



The OPUS20E offers the highest flexibility and is excellent value for money. It allows the connection of up to 4 external temperature and relative humidity sensors, as well as 2 further analogue sensors. Intelligent BUS sensors can be integrated...

- **Parameters measured**
Measurement of Input voltage 0-1V, Current measurement - 2-wires, Current measurement - 3-wires, Thermocouple K, Thermocouple J, Thermocouple S, PT100
- **Measurement technology**
Input voltage 0-1V, Current measurement - 2-wires, Current measurement - 3-wires, Thermocouple K, Thermocouple J, Thermocouple S, PT100
- **Product highlights**
LAN datalogger with built-in sensors and the highest precision and with up to 10 external channels/sensors per Opus20E.
- **Interfaces**
USB (Cable and Monitoring Software SmartGraph3 included)
- **Article number**
8120.30, 8120.30N, 8120.31, 8120.31N

Air flow and differential pressure sensors are typically connected to the OPUS20E via analogue inputs as opposed to the maximum of 4 external temperature or humidity sensors that can be integrated via a digital BUS protocol. In connection with its LAN capabilities, the OPUS20E is able to realize universal measurement networks in real time. For standard applications the SmartGraph 3 comes into play, and in order to fulfill the 21 CFR 11

guidelines the well established and proven MCPS8 software is available.

General	
Dimensions	180 x 78 x 32 mm
Measuring interval	10/30 s, 1/10/12/15/30 min, 1/3/6/12/24 h
Construction	Plastic housing
Operating time with battery	> 1 Year
Data storage	16 MB, 3,200,000 measured values
LC-Display	Height 90 x 64 mm
Weight	Approx. 250 g
Included in delivery	PC - Windows Software SmartGraph 3 for graphical and numerical representation of measured values / Instructions/ data cable/ battery/ WAGO connector / DIN rail bracket
Interface	USB, LAN
Storage interval	1/10/12/15/30 min, 1/3/6/12/24 h
Power supply	4 x LR6 AA Mignon, USB, 24V DC
Operating temperature	-20...50 °C
Bus interface	RS485

Input voltage 0-1V	
Measuring range	0 ... 1 V
Unit	V
Accuracy	+/- 200 uV +/- 0.1 % of measured value
Resolution	500 uV

Current measurement - 2-wires	
Measuring range	4 ... 20 mA
Unit	mA
Accuracy	$\pm 4 \mu\text{A} \pm 0.1 \%$ of measured value
Resolution	5 uA

Current measurement - 3-wires	
Measuring range	0 ... 20 mA
Unit	mA
Accuracy	$\pm 4 \mu\text{A} \pm 0.1 \%$ of measured value
Resolution	5 uA

Thermocouple K	
Measuring range	-200 ... 1200 °C
Unit	°C
Accuracy	$\pm 1 \text{ °C} \pm 0.5 \%$ of measured value at -200 °C ... 0 °C $\pm 1 \text{ °C} \pm 0.2 \%$ of measured value at 0...1200 °C
Resolution	0.2 °C

Thermocouple J

Measuring range	-200 ... 1200 °C
Unit	°C
Accuracy	±1 °C +/- 0.5 % of measured value at -200 °C ... 0 °C ±1 °C +/- 0.2 % of measured value at 0...1200 °C
Resolution	0.2 °C

Thermocouple S	
Measuring range	-50 ... 1700 °C
Unit	°C
Accuracy	± 1 °C ± 0.5 % of measured value at -50 °C ... 0 °C ± 1 °C ± 0.2 % of measured value at 0 °C ... 1,700 °C
Resolution	0.2 °C

PT100	
Measuring range	-200 ... 500 °C
Unit	°C
Accuracy	± 0.2 °C ± 0.1 % of measured value
Resolution	0.02 °C