DATASHEET

Product Name	Digital LED Wall Clock	
Type / Model	NDC 100/4 R L20 12DC RS485	
Order Code	ZZ0934-6.00	Date of last revision: 26.01.2022

Product Description

The **NDC 100/4 R L20 12DC RS485** is a large size digital LED clock, which can display time and date 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** and **DATE**;
- Displaying format: **HH:MM** (hours : minutes) and **DD:MM** (day : month);
- **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).
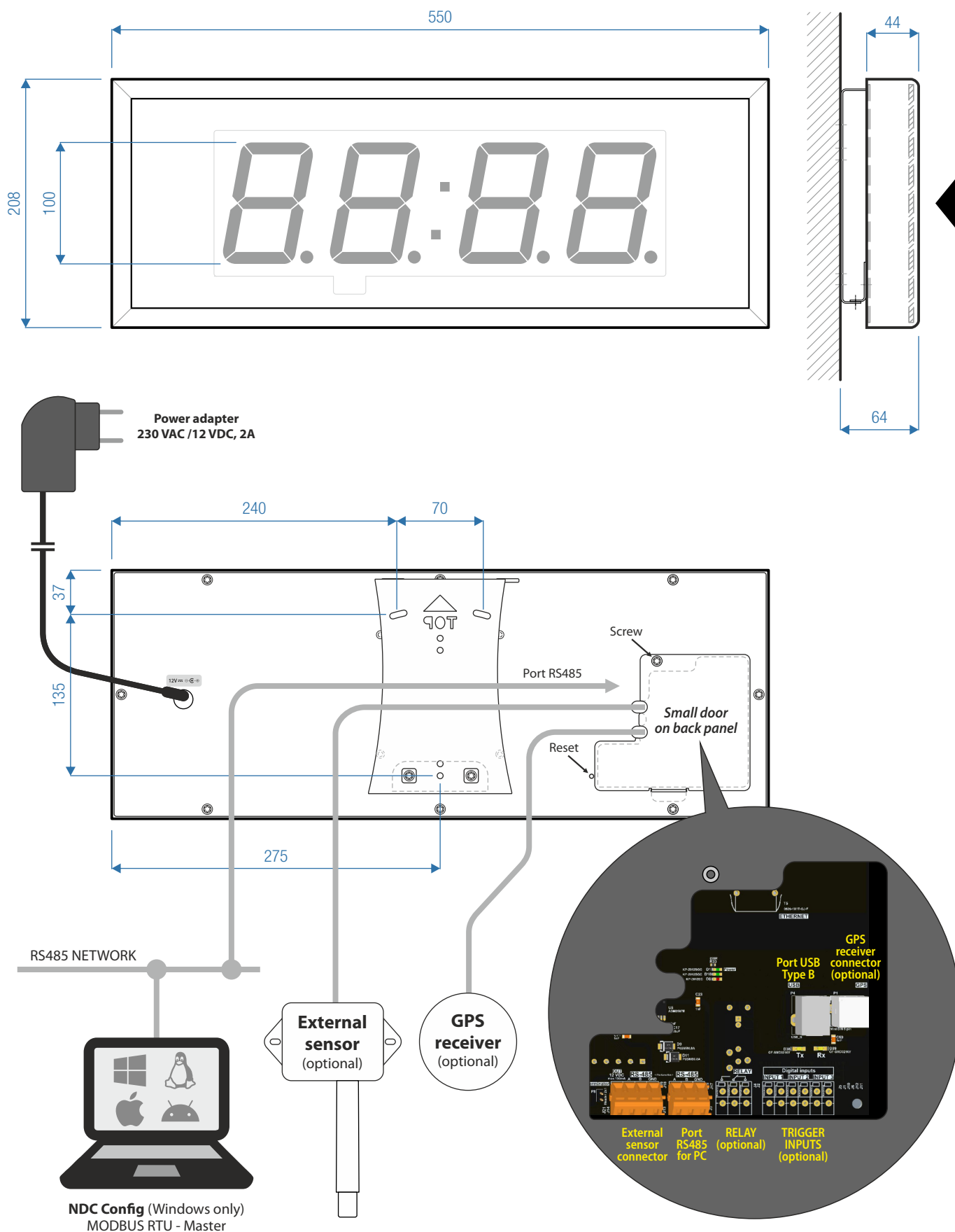
Optional Accessories - can be ordered separately as required

- 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:
  - External, wired with clock: THS Sensor 52 12DC RS485
- 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	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

* Note: *Displaying temperature and humidity requires external sensor (sold as optional accessory).*

Dimensional drawing

550

44

208

100

64

Power adapter
230 VAC /12 VDC, 2A

240

70

37

ⵡOT

135

Port RS485

Screw

*Small door
on back panel*

Reset

275

RS485 NETWORK

**External
sensor**
(optional)

**GPS
receiver**
(optional)

GPS
receiver
connector
(optional)

Port USB
Type B

Tx   Rx

External
sensor
connector

Port
RS485
for PC

RELAY
(optional)

TRIGGER
INPUTS
(optional)

NDC Config (Windows only)
MODBUS RTU - Master

View options

Time

Date

IR
(optional)