

Genuine glass  
surface with high  
resolution colour  
display

## X(per) P(rofessional) Series

# XP200

- TFT LCD, anti-glare colour display
- Capacitive touch screen
- Sampling rate 1s
- Data recording simultaneously on up to 3 channels
- Graphical analysis including standard deviation
- Integrated flash memory with space for up to 200 data blocks, or up to three hours continuous recording
- USB port for data transfer to Smartgraph 3 (included in delivery)
- Multilingual interface
- Numerous dimensions calculated
- Online firmware update

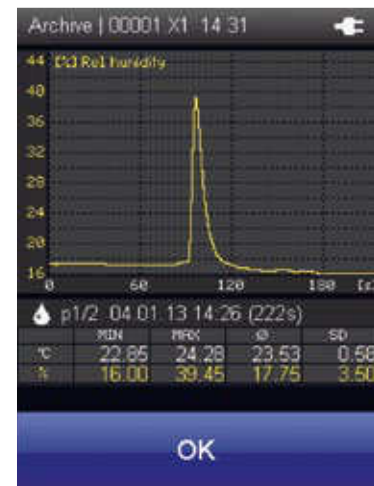


# Hand-held measuring device XP200 for measuring temperature and humidity



X-pert range for humidity and temperature measurements in climate and environmental technology.

Hand-held measuring device XP200			Order No.
<b>Temperature and humidity measuring device compatible with various intelligent sensors.</b>			<b>5820.00</b>
<b>Technical data</b>	Dimensions	170 x 62 x 34 mm	
	Weight	Approx. 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 data/approx. 1 Mio measured values	
<b>Interface</b>	USB	Cable and SmartGraph3 software included	
<b>Representation</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>Calculated measurement categories for external temperature/humidity sensors</b>	Surface, toughened glass	Degree of hardness: 7, scratch-resistant	
	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)		
<b>Accessories</b>	Water vapour particle pressure (hPa)		
	Air density kg/m³		
<b>Accessories</b>	Connecting cable for external sensors, 2m	8120.KAB2	
	Connecting cable for external sensors, 10m	8120.KAB10	

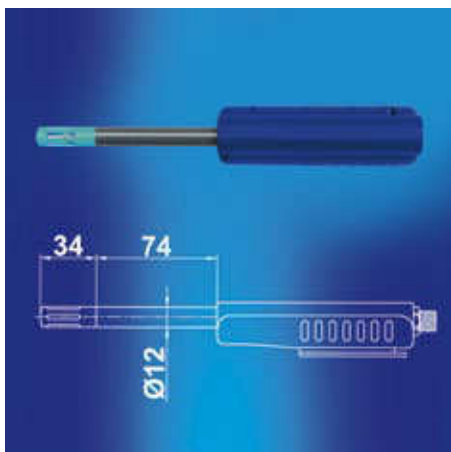


Compatible sensors for XP200		Page
<b>Temperature/humidity</b>	digital TFF20	20
	Allround SDI	20
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	High temperature SDI	21
	Sintered stainless steel filter	22

# Temperature/Humidity Sensor



Digital TFF20			Order No.
Reference measurement in service and maintenance, suitable for measurements in air conditioning and heating industry segmetnts.			8120.TFF
Technical Data	Dimensions	Length 85 mm, Ø 12 mm	
	Weight	Approx. 50g	
	Protection	Polycarbonate / IP65	
	Permitted operation temp.	0...50°C	
	Permitted humidity	0...100% r.h.	
	Storage temperature	-20...60°C	
	Storage humidity	20...80% r.h.	
Relative Humidity	Measurement range	0... 100% r.h.	
	Accuracy	± 2 % (0 ... 90 %), ± 3 % (90 ... 100 %) r.h.	
	Resolution	0.01% r.h.	
	Principle	Capacitive	
Temperature	Measurement range	-40 ... 80 °C	
	Accuracy (20°C)	± 0.1 °C	
	Accuracy (0...40°C)	± 0.2 °C otherwise ± 0.5 °C	
	Resolution	0.01 °C	
	Principle	PT1000, Class A, DIN EN 60751	
Absolute Humidity	Measurement range	0...300g/m³	
	Unit	g/m³	
Dew Point Temperature	Measurement range	-40...80°C	
Mixing Ratio	Measurement range	0...550g/kg	
Compatibility	XA1000		
Accessories	Stainless steel sinter cap		
			5120.212

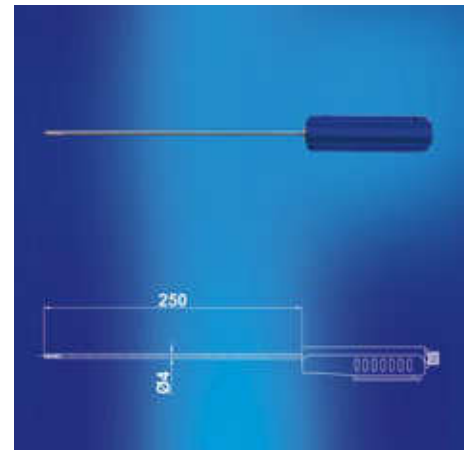


Allround SDI Temperature/Humidity Sensor			Order No.
<b>Compact temperature-/humidity sensor, in stainless steel tube. Application in HVAC field, reference measurement in accordance with ISO9000 Quality Assurance</b>			<b>9130.540</b>
<b>Technical Data</b>	Dimensions Sensor	Length 74 mm, Ø 12 mm	
	Dimensions Housing	117 x 38 mm	
	Weight	Approx. 80g	
	Protection	Housing/Sensor IP40 Sensor head plastic mesh	
	Permitted operation temp.	0...50°C	
	Permitted humidity	0...100% r.h.	
	Storage temperature	-20...60 °C	
	Storage humidity	20...80% r.h.	
<b>Relative Humidity</b>	Measurement range	0... 100% r.h.	
	Accuracy	± 2 % (0 ... 90 %), ± 3 % (90 ... 100 %) r.h.	
	Resolution	0.1% r.h.	
	Principle	Capacitive	
<b>Temperature</b>	Measurement range	-20 ... 70 °C	
	Accuracy (20°C)	± 0.2 °C	
	Accuracy (-10...50°C)	± 0.4 °C otherwise ± 0.5 °C	
	Resolution	0.1°C	
	Principle	NTC	
<b>Compatibility</b>	XA1000		
<b>Accessories</b>	Stainless steel sinter cap		<b>5120.212</b>
	Extension cable for sensor, 2m		<b>8120.KAB2</b>

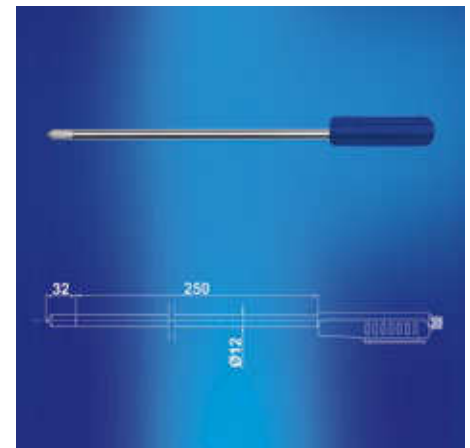
# Temperature/Humidity Sensor



SDI Temperature-/Humidity Sensor with 4mm Diameter			Order No.
<b>Compact, slim temperature-/humidity sensor in stainless steel protective tube.</b> <b>With a diameter of only 4mm, the sensor is suitable for applications in measurement areas that are difficult to access.</b>			<b>9130.520</b>
<b>Technical Data</b>	Dimensions sensor tube	Length 250mm, Ø 4mm	
	Dimensions housing	117 x38 mm	
	Weight	Approx. 85g	
	Protection	Housing/sensor IP40 sensor head: screwable, stainless steel cap, PTFE filter	
	Permitted operation temp.	0...50°C	
	Permitted humidity	0...100% r.h.	
	Storage temperature	-20...60°C	
	Storage humidity	20...80% r.h.	
<b>Relative Humidity</b>	Measurement range	0... 100% r.h.	
	Accuracy	± 2 % (0 ... 90 %), ± 3 % (90 ... 100 %) r.h.	
	Resolution	0.1% r.h.	
	Principle	Capacitive	
<b>Temperature</b>	Measurement range	-40 ... 100 °C	
	Accuracy	± 0.2°C at 20 °C otherwise ± 0.7°C	
	Resolution	0.1°C	
	Principle	PT1000 (tolerance class B, DIN EN 60751)	
<b>Compatibility</b>	XA1000		
<b>Accessories</b>	Extension cable for sensor, 2m		



SDI High Temperature-/Humidity Sensor			Order No.
Stainless steel sensor equipped with a Teflon probe is especially suitable for high temperature/humidity measurements.			9130.530
Technical Data	Dimensions sensor tube	Length 250mm, Ø 12mm	
	Dimensions housing	117 x 38 mm	
	Weight	Approx. 200g	
	Protection	Housing/sensor IP40 sensor head: stainless steel sinter filter	
	Permitted operation temp.	0...50°C	
	Permitted humidity	0...100% r.h.	
	Storage temperature	-20...60°C	
	Storage humidity	20...80% r.h.	
Relative Humidity	Measurement range	0... 100% r.h.	
	Accuracy	± 2 % (0 ... 90 %), ± 3 % (90 ... 100 %) r.h.	
	Resolution	0.1% r.h.	
	Principle	Capacitive	
Temperature	Measurement range	-40...180°C (grip of sensing probe up to 80°C)	
	Accuracy	± 0.2°C at 20 °C otherwise ± 0.7°C	
	Resolution	0.1°C	
	Principle	PT1000 (tolerance class B, DIN EN 60751)	
Compatibility	XA1000		
Accessories	Extension cable for sensor, 2m		



More Information Lufft X-Series

[www.lufft-xseries.com](http://www.lufft-xseries.com)

XA1000  
XP200

# Temperature/Humidity Sensor



Stainless Steel Sinter Filter			Order No.
<b><i>Stainless steel sinter filter for high dirt protection</i></b>			<b>5120.212</b>
Technical data	Material	Sintered stainless steel	
	Response time	30s	
	Size of pores	10µm	