the high-precision  $2 \mu\text{S}/\text{cm}$  conductivity version and the robust version that tolerates  $10 \mu\text{S}/\text{cm}$ . Reduce your investment costs by the optional 3 channel configuration.

### Specs at a glance

- **Measurement range** 0.5 to 1 000  $\mu\text{g}/\text{l}$  (ppb)
- **Process temperature**  $< 50 \text{ }^\circ\text{C}$  ( $122 \text{ }^\circ\text{F}$ )
- **Process pressure** max. 0.5 bar (7.25 psi)
- **Measuring method** TOC determination by UV digestion and measurement of the differential conductivity

**Field of application:** Total organic carbon (TOC) content strongly influences the quality of ultrapure water. A high TOC concentration can cause damage of water purification systems or compromise the required water quality. The CA78 online TOC analyzer provides continuous, accurate TOC monitoring ensuring consistently high quality of the

ultrapure water used in your production processes. You gain full control of your product yield and quality.

## Features and specifications

### Analyser

**Measuring principle**

Differential conductivity

**Characteristic**

Total carbon (TOC) analyzer for trace levels

**Measuring method**

TOC determination by UV digestion and measurement of the differential conductivity

**Size**

Housing:

500 x 290 x 200 mm

19.68 x 11.41 x 7.87 in

**Design**

Stainless steel housing;

IP 42 (standard), IP54 (optional)

**Process temperature**

< 50 °C (122 °F)

**Ambient temperature**

-5 to 50 °C (23 to 122 °F)

**Process pressure**

max. 0.5 bar (7.25 psi)

**Sample flow rate**

Min. 5 ml/min (0.17 fl.oz/min)

**Consistency of the sample**

max. conductivity 2 µS/cm, optional: max. 10 µS/cm; particle free

## Analyser

### Specials

UV reactor with continuous function monitoring

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### Application

Determination of total carbon in ultrapure water applications, e.g. in the power or semiconductor industry, that meet the following conditions:

Conductivity < 10  $\mu\text{S}/\text{cm}$

pH range: neutral

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### Power supply

100/240 V AC, 47 - 63 Hz

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### Output / communication

0/4 to 20 mA, galvanically isolated

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### Input

1 to optional 3 measuring channels

Optional control input 24 V (for 1 channel instruments)

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### Measurement range

0.5 to 1 000  $\mu\text{g}/\text{l}$  (ppb)

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