Lufft OPUS20E
for External Sensors

Lufft OPUS20E for External Sensors			Order-No.
Lufft OPUS20E (neutral without Lufft-Logo 8120.30N)			**8120.30**
Lufft OPUS20E PoE (neutral without Lufft-Logo 8120.31N)			**8120.31**
Technical data	Dimensions	length 180 mm, width 78 mm, depth 32mm	
	Measurement rate	10/30s, 1/10/12/15/30min, 1/3/6/12/24h	
	Storage rate	1/10/12/15/30min, 1/3/6/12/24h	
	Construction	plastic housing	
	Operation life (battery)	> 1 Year	
	Data storage	16 MB, 3,200,000 measured values	
	LC-Display	size 90x64 mm	
	Weight	approx. 250g	
	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	
	bus interface	RS 485	
	Power supply	4 x LR6 AA Mignon, USB, (POE opt.)	
	Max. operation temperature	-20...50°C	
Input voltage 0-1V	Measurement range	0 ... 1V	
	Accuracy	± 200uV ± 0.1% of measured value	
	Resolution	< 500uV	
Current measurement	Measurement range	2-wires: 4 ... 20mA, 3-wires: 0 ... 20mA	
	Accuracy	± 4uA ± 0.1% of measured value	
	Resolution	< 5uA	
	Resistance	approx. 50 Ohm	
Thermocouple K	Measurement range	-200°C ... 1200°C	
	Accuracy	± 1°C ± 0.5% of measured value at -200°C ... 0°C ± 1°C ± 0.2% of measured value at 0°C ... 1200°C	
	Resolution	< 0.2°C	

With up to 10 external channels/sensors per OPUS20E.

The OPUS20E offers the highest flexibility and is excellent value for money. It allowes 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 via the OPUS20E's RS485 interface (e.g. particle counter).

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 fulfil the 21 CFR 11 guidelines the well-established and proven MCPS7 software is available.

Compatible sensors for OPUS20E		Page
Temperature/ Humidity	Digitale TFF20	24

Further compatible sensors on request.

Humidity:	Transducers with display
Flow:	Flow transmitters
Differential pressure:	Differential pressure transmitters
Particle:	Particle counters
CO_2:	CO_2 transmitters

With up to 10 external sensors connectable per OPUS20E
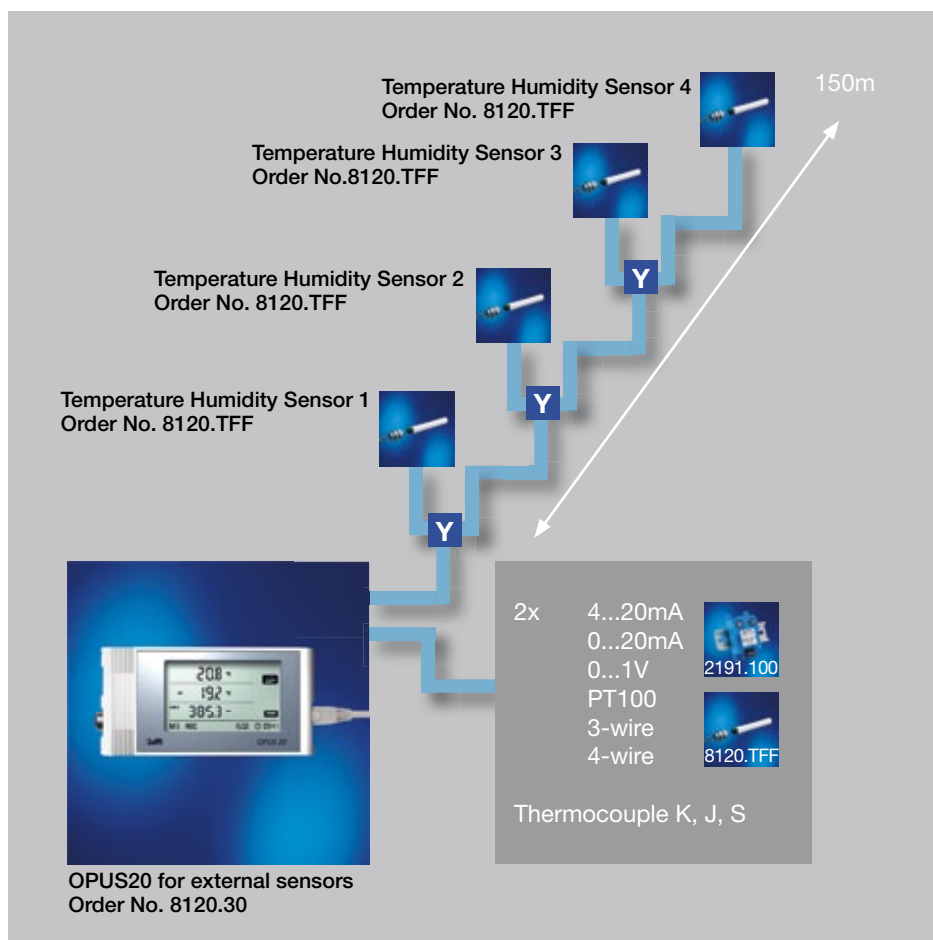
Lufft OPUS20E Configurations Examples

Network with up to 200 channels

The OPUS20E is equipped with an analogue input that allows the connection of 2 sensors with voltage and current output, or rather PT100 temperature sensors in 3 and 4 wire technology.

At the same time up to 4 Lufft temperature/humidity sensors can be connected to the datalogger via a serial input.

Each fully equipped OPUS20E is a 10 channel datalogger that can record various data. It also allows data to be retrieved online and offline.

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Technical data			
Thermocouple J	Measurement range	-200°C ... 1,200°C	
	Accuracy	± 1°C ± 0.5% of measured value at -200°C ... 0°C	
		± 1°C ± 0.2% of measured value at 0°C ... 1,200°C	
	Resolution	< 0.2°C	
Thermocouple S	Measurement range	-50°C ... 1,700°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	Measurement range	-200°C ... 500°C	
	Accuracy	± 0.2°C ± 0.1% of measured value	
	Resolution	< 0.02°C	
Accessories	4 x LR6 AA Mignon		**8120.SV1**
	Power supply adapter		**8120.NT**
	Y Connector		**8120.STY**
	Extension and/or connecting cable for digital sensor, 2m		**8120.KAB2**
	Extension and/or connecting cable for digital sensor, 10m		**8120.KAB10**
	Extension and/or connecting cable for digital sensor, 25m		**8120.KAB25**
	Plug multipoint socket for analog sensortechnology access		**8120.STE**
	Temperature/ humidity sensor (see page 24)		**8120.TFF**
	High-precision Temperature/Humidity Sensor (see page 26)		**8130.TFF**

With up to 10 channels per datalogger transfering data in realtime. Power supply via POE.

Temperature Humidity Sensor 4
Order No. 8120.TFF

150m

Temperature Humidity Sensor 3
Order No.8120.TFF

Temperature Humidity Sensor 2
Order No. 8120.TFF

Temperature Humidity Sensor 1
Order No. 8120.TFF

2x 4...20mA
0...20mA
0...1V
PT100
3-wire
4-wire

2191.100

8120.TFF

Thermocouple K, J, S

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