



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

- **Parameters measured**

Air pressure, temperature and humidity

- **Measurement technology**

Various - thus exchangeable sensors

- **Product highlights**

Precise and flexible all-rounder handheld instrument, easy to handle and robust, sensor connection with automatic recognition, saves measuring campaigns, allows all climate data to be calculated and archived, evaluation software SmartGraph3 included

- **Interfaces**

USB (Cable and SmartGraph3 software included)

- **Article number**

5820.00

Hand held device with integrated air pressure sensor is compatible with various intelligent external temperature and humidity probes.

IMPORTANT: Hand-held measuring device XP200 is discontinued

Please check the alternative: [All-in-One Handheld Device XA1000](#)

General	
Dimensions	170 x 62 x 34 mm
Weight	Approx. 205 g

Storage conditions	
Permissible ambient temperature	-20...60 °C
Operating rel. humidity	<90 % RH non - condensing

Operating conditions	
Operating rel. humidity	<90 % RH (20 g/m3) non - condensing
Admissible height above absolute altitude	4000 m

Power supply	
Power supply	4 Alkaline LR6 AA 1.5 V/ USB 5 V
Active power consumption	Approx. 400 mW
Battery life passive	Approx. 1 year
Battery life active	min. 24 hours
Sensor power supply	5.5 V \pm 10 % DC, max. 200 mA

Data storage	
Integrated data storage	Up to 200 gauges taking approx. 1 mill. values

Interface	
USB	Cable and SmartGraph3 software included in delivery

Display	
Definition of measured values	2 decimal places

Display	
Control	Touch screen, capacitive
Technology	TFT, resolution 240 x 320, 65 k colours, very good contrast due to Piezoresistive technology
Surface, toughened glass	Degree of hardness: 7, scratch - resistant

Integrated air pressure sensor	
Measuring range	800...1100 mbar
Accuracy at 25°C, 1013.25mbar	0.5 mbar
Long-term stability	typ. 1 mbar/year
Measurement resolution	0.024 mbar
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