

User Guide – Data Acquisition & Display Interface

Sensorade Sensor Interface for USB-SC-250-C-0X

Real-time Display & Export

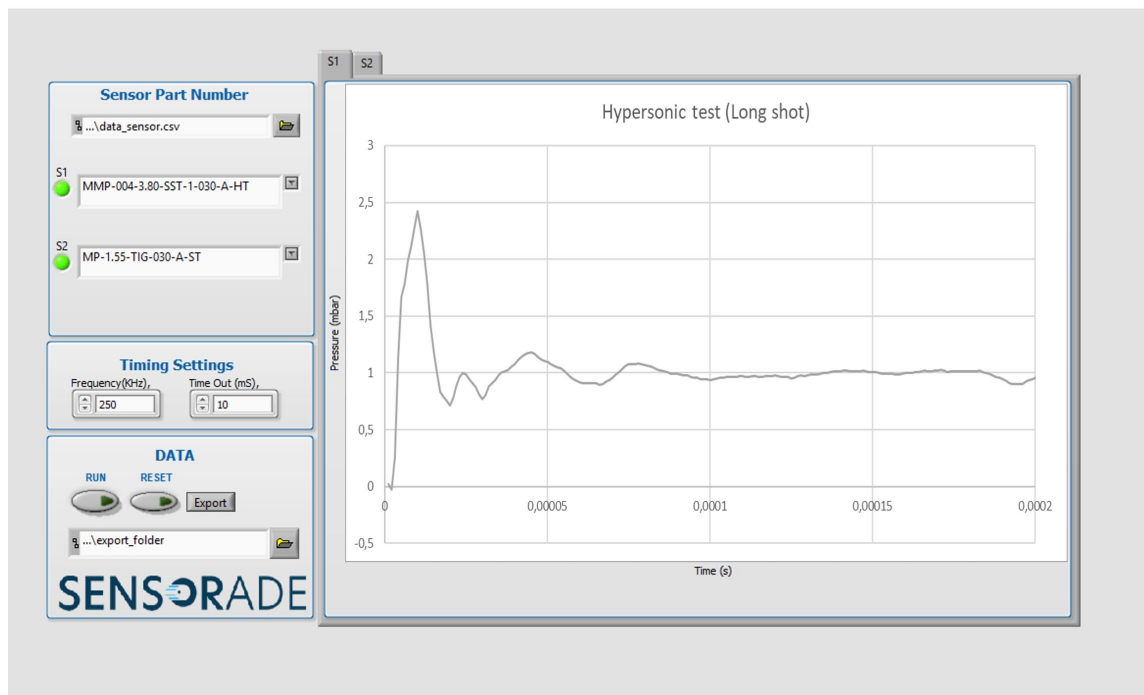


Figure 1 : Example of the application interface (USB-SC-250-C-02)

Description

This application enables real-time data acquisition from one or multiple pressure sensors. The data is displayed live on a waveform graph, and the user can:

- Start or pause acquisition
- Reset the display and internal memory
- Select among **up to 6 different sensors**, depending on the hardware
- And optionally export the acquired dataset to .csv format for further analysis

Note: The number of sensors that can be connected simultaneously depends on the Sensorade hardware model:

- **USB-SC-250-C-02** supports up to **2 sensors**
- **USB-SC-250-C-04** supports up to **4 sensors**
- **USB-SC-250-C-06** supports up to **6 sensors**

System Requirements

Minimum requirements

- Windows 10 or later (recommended)
- Compatible Sensorade acquisition device (USB-SC-250-C-0X)
- At least one Sensorade pressure sensor connected

Software Dependencies

- The compiled executables (.exe)

Note: All files, driver and dependencies will be provided by Sensorade with the **USB-SC-250-C-0X**

CONTACT

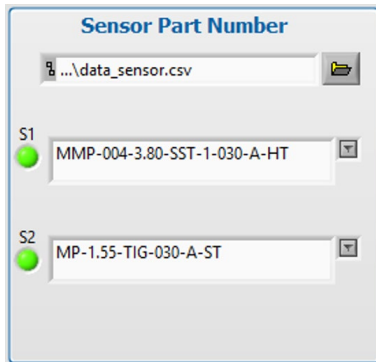
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Interface Overview

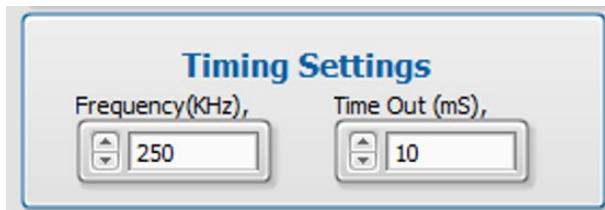
Sensor Selection:



► **File Selection Button:** Opens a dialog to import the sensor data file provided by Sensorade (CSV format)

► **Sensor Dropdown List:** Allows the user to select one of up to six sensors for real-time display

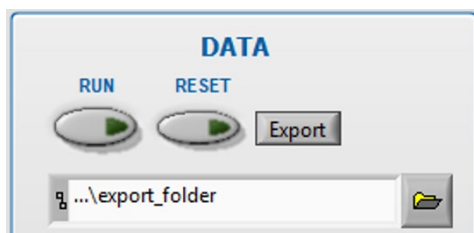
Timing settings:



1 -> **Acquisition Rate (kHz):** Set the frequency of data acquisition in kilohertz (kHz) (1Hz to **250 kHz**)

2 -> **Session Time out (ms):** Duration of the record in milliseconds. The application will stop automatically when the time is reached.

Run / Export:



1 -> **RUN Button:** Starts or pauses data acquisition

2 -> **RESET Button:** Clears the graph and resets stored data.

3 -> **Select Folder Button:** Opens a folder dialog to choose the destination for CSV data export

4 -> **Export Button (optional):** Saves the current dataset to a CSV file in the selected folder

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How to Use

Using the compiled executable (.exe)

1. Download the executable file.
2. Run the executable application directly.

(Note: This requires LabVIEW Runtime Engine and Drivers installed. The need to install these depends on the executable features and installer package.)

Using the Application

Hardware Connection:

- Check the hardware connection (make sure the sensor is properly plugged in).

Sensor:

- Import the sensor data file provided by Sensorade in CSV or compatible format (data_sensor.csv).
- Select the sensor you want to use from the dropdown list.

Note: A green indicator light confirms that the sensor is properly connected but does not guarantee that it is the correct model (it only checks that the compensated pressure is within the sensor's measurement range).

Acquisition:

- Before starting, set the Timeout (in milliseconds) and the Frequency (in kHz) using the numeric controls provided.
- Click RUN to start acquisition.
- The session will automatically stop after the specified timeout duration.
- Click RESET to clear the graph and reset data.

(Optional) Save:

- Select the folder where you want to store the exported CSV files.
- Click EXPORT to save the recorded data as a .csv file.

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