DATASHEET

Product Name	**Digital clock**	
Type / Model	**NDC 100/6 THS R L20 PoE LAN**	
Order Code	**ZZ0933-0.00**	Date of last revision: 26.01.2022

Product Description

The **NDC 100/6 THS R L20 PoE LAN** is a large size digital LED clock, which can display time, date, temperature and humidity information. Its aesthetic design, high accuracy 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 LAN connection.

The clock is equipped with a PoE LAN interface, which allows its integration into a unified time system and synchronization with NTP server or other clocks in the network using PoE LAN Ethernet TCP/IP connection with Modbus TCP protocol.

Clock installation is easy, wall mounting bracket and installation guide are included. The clock is powered from PoE LAN network. 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:SS** (hours : minutes : seconds) and **DD:MM:YY** (day : month : year);
  XX,X °C (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;
- **PoE LAN interface** - allows building a unified time network and synchronization with NTP server;
- 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 (replaceble 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 satelite

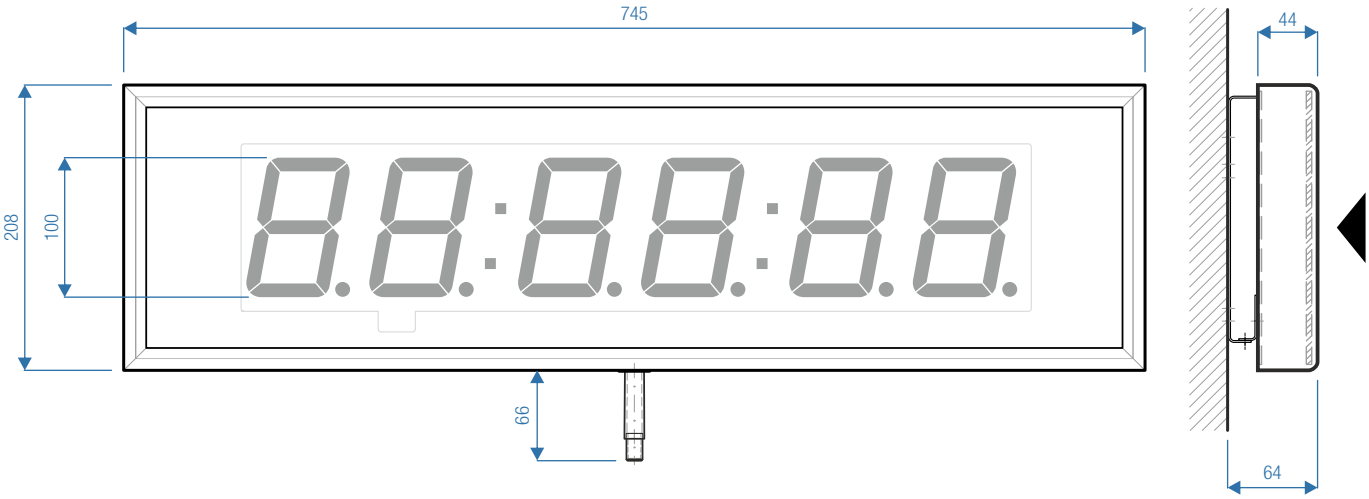
Clock Specifications

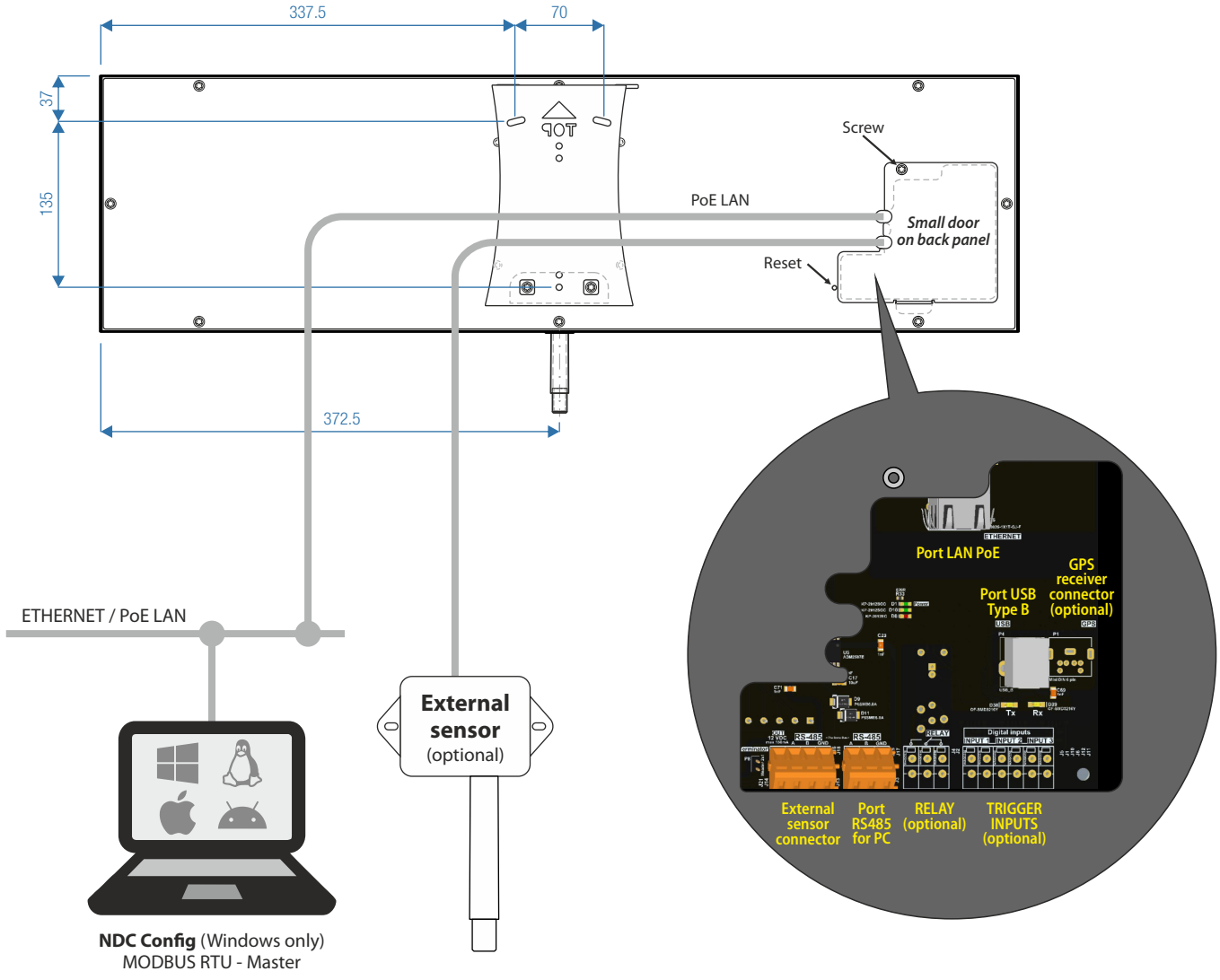
Number of characters	6
Height of characters	100 mm
Displaying format	88:88:88, HH:MM:SS (time), DD:MM:YY (date), XX.X °C (temperature), XX rH (relative humidity)
Readability range	Up to 40 meters
LED type	Super-bright 7-segment LED modules
LED colour	RED
Viewing angle	120°
Time accuracy	+/- 4 sec. max deviation per month, when no external time synchronization 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 PoE LAN Ethernet, for interconnecting with other clocks in unified time network, or other devices (e.g. external temp/humidity LAN sensor, GPS receiver). Used also for setting clock parameters via built-in Web Server.
Communication protocol	Modbus TCP
Power supply	LAN PoE (Power over Ethernet), class 3
Power consumption	14 W max.
Dimensions	745 mm x 208 mm x 64 mm
Weight	4,2 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 Web Server - for setting clock parameters using web browser, already built-in

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

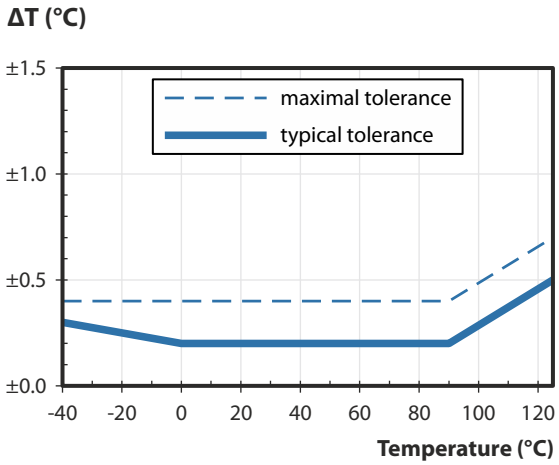
Temperature measuring range	-35°C ~ +70°C
Temperature accuracy	±0,3°C typical, see graph No. 1 on page 2
Humidity measuring range	0% ~ 99%
Humidity accuracy	±2% RH typical, see graph No. 2 on page 2
Sensor type	SHT31 (Sensirion AG, Switzerland)
Communication interface	I2C, connector jack 3,5 mm on sensor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

Dimensional drawing

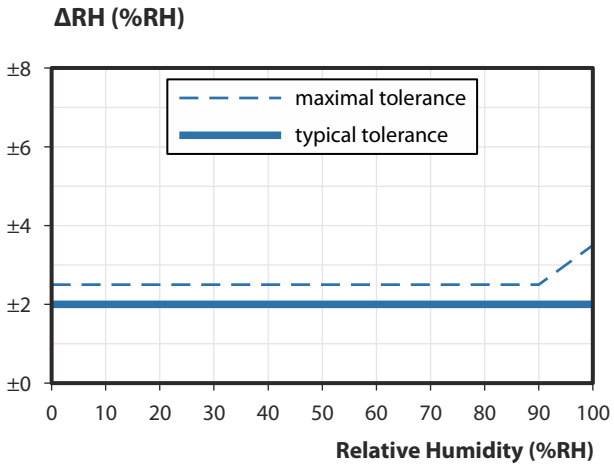




Graphs - Temperature and Relative Humidity *(Sensirion SHT31 parameters)*



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

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