



Meters and Electrodes

pH, ISE, COND AND O₂ | PRECISE - RELIABLE - SELECTIVE
IN LAB AND FIELD

SI Analytics
a **xylem** brand

1.2 HandyLab MKII

Our 2nd generation of Handylab devices offers analog or digital options for the measurement of pH, ORP, dissolved oxygen and conductivity in the lab and in the field.

While our Handylab 100 pH and Handylab 200 Cond offer a single traditional analog channel, our IDS series Handylab 600 and 680 devices take full advantage of our new digital technologies. The digital HandyLab 600 concentrates on the pH measurement as a one-channel device, whereas the HandyLab 680 allows you to measure any two parameters simultaneously; pH, ORP, conductivity or oxygen. IDS stands for "intelligent, digital sensors" and means that the analog measuring signal is converted into a digital measuring value in the sensor. This protects the signal from external interferences, such as moisture, electro-magnetic fields or pulses. The higher measuring accuracy raises confidence in your readings to a whole new level. IDS sensors send their type designation and serial number, i.e. they identify themselves to the meter automatically. This information is always part of the documentation. Calibration values are stored in the IDS sensor and transferred to the measuring device avoiding unnecessary recalibration as would be needed for traditional analog devices. Especially with field devices, the increased comfort is considerable as the IDS sensors can be calibrated in the laboratory under optimal conditions and simply need to be connected in the field.



- The advanced speed and precision of our benchtops in a portable and durable design.
- Specifically designed for mobile use
 - Handy, battery-operated
 - Keypad made from a continuous silicone mat and therefore waterproof with noticeable key click, even when used with gloves.
- P67
- Reproducible results due to active automatic AutoRead function with independent detection of stabile measuring values.
- CMC (Continuous Measurement Control) makes sure that the pH measuring values and the calibration area remain in sight and that the measurement is conducted in the optimal range.
- Generous data storage in all devices.
- Backlit graphics display in all versions.
- A case for the safe storage and transport is always included with these devices.

Benefits HandyLab MKII



Selection chart

HandyLab	100	200	600	680
Analog	■	■		
IDS (Intelligent Digital Sensor)			■	■
One channel	■	■	■	
Two channel				■
pH/ORP	■		■	■
Temperature	■	■	■	■
Conductivity		■		■
DO				■
CMC-Function	■		■	■
1- to 5-point calibration with 22 stored buffer sets	■		■	■
QSC intelligent sensor evaluation			■	■
User administration				■
Autoread	■	■	■	■
Data memory	■	■	■	■
Interface Mini USB-B			■	■
Interface USB-A				■
Info display	■	■	■	■
Backlit B/W graphical display	■	■	■	
Backlit colored graphical display				■
Battery (Typ AA)	■	■	■	
Rechargeable AA from included power supply.				■
Watertight housing and keypad (built of one piece of silicone mat)	■	■	■	■
IP67 certified	■	■	■	■

1.2.4 HandyLab 680

The portable pH IDS meter with two connectors for simultaneously measurement of pH, LF and DO

The HandyLab 680 increases the measuring accuracy via:

IDS technology - The digitalization of the measuring signal eliminates interferences.

AutoRead function - Autoread provides a stabile, precise measuring value.

CMC (Continuous Measurement Control) - Visualizes whether the measuring value is within the calibration range.

QSC (Quality Sensor Control) - Informs about the actual condition of the electrode and therefore increases operation safety.

The HandyLab 680 increases the operator comfort via:

IDS Technology - the secure allocation of the calibration data to the sensor eliminates any uncertainty about the date and results of its last calibration. This saves time and money while assuring the highest confidence in your measurements.

Traceability of the measuring values - By the digital and automatic capture of all sensor data.

User administration - Can be activated to allow tiered access and capabilities ensuring security and confidence of your data.

Transmission of all data in *.csv format - Via USB interface to the PC or the USB memory stick, or, as an alternative, formatted transfer to Excel by means of MultiLabImporter (included in the delivery).

Color graphic display - with clear text menu control. The display color corresponds with the color of the sensor plug which prevents the user from unplugging the wrong sensor from the device.



- Two-channel IDS measuring device for pH/mV, conductivity and DO.
- Waterproof design. Sealed keypad. (IP67).
- 1 to 5 point calibration with 22 stored buffer sets.
- Huge data storage with output on display and to the USB interface as well to the USB memory stick.
- Color backlit graphic display with clear text menu control.
- Versatile application-oriented sets offered.

Benefits
HandyLab 680

Technical data HandyLab 680

Measuring range/ resolution/ accuracy (all values +/- 1 digit) depending on the kind of IDS sensor	pH	0.000 ... 14.000 +/- 0.004 pH
	mV	+/- 1200.0 mV +/- 0.2 mV
	Temperature	-5.0 ... 105.0 °C +/- 0.2 °C
	Conductivity	0.00 ... 2000 mS/cm +/- 0.5 % of mean value
	Specific resistance	0.00 Ohm cm ... 100 MOhm cm +/- 0.5 % of mean value
	Salinity	0.0 ... 70.0 (IOT) +/- 0.5 % of mean value
	TDS	0 ... 1999 mg/l, 0 bis 199.9 g/l +/- 0.5 % of mean value
	DO concentration	0.00 ... 20.00 mg/l +/- 0.5 % of value
	DO saturation	0.0 ... 200.0 % +/- 0.5 % of value
Calibration pH	DO partial pressure	0 ... 400 hPa +/- 0.5 % of value
	Calibration points	1-, 2-, 3-, 4-, 5-Point
	Stored buffers	22 preprogrammed buffer sets
	Calibration memory	10 last calibrations
Calibration cell constant conductivity	Timer	1 - 999 Days
	Fixed	0.475 cm ⁻¹ , 0.100 cm ⁻¹ , 0.010 cm ⁻¹
	Calibratable (1 point)	0.450 to 0.500 cm ⁻¹ , 0.800 ... 0.880 cm ⁻¹ , Standard: 0.01 mol/L KCl
Temperature compensation conductivity	Adjustable	0.250 ... 25.000 cm ⁻¹ ; 0,090 ... 0.110 cm ⁻¹
	Adjustable	Automatic/manual
	Temperature coefficient	nLF: none linear function according to EN 27 888 and ultrapure water function Linear compensation 0.000 ... 10.000 %/K No compensation
Calibration DO Handling	Calibration point	1 point in FDO check vessel
	Digital: IDS Sensor	Yes for pH, ORP, DO and conductivity
	AutoRead	Automatic/manual
	Celsius/Fahrenheit	Yes
	CMC	Yes
	QSC	Yes
	User administration	Yes
	Traceability of results	Yes
	Display	Colored graphic backlit
	Data storage	Manually 500/automatic 10,000 data sets
	Logger	Manually/time triggered
	Interface	USB-A and Mini USB-B
	Data transfer	In *.csv format via USB interface to the PC or USB-Memorystick. Alternatively also transfer into Excel via MultiLab Importer (scope of delivery).
	Power supply	4 x 1.2 V NiMH-rechargeable battery
	Continuous operating time	150h (dependent on connected sensor)
	Sensor connector	2 x IDS (any combination)
	Waterproof	IP67