

DATASHEET

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| Product Name | Digital LED Wall Clock | |
| Type / Model | NDC 100/4 THS R L20 12DC RS485 | |
| Order Code | ZZ0934-2.00 | Date of last revision: 26.01.2022 |



Product Description

The **NDC 100/4 THS R L20 12DC RS485** is a large size digital LED clock, which can display time, date, temperature and humidity information. Its aesthetic design and high brightness LED display with large viewing angle makes it suitable for use in modern interior environments such as offices, banks, public institutions, bus and railways stations, airports, manufacturing plants, production lines, warehouses, etc. All displaying parameters (e.g. time, date, duration of each information, brightness, etc.) can be set with the remote control or PC software application via USB or RS485 connection. The clock is equipped with an RS485 interface, which allows its integration into a unified time system and synchronization with master clock or other clocks in the network (using simple 2-wire RS485 serial line connection).

Clock installation is easy, wall mounting bracket, power supply adapter and installation guide are included. Various optional accessories are available, please see the list and brief description below.

Main Features

- Displaying **TIME, DATE, TEMPERATURE** and **RELATIVE HUMIDITY**;
- Displaying format: **HH:MM** (hours : minutes) and **DD:MM** (day : month);
XX,X° (temperature in °C) and **XX rH** (relative humidity in %RH);
- **100 mm** (4") digit height, up to **40 m** readability;
- High-brightness LEDs with large viewing angle 120°;
- Alternating of each information and its duration can be set from 0 to 99 sec;
- Automatic or manual LED brightness control (built-in light sensor);
- Stylish frame made of anodized aluminum profile;
- Tinted acrylic glass with non-glare surface;
- Wireless setup using IR remote control;
- USB interface for PC connection and setup using NDC_config sw application;
- **RS485 interface** - allows building a unified time network and synchronization with other devices;
- Can be set as Count-up or Count-down timer/counter (with optional trigger input and Relay switch output);
- Built-in time scheduler for triggering alarm events, e.g. time breaks, work shifts (with optional Relay output).

Optional Accessories - can be ordered separately as required

- Remote control IR:
 - At least 1 pc. is necessary to be purchased with clock.
 - In case of purchasing more clocks, only one remote control is needed.
- Temperature and humidity sensor:
 - Internal (plug-in probe): THS Sensor 40 3,3DC I2C
 - Already included with NDC...THS clock version delivery (replaceable item)
- Relay voltage-free contact switch
 - Can be used for triggering external device (e.g. acoustic or light alarm)
- Counter / timer input
 - Used for triggering counter or timer events (e.g. count-down, count-up)
- GPS interface and GPS receiver
 - Used for time synchronization with GPS satellite

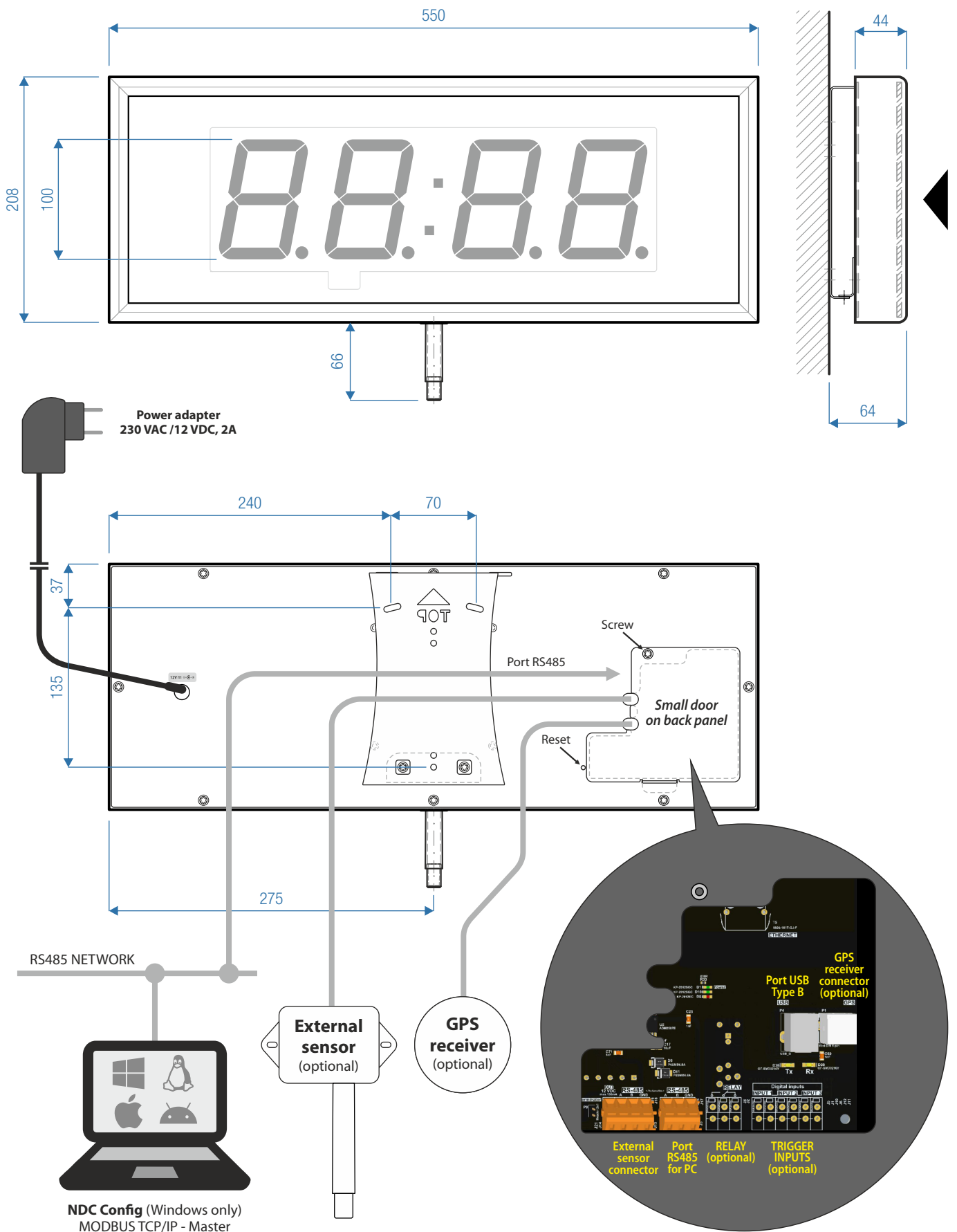
Clock Specifications

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| Number of characters | 4 |
| Height of characters | 100 mm |
| Displaying format | 88:88, HH:MM (time), DD:MM (date), XX.X° (temperature), XX rH (relative humidity) |
| Readability range | Up to 40 meters |
| LED type | Super-bright 7-segment LED modules |
| LED colour | RED |
| Viewing angle | 120° |
| Time accuracy | +/- 4 sec. max deviation per month, when no external time synchronisation is used |
| Frame construction | Anodized aluminium frame, steel back panel coated with black powder paint |
| Frame colour | Platinum grey (see picture on page 1) |
| Front cover | Non-glare PMMA glass, grey tinted, 3 mm thick |
| Class of protection | IP 20, indoor use only |
| Interfaces | 1x IR, for remote control (used for setting clock parameters) 1x USB type B, for PC connection (used for setting clock parameters) 1x RS485, for interconnecting with other clocks in unified time network, or connecting other devices (e.g. external temp/humidity sensor, GPS receiver) |
| Communication protocol | Modbus RTU |
| Power supply | Power adapter 230 VAC /12 VDC, 2A (included) |
| Power consumption | 10 W max. |
| Dimensions | 550 mm x 208 mm x 64 mm |
| Weight | 3,1 kg |
| Operating temperature | 0°C ~ +70°C (indoor use only) |
| Accessories included | Wall mounting brackets, screws and fasteners, power supply adapter, manual |
| Software for PC (Windows) - available for download | DataLoggerTH - used for recording and viewing temp/humidity data on PC NDC_config - used for setting clock configuration parameters |

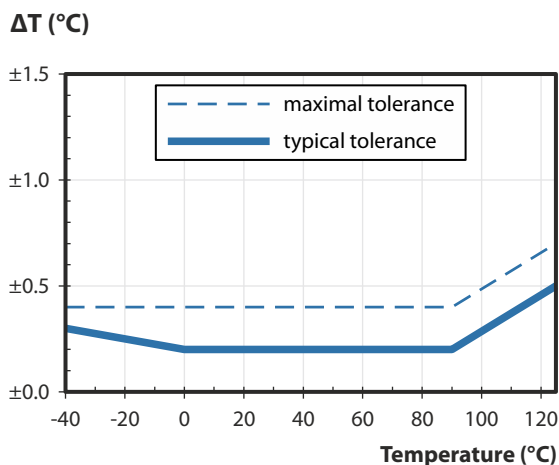
Sensor Specifications *(clock version NDC...THS, plug-in sensor included)*

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| Temperature measuring range | -35°C ~ +70°C |
| Temperature accuracy | ±0,3°C typical, see graph No. 1 on page 2 |
| Humidity measuring range | 0% ~ 99% |
| Humidity accuracy | ±2% RH typical, see graph No. 2 on page 2 |
| Sensor type | SHT31 (Sensirion AG, Switzerland) |
| Communication interface | I2C, connector jack 3,5 mm on sensor probe - detachable from clock frame |

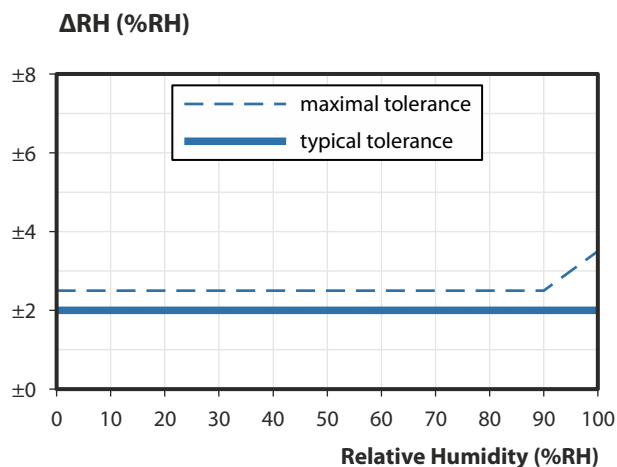
Dimensional drawing



Graphs - Temperature and Relative Humidity (Sensirion SHT31 parameters)



Graph No. 1: Accuracy of temperature in °C.



Graph No. 2: Accuracy of relative humidity at 25°C.

View options



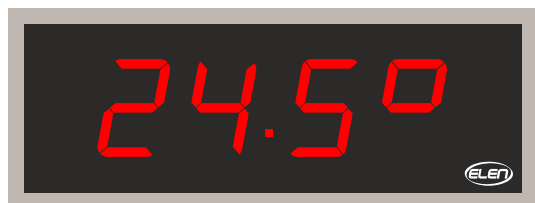
Time



Relative Humidity



Date



Temperature

