

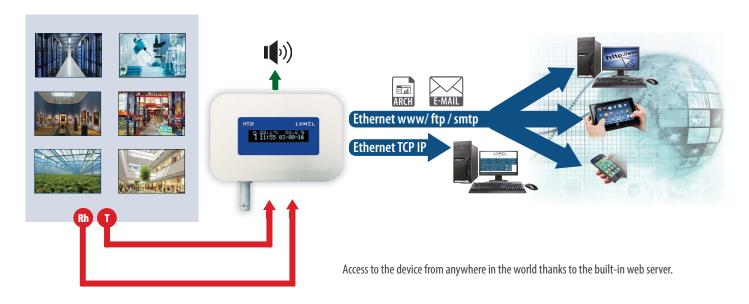


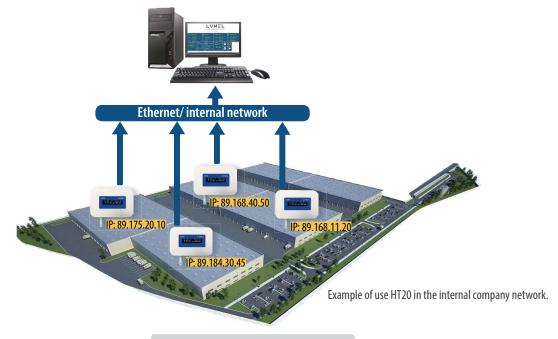
HT20

-TEMPERATURE AND HUMIDITY MONITOR

HT20 monitor has been designed to measure, monitor and record temperature and humidity. It is a perfect solution for any facilities where monitoring and recording such values are very important for the accuracy of the whole process (for example, in server rooms, drug and food warehouses, laboratories, museums or glasshouses). The data captured by HT20 is stored in the internal memory and then sent digitally to the user (by the Ethernet). In case of an emergency situation, the device immediately sends appropriate warnings via emails or via a website. An additional advantage of H20 is the possibility that it can be powered over the Ethernet. This feature is available in versions that are equipped with the Power over Ethernet system (PoE).

EXAMPLE OF APPLICATION







FEATURES





INPUTS



OUTPUT



WHAT PARAMETERS CAN BE MEASURED BY HT20?

- temperature,
- · relative humidity,
- · dew point,
- absolute humidity or the total mass of water vapour (in grams) present in 1m³ of air in a given temperature,
- · wet-bulb temperature,
- vapour pressure or the pressure at which, in a given temperature, the gas is at an
 equilibrium with the fluid (equilibrium between evaporation and condensation),
- enthlapy (total heat content).

HOW DOES HT20 WORK IN CASE THE PRE-SET PARAMETERS ARE EXCEEDED?

The HT20 allows up to two defined warnings. Whenever the pre-set parameters are exceeded, the HT20 will immediately signal this via:

- emails,
- · messages on a dedicated website,
- special symbols on the display,
- audible alerts.

Therefore, every time the HT20 is connected to the Internet, you will always have the most up-to-date information on the actual condition of the monitored facility.

ETHERNET INTERFACE AND ITS FUNCTIONALITY

The HT20 is equipped with the Ethernet interface enabling its connection to the local or global network (either LAN or WAN). Thanks to the user-friendly and intuitive 'www' server, you will always have access to the information regarding:

- · current measurement values,
- · device status.

The 'www' server call also allow you to:

- · configure it
- read the serial number, manufacturing code, software version and bootloader version

The built-in FTP server allows for fast and easy access to archive data files from the level of web browser or from other FTP clients. The DHCP protocol provides automatic configuration of the monitor in the computer network, whereas the SMTP protocol is responsible for sending the warnings via emails. The HT20 monitor can also work in more extensive systems where the communication protocol Modbus Slave TCP/IP provides a smooth and reliable reading of all current measurement data.

MEASUREMENTS ARCHIVE

Thanks to the dedicated website, you can also check the archive data using a smartphone, tablet or a PC. There is no need to be worried about insufficient memory on the device; the HT20 has an 8GB internal file system memory where the data form the internal memory buffer (4GB) is automatically recorded as files. The memory has a form of a circular buffer and after the storage is full, the oldest files are overwritten. The internal archive can be read, copied and/or deleted.



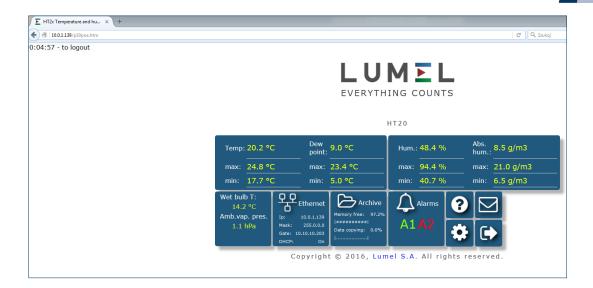
BASIC PARAMETERS				
Relative humidity (RH)	095 % condensation inadmissible			
Basic error of humidity processing	$\pm 3\%$ of the range for RH = 1090%; $\pm 5\%$ in other range			
Hysteresis of humidity measurement	± 1% RH	± 1% RH		
Basic range of temperature measurement (T)	−2060 °C			
Basic error of temperature processing	±0.6 °C in range 1040 °C; ±1.0 °C in other range			
Calculated values	absolute humidity (a) [g/m³] dew point temperature (Td) [°C]			
DIGITAL INTERFACE				
Interface type				
Ethernet 10/100 Base-T	max. number of simultaneous connections - 10			
RATED OPERATING CONDITIONS				
Supply voltage	6 V d.c. or PoE IEEE 802.3af			
Power concumption	<2VA			
Preheating time	15 minutes			
Ambient temperature	−20 <u>23</u> 60 °C			
Relative humidity	< 95%			
Protection grade ensured by housing	IP 20			
Fixing way	on a wall			
Weight	<0.3 kg			
Dimensions	120 x 80 x 25 mm			
Operating position	sensor down			
SAFETY AND COMPATIBILITY REQUIREMENTS				
Electromagnetic compatibility	Noise immunity	acc. to EN 61000-6-2		
	Noise emissions	acc. to EN 61000-6-4		
Pollution grade	2	acc. to EN 61010-1		
Installation category	III	acc. to EN 61010-1		
Maximal phase-to-earth operating voltage	50V	acc. to EN 61010-1		
Altitude above sea level	< 2000 m			
PARAMETERS OF DC ADAPTER (OPTION):				
Voltage	6 V d.c. ± 5%			
Max. power	6W*			
Input voltage	90253 V a.c.			
Operating temperature	040 ℃*			
External dimensions	63.6 x 29.5 x 45.6 mm*			
Cable length	$1.4 \text{ m} \pm 10\%^*$			
Plug	φ 5.5 / 2.1 mm			

^{*} adapter parameters can be changed



REMOTE READOUT OF PARAMETERS THROUG ETHERNET: WWW SERVER, FTP

main page view



temperature trend view



humidity trend view





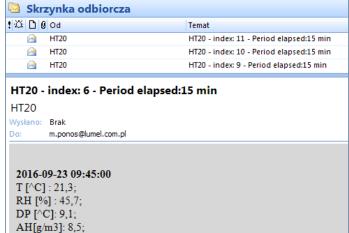
alarms and archive programming

REMOTE READOUT OF PARAMETERS THROUG ETHERNET: WWW SERVER, FTP





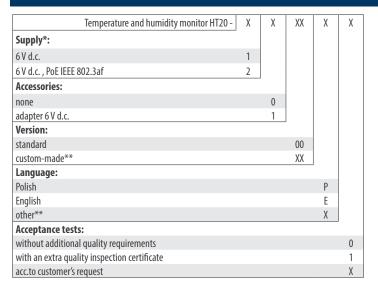
eg of email of cyclic measurements - sent at a specified time period







ORDERING



- * Monitors in version HT20 1XXXXX require an external power supply 6 V d.c., in version HT20 2XXXXX they can be powered either from Ethernet PoE (Power over Ethernet), as well as from the external power supply 6 V, D.C.
- ** after agreeing with the manufacturer

Order example:

Code: HT20-2-1-00-E-1 means:

HT20 - HT20 monitor

- 2 supply: PoE IEEE 802.3af and 6 V d.c.
- 1 with attached AC 6 V d.c. adapter included
- **00** standard version **E** user's manual in English
- **0** without additional quality requirements

ACCESORIES:

Accessory	View	Ordering code	Technical data
6 VDC adapter		20-072-00-00094	Voltage: 6 V d.c. ± 5% Max. power: 6W* Input voltage: 90253 V a.c. Operating temperature: 040°C* External dimensions: 63.6 x 29.5 x 45.6 mm* Cable lenght: 1,4 m ± 10%* Plug: φ5,5 / 2,1 mm * adapter parameters can be changed
PoE adapter	CERCOLE .	20-090-00-00022	Input voltage: 100 – 240 VAC Input frequency: 47 – 63 Hz Power consumption: 0.35 A max. for 240 VAC Output voltage: 48 VDC Output power: 15.4 W Operating temperature: 0 – 40 °C External dimensions: 140 x 65 x 36 mm Weight: 0.2 kg
conductor for PoE adapter	Carlot Man	20-069-00-00146	Cable lenght: 1.8 m

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HT20-19_en



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