Conventional multi-parameter portable instruments

Multi 350i/3500i*

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

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.

The new digital MultiLine® multi-parameter measuring instruments
see page 18

* North American version

Parameter

Multi-parameter

pH

ORP

ISE

Dissolved Oxygen (D.O.)

Conductivity

Data logger/ flow + level

BOD/ Respiration

Photometers

Turbidity

Colony Counter

Software/ Printers

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 µS/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:*

IP 66 / IP 67   CE   cETLus   **3** Year Warranty

*North American version   ** also valid for DurOx®*