### LED DISPLAY 64x16

# **Device has following characteristics:**

Operating voltage: 230V - 65W at maximum brightness

Bluetooth enabled communication.

Temperature range: -55c to +125c

GPS enabled clock function.

## **Features:**

Bluetooth name: LED\_xxx (e.g. LED\_001; LED\_002-BLE;...)

Bluetooth password: 1980

Bluetooth BLE password: 000000

 After successfully connected through Bluetooth user must ensure that the application sends <CR>+<LF> after each command

- Application examples: Bluetooth serial terminal

### List of accepted communication with device:

- <?>: print information about the device
- <t>: led test, lights up all LEDs for troubleshooting purposes
- <x>: clear display
- <r>: software reset
- <s>: setting the clock for daylight-saving -summer
- <w>: setting the clock for daylight-saving -winter
- <i=00>: setting the display brightness to the lowest level, accepted values are i=00 to i=14, 14 is the highest

### LED DISPLAY 64x16

- <ln1,l,20, testing 1234 >:
  - o ln1: display scrolling text on line 1, range is 1 to 2
  - o l:scrolling text direction l=left, r=right
  - 20: speed of scrolling text, range is 01 to 100
  - testing1234 :actual text
    delimiter is "," in this case but can be any other character
- <lnu,l,20, testing 1234 >:
  - o lnu: display scrolling text with 2x16 font
  - o **l**: scrolling text direction **l**=left, **r**=right
  - o 20: speed of scrolling text, range is 01 to 100
  - testing1234 :actual text
    delimiter is "," in this case but can be any other character
- <ln1,t, text >:
  - ln1: display static text on line 1, range is 1 to 2
  - o t: text identifier
  - text :actual text
    delimiter is "," in this case but can be any other character
- <lnu,t, text >:
  - o lnu: display static text with 2x16 font
  - o t: text identifier
  - o **text** :actual text

delimiter is "," in this case but can be any other character

### LED DISPLAY 64x16

- <p1e,05,25, text >:
  - o **p1e**: enable program **1** to print scrolling text with **2x16 font**
  - 05: duration in minutes of text display; range: 01-14
  - 25: speed of scrolling text, range is 01 to 100

delimiter is "," in this case but can be any other character

- -there are 4 programs **p1** to **p4** that can be enabled for displaying different texts on **2x16 font** with scrolling direction left every **15 minutes**.
- -to exit any of the **4 programs** while displaying text user must send **<x>** command to clear the display and return to main configuration.
  - <p1d>:
    - o p1d: disable program 1; range 1-4
  - <pc>:
    - o **pc**: displays the saved programs configuration
  - <ln1=i>:
    - o Inverted display of text on line 1, range is 1 to 2
  - <ln1=e>:
    - o effect display of text on line 1, range is 1 to 2
  - <ln1=o>:
    - o displays the current time on line 1, range is 1 to 2
  - <ln1=d>:
    - o displays the current date on line 1, range is 1 to 2
  - <ln1=c>:
    - displays the temperature on line 1, range is 1 to 2
      delimiter is "=" in this case but can be any other character
- the effect and inverted display can be turned **on** or **off** sending the same command.
- -in case of spelling errors device returns "**cmd ERROR!**" which means that the command sent is unknown.
- -for scrolling text a maximum of 200 characters are accepted.