



LR 325/01

ULTRAPURE WATER CONDUCTIVITY CELL



a xylem brand

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1 Overview

1.1 Structure and function

Structure



| | |
|---|-----------------|
| 1 | Shaft |
| 2 | Connection head |

1.2 Recommended fields of application

Measurements in ultrapure water.

2 Cleaning



Cleaning

Caution

Before cleaning, disconnect the sensor from the instrument.

A thorough cleaning is particularly recommended for measurements of low conductivities.

| Contamination | Cleaning procedure |
|----------------|--|
| Lime sediments | Immerse in acetic acid for 5 minutes (volume share = 10 %) |
| Fat/oil | Clean with warm water that contains washing-up liquid |

After cleaning, thoroughly rinse with deionized water and recalibrate if necessary.

Aging of the conductivity measuring cell

Normally, the conductivity measuring cell does not age. Special measuring media (e.g. strong acids and lyes, organic solvents) or too high temperatures shorten the operational lifetime considerably or damage the measuring cell. The warranty does not cover cases where such conditions cause failure or mechanical damage.

Disposal We recommend to dispose of the conductivity cell as electronic waste.

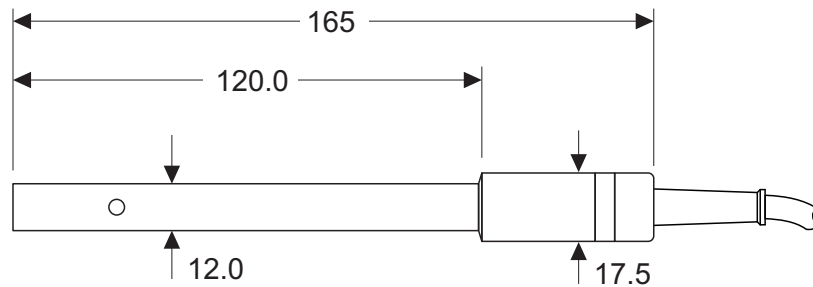
3 What to do if...

| Error symptom | Cause | Remedy |
|--|---|--|
| No temperature or conductivity display | <ul style="list-style-type: none"> – No connection between measuring instrument and sensor – Cable defective | <ul style="list-style-type: none"> – Check connection between measuring instrument and sensor |
| Measurement delivers implausible conductivity values | <ul style="list-style-type: none"> – Incorrect cell constant adjusted at the measuring instrument – Measuring range exceeded – Contamination in the area of the electrodes – Electrodes damaged | <ul style="list-style-type: none"> – Check / correct the cell constant – Observe the application range – Clean the sensor (see section 2). – Return the sensor |
| Incorrect temperature display | <ul style="list-style-type: none"> – The temperature sensor was not immersed deep enough in the measuring solution – Temperature sensor defective | <ul style="list-style-type: none"> – Observe the minimum immersion depth – Return the sensor |

4 Technical data

| | | |
|-------------------------|---------------------|----------------------------------|
| General features | Measuring principle | Two-electrode measurement |
| | Cell constant | 0.100 cm ⁻¹ ±2 % |
| | Temperature sensor | integrated NTC 30 (30 kΩ/ 25 °C) |

**Dimensions
(in mm)**



Weight approx. 135 g

| | | |
|------------------|-------------------------|------------------------|
| Materials | Shaft | Epoxy |
| | Connection head | POM |
| | Conductivity electrodes | Stainless steel 1.4571 |
| | Thermistor enclosure | Stainless steel 1.4571 |

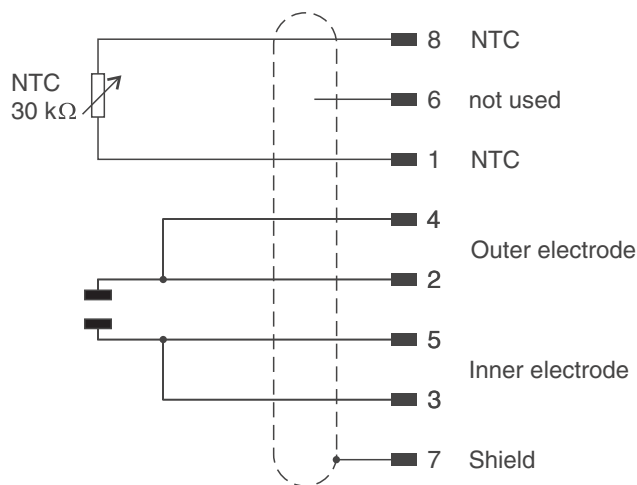
| | | |
|-------------------------|------------------------------|--|
| Connection cable | Lengths | 1,5 m |
| | Diameter | 6 mm |
| | Smallest allowed bend radius | Permanent bend: 80 mm Single time or short time bend: 50 mm |
| | Plug type | Socket, 8 pins |

| | | |
|----------------------------|------------------------------------|---|
| Pressure resistance | Sensor with closed plug connection | IP 68 (2 x 10 ⁵ Pa or 2 bar) |
| | Cable plug | IP 67 (when plugged in) |

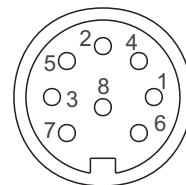
The LR 325/01 meets the requirements according to article 3(3) of the 97/23/EC directive ("Pressure equipment directive").

| | | |
|--|-------------------------------------|--|
| Measurement conditions | Conductivity measuring range | 0.001 $\mu\text{S/cm}$... 200 $\mu\text{S/cm}$ The measuring range may be limited by the meter that is used (see measuring range of your meter). |
| | Temperature range | -5 ... 80 °C (100 °C) |
| | Max. allowed overpressure | 2×10^5 Pa (2 bar) |
| | Minimum depth of immersion | 30 mm |
| | Maximum depth of immersion | Entire sensor+cable (up to 80 °C) Sensor shaft only (=120 mm / up to 100 °C) |
| | Operating position | any |
| Storage conditions | Recommended storing method | in air |
| | Storage temperature | 0 ... 50 °C |
| Characteristic data on delivery | Temperature responding behavior | t_{99} (99 % of the final value after) < 20 s |
| | Precision of the temperature sensor | ± 0.2 K |

Pin assignment



Plug from the front:



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We're a global team unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

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