

# Conductivity measurement



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# Applications and meters overview

The conductivity is a sum parameter, as all ions dissolved in the water contribute to the conductivity. It is detected with so-called measuring cells, which are immersed in the sample. Determining the ratio of applied voltage and flowing current in conjunction with a geometric factor resulting from the cell provides the desired measured value.

	Digital			Analogue		Digital			Analogue			
	Benchtop conductivity meters					Portable conductivity meters						
	inoLab® IDS			inoLab®		MultiLine® IDS			ProfiLine			
	Multi 9630	Multi 9620	Multi 9310	Cond 7310	Cond 7110	Multi 3630	Multi 3620	Multi 3510	Multi 3320	pH/Cond 3320	Cond 3310	Cond 3110
2 parameters simultaneously	✓	✓				✓	✓		✓	✓		
3 parameters simultaneously	✓					✓						
Additional parameters	●	●	●			●	●	●	●	●		
Routine measurements	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Routine measurements with documentation	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
AQA with documentation	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
R&D High resolution and precision	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
Control measurements	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
LIMS connection	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
Quality assurance	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
Education	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Service	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
Laboratory measurements	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
Field measurements	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
Depth measurements	-	-	-	-	-	✓	✓	✓	-	-	✓	✓
PC connection	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Memory	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
USB interface	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Graphic display			✓	✓					✓	✓	✓	
Color graphic display	✓	✓				✓	✓	✓				
	Compatible sensos											
	Digital IDS electrodes											
IDS conductivity cells	34	✓	✓	✓			✓	✓	✓			
	Analogue electrodes											
Conductivity cells	106				✓	✓			✓	✓	✓	✓
	Multi 9630	Multi 9620	Multi 9310	Cond 7310	Cond 7110	Multi 3630	Multi 3620	Multi 3510	Multi 3320	pH/Cond 3320	Cond 3310	Cond 3110
see page	40	40	41	98	99	44	45	46	49	50	103	104

## Benchtop conductivity meters

The use of different conductivity cells is common in the laboratory. The IDS technology is showing clear advantages here: The error-free automatic transmission of cell constants and preset temperature compensation for reliable measurement results.

### inoLab® IDS – digital



Conductivity measurement in the quality laboratory with the new digital multi-parameter measuring instruments inoLab® IDS

#### inoLab® Multi 9630 IDS: Measure three parameters simultaneously

The digital inoLab® multi parameter meters for IDS sensors for parallel measurement of the same or different parameters. Up to three sensors can be connected. The IDS conductivity cells cover a wide range of applications. Due to the galvanic isolation of the measuring channels, there is no interference between the connected sensors, e.g. IDS pH electrodes.



inoLab® Multi 9630 IDS

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#### inoLab® Multi 9620 IDS: Measure two parameters simultaneously

As inoLab® Multi 9630 IDS, but up to two sensors can be connected.



inoLab® Multi 9620 IDS

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#### inoLab® Multi 9310 IDS: Digital individual parameter solution

The inoLab® Multi 9310 IDS works with any IDS conductivity cell and can cover all laboratory related tasks.



inoLab® Multi 9310 IDS

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# inoLab® - analogue

All benchtop meters are available in application-oriented sets with sensors and accessories.

**inoLab**  
innovations that make sense

**3** year warranty IP 43 CE



inoLab® Cond 7310 SET 1

## Technical specifications: inoLab® analogue benchtop conductivity meters

	<b>inoLab® Cond 7310</b> all values ±1 digit	<b>inoLab® Cond 7110</b> all values ±1 digit
<b>Conductivity</b>	0 µS/cm ... 1000 mS/cm ± 0.5 % of measured value	0 µS/cm ... 1000 mS/cm ± 0.5 % of measured value
<b>Salinity</b>	0.0 ... 70.0 (according to IOT) 0.00 ... 20 MOhm cm	0.0 ... 70.0 (according to IOT) 0.00 ... 20 MOhm cm
<b>TDS</b>	1 ... 1999 mg/l, 0 to 199.9 g/l	0 ... 1999 mg/l
<b>Temperature</b>	-5.0 ... 105.0 °C ± 0.1 °C	-5.0 ... 105.0 °C ± 0.1 °C
<b>Cell constants</b>	Fix 0.01 cm <sup>-1</sup> , can be calibrated 0.450...0.500 cm <sup>-1</sup> , 0.800 to 0.880 cm <sup>-1</sup> , adjustable 0.09 ... 0.110 cm <sup>-1</sup> 0.250 ... 25.0 cm <sup>-1</sup>	0.450 ... 0.500 cm <sup>-1</sup> 0.09 ... 0.110 cm <sup>-1</sup> 0.800 to 0.880 cm <sup>-1</sup> , 0.25 ... 2.5 cm <sup>-1</sup> , fixed 0.01 cm <sup>-1</sup>
<b>Calibration</b>	1-point	1-point
<b>Tref</b>	20°C/25°C	20°C/25°C
<b>Temperature compensation</b>	nLF, linear 0.000 to 10.000 %, disengageable	nLF, linear 0.000 to 3000 %, disengageable

## inoLab® Cond 7310: Reliable conductivity documentation



inoLab® Cond 7310

- **USB interface for rapid data transfer**
- **Data output in \*.csv-Format or via optionally built-in printer**
- **Mains and battery operation inoLab® Cond 7310**

The inoLab® pH 7310 is perfectly suited for precision measurement and automatic GLP/AQA compliant documentation in quality laboratories of all industries. Also available with optionally installed printer.

### Reliable measurements

- Repeatable measurement results due to active automatic AutoRead function for the detection of stable measured values
- The sensor symbol informs about the condition of the electrode
- Graphic display with plain text menus for convenient and safe operation

### GLP/AQA compliant documentation

- Alphanumeric input of the conductivity cell serial number
- Transfer of all data in \*.csv format via USB interface at the PC, formatted takeover into Excel (MultiLab® Importer)
- Output possible via optionally installed printer

### Flexible and high performance:

- For all modern WTW conductivity cells
- Measures TDS, salinity and specific resistance
- Backlit graphics display for brilliant representation
- Suitable for measurements according to pharmacopoeia

## inoLab® Cond 7110: Exact conductivity measurement



inoLab® Cond 7110

- **Simple, intuitive operation**
- **Measurement range up to 1000 mS/cm**
- **Including stand and sensor holder**

The inoLab® Cond 7110 is a laboratory routine conductivity meter with a large display and all functions that make accurate measurements easy.

### Measuring certainty

- Repeatable measurement results due to active automatic AutoRead function with independent detection of stable measuring values
- Calibration timer for regularly checking the conductivity cells
- Precise measured value recording through high-quality electronics

### Flexible and high performance:

- Measures conductivity, TDS and salinity
- Connection of special measuring cells possible
- Linear, non-linear (nlf) and selectable temperature compensation
- Simple, intuitive operation
- Measurement range up to 1000 mS/cm
- Including stand and sensor holder



## Order information: inoLab® analogue benchtop conductivity meters

Model	Description	Order no.
<b>inoLab® Cond 7110 SET 1</b>	Simple, easy-to-use conductivity benchtop meter for routine measurements. In a set with conductivity cell TetraCon® 325	1CA101
<b>inoLab® Cond 7310P</b>	Comfortable, menu-controlled conductivity benchtop meter for measurements/GLP/AQA compliant documentation With built-in thermal printer Single instrument	1CA300P
<b>inoLab® Cond 7310 SET 1</b>	Convenient, menu-controlled conductivity benchtop meter for measurements/GLP/AQA compliant documentation In a set with conductivity cell TetraCon® 325	1CA301

For Accessories and cables, see price list or [www.WTW.com/de](http://www.WTW.com/de)

# Portable conductivity meters

## MultiLine® IDS - digital

Portable conductivity measurement in the process and in the field with the new digital MultiLine® multi-parameter instruments:



### Multi 3630 IDS: Measure three parameters simultaneously

Three galvanically isolated measurement channels can be used for any combination of parameters. It enables conductivity measurement also in conjunction with a MPP IDS depth sonde. Galvanic isolation eliminates the possibility of interference with other sensors.

*see page 44*



MultiLine® Multi 3630 IDS

### Multi 3620 IDS: Measure two parameters simultaneously

Two galvanically isolated measurement channels can be used for any combination of parameters. Perfect for conductivity measurement in combination with pH measurement.

*see page 45*



MultiLine® Multi 3620 IDS

### MultiLine® Multi 3510 IDS: Digital single parameter solution

The single channel multi-parameter meter Multi 3510 IDS is perfect for conductivity measurement of ultra-pure water up to concentrated solutions.

*see page 46*



MultiLine® Multi 3510 IDS

# ProfiLine - analogue

All portable meters are available in application specific kits including sensors and accessories in a carrying case.



3 year warranty IP 67 CE

ProfiLine Cond 3310 SET 1

## Technical specifications: ProfiLine analogue portable conductivity meters

ProfiLine ...	Cond 3110	Cond 3310
<b>Measuring ranges/resolution/accuracy</b>	<b>Conductivity</b> 0,0 ... 1000 mS/cm ±0,5 % of the measured value	0,0 ... 1000 mS/cm ±0,5 % of the measured value 1.999 µS/cm (with K=0.01 cm <sup>-1</sup> ) 0.00 ... 19.99 µS/cm (with K= 0.1 cm <sup>-1</sup> )
	<b>Temperature</b> 5.0 °C ... +105.0 °C ±0.1 °C	-5.0 °C ... +105.0 °C ±0,1 °C
	<b>Salinity</b> 0.0 ... 70.0 (as per IOT)	0.0 ... 70.0 (as per IOT)
	<b>TDS</b>	0 ... 1999 mg/l, 0 ... 199.9 g/l,
	<b>Spec. resistance</b>	0.00 ... 999 MΩcm
<b>Reference temperature</b>	selectable 20 °C or 25 °C	selectable 20 °C or 25 °C
<b>Cell constant</b>	<b>fixed:</b> 0.475 cm <sup>-1</sup>	0.475 cm <sup>-1</sup> , 0.010 cm <sup>-1</sup>
	<b>with calibration:</b> 0.450 ... 0.500 cm <sup>-1</sup> , 0.800 ... 0.880 cm <sup>-1</sup>	0.450 ... 0.500 cm <sup>-1</sup> , 0.800 ... 0.880 cm <sup>-1</sup>
	<b>adjustable:</b> -	0.090 ... 0.110 cm <sup>-1</sup> , 0.250 ... 25.000 cm <sup>-1</sup>
<b>Temperature compensation</b>	automatic	can be switched automatically/manually
<b>Temperature coefficient</b>	• Non-linear function of natural waters (nLF) as per EN 27 888	• Non-linear function of natural waters (nLF) as per EN 27 888 and ultra-pure water function • Linear compensation of 0.000 ... 10.000 %/K • No compensation
<b>Data memory/logger</b>	-	manual 200/5000 automatic
<b>Display</b>	7-Segment LCD, customized	LCD graphics, backlight
<b>Permanent operation</b>	up to 1000 hours	up to 800 h without/100 h with illumination



## ProfiLine Multi 3320: The environment specialist

The Multi 3320 for the measurement of conductivity, pH, ISE, ORP, and dissolved oxygen is a perfect analogue meter for environmental monitoring with electrochemical sensors. With conductivity measurement, all applications can be covered with standard, special and ultra-pure water measuring cells.

*see page 49*



ProfiLine Multi 3320

## ProfiLine pH/Cond 3320: Perfect in process

Conductivity, pH / ORP, ISE: the pH/Cond 3320 is a perfect meter also in portable process monitoring with electrochemical sensors. With conductivity measurement, all types of measurement can be covered with standard, special and ultra-pure water measuring cells, alone or in combination pH, ORP or ISE.

*see page 50*



ProfiLine pH/Cond 3320



## ProfiLine Cond 3310: Reliable conductivity measurement with documentation



ProfiLine Cond 3310

- **Waterproof USB interface for rapid data transfer**
- **Data output in \*.csv-Format**
- **Measuring range 0.001 μS/cm to 1000 mS/cm**

The Cond 3310 is a combination of a robust portable meter and a data logger for anyone who wants to record measured data automatically and evaluate them based on EDP.

### Reliable measurements

- Repeatable measurement results due to active automatic AutoRead function with detection of stable measuring values
- Automatic temperature compensation, also disengageable, linear compensation up to 10%/K
- Silicon keyboard with tactile key click and optional protection for field use

### GLP/AQA compliant documentation

- Large memory for 500 manual and 5000 automatically generated entries
- Transfer of all data in \*.csv format via USB interface at the PC; formatted takeover into Excel (MultiLab® Importer)

### Flexible and high performance:

- Measures conductivity, salinity, TDS and specific resistance
- Data transfer directly in Excel
- Suitable for measurements according to pharmacopoeia



## ProfiLine Cond 3110: Easy conductivity measurement



ProfiLine Cond 3110

- **Compatible with TetraCon® 325 or KLE 325**
- **Automatic temperature compensation**
- **Salinity**

The Cond 3110 is a simple, reliable conductivity meter with automatic nIF temperature compensation according to DIN EN 27888 for routine measurement in natural waters and wastewater.

### Reliable measurement

- Repeatable measurement results due to active automatic AutoRead function for the detection of stable measured values
- Secure operation: Automated functions reduce the number of keys (6)
- A waterproof 8-pin socket enables reliable measurement also in a humid environment.

### Easy and reliable:

- Easily readable display for measured value and temperature
- Silicon keyboard with tactile key click, also operable with gloves
- Sets for field use with proven electrodes and carrying case
- Suitable for TetraCon® 325 or KLE 325
- Automatic temperature compensation
- Salinity

## Order information: Conductivity meters

Model	Description	Order no.
<b>Cond 3110 SET 1</b>	Easy-to-use, robust conductivity meter with large LCD display, for mobile routine measurement of 2- and 4 electrode cells, set with TetraCon® 325.	2CA101
<b>Cond 3310 SET 1</b>	Professional, field-proven conductivity meter with backlit LCD graphic display for mobile measurement, with data logger, USB interface. Set with TetraCon® 325	2CA301

For additional accessories and cables, see price list or [www.WTW.com/de](http://www.WTW.com/de)

# Conductivity cells

Depending on the application, we provide electrodes made of graphite or stainless steel to ensure that they do not chemically react with the measured sample.

## Four electrode conductivity cells

- Universal application area due to wide measuring range between 1  $\mu\text{S}/\text{cm}$  and 2000  $\text{mS}/\text{cm}$
- Only one calibration point required due to linearity over the entire measuring range
- Measuring cells in different designs for almost all applications
- Highest accuracy through high-precision manufacturing
- Large application range in aqueous solutions through unique electrode technology

## Two electrode measuring cells made of stainless steel

- Optimised measuring cells, especially for use in ultra-pure water measurement
- No disturbances due to  $\text{CO}_2$  introduction with stainless steel measuring cells with flow-through vessels
- Precise measurement in the lower measuring range due to optimised geometry
- Suitable for ultra-pure water measurement according to pharmacopoeia

## Two electrode measuring cell made of graphite

- Robust measuring cell for simple measurements and in teaching and training
- Robust design with durable epoxy shaft
- For all aqueous samples
- For all current conductivity meters

# IDS Conductivity cells – digital



A selection of two electrode and four electrode conductivity cells for covering a wide range of applications, from ultra-pure water to viscous samples can be found in the chapter “Multi-parameter measurement”.

see page 34



from left to right: the digital IDS sensors (1) TetraCon® 925, (2) LR 925/01, (3) TetraCon® 925 / C, (4) TetraCon® 925 / LV; the wireless ready IDS plug head electrodes (5) TetraCon® 925-P, (6) TetraCon® 925 / LV-P, (7) LR 925/01-P

# Conductivity cells - analogue

## For every application



Technical specifications: Conductivity cells - analogue

### Universal applications

	TetraCon® 325	TetraCon® 325-3	TetraCon® 325-6	TetraCon® 325-10	TetraCon® 325-15	TetraCon® 325-20
<b>Order no.</b>	301960	301970	301971	301972	301973	301974
<b>Type</b>	4 electrode	4 electrode	4 electrode	4 electrode	4 electrode	4 electrode
<b>Electrode material</b>	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
<b>Flow-through vessel</b>	-	-	-	-	-	-
<b>Shaft material</b>	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy
<b>Shaft length</b>	120 mm	120 mm	120 mm	120 mm	120 mm	120 mm
<b>Cell constant</b>	0.475 cm <sup>-1</sup>	0.475 cm <sup>-1</sup>	0.475 cm <sup>-1</sup>	0.475 cm <sup>-1</sup>	0.475 cm <sup>-1</sup>	0.475 cm <sup>-1</sup>
<b>Diameter</b>	15.3 mm	15.3 mm	15.3 mm	15.3 mm	15.3 mm	15.3 mm
<b>Cable length</b>	1.5 m	3 m	6 m	10 m	15 m	20 m
<b>Measuring range</b>	1 µS/cm to 2000 mS/cm	1 µS/cm to 2000 mS/cm	1 µS/cm to 2000 mS/cm	1 µS/cm to 2000 mS/cm	1 µS/cm to 2000 mS/cm	1 µS/cm to 2000 mS/cm
<b>Temperature sensor</b>	0 to 100 °C	0 to 100 °C	0 to 100 °C	0 to 100 °C	0 to 100 °C	0 to 100 °C
<b>min./max. immersion depth</b>	36/120 mm	36/120 mm	36/120 mm	36/120 mm	36/120 mm	36/120 mm

## Special applications

	<b>TetraCon® 325/C</b>	<b>TetraCon® 325/S</b>
<b>Order no.</b>	301900	301602
<b>Type</b>	4 electrode	4 electrode
<b>Electrode material</b>	Graphite	Graphite
<b>Shaft material</b>	Epoxy	Epoxy
<b>Shaft length</b>	120 mm	120 mm
<b>Cell constant</b>	0.475 cm <sup>-1</sup>	0.491 cm <sup>-1</sup>
<b>Diameter</b>	15.3 mm	15.3 mm
<b>Cable length</b>	1.5 m	1.5 m
<b>Measuring range</b>	1 µS/cm ... 2000 mS/cm	1 µS/cm ... 2000 mS/cm
<b>Temperature range</b>	0 ... 100 °C	0 ... 100 °C
<b>Temperature probe</b>	NTC 30 kOhm	NTC 30 kOhm
<b>min./max. immersion depth</b>	36/120 mm	40/120 mm

## Low conductivities

	<b>LR 325/01</b>	<b>LR 325/001</b>
<b>Order no.</b>	301961	301963
<b>Electrode material</b>	Stainless steel	Stainless steel
<b>Flow-through vessel</b>	Glass	Stainless steel
<b>Shaft material</b>	Stainless steel	Stainless steel
<b>Shaft length</b>	120 mm	120 mm
<b>Cell constant</b>	0.1 cm <sup>-1</sup>	0.01 cm <sup>-1</sup>
<b>Diameter</b>	12 mm	20 mm
<b>Cable length</b>	1.5 m	1.5 m
<b>Measuring range</b>	0.001 ... 200 µS/cm	0.0001 µS ... 30 µS/cm
<b>Temperature range</b>	0 ... + 100 °C	0 ... + 100 °C
<b>Temperature probe</b>	NTC 30 kOhm	NTC 30 kOhm
<b>Filling volume</b>	17 ml (without sensor)	Approx. 10 ml (without sensor)
<b>min./max. immersion depth</b>	30/120 mm	40/120 mm

## Simple applications and flow-through measurement in the laboratory

	<b>KLE 325</b>	<b>TetraCon® DU/T or DU/TH</b>
<b>Order no.</b>	301995	301252 or 301254
<b>Type</b>	2 electrode	4 electrode
<b>Electrode material</b>	Graphite	Graphite
<b>Flow-through vessel</b>	-	Epoxy
<b>Shaft material</b>	Epoxy	-
<b>Shaft length</b>	120 mm	-
<b>Cell constant</b>	0.84 cm <sup>-1</sup>	0.778 cm <sup>-1</sup>
<b>Diameter</b>	15.3 mm	-
<b>Cable length</b>	1.5 m	-
<b>Measuring range</b>	1 µS/cm to 20 mS/cm	10 µS/cm to 1000 mS/cm
<b>Temperature range</b>	0 to 80 °C	0 to 60 °C
<b>Temperature probe</b>	NTC 30 kOhm	NTC 30 kOhm
<b>min./max. immersion depth</b>	36/120 mm	-

## Four-electrode conductivity cells



TetraCon® 325

### Graphite measuring cells for universal use

- TetraCon® 325

Suitable for almost all conductivity measurements in aqueous samples; for outdoor use available with cable lengths up to 20 m.



TetraCon® S

### Graphite measuring cells for special applications

- TetraCon® 325 S

With shovel-shaped electrode holder, especially suitable for measuring in pasty samples.



TetraCon® 325/C

### Graphite measuring cells for special applications

- TetraCon® 325/C

This measuring cell is designed for measurement in acidic samples.

### Flow-through measuring cells in the laboratory

- TetraCon® 325 DU

Four-electrode flow-through conductivity cell, (also with Hansen connector, DU / TH), for standard applications. Requires separate connection cable KKDU 325.



TetraCon® DU, DU/TH

## Two-electrode conductivity cells with stainless steel and graphite electrodes



LR 325/01



LR 325/001



KLE 325

### Two electrodes ultra-pure water measuring cells

- LR 325/01

Two electrode measuring cell with concentric stainless steel electrodes and glass flow-through vessel for measuring low conductivities up to 200  $\mu\text{S}/\text{cm}$ .

### Two electrodes pure-water measuring cells

- LR 325/001

Two electrode measuring cell with concentric stainless steel electrodes and glass flow-through vessel for measuring trace conductivities up to 30  $\mu\text{S}/\text{cm}$ .

### Simple two electrode graphite LF measuring cell

- KLE 325

Graphite-based two-electrode measuring cell for medium measuring ranges up to 20  $\text{mS}/\text{cm}$  for simple applications, also in training and education.



## Calibration and test means



6R/SET/Lab 1 Test resistance set

### Kit for pure water measurement according to pharmacopoeia

This kit includes LR 325/01 ultra-pure water cell, flow-through vessel D 01 / T made of glass (USP-KIT 1) or stainless steel (USP-KIT 2) NIST traceable 5  $\mu$ S standard with accuracy  $\pm$  2% and 6R/SET/Lab 1 test resistance set.



Calibration standard 5  $\mu$ S/cm

### Calibration standard 100 $\mu$ S/cm

Shelf life 2 years, NIST traceable with accuracy  $\pm$ 3%

### Calibration standard 5 $\mu$ S/cm

Shelf life 1 year, NIST traceable with accuracy  $\pm$ 2%

## Order information: Calibration and test means

Model	Description	Order no.
<b>USP Kit 1</b>	Kit for conductivity measurement according to pharmacopoeia, consisting of: LR 325/01 Purest water cell, D 01/T flow-through vessel, NIST traceable 5 $\mu$ S/cm standard with accuracy $\pm$ 2% and 6R/SET/Lab 1 testing resistance set	300569
<b>USP Kit 2</b>	as USP Kit 1, but stainless steel flow-through vessel instead of D 01/T	300568
<b>Calibration means</b>		
<b>KS 100<math>\mu</math>S</b>	Calibration standard 100 $\mu$ S/cm, shelf life 2 years, NIST traceable with accuracy $\pm$ 3% (300 ml)	300578
<b>KS 5<math>\mu</math>S</b>	Calibration standard 5 $\mu$ S/cm, shelf life 1 year, NIST traceable with accuracy $\pm$ 2% (300 ml)	300580
<b>E-SET Trace</b>	Calibration set (6 bottles at 50 ml calibration and control standard, KCl 0.01 mol/l), NIST traceable with accuracy $\pm$ 0.5%	300572

For accessories & cables, see price list or [www.WTW.com/de](http://www.WTW.com/de)

# Flow-through vessels

With WTW conductivity cells, there are different possibilities to measure in the flow.

Ultra-pure water measuring cells are offered with a compatible measuring vessel, as impurities by introducing carbon dioxide must also be absolutely excluded.

For conductivity cells with a diameter of 12 mm, a flow-through measuring vessel is also available. For standard measuring cells with a diameter of 15.3 mm, there is the D 201, which ensures a trouble-free conductivity measurement.



Trace conductivity cell LR 325/001 with stainless steel flow-through vessel



Flow-through measuring cell for four pole conductivity cell

## Order information: Flow-through vessels

Model	Description	Order no.
D 201	Flow-through vessel of PMMA, internal diameter 18 mm, V*=13 ml (To TetraCon® 325)	203730
D 01/T	Flow-through vessel of glass, internal diameter 18 mm, V*=17 ml (Replacement measuring vessel for LR 325/01)	302750

For accessories & cables, see price list or [www.WTW.com](http://www.WTW.com)

V\* = Filling quantity without sensor