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Humlog 20

Data Logger for Humidity, Temperature, Air Pressure and CO₂

The Humlog 20 facilitates exact and professional recordings for climatic measurements of humidity, temperature, air pressure and $\rm CO_2$ concentration.

The long battery life and large memory allow for continuous data recording over long periods of time. The configuration of the data logger and the evaluation of the measurement data are simple and straightforward using SmartGraph3 software, which is included in the scope of supply. The built-in Ethernet interface makes the Humlog 20 network capable, and ensures maximum reliability in data transmission. For various requirements in the application, the four models **M1, M8, M12** and **M60** are available. Model **M60** offers the highest flexibility with analogue and digital interface for external sensors.

	52	. °C	·((φ))	
	37	SrH %rH		
	5	db De	-000)	
	M3 REC	585	E INE	
E	ELEKTRONIK	HUM	ALOG 20	

HUMLOG20-M1

Temperature (air)·····Relative humidity·····Absolute humidity·····Dew point temperature·····Barometric air pressure·····Relative air pressure·····CO2 Concentration·····External input - bit100, Thermocouple····Analogue input voltage 0 - 1 V····Analogue input current 0/4 - 20 mA····Power supply battery·····Power supply USB······C-display·······One-button operation·······C/F switchable·······Ditcal / acoustical alarm·······Date / time········SmartGraph3 evaluation software·······Stathered printouts of all measurement sites······Stathered printouts of all measurement sites······Stathered printouts of all measurement sites·· <td< th=""><th colspan="4">Model</th><th></th></td<>	Model				
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Date / timeImage: scalar s	°C/°F switchable	✓	~	~	~
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Gathered printouts of all measurement sites✓✓✓Jser administration✓✓✓	Print function	✓	~	~	~
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	Gathered printouts of all measurement sites	✓	✓	~	~
Administration of up to 255 data logger 🗸 🗸 🗸	User administration	✓	✓	✓	~
	Administration of up to 255 data logger	✓	✓	✓	~

23.1 ° m 35.0 m 99.1 m M2 STOP M. 80 COMMI

HUMLOG20-M8



HUMLOG20-M12



Typical Applications

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Museums and exhibition spaces Clean rooms Warehouses Data centres Calibration laboratories **Features**

Large data memory Large format display USB and Ethernet interface Network-capable Powerful software for data analysis

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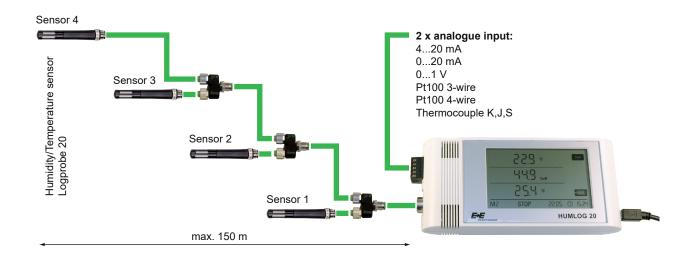


Humlog 20 Model M60 Configuration Examples

The HUMLOG20-M60 is equipped with a digital input, which allows the connection of up to four external humidity/ temperature sensors.

Two additional analogue inputs for sensors with voltage or current output, Pt100 temperature sensors in 3 and 4 wire technology or Thermocouple J, K and S offer highest flexibility in the application.

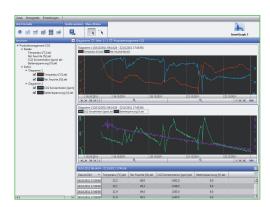
Each fully equipped HUMLOG20-M60 is a 10 channel data logger that can record various data.

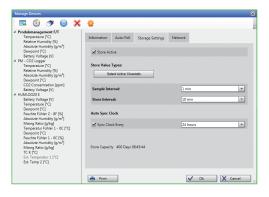


Software SmartGraph3_

With SmartGraph3 the gathering of measured data is simple and as intuitive as possible:

- A Humlog 20 data logger is automatically recognized and added as a "network device".
- In addition to its data-readout function, the software possesses a recording mode that enables parallel recording to be displayed on the computer.
- The data from any desired number of Humlog 20 devices can be read out simultaneously.
- The zoom function allows for quick analyses of critical time periods.
- The export of measured data in csv format enables further processing in EXCEL.
- The device configuration can be printed out in order to check installation parameters.
- Alarm limits like the measured data are chronologically managed at various times so that when changes in alarm limits occur, they can be retracted.
- Automatic data readout of all measured data is supported.





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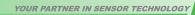
Technical Data

General

neral			
Dimensions		Length 166 mm, width 78 mm, depth 32 mm	
Enclosure / protection rating		Plastic ABS / IP40	
Battery lifetime	M1, M8:	> 1 year	
	M12, M60:	> 4 months	
Data storage		16 MB, 3200000 measured values	
LC-Display		Size 90x64 mm	
Weight		Approx. 250 g (0.55 lbs)	
Interface		USB, LAN (Ethernet)	
Sampling interval		10/30 s, 1/10/12/15/30 min, 1/3/6/12/24 h	
Storage interval		1/1012/15/30 min, 1/3/6/12/24 h	
Power supply		Battery 4 x LRG AA Mignon (not in the scope of supply) or USB	
Working range Temperature:		-2050 °C (-4120 °F)	
	Humidity:	095 %RH (non-condensing)	
CE compatibility accor	ding	EN 61000-6-2 EN 55022	
		EN 6100-4-2 to EN 6100-4-6	עכ
surands			
Relative Humidity			
Sensor		Capacitive	
Measuring range		1095 %RH	
Accuracy at 20°C		±2 %RH	
Resolution		0.1 %RH	
Temperature			
Sensor		NTC	
Measuring range		-2050 °C (-4120 °F)	

Meas

urands		
Relative Humidity		
Sensor	Capacitive	
Measuring range	1095 %RH	
Accuracy at 20°C	±2 %RH	
Resolution	0.1 %RH	
Temperature		
Sensor	NTC	
Measuring range	-2050 °C (-4120 °F)	
Accuracy	±0.3 °C (040 °C; 32102 °F), ot	herwise ±0.5 °C
Resolution	0.1 °C	
Air pressure (only Model M8		
Measurement range	3001300 hPa absolute	
Accuracy at 25°C	±0.5 hPa in the range of 700	.1100 hPa
Resolution	0.1 hPa	
CO ₂ (only Model M12)		
Sensor	Dual wavelength NDIR operati	on principle
Measuring range	05000 ppm	
Accuracy	± (50 ppm + 3 % of measured	value)
Resolution	1 ppm	
Long-term stability	20 ppm/year	
Response time t ₉₀	< 195 s for sampling interval 1	0 s
Temperature dependency, typ.		22 °F) different from 25 °C (77 °F)
Voltage input 0-1V (only Mo	、	
Measuring range	01 V	
Accuracy	±(200 µV +0.1 % of measured	value)
Resolution	500 µV	/
Current input (only Model M		
Measuring range	2-wires: 4 - 20 mA	
	3-wires: 0 - 20 mA	
Accuracy	\pm (4 µA +0.1 % of measured va	alue)
Resolution	5 µA	,
Resistance	Max. 50 Ω	
Thermocouple K, J, S (onl	lodel M60)	
Measuring range	K, J: -2001200 °C	
5 5	S: -501700 °C	
Accuracy -20	.0 °C: ±(1 °C +0.5 % of measured va	lue)
	00 °C: ±(1 °C +0.2 % of measured va	
Resolution	0.2 °C	
Pt100 (only Model M60)		
Measuring range	-200500 °C	
Accuracy	±(0.2 °C +0.1 % of measured	value)
Resolution	0.02 °C	



ELEKTRONIK®

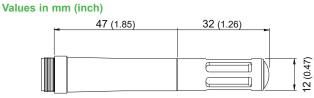
Technical Data Logprobe 20

General

Enclosure / protection	rating	Plastic PC / IP65	
Working range	Temperature:	-4080 °C (-40176 °F)	
	Humidity:	0100 %RH	
CE compatibility accor	ding to ¹⁾	EN 61326-2-3	
		EN 61326-1	ככ
Maximum cable length		150 m	
leasurements			
Relative Humidity			
Sensor		Capacitive	
Measurement range	relative humidity	0100 %	
a	bsolute humidity	0290 g/m ³	
	mixing ratio	0550 g/kg	
dew p	oint temperature	-4080 °C (-40176 °F)	
Accuracy at 20°C		±2 %RH (090 %RH)	
		±3 %RH (90100 %RH)	
Temperature			
Sensor		Pt1000 DIN B	
Measurement range		-4080 °C (-40176 °F)	
Accuracy		±0.2 °C at 20 °C (68 °F); ±0.4°C (-1050 °C 14122 °F);	
		±0.6 (-4080 °C -40176 °F)	
1) is not protected against surge			

1) is not protected against surge,

Dimensions



Ordering Guide_

		HUMLOG20-
	Temperature and relative humidity	M1
Model	Temperature, relative humidity, air pressure	M8
Model	Temperature, relative humidity, CO ₂	M12
	External inputs	M60

Humidity/Temperature Sensor for HUMLOG20-M60	LOGPROBE20-
RH/T sensor with metal grid filter	НТРС
RH/T sensor with stainless steel sintered filter	НТРД

Order Examples

HUMLOG20-M1

Data logger for temperature and relative humidity

HUMLOG20-M60 Data logger with external inputs

LOGPROBE20-HTPD

RH/T sensor with stainless steel sintered filter



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Accessories_

Data logger

- Power supply for Humlog 20
- Theft-proof installation kit

HUMLOG20-M60

- T-coupler M12 M12
- Cable 2 m (6.6 ft)
- Cable 5 m (16.4 ft)
- Cable 10 m (32.8 ft)
- M12x1 cable connector, 5 pole plug for self assembly
- M12x1 cable connector, 5 pole socket for self assembly

HA030106
HA030104

HA030204 HA010816 HA010817 HA010818 HA010706 HA010708

