



## OPTISENS CAS 1000

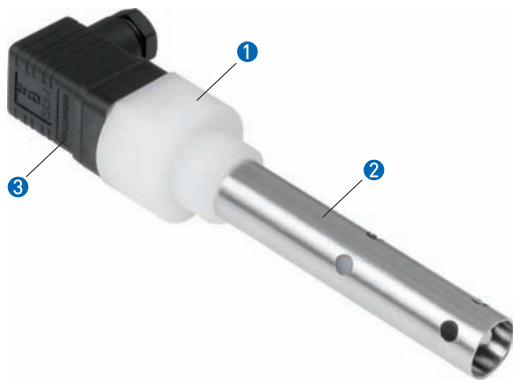
Technical Datasheet

### Conductivity sensor

- Reliable conductivity sensor of the OPTISENS 1000 series for use in water analysis
- Standard design with different cell constants
- Integrated temperature compensation

## Conductivity sensor for water analysis

The conductivity sensors of the **OPTISENS 1000 series** have a standardised robust design and a long lifespan. In combination with a **OPTISENS 050** converter, it is possible to create extremely reliable low-cost measurement systems, which are suitable for a wide range of water analysis measurement tasks. The conductive measurement principle is characterised by high sensitivity, especially at low conductivity values. For this reason, the **CAS 1000 sensors** are perfect for low-contaminated, non-corrosive media such as pure water, steam and cooling water.



- 1 Process connection 3/4" thread (PVDF)
- 2 Stainless steel shaft with integrated two-electrode measuring cell
- 3 4-pin right-angle plug

### Highlights

- Suitable for connection to the OPTISENS 050 converters
- Conductive measurement with two stainless steel electrodes
- Available with cell constants  $c = 0.05$ ,  $c = 0.2$  and  $c = 1.0$
- Integrated temperature sensor (Pt100)
- Standard design for all cell constants
- Long lifespan

### Industries

- Water industry
- Power plants
- Food industry
- Metal industry and mining
- Paper industry
- Chemicals industry

### Applications

- Quality control of steam and cooling water
- Monitoring of filters / ionic exchangers
- Quality control of ultrapure water, drinking water

## Options and variants



### Sensors of the OPTISENS CAS 1000 series

The **CAS 1000 sensors** are available in various cell constants and can thus cover a wide area of use.

Special versions for other measurement ranges or special operating conditions are available on request.

#### Available cell constants (c values):

- c = 0.05/cm
- c = 0.2/cm
- c = 1.0/cm



### OPTISENS 1000 Assemblies

As a complete provider for water analysis, Krohne naturally offers a complete range of assemblies for the installation of **OPTISENS 1000 sensors**.

Special versions for special operating conditions or other materials are available on request.

#### Assembly for CAS 1000 sensors:

- MAA 1000 Flow assembly conductive DN25 PP

## Technical data

### Measuring system

Measurement principle	Conductive conductivity measurement
Application range	Continuous measurement of the electrolytic conductivity in liquids
Modular design	A typical conductivity measuring system consists of:
	- CAC 050 converter
	- CAS 1000 electrode
	- OPTISENS 1000 connection cable
	- OPTISENS 1000 assembly

### CAS 1000 conductivity sensor

#### Design

Type	Two-electrode measuring cell (concentric arrangement of the electrodes)
Equipment	Temperature sensor Pt100
Measuring ranges	0...200 $\mu\text{S}/\text{cm}$ (c = 0.05/cm)
	0...2 mS/cm (c = 0.2/cm)
	0..20 mS/cm (c = 1.0/cm)

#### Operating conditions

Temperature range	0...+135°C / 32...275°F
Max. operating pressure	16 bar / 232 psi (at 25°C / 77°F)
	9 bar / 130 psi (at 60°C / 140°F)

#### Installation conditions

Inline installation	MAA 1000 Flow assembly DN25 PP
Min. pipe diameter	100 mm
Min. immersion depth	60 mm
Process connection	PG 13.5

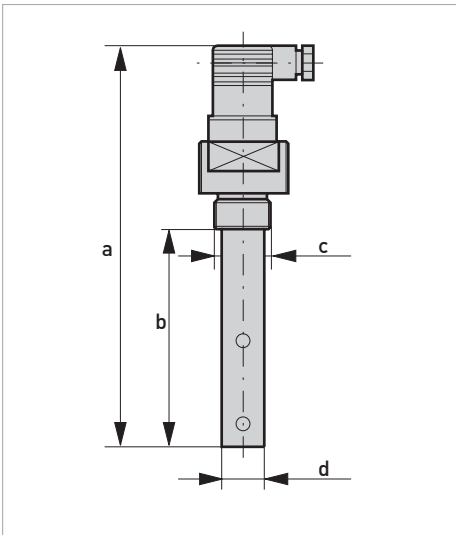
#### Materials

Electrode shaft	Stainless steel
Measuring cell	Stainless steel (1.4571)
Process connection	PVDF

#### Electrical connection

Connector	4-pin right-angle plug
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## Dimensions



	Dimensions [mm]	Dimensions [inches]
a	186	7.3
b	100	3.9
c	G $\frac{3}{4}$	G $\frac{3}{4}$
d	Ø20	Ø0.8

Order structure

VGA E	4	Sensor									
		0	none								
		1	OPTISENS CAS 1000								
			<b>Measuring range</b>								
		0	none								
		1	0 ... 200 µS/cm (C = 0,05)								
		2	0 ... 2000 µS/cm (C = 0,2)								
		3	0 ... 20 mS/cm (C = 1)								
			<b>Sensor features</b>								
		0	none								
		1	PVDF, stainless steel								
			<b>Process conditions</b>								
		0	none								
		2	0 ... 135 °C (32...275 °F), 16 bar at 25°C, 9 bar at 60°C								
			<b>Process connection</b>								
		0	none								
		1	3/4" thread								
			<b>Options sensor</b>								
		0	none								
		1	Pt 100								
			<b>Sensor-cable connection</b>								
		0	none								
		1	4-pole connector								
			<b>Cable</b>								
		0	none								
		1	CAW 1000								
			<b>Cable features</b>								
		0	none								
		1	standard								
			<b>Cable length</b>								
		0	none								
		1	3 m (10 ft.)								
		2	5 m (16,5 ft.)								
		3	10 m (33 ft.)								
		4	20 m (66 ft.)								
			<b>Options cable</b>								
		0	none								
		1	terminal ends								
			<b>Documentation</b>								
		0	none								
		1	english								
		2	german								
VGA E	4										Order code



## KROHNE Product Overview

- Electromagnetic flowmeters
- Variable area flowmeters
- Mass flowmeters
- Ultrasonic flowmeters
- Vortex flowmeters
- Flow controllers
- Level measuring instruments
- Pressure gauges
- Temperature measuring instruments
- Water solutions & analysis
- Oil and gas turnkey solutions

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