RS232. Connection of the Weight Indicators CI-5010A, Tenso-M003/05D, AWT640, WIN scale

User Manual
RS232. Connection of the Weight Indicators CI-5010A, Tenso-M 003/05D, AWT640, WIN scale
(version 5 dated from August 8, 2018)

Contents

Necessary Tools, Devices, Materials .................................................. 3
General Information ............................................................................. 4
Connection of Indicators via the RS232 Interface ............................... 6
Setting of the Monitoring Software ..................................................... 9
Necessary Tools, Devices, Materials

To connect weight indicators to the Galileosky tracking device (hereinafter – tracking device) one should have:

1. Electrical tools.
2. Set of connecting wires.
3. Windows-based computer with the installed program of configuration of the tracking devices – "Configurator". It is recommended to install the latest version of the program from the site https://galileosky.com/podderzhka/programmyi.html
Galileosky tracking devices can be used together with CI-5010A, Tenso-M 003/05D, AWT640, WIN scale Dinamica Generale weight indicators (Pic. 1), connected via the RS232 protocol.

Weight indicators are meant for measuring, controlling and indicating electrical signals from weight measuring strain gauge sensors. Together with truck or railroad-track platform scales (Pic. 2) the indicator is used as a weight measuring system by materials weighting at the enterprises of industry, agriculture and transport.

A system user has an opportunity:
- to record and control weight of a vehicle and transferred cargos;
- to analyze weighted cargos in the monitoring software.
RS232. Connection of the Weight Indicators CI-5010A, Tenso-M 003/05D, AWT640, WIN scale
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The tracking device is used as a stationary object and intermediate member from the weight indicator to the monitoring server by data transmission in this system (Pic. 3).

Pic. 2
Data transmission scheme
Connection of Indicators via the RS232 Interface

Connection of the weight indicator to the tracking device via the RS232 protocol is carried out in accordance with the scheme, shown in Picture 4.

**ATTENTION!** Grounds (GND) of the tracking device and indicator should be connected, RS232 contacts should be connected strictly according to the scheme: RX of the indicator - TX0(1) of the tracking device and TX of the indicator - RX0(1) of the tracking device. The indicator has separate power supply.

Setting procedure is the following:

1. Launch Configurator software and go to «Settings» tab-> «Digital inputs»;
2. Select for the RS232[0] (RS232[1]) peripheral type corresponding weight indicator» (Pic. 5);
RS232. Connection of the Weight Indicators CI-5010A, Tenso-M 003/05D, AWT640, WIN scale (version 5 dated from August 8, 2018)

**ATTENTION!** For connecting weight indicators to Galileosky tracking devices v.1.X, 2.X, 5.X, the firmware version should be not less than 226.

3. Go to «Settings» tab -> «Protocol» of the Configurator, set the main packet for the following values (Pic. 6):
   - RS232[0];
   - RS232. FLS. Temperature (dynamic archive only) – in this parameter the value of overweighing for 65535 kg is transmitted.
RS232. Connection of the Weight Indicators CI-5010A, Tenso-M 003/05D, AWT640, WIN scale (version 5 dated from August 8, 2018)

4. Go to «Track» tab of the Configurator and select dynamic value for “archive structure mode” (Pic. 7):

ATTENTION! For Galileosky tracking devices v.7.0 and Base Block, setting of dynamic archive structure mode is not needed.

5. Click “Apply” button.

6. Make sure that the tracking device receives data from the indicator: for that, go to «Troubleshooting» tab of the Configurator, tick «RS232[0]» «RS232[1]» field – messages from the indicator will be displayed in troubleshooting (Pic. 8):

Pic. 6 Setting dynamic archive structure mode

Pic. 7 Checking the data receipt from RS232 input
Setting of the Monitoring Software

After setting of the tracking device’s digital input, values transmission to the server is checked and setting of the indicator’s monitoring software is made (Pic. 9).

RSA “Galileosky”, LLC produces satellite monitoring equipment for GPS and GLONASS real time vehicles monitoring. The tracking devices determine the mobile object location recording the time and route as points with geographical coordinates and send the data to the server to be further processed and sent to the traffic controller panel.

In addition, a number of other vehicle parameters are recorded: the state of analog and discrete inputs of the tracking device and the state of digital interfaces.

The tracking devices can be used in any vehicle.