



Multi-parameter Measurements

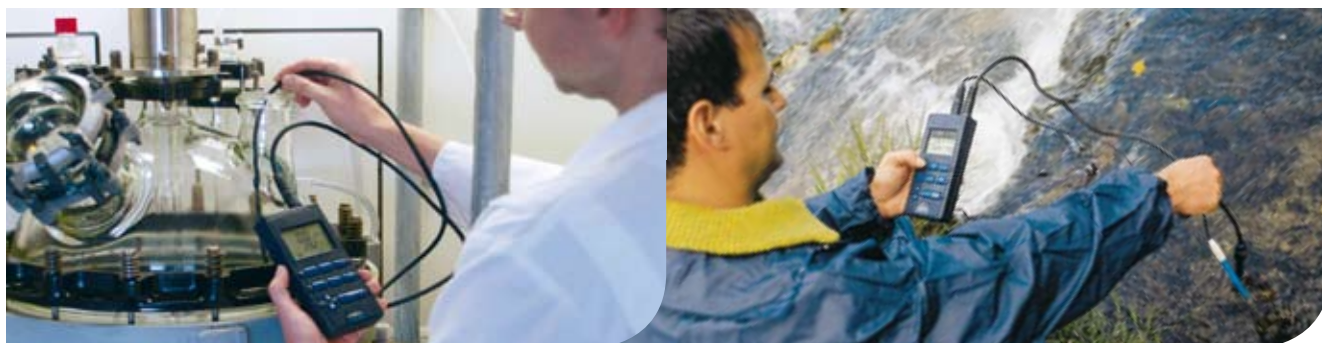
pH, Dissolved Oxygen and Conductivity Measurements

Multi-parameter Instruments

WTW multi-parameter instruments solve the problem of multiple electrode interference by utilizing our advanced sensor technology. With simultaneous functions for pH, ORP, dissolved oxygen, conductivity, salinity and temperature, these compact meters are complete, all in one laboratories, making it possible to measure oxygen, conductivity and pH simultaneously in the same sample vessel or field location.

Long battery life or optional line adaptors allows WTW's multi-parameter instruments to be used either in the laboratory or in the field. The data logging function insures accurate

reporting. Our standard automatic documentation storage, user defined calibration procedures and GLP functions provide comprehensive quality assurance.



Application Range Multi-parameter Measurements

● Recommended by WTW ○ Conditionally applicable – Not recommended

Application range	inoLab®						ProfiLine Multi 1970i	Portable meters				
	pH/Cond 720/7200*	Multi 720/7200*	pH/Cond 740/7400*	Multi 740/7400*	pH/ION/Cond 750/7500*			pH/Cond 340i/3400i*	pH/Oxi 340i/3400i*	Multi 340i/3400i*	Multi 350i/3500i*	MultiLine® IDS
Routine measurement	●	●	○	○	○	–	○	○	–	○	○	
Routine measurement with documentation	–	–	●	●	●	●	●	●	●	●	●	
AQS with documentation	–	–	●	●	●	●	●	●	●	●	●	
R&D high resolution and precision	–	–	●	●	●	–	–	–	–	●	●	
Control measurements	●	●	●	●	●	●	●	●	●	●	●	
LIMS connection	–	–	●	●	●	●	○	○	○	●	●	
Quality assurance	●	●	●	●	●	●	●	●	●	●	●	
Training	●	●	○	○	○	○	●	●	○	○	○	
Service	–	–	–	–	–	●	●	●	●	●	●	
Laboratory measurements	●	●	●	●	●	●	○	○	○	●	●	
Field measurements	–	–	–	–	–	●	●	●	●	●	●	
Depth measurements	–	–	–	–	–	●	–	–	–	up to 100 m (330 ft)	up to 25 m (82 ft)	
External control/PC connection/PC control	–/–/–	–/–/–	●/●/●	●/●/●	●/●/●	●/●/–	●/●/–	●/●/–	●/●/–	–/●/–	–/●/–	
BOD measurements with self-stirring sensor	–	–	–	●	–	–	–	–	–	–	–	
BOD measurements with assessment program	–	–	–	–	–	–	–	–	–	–	–	
pH/ION function	–	–	●	●	●	–	–	–	–	●	–	
Ion-specific measurement programs	–	–	–	–	●	–	–	–	–	–	–	
Salinity/TDS measurement	●/●	●/●	●/●	●/●	●/●	●/–	●/–	–/–	●/–	●/●	●/●	
Specific resistance	●	●	●	●	●	–	–	–	–	●	●	
Suitable for pharmacopeia	●	●	●	●	●	–	–	–	–	●	–	
Measurement of ultrapure water	●	●	●	●	●	–	–	–	–	●	–	
Trace conductivity	●	●	●	●	●	–	–	–	–	●	–	
	<i>see page</i>	64	64	64	66	68	72	72	72	69	8	

Application Range Sensors

Application range sensors	TetraCon® 325	TetraCon® 925	LR 325/01	LR 925/01	LR 325/001	FDO® 925	DurOx®	CellOx® 325	ConOx	MPP	TA 197 pH	TA 197 LF	TA 197 Oxi
Ultrapure water (pharmacopeia)	–	–	●	–	●	–	–	–	–	–	–	–	–
Chemical water	○	○	–	–	–	○	○	○	○	○	–	–	–
Ground water	●	●	–	–	–	●	○	–	○	●	●	●	●
Surface water	●	●	–	–	–	●	●	●	●	●	●	●	●
Depth measurements (barrages)	up to 20 m (66 ft)	up to 25 m (82 ft)	–	–	–	up to 25 m (82 ft)	–	up to 20 m (66 ft)	up to 20 m (66 ft)	up to 100 m (330 ft)	up to 100 m (330 ft)		
Laboratory measurements	●	●	●	●	●	●	○	●	●	–	–	–	–
BOD measurements	–	–	–	–	–	●	–	●	–	–	–	–	–
Fish farming	–	–	–	–	–	○	●	○	●	●	–	–	–
Swimming pools	●	●	–	–	–	●	●	●	●	○	–	–	–
Food industry (juices)	●	●	–	–	–	●	–	○	○	–	–	–	–
Pharmaceuticals	●	●	●	●	○	●	○	●	●	–	–	–	–
Cosmetics/detergents	○	○	–	–	–	–	–	–	–	–	–	–	–
Semi-conductor industry	–	–	●	●	●	–	–	–	–	–	–	–	–
Process technology	○	○	–	–	–	○	○	○	–	–	–	–	–
Biotechnology (non-autoclavable)	–	–	–	–	–	●	●	●	●	–	–	–	–
Wastewater treatment plant: aeration tank	–	–	–	–	–	●	●	○	○	○	–	–	–
Wastewater treatment plant: inflow	●	●	–	–	–	●	●	○	○	●	–	–	–
<i>applicable instruments:</i>	①	⑥	②	⑥	②	⑥	④	③	④	④	⑤	⑤	⑤
<i>* North American version</i>	① all with Cond Measurement except MultiLine® IDS ② Multi 350i/3500i*, inoLab® pH/Cond 700/7000 series*, inoLab® Multi 700/7000 series* ③ all with D.O. Measurement except MultiLine® IDS									④ Multi 350i/3500i* ⑤ Multi 1970i / 197i ⑥ only MultiLine® IDS			

Parameter

pH

ORP

ISE

Dissolved Oxygen (D.O.)

Conductivity

Multi-parameter

Data logger/flow + level

BOD/Respiration

Photometers

Turbidity

Colony Counter

Software/Printers

Laboratory Multi-parameter Instruments

With the growing number of measurements required by today's laboratory, instruments need to be able to perform multiple functions. The inoLab® multi-parameter instruments provide the essential features and functions for safe and reliable measurements.

inoLab® 720/7200*

- Compact
- Versatile
- Easy-to-use

inoLab® pH/Cond 720/7200* and inoLab® Multi 720/7200*

The inoLab® pH/Cond 720/7200* is a meter for initial processing of routine pH/conductivity measurements. The inoLab® Multi 720/7200* allows the measurement of pH and ORP, dissolved oxygen, conductivity and salinity as well as temperature. The instruments are suitable for standard measurements where GLP-documentation is not required.



Additional features:

- Easy-to-clean, touch-sensitive keypad
- Simplified operator convenience
- Bench and wall-mounted models
- Can also be operated on battery power
- Country-specific units
- Application-oriented displays

inoLab® 740/7400*

- Multi-functional
- Precise
- Communicative

inoLab® pH/Cond 740/7400* and inoLab® Multi 740/7400*

As high-end instruments, the inoLab® pH/Cond 740/7400* and the inoLab® Multi 740/7400* have a resolution of 0.001 pH units. They also have all the functions necessary for making ion selective measurements. With the inoLab® Multi 740/7400* dissolved oxygen is measured as %, mg/l or mbar. The pH/Cond 740/7400* and the inoLab® Multi 740/7400* can be used to measure the salinity and TDS (Total Dissolved Solids) as well as conductivity and specific resistance.

The optional built-in printer as well as the graphic display with operator guidance increase the measuring convenience and allow QA-compliant documentation.



Additional features:

- 5-point calibration by linear regression
- Freely selectable buffer sets
- Graphic evaluation possible
- Built-in digital plotter
- Connection for bar-code reader or PC keyboard
- User selectable languages
- Limit input with acoustic alarm
- Multi-level GLP functions including password-protected operator levels
- Free-of-charge downloads for MultiLab® pilot or terminal

* North American version

Technical Data inoLab® 720/7200*

Model	pH/Cond 720/7200*, Multi 720/7200*	Multi 720/7200*	pH/Cond 720/7200*, Multi 720/7200*
	pH measurement	Dissolved oxygen measurement	Conductivity measurement
Range/ Resolution	pH: -2.00 ... +16.00 pH mV: -199.9 ... +199.9 mV -1999 ... +1999 mV Temp.: -5.0 ... +105.0 °C (23 ... 221 °F)	O ₂ concentration: 0.00 ... 19.99 mg/l 0.0 ... 90 mg/l** O ₂ saturation: 0.0 ... 199.9% 0 ... 600%** O ₂ partial press.: 0.0 ... 199.9 mbar 0 ... 1250 mbar Temp.: 0.0 ... 50.0 °C (32 ... 122 °F)	0.0 µS/cm ... 500 mS/cm in 5 ranges or AutoRange, in addition at: K = 0.01 cm ⁻¹ 0.000 ... 1.999 µS/cm K = 0.1 cm ⁻¹ 0.00 ... 19.99 µS/cm Temperature: -5.0 ... +105.0 °C (23 ... 221 °F) Salinity: 0.0 ... 70.0 TDS: 0 ... 1999 mg/l Spec. resistivity: 0.000 ... 1999 MΩcm
Accuracy (±1 digit)	pH: ±0.01 pH mV: ±0.3 mV, ±1 mV	±0.5% of value	±0.5% of value
Temperature compensation	Automatic -5 ... +105.0 °C (23 ... 221 °F) with TFK 325 or built-in temperature probe manual -20 °C ... +130 °C (-4 ... 266 °F)	Automatic via IMT compensation from 0 ... 40 °C (32 ... 104 °F)	Linear and non-linear function for ultrapure water and natural water to EN 27 888, can be switched off
Calibration	MultiCal® 2-point ConCal® 1-/2-point	With OxiCal®-SL	Calibration with 0.01 mol KCl

Technical Data inoLab® 740/7400*

Model	pH/Cond 740/7400*, Multi 740/7400*	Multi 740/7400*	pH/Cond 740/7400*, Multi 740/7400*
	pH measurement	Dissolved oxygen measurement	Conductivity measurement
Range/ Resolution	pH: -2.000 ... +20.000 pH -2.00 ... +20.00 pH mV: -999.9 ... +999.9 mV -2000 ... +2000 mV ISE: Conc.: 0.01 ... 2000 mg/l Temp.: -5.0 ... +105.0 °C (23.0 ... 221.0 °F)	O ₂ concentration: 0.00 ... 20.00 mg/l 0.0 ... 90 mg/l** O ₂ saturation: 0.0 ... 200.0% 0 ... 600%** O ₂ partial press.: 0.0 ... 200.0 mbar 0 ... 1250 mbar Temp.: 0.0 ... 50.0 °C (32.0 ... 122.0 °F)	0.0 µS/cm... 2000 mS/cm in 5 ranges or AutoRange, in addition at: K = 0.01 cm ⁻¹ 0.000 ... 2.000 µS/cm K = 0.1 cm ⁻¹ 0.00 ... 20.00 µS/cm Temperature: -5.0 ... +105.0 °C (23 ... 221 °F) Salinity: 0.0 ... 70.0 TDS: 0 ... 1999 mg/l Spec. resistivity: 0.000 ... 1999 MΩcm
Accuracy (±1 digit)	pH: ±0.004 pH ±0.01 pH mV: ±0.2 mV, ±1 mV	±0.5% of value	±0.5% of value
Temperature compensation	Automatic -5 ... +105.0 °C (23 ... 221 °F) with TFK 325 or built-in temperature probe manual -20 °C ... +130 °C (-4 ... 266 °F)	Automatic via IMT compensation from 0 ... 40 °C (32 ... 104 °F)	Linear and non-linear function for ultrapure water and natural water to EN 27 888, can be switched off
Calibration	MultiCal® 2-, 3- and 5-point ISECal 2- and 3-point ConCal® 1-/2-point	With OxiCal®-SL	Calibration with 0.01 mol KCl

Ordering Information

inoLab® Multi-parameter SETs – with universal power supply 100-240 VAC (50/60 Hz) included		Order No.
inoLab® Multi 720/7200* SET 2	Simple and reliable multi-parameter meter, including SenTix® 41, CellOx® 325, TetraCon® 325, including accessories, without passive multi-function box	1F10-111211
inoLab® Multi 740/7400* SET 4	Flexible and powerful – the intelligent pH, dissolved oxygen and conductivity measuring station consisting of multi-function box and universal terminal, with PC software/connection cable, SenTix® 81, CellOx® 325, TetraCon® 325 and accessories	1F30-111411
inoLab® Box	Passive multi-function box, not included in inoLab® Multi 720/7200* SETs	109 810



For other multi-parameter SETs see WTW Product Details.

* North American version

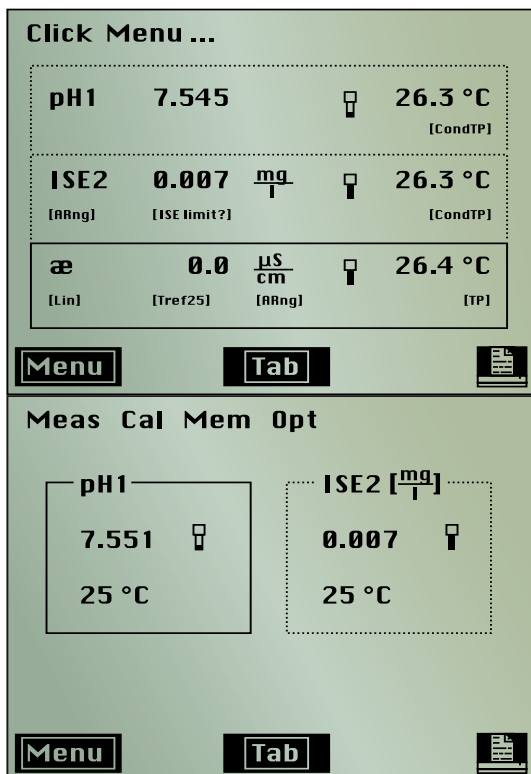
** depends on DO sensor and medium

inoLab® pH/ION/Cond 750/7500*

- Two galvanically isolated pH inputs
- Multiple conductivity functions
- Menu-driven with backlit graphic display

The ultimate measurement technology by WTW:

This ultimate multi-parameter meter with its two galvanically isolated pH inputs allows independent and simultaneous measurements of pH, ORP or ion concentrations. Calibrations with up to 7 standard solutions can be performed to achieve precise measurements across the entire characteristic curve of an ISE electrode. The wide range of calibration procedures allows for even the non-linear portion of the calibration curve to be accurately defined.



In addition to direct potentiometric methods, the following advanced methods are also included:

- Known addition/subtraction
- Addition/subtraction of samples
- Double known addition
- Blank correction
- Known addition with blank correction
- Reference measurement

Display with menus

* North American version

In addition to pH and ISE capability, and with features such as the ability to measure salinity, TDS, specific conductance, resistance and temperature coefficients, this versatile meter can perform all required conductivity measurements. Temperature coefficients are pre-programmed for NaOH, HCl, KCl, and NaCl. Plus, individual (non-) linear coefficients can be entered into the instrument. Additional features include the measurement of sample concentrations by conductivity and two dimensional temperature concentration field to determine accurate reference conductivities. Comprehensive additional functions such as measurement data management, PC-connection via MultiLab® pilot, GLP-compliant calibration and measurement data acquisition and a bidirectional RS 232 interface permit seamless integration into contemporary laboratory routines.



Parameter
pH
ORP
ISE
Dissolved Oxygen (D.O.)
Conductivity
Multi-parameter
Data logger/flow + level
BOD/Respiration
Photometers
Turbidity
Colony Counter
Software/Printers

Technical Data inoLab® pH/ION/Cond 750/7500*		
	pH/ION measurement	Conductivity measurement
Range/Resolution	pH: -2 ... 20.000 pH -2.00 ... 20.00 pH mV: -999.9 ... +999.9 mV -2000 ... +2000 mV Conc.: 0.01 mg/l ... 200 g/l Temperature: -5.0 ... +105.0 °C (23.0 ... 221.0 °F)	0.0 µS/cm ... 2000 mS/cm in 5 ranges or AutoRange, additional: 0.00 µS/cm ... 20.00 µS/cm (K=0.1 cm ⁻¹) 0.000 µS/cm ... 2.000 µS/cm (K=0.01 cm ⁻¹) Temp.: -5.0 °C ... +105.0 °C (23.0 ... 221.0 °F) Salinity: 0.0 ... 70.0 TDS: 0 ... 2000 mg/l Spec. resistivity: 0.00 ... 2000 MOhm
Accuracy (±1 digit)	pH: ± 0.004 pH. ± 0.01 pH mV: ± 0.2 mV. ± 1 mV	Conductivity: ± 0.5% of value
Temperature compensation	Automatic -5 ... +105.0 °C (23 ... 221 °F) Manual -20 ... +130 °C (-4 ... 266 °F) NTC30 KOhm: ±0.1 K Pt 1000: ±0.1 K	-5.0 ... 100 °C (23 ... 212 °F) • Linear and non-linear functions for ultrapure water and natural waters to EN 27 888 • Linear compensation from 0.01% ... 3.00%/K • Compensation can be switched off Special functions: non-linear temperature coefficients, pre-programmed coefficients, concentration determination, non-linear reference conductivity
Salinity correction	—	20 °C/25 °C (68 °F/77 °F) selectable
Calibration	—	Fixed 0.01 cm ⁻¹ . Freely selectable 0.090 ... 0.110 cm ⁻¹ 0.250 ... 25.000 cm ⁻¹ With calibration 0.450 ... 0.500 cm ⁻¹

Ordering Information		
inoLab® Multi-parameter SETs – with universal power supply 100-240 VAC (50/60 Hz) included		
	<input type="checkbox"/> Order No.	<input checked="" type="checkbox"/> Order No.
inoLab® pH/ION/Cond 750/7500* SET	Flexible and powerful – the intelligent pH, ISE and conductivity measuring station consisting of multi-function box, with PC software/connection cable, SenTix® 81/82, TetraCon® 325 and accessories	1K30-211901 1K30-111401



* North American version with BNC plug, with DIN plug
For other multi-parameter SETs, see WTW Product Details.

Portable Multi-parameter Instruments

ProfiLine Portable Multi-parameter Field Meter

The WTW ProfiLine Multi 1970i, supplied with integrated powerful NiMH rechargeable batteries, is both waterproof (IP 66) and submersible (IP 67). With its RS 232 output, real-time clock and 500 data file data logger, this rugged meter conforms to all GLP requirements. It allows the simultaneous connection of pH, conductivity and dissolved oxygen probes. The parameter to be measured is set in the display via the "M" function key and can then be measured or stored. Comes equipped with a handle and carrying strap.

ProfiLine Multi 1970i

- Robust, shockproof
- Waterproof, submersible
- Most versatile multi for depth measurements

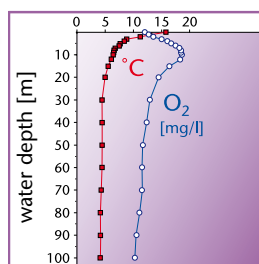


The Multi 1970i has a built-in preamplifier and is therefore suitable in combination with the WTW depth armatures for single-parameter operation at depths down to 100 m (330 ft).

Up to three depth armatures can be simultaneously connected using the adapter ADA/TA 197 pH.

Measurement at depth profiles

Dissolved oxygen, pH and conductivity: Depth armatures with integrated temperature measurement sensors, up to 100 m (330 ft) of cable with a waterproof plug (IP 67), VA 1.4571 steel armor and protective hood, pressure resistant to max. 10 bar, suitable for small boreholes (2" diameter).



From left to right:
DO depth armature TA 197 Oxi and battery-powered stirrer BR 325, pH depth armature TA 197 pH, 4-electrode depth measuring cell TA 197 LF

Technical Data ProfiLine Multi 1970i

Model	pH measurement	Dissolved oxygen measurement	Conductivity measurement
Range/ Resolution	pH: -2.00 ... +19.99 mV: -1999 ... +1999	O ₂ concentration: 0.00 ... 19.99 mg/l 0.0 ... 90.0 mg/l O ₂ saturation: 0.00 ... 19.99% 0.0 ... 600%*	1 μS/cm ... 500 mS/cm in 4 ranges Salinity: 0.0 ... 70.0
Accuracy (±1 digit)	pH: ± 0.01 pH, mV: ± 1 mV	±0.5% of value	±1% of value
Temperature compensation	Automatic -5 ... +105.0 °C (23 ... 221 °F) Manual -20 ... +130 °C (-4 ... 266 °F)	Automatic via IMT compensation from 0 ... 40 °C (32 ... 104 °F)	Non-linear function for ultrapure and natural waters to EN 27 888
Reference temperature	—	—	20/25 °C (68/77 °F) selectable
Calibration	1-2 point calibration with technical buffers	Automatic calibration	Automatic calibration

Ordering Information

Portable Multi-parameter Field Meter		Order No.
ProfiLine Multi 1970i	Robust, waterproof, submersible multi-parameter instrument	3F30-110



* depends on DO sensor and medium

For sensors, depth armatures and accessories, see WTW Product Details.

Portable Multi-parameter Instruments

Multi 350i/3500i*

- Multi-functional, high degree of accuracy
- Flexible
- All parameters simultaneously displayed



Digital Multi-parameter instruments
see page 8

Multi 350i/3500i* – Compact precision without compromises

pH, mV, ISE, dissolved oxygen, conductivity: The new Multi 350i/3500i* can measure all of these parameters. If desired, pH, DO, conductivity and temperature can be measured simultaneously: In the laboratory using the **combined conductivity/DO probe ConOx**, or in the field with the multi-parameter probe **MPP 350**. All current WTW pH, combination ISEs, DO and conductivity probes can be connected.

High resolution, high precision, simple, menu-driven operation. Even in poor lighting conditions the backlit graphics display provides clearly readable values. With a data logger, memory for 1,800 data sets and a real-time clock support GLP requirements.

Includes built-in NiMH rechargeable battery for up to 1,000 hours of continuous measurements, and appropriate AC adaptor.



Parameter
pH
ORP
ISE
Dissolved Oxygen (D.O.)
Conductivity
Multi-parameter
Data logger/flow + level
BOD/Respiration
Photometers
Turbidity
Colony Counter
Software/Printers

* North American version

ConOx

- Slender
- Convenient
- Measures conductivity, dissolved oxygen and temperature simultaneously



Conductivity and dissolved oxygen measurement with fully automatic salinity correction.

The ConOx sensor is a combination probe that allows for the simultaneous measurement of conductivity, dissolved oxygen, and temperature, and features automatic salinity correction as well. The conductivity portion of the sensor incorporates a proven 4-electrode system which helps to prevent inaccurate readings sometimes caused by difficult or dirty samples. The DO portion of the probe is a galvanic sensor that allows for immediate use after cleaning – eliminating the required “warm-up” time associated with other probes. The ConOx requires little maintenance and is suitable for all water analysis applications, whether in the laboratory or field environments.

MPP 350

- pH, conductivity, dissolved oxygen and temperature at the same time
- For all areas of application in surface waters and 2 inch boreholes
- Depth measurement up to 100 m (330 ft)



An all-new Multi-parameter probe, perfect probe for use with the Multi 350i/3500i*:

The MPP 350 is designed for use with the Multi 350i/3500i* with a diameter of 41.5 mm (1.6 in.) and a length of 290 mm (11.42 in.), providing versatility for a wide range of applications. The MPP 350 allows for the simultaneous measurement of pH, dissolved oxygen and conductivity suitable for use in lakes, rivers, saltwater, brackish water, ground water or spring water, or for measurements in boreholes down to a maximum depth of 100 m (330 ft.). The special pH sensor SensoLyt® MPP-A (sold separately) provides reproducible measurement values even at low conductivity levels. The conductivity cell, with proven 4-electrode measurement technology, has a range of 1 $\mu\text{S}/\text{cm}$ to 2 S/cm. The MPP 350 is available with 8 different cable lengths up to 100 m (330 ft).

** North American version*

Technical Data Multi 350i/3500i*

	pH measurement	Dissolved oxygen measurement	Conductivity measurement
Range/ Resolution	pH: -2...20.000 -2.00...20.00 mV: -999.9 ... +999.9 -2000 ... +2000 Conc.: 0.01 ... 2000 mg/l Temp.: -5.0 °C ... 105.0 °C (23.0 ... 221.0 °F)	O ₂ Conc.: 0.00 ... 20.00 mg/l (19.9 mg/l**) 0.0 ... 90.0 mg/l (90 mg/l**) O ₂ saturation: 0.00 ... 200.0% (200%**) O ₂ part. pressure: 0.0 ... 200.0 mbar (200 mbar**) 0.0 ... 1250 mbar Temp.: 0.0 °C ... 50.0 °C (32.0 ... 122.0 °F)	0.0 µS/cm ... 2000 mS/cm in 5 ranges in AutoRange mode additional: 0.00 µS/cm ... 20.00 µS/cm (K=0.1 cm ⁻¹) 0.000 µS/cm ... 2.000 µS/cm (K=0.01 cm ⁻¹) Temp.: -5.0 °C ... +105.0 °C Salinity: 0.0 ... 70.0 TDS: 0 ... 2000 mg/l Spec. resistivity: 0.00 ... 2000 MOhm
Accuracy (±1 digit)	pH: ± 0.004 pH. ± 0.01 pH mV: ± 0.2 mV. ± 1 mV	O ₂ Conc.: ±0.5% of value O ₂ saturation: ±0.5% of value O ₂ part. pressure: ±0.5% of value	LF: ±0.5% of value
Temperature compensation	Automatic -5 ... +105.0 °C (23 ... 221 °F) Manual -20 ... +130 °C (-4 ... 266 °F) NTC 30 kOhm: ± 0.1 K Pt 1000: ± 0.1 K	0 °C ... 50 °C (32 ... 122 °F) (on ambient temperature 5...30 °C/41 ... 86 °F) <2% at 0 ... +40 °C (32 ... 104 °F) Temperature: ±0.1 K	-5.0 ... 100 °C (23 ... 212 °F) • Linear and non-linear function for ultrapure and natural waters to EN 27 888 • Linear comp. from 0.01% ... 3.00%/K • Compensation can be switched off NTC 30 kOhm: ± 0.1 K Pt 1000: ± 0.1 K
Air pressure compensation	—	Automatic with built-in pressure sensor (500 ... 1100 mbar)	—
Salinity correction	—	Automatic or manual	—
Reference temperature	—	—	20 °C/25 °C (68 °F/77 °F) selectable
Cell constants	—	—	Fixed 0.01 cm ⁻¹ , Freely selectable 0.090 ... 0.110 cm ⁻¹ , 0.250 ... 25.000 cm ⁻¹ With calibration 0.450 ... 0.500 cm ⁻¹ , 0.800 ... 1.200 cm ⁻¹

Technical Data ConOx

Electrode material	Graphite
Shaft material	Epoxy/POM
Shaft length	145 mm (5.7 in.)
Cell constant	K=0.475 cm ⁻¹
Diameter	15.3 mm (0.60 in.)
Range	1 µS/cm ... 2 S/cm
Temperature range	0...50 °C (32 ... 122 °F)
Dissolved oxygen sensor	Galvanic sensor
Working time	6 months with 1 electrolyte filling, zero current free

Technical Data MPP 350

Range	pH: 4 ... 12 O ₂ : 0 ... 600% Cond.: 1 µS/cm ... 2 S/cm Temp.: 0...50 °C (32 ... 122 °F)
Dimensions	Diameter 41.5 mm (1.6 in.)
Weight/Length	Approx. 290 mm (11.42 in.) to 410 mm (16.14 in.) (depends on special accessories) approx. 700 g (1.54 lb.)
Materials	POM, Stainless steel 1.4571 (additional weight), PVC (Cable)

Ordering Information

Portable Multi-parameter SET		Order No.
Multi 350i/3500i* SET 5	Robust and waterproof portable multi-parameter instrument with data logger and serial interface, including SenTix® 41-3 and ConOx-3, NiMH batteries and battery charger, PC communication package, professional case and accessories	2F40-114B0E
ConOx-3	Combined conductivity-DO-probe with 3 m (9.8 ft) cable and accessories	401 010
MPP 350-3	pH/DO/conductivity probe without pH electrode, with 3 m (9.8 ft) cable and accessories	401 100
SensoLyt® MPP-A	Armored pH electrode for MPP 350	401 152
SensoLyt® MPP-A Pt	Armored ORP electrode for MPP 350	401 153
A 325/S	Stainless steel armor for ConOx and Cellox®	903 831
SK 325	Protective hood suitable for A 325/S	201 580

Multi 350i/3500i*:



* North American version

** also valid for DurOx®

Multi 340i/3400i*

- Waterproof
- Robust
- GLP compliant

The rugged, versatile Multimeter

This waterproof (IP 66) instrument with battery or optional line adaptor also meets the requirements of IP 67 and is optimally suited for use in the field, in laboratories or at production sites. Simultaneous connection of a pH/ORP electrode and a dissolved oxygen sensor or conductivity cell allows up to three parameters (including temperature) to be measured at the same time.

Additional features include:

- Up to 2500 hours continuous operation
- Easy-to-use
- Complete set available



Multi 340i/3400i* SET

- Multi-parameter instrument Multi 340i/3400i*
- Professional case with built-in measuring set-up, two STH 320 stands, two beakers, SM 325 protective armor and carrying strap with two cases
- Calibration and maintenance supplies, operating instructions

pH/Oxi 340i/3400i*, pH/Cond 340i/3400i*

- Waterproof
- Robust
- GLP compliant

Multi-parameter instruments pH/Oxi 340i/3400i* and pH/Cond 340i/3400i*

WTW portable multi-parameter instruments stand for precise multi-parameter measuring technology. The pH/Oxi 340i/3400i* for the determination of pH, dissolved oxygen and temperature and the pH/Cond 340i/3400i* for the determination of pH, conductivity and temperature, are alternatives to the single parameter instruments for applications that require the measurement of several parameters. The instruments are waterproof and also meet the requirements of IP 67. They are extremely robust and optimally suited for use in the field, in laboratories or at production sites.

Additional features include:

- Up to 2500 hours continuous operation
- Easy-to-use
- Complete set available



pH/Oxi 340i/3400i* SET

Kit includes:

Professional case with sample beakers included, pH/Oxi 340i/3400i*, pH electrode and dissolved oxygen, STH 320 stand and calibration and maintenance supplies

pH/Cond 340i/3400i* SET

Kit includes:

Professional case with sample beakers included, pH/Cond 340i/3400i*, pH electrode and conductivity cell, STH 320 stand and calibration and maintenance supplies

* North American version

Protective Armor

For safe in-the-field use

- ① **SM 325** *Shock-absorbing, rubber protective armor with support handle and sensor cable management.*
- ② **TG/ML** *Sleeve set, suitable for SM 325 protective armor, consisting of 2 sensor sleeves, holding device and additional carrying strap for field use. Can also be used for storing the sensor.*
- ③ **FM/ML** *Field armor, specially designed for rough use in-the-field and in industry, is extremely robust and shock-resistant. With 2 sensor sleeves, carrying handle and additional carrying strap with holding device, sensor cable management and folding support for laboratory measurements.*



Technical Data

Model	pH/Oxi 340i/3400i*, pH/Cond 340i/3400i*, Multi 340i/3400i*	pH/Oxi 340i/3400i*, Multi 340i/3400i*	pH/Cond 340i/3400i*, Multi 340i/3400i*
	pH measurement	Dissolved oxygen measurement	Conductivity measurement
Range/ Resolution	pH: -2.00 ... +19.99 mV: -1999 ... +1999	O ₂ concentration: 0.00 ... 19.99 mg/l 0.0 ... 90.0 mg/l O ₂ saturation: 0.00 ... 19.99% 0.0 ... 600%**	1 μS/cm ... 500 mS/cm in 4 ranges Salinity: 0.0 ... 70.0
Accuracy (±1 digit)	pH: ± 0.01 pH mV: ± 1 mV	±0.5% of value	±1% of value
Temperature compensation	Automatic -5 ... +105.0 °C (23 ... 221 °F) Manual -20 ... +130 °C (-4 ... 266 °F)	Automatic via IMT Compensation from 0 ... 40 °C (32 ... 104 °F)	Non-linear function for ultrapure and natural waters to EN 27 888
Reference temperature	—	—	20/25 °C (68/77 °F) selectable
Calibration	1-2 point calibration with technical buffers	Automatic calibration	Automatic calibration

Ordering Information

Portable Multi-parameter instrument SETs		Order No.
pH/Oxi 340i/3400i* SET 2	Robust and waterproof portable multi-parameter instrument with data logger and serial interface for battery operation, including SenTix® 41-3, CellOx® 325-3, professional case and accessories	2D30-101B20
pH/Cond 340i/3400i* SET 2	Robust and waterproof portable multi-parameter instrument with data logger and serial interface for battery operation, including SenTix® 41-3, TetraCon® 325-3, professional case and accessories	2E30-101B02
Multi 340i/3400i* SET B	Robust and waterproof portable multi-parameter instrument with data logger and serial interface for battery operation, including SenTix® 41-3, CellOx® 325-3, TetraCon® 325-3, professional case and accessories	2F30-104B22
Universal power supply	100 V - 240 V, 50-60 Hz; for 340i/3400i* series	902 867



For other electrodes/sensors in SET, see WTW Product Details.

* North American version

** depending on sensor and / or sample