

# Spectrometer Memosens Wave CAS80E

## UV-VIS spectrometer for the water & wastewater industry



### Benefits:

- Ensures uninterrupted measurements in real time by operating directly in the process.
- Benefit from reliable, interference-free communication thanks to Memosens digital technology.
- Offers you the analysis of many standard parameters for your water and wastewater monitoring. Measures your specific selection of the parameters turbidity, suspended solids, CODeq, BODeq, TOCeq, SAC<sub>254</sub>, nitrate and the APHA-Hazen color.
- The spectrometer is quickly adapted to your specific application through pre-installed analysis models.
- Compact, lightweight spectrometer that is very easy to install and convinces with its low-maintenance operation.

More information and current pricing:

[www.ca.endress.com/CAS80E](http://www.ca.endress.com/CAS80E)

### Specs at a glance

- **Measurement range** Depending on the path length and the application the measuring range varies between: TOCeq: 0 to 400 mg/l CODeq: 0 to 20 000 mg/l BODeq: 0 to 5000 mg/l SAC<sub>254</sub>: 0 to 1000 /m TU: 0 to 800 FAU TSS: 0 to 10 000 mg/l NO<sub>3</sub>-N: 0 to 500 mg/l APHA/Hazen: 0 to 500 Hazen
- **Process temperature** 0 to 50°C 32 to 122 °F
- **Process pressure** 0.5 to 10 bar abs. 7.3 to 145 psi
- **Measuring method** UV/VIS Absorbance at 200 to 800 nm

**Field of application:** Memosens Wave CAS80E offers reliable real-time measurements of relevant analytical parameters such as chemical and biological oxygen demand (COD, BOD), turbidity, nitrate and spectral absorption coefficient (SAC) in one single device. It thus increases your efficiency and minimizes costs for your measuring points. The compact, handy Memosens Wave CAS80E spectrometer is easy to install and

maintain and ensures reliable, interference-free communication thanks to Memosens digital technology.

## Features and specifications

### Turbidity

**Measuring principle**

Absorption

**Application**

Monitoring of WWTP in- and outlet  
Drinking water and surface water

**Installation**

Insitu (immersion in process), extractive with sample and flow cell

**Characteristic**

Insitu (immersion in process), extractive with sample and flow cell  
UV/VIS spectrometer for measurement of TOCeq, CODEq, BODEq, SAC254, TU/TSS, Nitrate, APHA/Hazen color

**Measurement range**

"Depending on the path length and the application the measuring range varies between: TOCeq: 0 to 400 mg/l

CODEq: 0 to 20 000 mg/l

BODEq: 0 to 5000 mg/l

SAC254: 0 to 1000 /m

TU: 0 to 800 FAU

TSS: 0 to 10 000 mg/l

NO<sub>3</sub>-N: 0 to 500 mg/l

APHA/Hazen: 0 to 500 Hazen

**Measuring principle**

UV/VIS absorbance at 200 to 800 nm

**Design**

40 mm

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**Turbidity****Material**

Housing: stainless steel or titanium

Windows: sapphire or quartz

O-rings: EPDM

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**Dimension**

571.4 x 40 mm

21.5 x 1.6 in

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**Process temperature**

0 to 50°C

32 to 122 °F

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**Process pressure**

0.5 to 10 bar abs.

7.3 to 145 psi

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**Temperature sensor**

-20 to 60°C

-4 to 140 °F

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**Connection**

G1 and NPT 3/4"

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**Ingres protection**

IP68

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**Concentration****Measuring principle**

UV absorbance

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**Application**

Monitoring of WWTP in- and outlet, drinking water and surface water

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## Concentration

### Characteristic

In situ (immersion in process)  
Extractive with sample and flow cell UV/VIS spectrometer for measurement of TOCeq, CODEq, BODEq, SAC254, TU/TSS, Nitrate, APHA/Hazen color

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### Measurement range

Depending on the path length and the application the measuring range varies between: TOCeq: 0 to 400 mg/l  
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40 mm

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### Temperature sensor

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**Concentration****Connection**

G1 and NPT 3/4"

**Ingres protection**IP68

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**Analyser****Measuring principle**UV absorbance

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**Characteristic**

In situ (immersion in process), extractive with sample and flow cell UV/VIS spectrometer for measurement of TOC<sub>eq</sub>, CODeq, BOD<sub>eq</sub>, SAC<sub>254</sub>, TU/TSS, Nitrate, APHA/Hazen color

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**Measuring method**UV/VIS Absorbance at 200 to 800 nm

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**Size**

571.4 x 40 mm

21.5 x 1.6 in

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**Design**40 mm

---

**Process temperature**

0 to 50°C

32 to 122 °F

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**Ambient temperature**

-20 to 60°C

-4 to 140 °F

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**Process pressure**

0.5 to 10 bar abs.

7.3 to 145 psi

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## Analyser

### Specials

G1, NPT3/4 IP68 (1m/3,3ft) water column with 1N KCl during 60 days

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### Application

Monitoring of WWTP in- and outlet

Drinking water and surface water

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