

# Turbidity sensor

## Turbimax CUS52D

Hygienic Memosens sensor for turbidity measurement in drinking water, process water and utilities



More information and current pricing:

[www.de.endress.com/CUS52D](http://www.de.endress.com/CUS52D)

### Benefits:

- Measuring results like in the lab: Highly accurate and reliable monitoring of your water quality – even at the lowest turbidity.
- Turbidity measurement without product loss: Hygienic inline measurement preserves each drop of water in the process.
- Unattended operation: Intelligent design and practical accessories enable sophisticated self-cleaning capabilities and minimize maintenance.
- Smart verification and calibration: Absolutely safe, liquid-free, without Formazin.
- Great flexibility, simple handling: One sensor for all measuring points and all installation environments (inline or immersion).
- Improved process control: Individually adaptable sensor response time.
- Fast commissioning: Factory calibration and Memosens technology allow plug & play integration into your process.

### Specs at a glance

- **Measurement range** 0.000 to 4000 FNU
- **Process temperature** Stainless steel version: -20 to 85 °C (0 to 185 °F) Plastic version: -20 to 60°C (-4 to 140 °F)
- **Process pressure** Stainless steel version: 0.5 to 10 bar abs (7.3 to 145 psi abs) Plastic version: 0.5 to 6 bar abs (7.3 to 87 psi abs)

**Field of application:** Turbimax CUS52D is a smart sensor with lab accuracy that allows unattended operation of all turbidity measuring points in drinking water production and many other applications with fresh, process or salt water. You can mount it directly into your pipeline, thus saving costly bypass installations and avoiding product losses.

Thanks to Memosens digital technology, the Turbimax CUS52D offers maximum process and data integrity, simple operation and allows predictive maintenance.

## Features and specifications

### Turbidity

#### Measuring principle

Single beam scattered light

#### Application

Turbidity measurement in:  
Drinking and process water  
Saline water  
Utilities of all industries

#### Installation

Inline Insitu, sensor with clamp, flow cell, sensor with clamp, retractables, sensor straight, immersion in open channels

#### Measurement range

0.000 to 4000 FNU

#### Measuring principle

Nephelometric turbidity sensor (90° scattering) according to ISO7027

#### Design

40 mm sensor

#### Material

Stainless steel version: 1.4404  
Plastic version: sensor head: PEEK, shaft: PPS  
Optical windows: sapphire  
O-rings: EPDM

#### Dimension

40 mm design, hygienic Clamp-version  
320 x 40 mm

## Turbidity

### Process temperature

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Plastic version: -20 to 60°C (-4 to 140 °F)

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### Process pressure

Stainless steel version: 0.5 to 10 bar abs

(7.3 to 145 psi abs)

Plastic version: 0.5 to 6 bar abs

(7.3 to 87 psi abs)

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### Temperature sensor

Stainless steel version: -20 to 85 °C

(0 to 185 °F)

Plastic version: -20 to 60°C

(-4 to 140 °F)

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### Ingress protection

IP68

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### Output / communication

Memosens

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### Additional certifications

ISO 7027

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