

Robust technology  
in a sophisticated  
design.

*Precision and reliability  
in one – made by  
professionals for  
professionals*

# Measuring on the Go

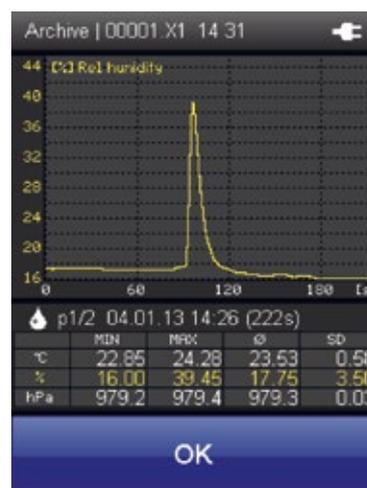
- TFT colour display, legible in sunlight
- Capacitive touch operation
- Sampling rate 1s
- Data recording of up to 3 channels in parallel
- Graphical analysis with standard deviation resolution
- Integrated Flash memory for 200 recording blocks with maximum length of 3 hours
- USB port for data transfer to SmartGraph3 (included in delivery)
- Various languages selectable
- Measuring temperature, humidity, airflow via external digital sensors
- Integrated air pressure measurement
- Numerous calculated measurements
- Online firmware update

# Premium Segment XA1000



The most precise and flexible all-rounder instrument for professional applications—easy to handle and robust. Allows various intelligent sensors to be connected with automatic recognition, saves measuring campaigns, allows all climate data to be calculated and archived on a computer for further evaluation by SmartGraph3 software.

Hand-held Measuring Device XA1000 "All-in-ONE"		Order No.
<i>"All-rounder" in the measurement technology segment. A universal measuring device for professionals with the inclusion of exchangeable SDI Sensors. Highly precise measurements of temperature and relative humidity. Integrated air pressure sensor, online/offline data recording. Equipment test certificate, can be calibrated.</i>		5900.00
<b>Technical data</b>	Dimensions	170x62x34mm
	Weight	ca. 205g
<b>Storage conditions</b>	Permitted ambient temperature	-20...60°C
	Permitted rel. humidity	<90% RH non-condensing
<b>Operating conditions</b>	Permitted rel. humidity	<90% RH (20g/m³) non-condensing
	Permitted altitude above sea level	4000m
<b>Power supply</b>	Power supply	4 Alkaline LR6 AA 1.5V / USB 5V
	Active power consumption	Approx. 400mW
	Battery life passive	Approx. 1 year
	Battery life active	Min. 24 hours
<b>Data storage</b>	Sensor power supply	5.5V ± 10% DC, max. 200mA
	Integrated data storage	Up to 200 gauges taking approx. 1 mill. values
<b>Interface</b>	USB	Cable and SmartGraph3 software included
<b>Resolution</b>	Definition of measured values	2 decimal places
<b>Display</b>	Control	Touch screen, capacitive
	Technology	TFT, resolution 240x320, 65k colours, very good contrast due to Piezoresistive technology
<b>Integrated air pressure sensor</b>	Surface, toughened glass	Degree of hardness: 7, scratch-resistant
	Measuring range (full accuracy)	800...1,100mbar
	Accuracy at 25°C, 1013.25mbar	0.5mbar
	Long-term stability	typ. - 1mbar/year
	Measurement resolution	0.024mbar
<b>Calculated measurement categories for external temperature/humidity sensors</b>	Measuring principle	Piezoresistive
	Mathematical:	MIN/MAX/AVG/HOLD
	Temperature	°C/°F
	Rel. humidity	(% RH)
	Rel. humidity of ice	(% RH)
	Water vapour density (absolute humidity)	g/m³
	Dew point temperature	°C/°F
	Frost point temperature	°C/°F
	Mixing ratio at saturation (100%)	g/kg
	Volume fraction of water vapour / mass fraction of water vapour	(%)
	Wet-bulb temperature	°C/°F
	Ice-bulb temperature	°C/°F
	Specific Enthalpy (mass of air)	kJ/kg
	Saturation vapour pressure above ice/water	(hPa)
Vapour particle pressure	(hPa)	
Air density	kg/m³	
<b>Calculated measurement categories for external airflow sensors</b>	Operating airflow volume - various units:	(m³/s) (m³/h) (l/min)
	Standard airflow volume:	DIN 1343 (°C, 1013.25hPa), ISO 2533 (15°C, 1013.25hPa), DIN 1945 (20°C, 1013.25hPa)
	Various units:	(m³/s), (m³/min), (m³/h), (l/min)
<b>Compatibility</b>	Sensor/probe: all SDI/digital sensors (temperature, humidity, SDI airflow, air pressure integrated)	
<b>Accessories</b>	Extension and/or connecting cable for digital sensor, 2m	8120.KAB2
	Extension and/or connecting cable for digital sensor, 10m	8120.KAB10



Compatible sensors for XA1000		Page
<b>Temperature/humidity</b>	Digital TFF20	24
	Allround SDI	24
	5 mm diameter SDI	25
	High temperature SDI	25
	High-precision Temperature/Humidity Sensor	26
<b>Airflow/temperature</b>	SDI (0...2m/s)	27
	SDI (0...20m/s)	27
<b>CO<sub>2</sub></b>	CO <sub>2</sub> Sensor	26