

Instrument	pH 3110	pH 3210	pH 3310
pH	-2,0 ... 19,9 ±0,1 pH -2,00 ... 19,99 ±0,01 pH -2,000 ... 19,999 ±0,005 pH	-2,0 ... 19,9 ±0,1 pH -2,00 ... 19,99 ±0,01 pH -2,000 ... 19,999 ±0,005 pH	-2,0 ... 19,9 ±0,1 pH -2,00 ... 19,99 ±0,01 pH -2,000 ... 19,999 ±0,005 pH
mV	±1200,0 ±0,3 mV ±2000 ±1 mV	±1200,0 ±0,3 mV ±2500 ±1 mV	±1200,0 ±0,3 mV ±2500 ±1 mV
Temperature	-5,0 ... 105,0 °C ±0,1 °C	-5,0 ... 105,0 °C ±0,1 °C	-5,0 ... 105,0 °C ±0,1 °C
AutoRead	automatic	automatic/manual selectable	automatic/manual selectable
CMC	-	yes	yes
Calibration	1, 2 or 3 points; WTW Technical, DIN buffers	1, 2, 3, 4 or 5 points; WTW Technical, DIN/NIST and further 16 buffer sets	1, 2, 3, 4 or 5 points; WTW Technical, DIN/NIST and further 16 buffer sets
Calibration memory	current calibration recallable	current calibration recallable	up to 5 calibrations recallable
Display	7 segment LCD	LCD graphic display, backlit	LCD graphic display, backlit
Data memory	-	manual 200	manual 200/automatic 5000
Datalogger	-	manual	manual/timer driven
Interface	-	-	USB slave
Power supply	4x 1,5V AA or 4x 1,2V NiMH rechargeable	4x 1,5V AA or 4x 1,2V NiMH rechargeable	4x 1,5V AA or 4x 1,2V NiMH rechargeable
Continuous operation	up to 2500 hours	up to 1000 hours (150 with lit display)	up to 1000 hours (150 with lit display)

Instrument	Oxi 3205/Oxi 3210	Oxi 3310
D.O. Concentration*	0,00 ... 19,99 mg/l ±0,5 % of m. value 0 ... 90 mg/L ±0,5 % of measured value	0,00 ... 19,99 mg/l ±0,5 % of m. value 0 ... 90 mg/L ±0,5 % of measured value
Saturation*	0,0 ... 199,9 % ±0,5 % of measured value 0 ... 600 % ±0,5 % of measured value	0,0 ... 199,9 % ±0,5 % of measured value 0 ... 600 % ±0,5 % of measured value
Part. pressure*	0 ... 199,9 hPa, 0 ... 1250 hPa ±0,5 %	0 ... 199,9 hPa, 0 ... 1250 hPa ±0,5 %
Temperature	-5,0 ... 105,0 °C ±0,1 °C	-5,0 ... 105,0 °C ±0,1 °C
AutoRead	automatic/manual selectable	automatic/manual selectable
Calibration	CellOx/DurOx with OxiCal calibration vessel	CellOx/DurOx with OxiCal calibration vessel against external standard
Calibration memory	current calibration recallable	up to 5 calibrations recallable
Built-in air pressure sensor for compensation	yes	yes
Display	LCD graphic display, backlit	LCD graphic display, backlit
Data memory	Oxi 3205: none, Oxi 3210: manual 200	manual 200/automatic 5000
Datalogger	Oxi 3205: none, Oxi 3210: manual 200	manual/timer driven
Interface	-	USB slave (PC)
Power supply	4x 1,5V AA or 4x 1,2V NiMH rechargeable	4x 1,5V AA or 4x 1,2V NiMH rechargeable
Continuous operation	up to 1000 hours (150 with lit display)	up to 1000 hours (150 with lit display)

\* depending on sensor

Instrument	Cond 3110	Cond 3210	Cond 3310
Conductivity	0,0 ... 1000 mS/cm ±0,5 % v. Mw.	0,0 ... 1000 mS/cm ±0,5 %	0,0 ... 1000 mS/cm ±0,5 %
Additionally		0,000 ... 1,999 µS/cm, K=0,01 cm <sup>-1</sup> 0,00 ... 19,99 µS/cm, K=0,01 cm <sup>-1</sup>	0,000 ... 1,999 µS/cm, K=0,01 cm <sup>-1</sup> 0,00 ... 19,99 µS/cm, K=0,01 cm <sup>-1</sup>
Specific resistance	-	0,00 ... 20 MΩ cm	0,00 ... 20 MΩ cm
Cell contents	fixed 0,475 cm <sup>-1</sup> , 1,0 cm <sup>-1</sup> , calibratable 0,450 ... 0,500 cm <sup>-1</sup> , 0,585 ... 715 cm <sup>-1</sup> , 0,800 ... 1,200 cm <sup>-1</sup>	fixed 0,475 cm <sup>-1</sup> , 1,0 cm <sup>-1</sup> , 0,01 cm <sup>-1</sup> calibratable: 0,450 ... 0,500 cm <sup>-1</sup> , 0,585 ... 715 cm <sup>-1</sup> , 0,800 ... 1,200 cm <sup>-1</sup> , adjustable: 0,090 ... 0,110 cm <sup>-1</sup>	fixed 0,475 cm <sup>-1</sup> , 1,0 cm <sup>-1</sup> , 0,01 cm <sup>-1</sup> calibratable: 0,450 ... 0,500 cm <sup>-1</sup> , 0,585 ... 715 cm <sup>-1</sup> , 0,800 ... 1,200 cm <sup>-1</sup> adjustable: 0,090 ... 0,110 cm <sup>-1</sup>
Salinity	0,0 ... 70,0 (according to IOT)	0,0 ... 70,0 (according to IOT)	0,0 ... 70,0 (according to IOT)
TDS	-	0 ... 1999 mg/l, 0 bis 199,9 g/l	0 ... 1999 mg/l, 0 bis 199,9 g/l
Temperature	-5,0 ... 105,0 °C ±0,1 °C	-5,0 ... 105,0 °C ±0,1 °C	-5,0 ... 105,0 °C ±0,1 °C
AutoRead	automatisch	automatic/manual selectable	automatic/manual selectable
T <sub>ref</sub>	20 °C/25 °C	20 °C/25 °C	20 °C/25 °C
Temperature compensation	nLF	none, nLF, 0,000 ... 10,00 %/K	none, nLF, 0,000 ... 10,00 %/K
Calibration memory	current calibration recallable	current calibration recallable	up to 5 calibrations recallable
Display	7 segment LCD	LCD graphic display, backlit	LCD graphic display, backlit
Data memory	-	manual 200	manual 200/automatic 5000
Datalogger	-	manual	manual/timer driven
Interface	-	-	USB slave
Power supply	4x 1,5V AA or 4x 1,2V NiMH rechargeable	4x 1,5V AA or 4x 1,2V NiMH rechargeable	4x 1,5V AA or 4x 1,2V NiMH rechargeable
Continuous operation	up to 1000 hours	up to 800 hours (100 with lit display)	up to 800 hours (100 with lit display)

all values ±1 digit

999045US

# ProfiLine 3110 • 3210 • 3310 Handheld Instruments

## The New Ones!



- 100 % waterproof with easy-to-clean silicone keypad
- CMC function – secures your measurement range
- Waterproof USB interface – field proven PC communication

**pH** **Cond**

**3110 Series: Functional and easy-to-use**

For people who want a reliable, simple and easy-to-use portable pH meter, the **pH3110** is the right choice.

- Robust meter housing plus 100 % waterproof and easy-to-clean keypad
- Keys with tactile feedback for error-free operation
- Built-in calibration timer for reliable results

For conductivity measurement the new **Cond3210** is available with a new 2-electrode cell for general purpose applications.

Ease-of-use guarantees dependable results whether measuring surface water or the chemical process.

*Robust sealed silicone keypad – 100% waterproof*



**NEW**



**pH** **Cond** **D.O.**

**3310 Series: High capacity datalogging**

The **3310 Series** is the best choice where high capacity datalogging is required whether you are measuring pH, D.O. or conductivity: Not only quality but also quantity makes the difference. Besides the measuring features provided with the 3210 series, the measuring instruments **pH3310**, **Cond3310** and **Oxi3310** have the following advantages:

- Interval controlled datalogging function for up to 5000 records: perfect for long-term recording in the field
- 100 % waterproof USB interface for field measurement
- Fast data transfer to laptop or PC.

*100% waterproof USB interface for fast communication with a PC or laptop*



**NEW**

**pH** **Cond** **D.O.**

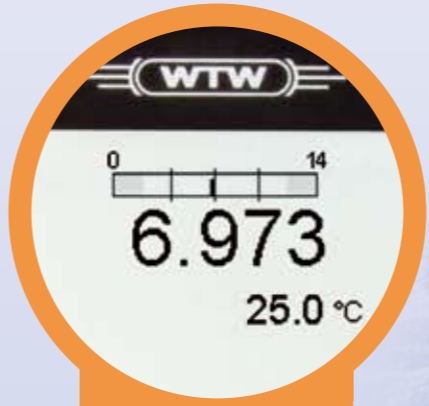
**3210 Series: Convenient and versatile**

Do you perform measurements in a variety of applications? Are different sensors necessary? Is recording of single values required? Then a meter from the 3210 series is the right answer to these questions.

- Backlit graphic display for best readability even under extreme lighting conditions
- The new CMC function ensures reliability to all pH readings
- Plain text menus guarantee comfortable and easy operation

The **Oxi3210** and the **Cond3210** allow flexibility to connect different sensors for application specific measuring.

The **Oxi3205** is an excellent easy-to-use D.O. instruments with a backlit graphic display – ideal for applications like fish farming.



**NEW**

*The CMC function (Continuous Measurement Control) of a pH 3210 informs you whether you are measuring inside the calibrated range. An alert is given as soon as you are outside the limits*

