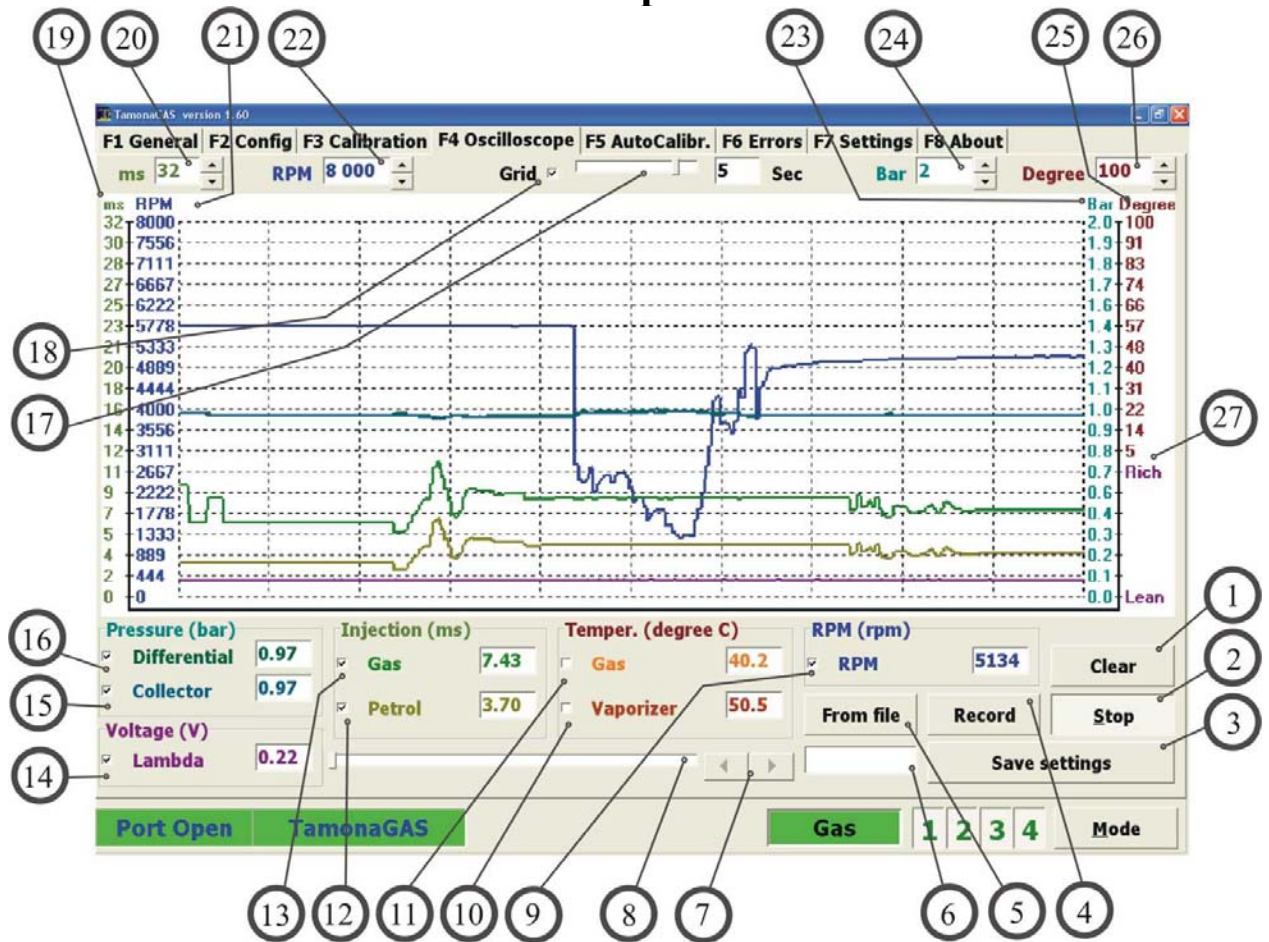


F4. Oscilloscope. Overview



Control buttons

1. Clear screen
2. Start/stop oscilloscope (Start/Stop – “S”).
3. Save settings of indication and scale
4. Saving data into given file
5. Load data from given file
6. Name of file from which data are loaded or which to saved
7. Step review of data file
8. Slider of fast review of data file

Adjusting of data on oscilloscope screen

9. Rounds per minute
10. Vaporizer temperature (°C)
11. Gas temperature(°C)
12. Petrol nozzles impulses duration (ms.)
13. Gas nozzles impulses duration (ms.)
14. Lambda sensor voltage (V)
15. Pressure in manifold (bar)
16. Differential pressure (bar)
17. Scanning
18. Pattern

Oscilloscope scale adjusting

19. Nozzles impulses duration (ms.)
20. Maximal value of nozzles impulses duration
21. Rounds per minute
22. Maximal value of rounds per minute scale
23. Pressure (bar)
24. Maximal value of pressure scale
25. Temperature (°C)
26. Maximal value of temperature scale
27. Lambda sensor scale

F4. Oscilloscope. Detailed description

Control buttons of shortcut „Oscilloscope“

- “Clear” (F4.1).

Clears up oscilloscope screen

- “Start/Stop” – “S” (F4.2)

Starts/Stops oscilloscope function

- “Save settings” (F4.3)

Saves oscilloscope settings in the file “TamonaGAS.ini”

- “Recording” (F4.4)

After pressing button “Recording” in standard Windows dialog window put the name of new file or select present one. In last case, to choose to continue selected file or to create new one. The name of file which data recorded to is shown in the window (F4.6)

- “From file” (F4.5)

After pressing the button “From file” select in standard dialog window the file which to be displayed in oscilloscope screen. Its name is displayed in window (F4.6).

- Buttons of step review of loaded file (F4.7)
- Slider of fast review of loaded file data (F4.8)

Oscilloscope control and adjusting

There are following opportunities for convenient oscilloscope use :

- Data measuring ranges:
 - nozzles impulses duration (ms) (F4.19) , scale (F4.18);
 - rounds per minute (F4.21), scale (F4.20);
 - pressure (bar) (F4.23), scale (F4.22);
 - temperature (°C) , (F4.25) scale (F4.24).
- Data indication:
 - rounds per minute (F4.9);
 - vaporizer temperature (°C) (F4.10);
 - gas temperature (°C) (F4.11);
 - petrol nozzles impulses duration (ms) (F4.12);
 - gas nozzles impulses duration (ms) (F4.13);
 - lambda sensor voltage (V) (F4.14);
 - pressure in manifold (bar) (F4.15);
 - differential pressure (bar) (F4.16).
- Extra control/Дополнительное управление:
 - Scanning (F4.17) ;
 - Pattern (F4.18).

File data review

Press the button “From file” (F4.5) and select file. For fast data review unite the cursor and the slider (F4.8), click the left button of the mouse and drag it to the left or right. More detailed oscillogram is available if the scanning slider (F4.17) is moved to the left and oscillogram is moved by the button (F4.7), step by step. Oscillogram data of the left position are displayed in digital form (F4.9 - F4.16).

Remarks ! It is possible to change the range of data input and scanning, switch on or off any data and pattern in any time of oscilloscope function.