Digitron

X(pert) A(dvanced)
XA1000

A complete package: the XA1000 is specially engineered for the requirements in the areas of heating/ air conditioning and ventilation to measure temperature, humidity and air flow.
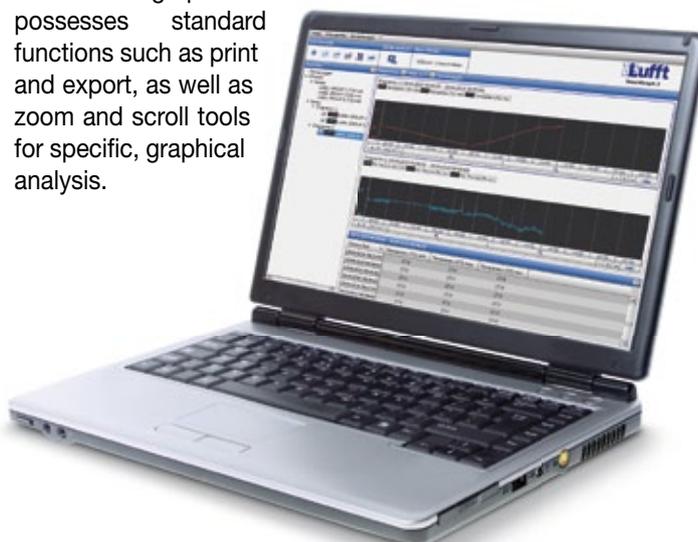
Without a doubt the XA Series represents the advanced technology in Lufft's measuring device product range – a specially advanced device generation that utilises luminous colour displays and works with intelligent sensors. With the help of SmartGraph3, the recorded data taken from your measuring campaigns can be archived and analysed clearly.

The Smartphone for measurement technology – this was the requirement for the product development of the XA1000.

The ergonomic-optimised hand-held measuring device automatically recognises each connected sensor. The colour display reacts to your touch; alternatively the control pad below the display can be used to control the functions. In addition to the high-resolution representation of the measured values, the measuring curves can also be analysed in chronological sequence on the display.

As a special feature, the XA1000 comes with all possible calculations that can be determined with the help of the measured physical measurements: Dew point, wet-bulb temperature, absolute humidity, enthalpy and much more.

The Windows compatible SmartGraph3 software is included in delivery and in addition provides a clear representation and simple compilation of all measured data. This full-featured software can display measured values in both tables and graphs and possesses standard functions such as print and export, as well as zoom and scroll tools for specific, graphical analysis.

The saving of measuring campaigns is an important (functional) feature of portable hand-held measuring devices especially due to the frequent change of locations. The XA1000 permits the management of measured values at virtually any number of locations. This allocation of recorded measurements during analyses is made possible by SmartGraph3.

Measuring
on the Go

Luftfeuchte | TFF   00:16
°C
23.99   %
Temperatur   17.19   hPa
Rel Feuchte   979.3
Abs Luftdruck   Restzeit
02:59:55

MADE IN GERMANY

- 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 deviatzion representation
- 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
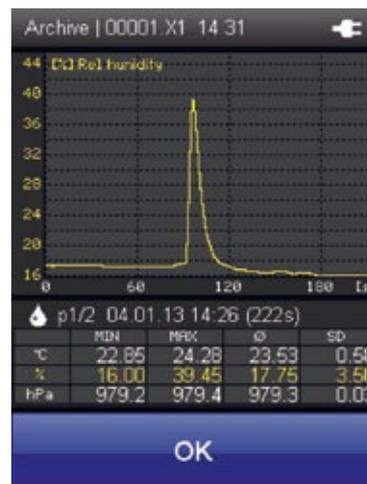- Online firmware update

Premium Segment XA1000

The best precision and greatest flexibility. The measurement all-rounder for professional applications – easy to handle and robust. Allows various intelligent sensors to be connected, sensors to be automatically recognised, saves measuring campaigns, allows all climate data to be calculated, and data to be archived on a computer and easily evaluated by means of SmartGraph3.

Hand-held Measuring Device XA1000 "All-in-ONE"			Order No.
"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.			5900.00
Technical data	Dimensions	170 x 62 x 34 mm	
	Weight	ca. 205g	
Storage conditions	Permitted ambient temperature	-20...+60°C	
	Permitted rel. humidity	<90%r.h. non-condensing	
Operating conditions	Permitted rel. humidity	<90%r.h. (20g/m³) non-condensing	
	Permitted altitude above sea level	4,000m	
Power supply	Power supply	4 Alkaline LR6 AA/NiMH 1.5...1.2V/USB 5V	
	Active power consumption	Approx. 400mW	
	Battery life passive	Approx. 1 year	
	Battery life active	min. 24 hours	
	Sensor power supply	5.5V ± 10% DC, max. 200mA	
Data storage	Integrated data storage	up to 200 gauges taking approx. 1 mill. values	
Interface	USB	Cable and SmartGraph3 software included in delivery	
Representation	Definition of measured values	2 decimal places	
Display	Control	Touch screen, capacitive	
	Technology	TFT, resolution 240x320, 65k colours, very good contrast due to Piezoresistive technology	
	Surface, toughened glass	Degree of hardness: 7, scratch-resistant	
Integrated air pressure sensor	Measuring range (full accuracy)	800...1,100mbar	
	Accuracy at 25°C,1013,25mb	0.5mbar	
	Long-term stability	type - 1mbar/year	
	Measurement resolution	0.024mbar	
	Measuring principle	Piezoresistive	
Calculated measurement categories for external temperature/humidity sensors	Mathematical: MIN/MAX/AVG/HOLD		
	Temperature (°C/°F)		
	Rel. humidity (%r.h)		
	Rel. humidity of ice (%r.h)		
	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		
Calculated measurement categories for external airflow sensors	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/h), (l/min)		
Compatibility	Sensor/probe: all SDI/digital sensors (temperature, humidity, SDI airflow, air pressure integrated		

Compatible sensors for XA1000		Page
Temperature/ humidity	digital TFF20	18
	Allround SDI	18
	4 mm diameter SDI	19
	High temperature SDI	19
	Sintered stainless steel filter	20
Current/ temperature	SDI (0...2m/s)	21
	SDI (0...20m/s)	21