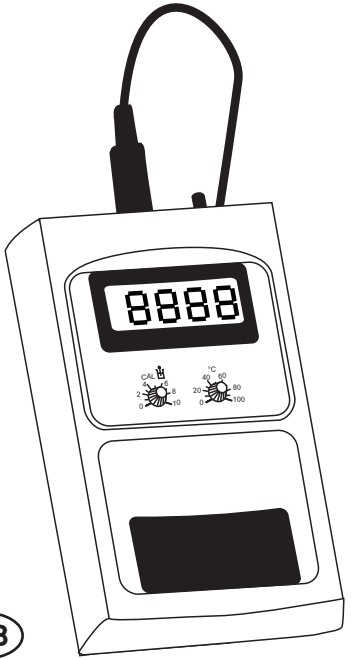
Lovibond

SensoDirect Con 100

Operating Instructions Conductivity Meter



GB

CE

Declaration of CE-Conformity

The manufacturer:

Tintometer GmbH

Schleefstraße 8 a
44287 Dortmund
Deutschland

declares that this product

Product name: **SensoDirect Con 100**

with all optional items conforms to the following regulations:

EMC **EN 61326 : 1997+A1: 1998+A2 : 2001**
EN 55022 Class B : 1998

The product conforms to the regulations of the EMC Directive 89/336/EEC and 73/23/EEC.

Dortmund, March 12, 2003

Cay-Peter Voss,
Managing Director

Contents Seite

1. General Description

The "SensoDirect" is a small, handy measurement device, which can be used anywhere where conductivity has to be measured quickly and accurately. The unit is very easy to use and is fitted with a digital display, reading to 2 decimal points. The measurement range is 0 - 10.00 mS/cm. Because conductivity measurement is dependent on temperature, the unit has a manual temperature compensation facility, from 0 - 100 °C.

2. Products supplied

- SensoDirect Basic unit, including electrode
- carrying case
- operating instructions

3. Setting to work

The unit is supplied as standard with a battery and is therefore ready for immediate use, once the cinch connector plug to the pH electrode is inserted into its socket. The unit is switched on and off with the red push-button to the side of the electrode connection.

4. Kalibrierung

To ensure optimum accuracy of measurement, the unit should be calibrated regularly. Determine the temperature of the calibration solution and turn the right-hand knob (the temperature compensation control) to set the temperature which has been determined : 1 linemark is roughly equivalent to 10°C. Rinse the electrode in fully demineralized water, dry it carefully and

immerse it in the calibration solution, moving it gently to and fro so that any trapped air bubbles can escape through the side openings. Wait for some 15 to 20 seconds (until the display stabilizes) and then turn the left-hand knob (Adjust mS/cm) to set the appropriate figure.

To achieve optimum measurement accuracy from the system, adjustments should be made until the adjustment figure and the expected measurement figure are in the same range. This may cause accuracy over the total measurement range to reduce slightly under certain circumstances.

To maintain the instrument specification, adjustments in the factory are made using a 0.05 molecular KCl solution at a temperature of 25°C (6.7 mS/cm).

5. Carrying out measurements

First of all, determine the temperature of the medium to be measured and set the appropriate temperature by turning the right-hand knob. Then rinse the electrode thoroughly in fully demineralized water and dry it carefully. Immerse the electrode in the medium to be measured and move it gently to and fro. Wait for some 15 to 20 seconds (until the display stabilizes) and then read the figure in the display. Always wash the electrode in fully demineralized water when measurements have been completed.

NOTE :

The display reads in mS/cm.

1 mS/cm = 1000 µS/cm / 0.1 mS/cm = 100 µS/cm

Overrange is indicated by three decimal points in the Display, e.g. 1.4.1.4 .

6. Overhaul & Maintenance

Conductivity electrodes do not generally deteriorate with age. However, their life and performance can be reduced by deposits, contamination or mechanical damage. It is therefore recommended that the electrode be cleaned from time to time in warm water, using a small brush with great care.

The electrode must NEVER come into contact with any water-repellent substances (oils; greases; silicones).

7. Changing the Battery

If “BAT” appears in the bottom left corner of the display, the battery is flat and must be replaced. Remove the back of the unit by loosening the 6 screws and replace the battery.

Due to the electronic design the „BAT“ indication disappears if the battery is nearly empty. Readings under these conditions are faulty.

8. Spare Parts / Accessories

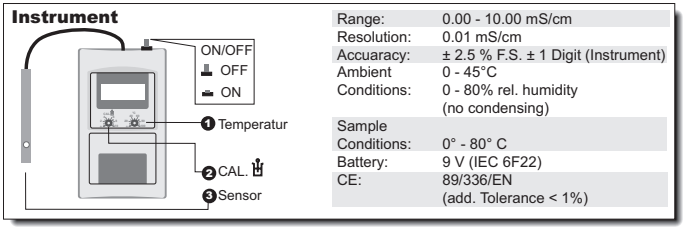
Article No.	**Description**
2421215	Conductivity calibration solution 1413 µS/cm (250 ml)
2421216	Conductivity calibration solution 6,7 mS/cm (250 ml)

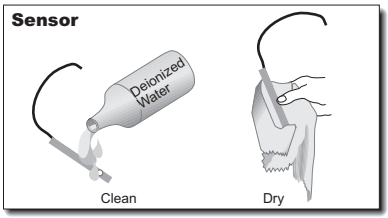
9. Technical Data

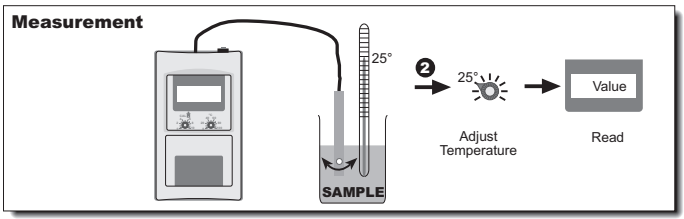
Measurement range:	0 - 10.00 mS/cm
Resolution:	0,01 mS
Accuracy:	+/- 2,5 % of range +/- 1 digit (Inst.)
Electrode:	PETP shaft; Electrode material: graphite
Ambient conditions:	0 - 45 ° C 0 - 80 % relative humidity (non-condensing)
Power supply:	9 V pack; ca. 100 operating hours
Housing:	ABS plastic housing
Dimensions:	165 x 95 x 42 mm (LxBxH)
Weight:	ca. 280 g (without electrode)
Certified:	CE
Cat. No.:	722120
Temperature Compensation:	0 - 100°C, manual

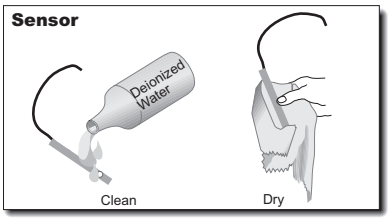
9. Short Instructions

General

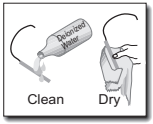


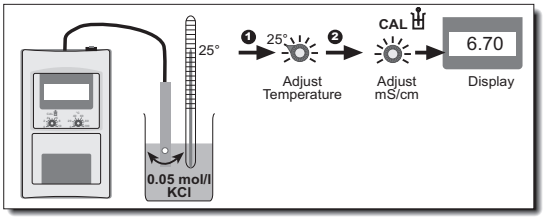


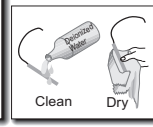


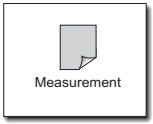


Calibration

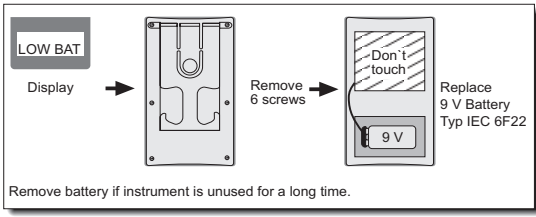








Maintenance



9. Guarantee Information

Warranty

As the manufacturer of the unit and its accessories, the Tintometer Group

extends a

warranty of two years

on new units to the end user from the date of purchase, on the condition that the unit is used and maintained in the proper manner.

Warranty conditions

This warranty is only valid if:

1. the unit is not damaged due to leakage from (storage) batteries, is not subject to incorrect use or maintenance, negligence or other causes other than those due to material or production faults.

2. the unit is returned accompanied by a full description of defects. The warranty does not cover electrodes, accessory items and defects which only impair the use of the instrument to a minor degree.

Scope of warranty

If a fault occurs during the warranty period the unit must be returned to a Tintometer Group Company or an appointed Agent. The unit will be inspected and all defects caused by materials or production faults will

be repaired or remedied using spare parts of the appropriate quality, free of charge.

Further claims, in particular for compensation for damage not affecting the unit itself, are excluded.

The manufacturers warranty exists alongside the legal warranty rights of the end user and is not affected if his contract is with a third party.

Proof of warranty

Proof of purchase is required as entitlement to claim under warranty. If relevant paperwork is not submitted the repairs will be chargeable at the service prices pertaining at the time of repair.

Please return the unit complete with its packaging, full description of defect and purchase receipt.

Tintometer GmbH
Schleefstraße 8-12
D-44287 Dortmund
Tel.: (+49) (0)2 31 / 9 45 10 - 0
Fax.: (+49) (0)2 31 / 9 45 10 - 20
sales@tintometer.de
www.tintometer.de

Germany

Tintometer AG
Hauserstraße 53
CH-5200 Windisch
Tel.: (+41) (0)56 / 4 42 28 29
Fax: (+41) (0)56 / 4 42 41 21
tintometer@bluewin.ch

Switzerland

QM-System
Certificate No. 5394
DIN EN ISO 9001

Technical changes without notice
Printed in Germany 08/04