

OPUS20 LAN-Datalogger Future Inside

- Measurement
- Storage and Transfer
- Representation and Evaluation
- Qualification and Calibration
- Alarm

a passion for precision · passion pour la précision · pasión por la precisión · passione per la precisione · a

G. LUFFT
Mess- und Regeltechnik GmbH
Gutenbergstraße 20
70736 Fellbach
Postfach 4252
70719 Fellbach
Tel. +49 (0)711-51 822-0
Fax +49 (0)711-51 822-41
www.lufft.com
info@lufft.com

 **Lufft**

Technische Änderungen vorbehalten OPUS20 02_2011



www.lufft.com

 **Lufft**

OPUS20 Multiple Functions with Internal Sensors

Functions	THI 8120.00	THIP 8120.10	TCO 8120.20
Power supply battery	■	■	■
Power supply USB	■	■	■
Power supply LAN (POE)	optional	optional	optional
Measured data storage	3,200,000	3,200,000	3,200,000
Typical battery life	> 1 year	> 1 year	> 1 year
LC-display	■	■	■
One-button operation	■	■	■
1-point calibration by user/operator	■	■	■
°C/°F switchable	■	■	■
Optical/acoustical alarm	■	■	■
Date/time	■	■	■
Records Min/Max/Avg.	■	■	■
SmartGraph 3 evaluation software	■	■	■
Measurement Categories	THI 8120.00	THIP 8120.10	TCO 8120.20
Temperature			
Air temperature	■	■	■
Humidity			
Relative Humidity	■	■	■
Absolute humidity	■	■	■
Dew point temperature	■	■	■
Air pressure			
Barometric air pressure		■	
Relative air pressure		■	
CO2 Concentration			
CO ₂ Concentration			■
Function Table Software	THI 8120.00	THIP 8120.10	TCO 8120.20
Graphical representation	■	■	■
Numerical data (measured value display)	■	■	■
Print function	■	■	■
Export function for measured values (e.g. Excel)	■	■	■
Gathered printouts of all measurement sites	■	■	■
User administration	■	■	■
Administration of up to 255 measuring devices	■	■	■

THI



THIP



TCO



OPUS20 THI Temperature and rel. Humidity



For climate monitoring in buildings and the control of all climate-sensitive production processes: in electronic data-processing centres, control cabinets, wind turbines, storage rooms and museums.

The Opus20 runs on batteries or powered via USB. Alternatively, you have the possibility to power the device via POE (Power over Ethernet).

Opus20 Temperature and Relative Humidity		Order-No.
Opus20 Temperature / rel. Humidity (neutral without Lufft-Logo 8120.00N)		8120.00
Opus20 Temperature / rel. Humidity POE (neutral without Lufft-Logo 8120.01N)		8120.01
Technical data	Dimensions	length. 166mm, width 78 mm, depth 32mm
	Measurement rate	10/30s, 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 90x64mm
	Weight	approx. 250g
	Included in delivery	PC-Windows Software SmartGraph 3 for graphical and numerical representation of measured values / instruction manual/ data cable / battery
	Interface	USB, LAN
	Storage rate	1/10/12/15/30min, 1/3/6/12/24h
	Power supply	4 x LRG AA Mignon, USB, (POE opt.)
	Max. operation temperature	-20...50°C
	Max. rel. humidity	0...95%r.h.<20g/m ³ (non condensing)
Temperature	Principle	NTC
	Measurement range	-20 ... 50 °C
	Accuracy	±0,3°C (0...40°C), otherwise 0,5°C
	Resolution	0,1°C
Rel. humidity	Principle	capacitive
	Measurement range	10...95%r.h.
	Accuracy	±2%r.h.,
	Resolution	0,5%r.h.
Accessories	4 x LRG AA Mignon	8120.SV1

OPUS20 THIP Temperature, Rel. Humidity, Air Pressure

Finally available: Lufft's precise weather station for interior applications – an essential data collector for all calibration laboratories.



OPUS20 THIP Temperature, Relative Humidity, Air Pressure			Order-No.
OPUS20 THIP Temperature / Rel. Humidity / Air Pressure (neutral without Lufft-Logo 8120.10N)			8120.10
OPUS20 THIP Temperature / Rel. Humidity / Air Pressure POE (neutral without Lufft-Logo 8120.11N)			8120.11
Technical data	Dimensions	length. 166 mm, width 78 mm, depth 32 mm	
	Measurement rate	10/30s, 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 / instruction manual/ data cable / battery	
	Interface	USB, LAN	
	Storage rate	1/10/12/15/30min, 1/3/6/12/24h	
	Power supply	4 x LRG AA Mignon, USB, (POE opt.)	
	Max. operation temperature	-20...50°C	
	Max. rel. humidity	0...95%r.h.<20g/m ³ (non condensing)	
	Max. altitude	10,000 m above sea level	
Temperature	Principle	NTC	
	Measurement range	-20 ... 50 °C	
	Accuracy	±0,3°C (0...40°C), otherwise 0,5°C	
	Resolution	0,1°C	
Rel. humidity	Principle	capacitive	
	Measurement range	10...95%r.h.	
	Accuracy	±2%r.h.,	
	Resolution	0,5%r.h.,	
Air pressure	Measurement range	300 ... 1300 hPa abs.	
	Accuracy	700 ... 1100mbar at 25°C ±0,5 hPa	
	Resolution	0,1 hPa	
Accessories	4 x LRG AA Mignon		8120.SV1

Opus20 TCO Temperature, Rel. Humidity, CO₂

A high level of CO₂ in the air within a room causes headaches, tiredness and lack of concentration. The regulation on CO₂ concentration was established in order to evaluate IAQ (Indoor Air Quality). As a guideline for school rooms in the USA the limit of 1,000 ppm applies; for workplaces the occupational exposure limit is 5,000 ppm.



Opus20 TCO / Temperature / Relative Humidity / CO ₂			Order-No.
Opus20 TCO / Temperature / Rel. Humidity / CO₂ (neutral without Lufft-Logo 8120.20N)			8120.20
Opus20 TCO / Temperature / Rel. Humidity / CO₂ POE (neutral without Lufft-Logo n8120.21N)			8120.21
Technical data	Dimensions	length. 166 mm, width 78 mm, depth 32 mm	
	Measurement rate	10/30s, 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 / instruction manual/ data cable / battery	
	Interface	USB, LAN	
	Storage rate	1/10/30min, 1/3/6/12/24h	
	Power supply	4 x LRG AA Mignon, USB, (POE opt.)	
	Max. operation temperature	-20...50°C	
	Max. rel. humidity	0...95%r.h.<20g/m ³ (non condensing)	
	Max. altitude	10,000 m above sea level	
Temperature	Principle	NTC	
	Measurement range	-20 ... 50 °C	
	Accuracy	±0,3°C (0...40°C), otherwise 0,5°C	
	Resolution	0,1°C	
Rel. Humidity	Principle	capacitive	
	Measurement range	10...95%r.h.	
	Accuracy	±2%r.h.,	
	Resolution	0,5%r.h.,	
CO₂	Principle	NDIR	
	Measurement range	0 ... 5,000 ppm	
	Accuracy	± 50 ppm +3 measured values at 20 °C and 1,013 mbar	
	Resolution	1 ppm	
	Long-term stability	20 ppm/a	
Accessories	4 x LRG AA Mignon		8120.SV1

OPUS20 for External Sensors

With up to 10 external channels/sensors per Opus20.

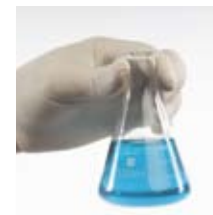
The Opus20 offers the highest flexibility and excellent value for money, allowing the connection of up to 4 external temperature and relative humidity sensors, as well as 2 further analogue sensors. Intelligent sensors can be integrated via the Opus20's RS485 interface (e.g. particle counter).

Air flow and differential pressure sensors are typically connected to the Opus20 via the analogue input. In contrast, a maximum of 4 external temperature/humidity sensors are integrated via a digital protocol (UMB).



In connection with its LAN capabilities, the Opus20 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 SmartControl is available.

OPUS20 E for External Sensors		Order-No.
OPUS20 for External Sensors (neutral without Lufft-Logo 8120.30N)		8120.30
OPUS20 for External Sensors POE (neutral without Lufft-Logo 8120.31N)		8120.31
Technical data	Dimensions	length. 180mm, width 78mm, depth 32mm
	Measurement rate	10/30s, 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 90x64mm
	Weight	approx. 250g
	Included in delivery	PC-Windows Software SmartGraph 3 for graphical and numerical representation of measured values / instruction manual/ data cable / battery
	Interface	USB, LAN
	UMB bus interface	RS 485
	Storage rate	1/10/12/15/30min, 1/3/6/12/24h
	Power supply	4 x LRG AA Mignon, USB, (POE opt.)
	Max. operation temperature	-20...50°C
Connections	Temperature	PT 100, 3-wire, 4-wire thermocouple K, J, S
	Power input	0...20 mA, 4...20 mA,
	Voltage input	0...1 V, -1...+1 V,
Accessories	4 x LRG AA Mignon	8120.SV1



Measuring is not just measuring. Each application and application area requires the ideal sensor. Apart from this, it is imperative in the pharmaceutical production and food industry that the hundreds of guidelines in place are adhered to and a multitude of inspections conducted. Only then can long-lasting international standards be guaranteed. Lufft can help you fulfil all such criteria and find the right product.

