



OPTISENS CAS 1000

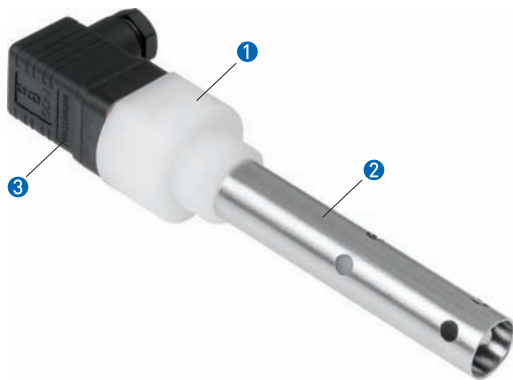
Technical Datasheet

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 $\mu\text{S}/\text{cm}$ ($c = 0.05/\text{cm}$)
	0...2 mS/cm ($c = 0.2/\text{cm}$)
	0..20 mS/cm ($c = 1.0/\text{cm}$)

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

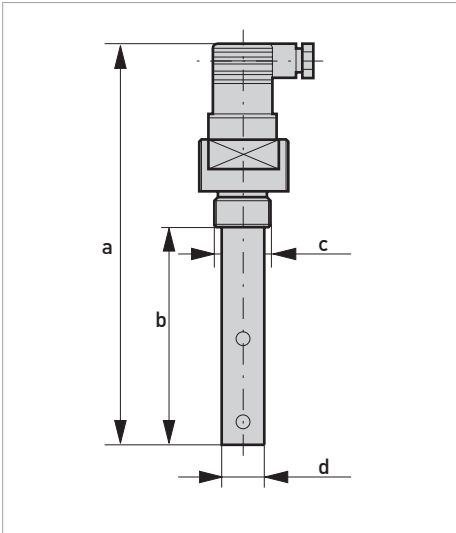
Materials

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

Electrical connection

Connector	4-pin right-angle plug
-----------	------------------------

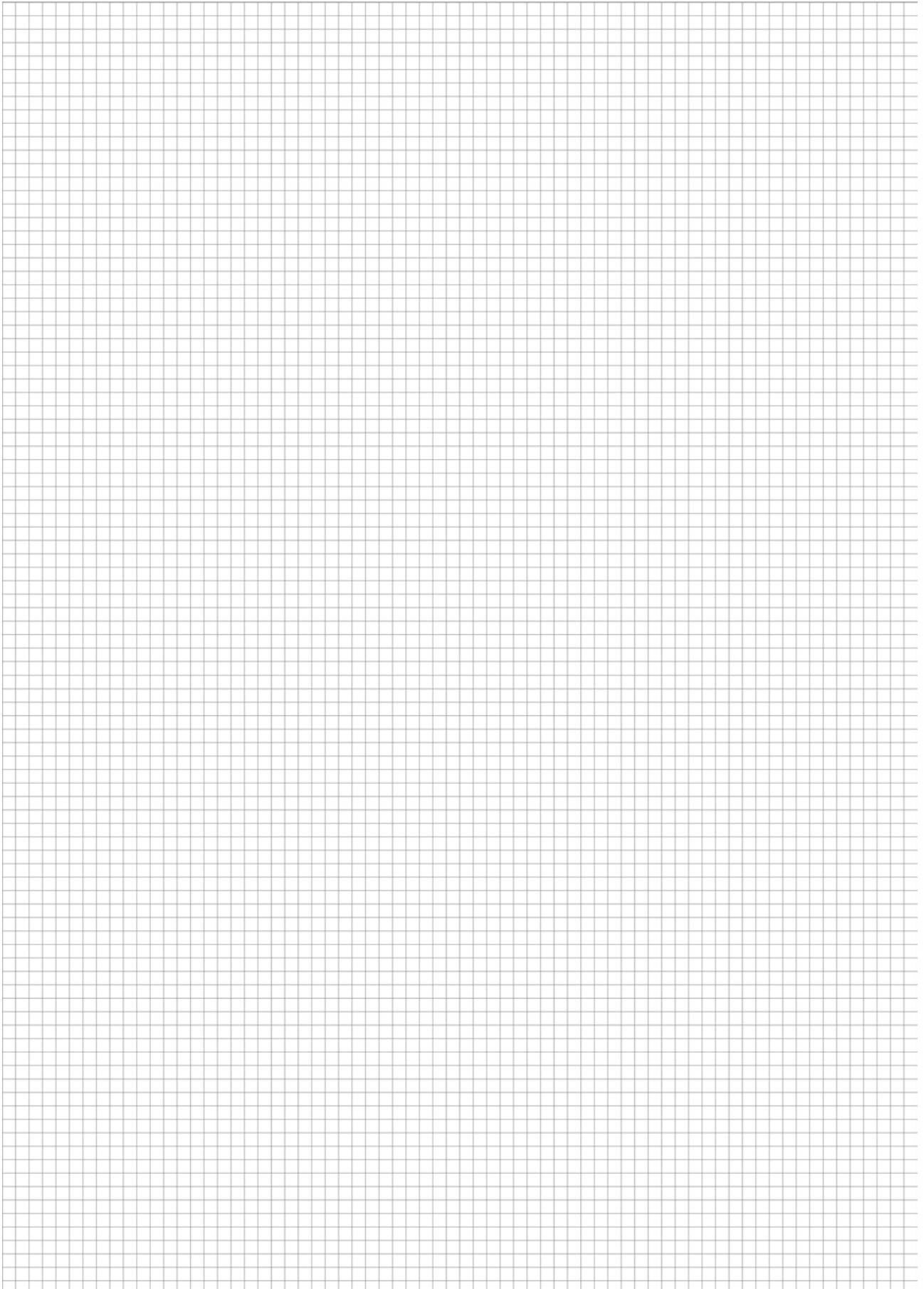
Dimensions



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

Addresses:

Germany

Northern sales office

KROHNE Messtechnik GmbH & Co. KG
Bremer Str. 133
D-21073 Hamburg
Phone: +49 (0)40 767 3340
Fax: +49 (0)40 767 33412
nord@krohne.de
ZIP code: 10000 - 29999, 49000 - 49999

Western and middle sales office

KROHNE Messtechnik GmbH & Co. KG
Ludwig-Krohne-Straße
D-47058 Duisburg
Phone: +49 (0)203 301 416
Fax: +49 (0)203 301 10416
west@krohne.de
ZIP code: 30000 - 34999, 37000 - 48000, 50000 - 53999, 57000 - 59999, 98000 - 99999

Southern sales office

KROHNE Messtechnik GmbH & Co. KG
Landsberger Str. 392
D-81241 Munich
Phone: +49 (0)89 121 5620
Fax: +49 (0)89 129 6190
sued@krohne.de
ZIP code: 0 - 9999, 80000 - 89999, 90000 - 97999

Southwestern sales office

KROHNE Messtechnik GmbH & Co. KG
Rüdesheimer Str. 40
D-65239 Hochheim/Main
Phone: +49 (0)6146 827 30
Fax: +49 (0)6146 827 312
rhein-main@krohne.de
ZIP code: 35000 - 36999, 54000 - 56999, 60000 - 79999

Instrumentation and control equipment catalog

TABLAR Messtechnik GmbH
Ludwig-Krohne-Straße 5
D-47058 Duisburg
Phone: +49 (0)2 03 305 880
Fax: +49 (0)2 03 305 888
kontakt@tablar.de www.tablar.de

KROHNE sales companies

International

Australia

KROHNE Australia Pty Ltd
Quantum Business Park 10/287
Victoria Rd Rydalmere NSW 2116
Phone: +61 2 8846 1700
Fax: +61 2 8846 1755
krohne@krohne.com.au

Austria

KROHNE Gesellschaft m.b.H.
Modecenterstraße 14
A-1030 Vienna
Phone: +43 (0)1/203 45 32
Fax: +43 (0)1/203 45 32 99
info@krohne.at

Belgium

KROHNE Belgium N.V.
Brusselstraat 20
B-1702 Groot Bijgaarden
Phone: +32 (0)2 4 66 00 10
Fax: +32 (0)2 4 66 08 00
krohne@krohne.be

Brazil

KROHNE Conaut Controles
Automaticos Ltda.
Estrada Das Águas Espraiadas, 230
C.P. 56 06835 - 080 EMBU - SP
Phone: +55 (0)11-4785-2700
Fax: +55 (0)11 4785-2768
conaut@conaut.com.br

China

KROHNE Measurement Instruments
(Shanghai) Co. Ltd., (KMIC)
Room 1501
1033 Zhaoyang Road
Shanghai 200030
Phone: +86 21 6487 9611
Fax: +86 21 6438 7110
info@krohne-asia.com

Czech Republic

Krohne CZ, spol. s r.o.
Soběsická 156
63800 Brno
Phone: +420 (0)545.242 627
Fax: +420 (0)545 220 093
brno@krohne.cz

France

KROHNE S.A.S.
Les Ors BP 98
F-26103 ROMANS Cedex
Phone: +33 (0)4 75 05 44 00
Fax: +33 (0)4 75 05 00 48
info@krohne.fr

Great Britain

KROHNE Ltd.
Rutherford Drive
Park Farm Industrial Estate
Wellingborough
Northants NN8 6AE
Phone: +44 (0)19 33 408 500
Fax: +44 (0)19 33 408 501
info@krohne.co.uk

CIS

Kanex KROHNE Engineering AG
Business-Centre Planeta
Office 404 ul.
Marxistskaja 3
109147 Moscow/Russia
Phone: +7 (0)095 911 7165
Fax: +7 (0)095 742 8873
krohne@dol.ru

India

Krohne Marshall Ltd.
A-34/35, M.I.D.C. Industrial Area,
H-Block
Pimpri Poona 411018
Phone: +91 (0)202 744 2020
Fax: +91 (0)202 744 2020
pcu@vsnl.net

Iran

KROHNE Liaison Office
North Sohrvardi Ave. 26,
Sarmad St., Apt. #9
Tehran 15539
Phone: +9821 8874 5973
Fax: +9821 8850 1268
krohne@krohneiran.com

Italy

KROHNE Italia Srl.
Via V. Monti 75
I-20145 Milan
Phone: +39 02 4300 661
Fax: +39 02 4300 6666
info@krohne.it

Korea

KROHNE Korea
Room 508 Miwon Bldg 43
Yoido-Dong Youngdeungpo-Ku
Seoul, Korea
Phone: 00-82-2-782-1900
Fax: 00-82-2-780-1749
mail@krohne.co.kr

Netherlands

KROHNE Nederland B.V.
Kerkeplaat 14
NL-3313 LC Dordrecht
Phone: +31 (0)78 630 6200
Fax: +31 (0)78 630 6405
Service Direct: +31 (0)78 630 6222
info@krohne.nl

Norway

KROHNE Norway A.S.
Ekholtveien 114
NO-1521 Moss
Phone: +47 (0)69 264 860
Fax: +47 (0)69 267 333
postmaster@krohne.no

Poland

KROHNE Polska Sp.z o.o.
ul. Stary Rynek Oliwski 8a
80-324 Gdansk
Phone: +48 (0)58 520 9211
Fax: +48 (0)58 520 9212
info@krohne.pl

Switzerland

KROHNE AG
Uferstr. 90
CH-4019 Basel
Phone: +41 (0)61 638 30 30
Fax: +41 (0)61 638 30 40
info@krohne.ch

Singapore

Tokyo Keiso - KROHNE (Singapore)
Pte. Ltd.
14, International Business Park,
Jurong East
Chiyoda Building, #01-01/02
Singapore 609922
Phone: (65) 6567 4548
Fax: (65) 6567 9874
tks@tokyokeiso-krohne.com.sg

Republic of South Africa

KROHNE Pty. Ltd.
Bushbock Close
Corporate Park South
Midrand, Gauteng
P.O. Box 2069
Midrand, 1685
Tel.: +27 (0)11 314 1391
Fax: +27 (0)11 314 1681
midrand@krohne.co.za

Spain

I.I. KROHNE IBERIA, S.r.l.
Poligono Industrial Nilo
Calle Brasil, nº. 5
28806 Alcalá de Henares Madrid
Phone: +34 (0)91 883 2152
Fax: +34 (0)91 883 4854
krohne@krohne.es

USA

KROHNE, Inc.
7 Dearborn Road
Peabody, MA 01960
Phone: +1 (800) FLOWING
Phone: +1 (978) 535 6060 (in MA)
info@krohne.com

Representatives

Algeria
Argentina
Cameroon
Canada
Chile
Columbia
Croatia
Denmark
Ecuador
Egypt
Finland
Gabon
Ghana
Greece
Hong Kong
Hungary
Indonesia
Iran
Ireland
Israel
Ivory Coast
Japan
Jordan
Kuwait
Libya
Lithuania
Malaysia
Mauritius
Mexico
Morocco
New Zealand
Peru
Portugal
Romania
Saudi Arabia
Senegal
Slovakia
Slovenia
Sweden
Taiwan
Thailand
Tunisia
Turkey
Venezuela
Yugoslavia

Other countries

KROHNE Messtechnik GmbH & Co. KG
Ludwig-Krohne-Str. 5
D-47058 Duisburg
Phone: +49 (0)203 301 0
Fax: +49 (0)203 301 389
export@krohne.de