

## Configuration Interface: datasheet (FU.RSC.ACC.001)

### Description:

The FU.RSC.ACC.001 is an accessory designed to facilitate the reconfiguration of COMMONSense sensors using the SDT COMMONSense tool software. This interface provides users with the capability to fine-tune sensor settings directly during the installation phase, ensuring that the sensors are precisely configured to meet asset conditions and data acquisition system requirements.



### Key features:

- **Adjustable Gain:** Easily modify the built-in GAIN of the sensor to prevent signal clipping or under-amplification, ensuring high-quality data capture
- **Firmware update capabilities:** Easily update sensor firmware to improve performance and integrate new features
- **Basic functional test:** Conduct on-the-spot tests to verify that the sensor operates correctly with the newly applied settings

### Specifications:

General		
Functions		<ul style="list-style-type: none"> <li>- Read/Write the sensor configuration</li> <li>- Gain adjustment</li> <li>- firmware update</li> <li>- Functional test (from the com. line)</li> </ul>
Compatibilities  (See the <a href="#">associated datasheets for further details</a> )		<ul style="list-style-type: none"> <li>- COMMONSENSE - 0-10 V output FU.SEN.RSV.001 FU.SEN.RSV.002 FU.SEN.RSV.003</li> <li>- COMMONSENSE- 0-20 mA output FU.SEN.RSC.001 FU.SEN.RSC.002 FU.SEN.RSC.003</li> <li>- COMMONSENSE- IEPE output FU.SEN.RSIE.001</li> <li>- COMMONSENSE- TRUE 4-20 mA output FU.SEN.RSC.101 FU.SEN.RSC.102 FU.SEN.RSC.103</li> </ul>
Software (required)		SDT COMMONSense Tool
Windows compatible only		<a href="https://sdtultrasound.com/support/software/">https://sdtultrasound.com/support/software/</a>
Environmental		
Operating temperature range	°C (°F)	-30 to +70 (-22 to +158)
IP rating		40

Mechanical		
Housing material		PA12
Dimensions	mm	
Weight	g (oz)	35 (1.2)
Interfaces		-M8 Socket 4 Pin Female -LEMO 7 (not used/ not present on the previous model) -USB-C



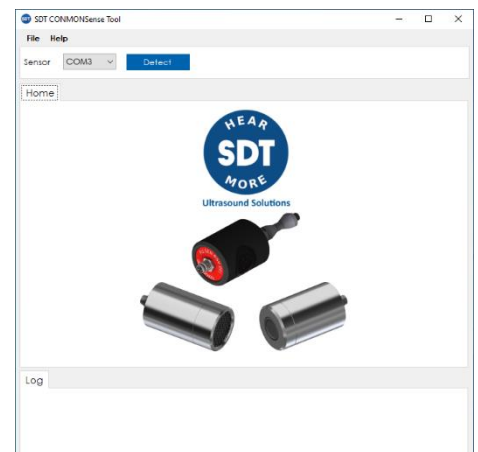
Please note that the previous model (SN<572 24 NNNN ), identifiable by its USB Type B port, is no longer available for purchase. While this model remains fully compatible with our software tools, users may experience connectivity issues when using in combination with COMMONSENSE IEPE sensors.

## Kit content (FS.RSC.ACC.001-02):

Reference	Description
FU.RSC.ACC.001-02	COMMONSense - CONFIGURATION INTERFACE (PC - USB/LE7)
SICABUSB-12-01	SB0012 USB 3.1 CABLE USB C MALE <> USB A MALE 1,00m (ATK)
FU.RSC.CABL.05.006-1	SAC-4P-M 8MS/ 0,6-PUR/M 8FSSH (1455722) - SENSOR-/ACTOR CABLE M8 4PM <> M8 4PF SHIELDED L=0,6m
FASFTWCMST01	SDT COMMONSense Tool (Lite) software PC (available for download)

## Practical user instructions:

- Connect the configuration interface to your PC using the USB cable
- Connect the sensor to the configuration interface using the M8 cable
- Download, install then launch the SDT COMMONSense software on your computer
- The software performs an auto scan at startup. If the sensor is not found, click on “Detect” to force the sensor detection.

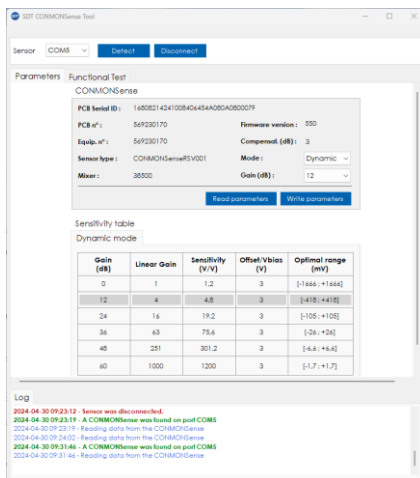


Once synchronized, the software returns to the current configuration of the sensor and other traceability information.

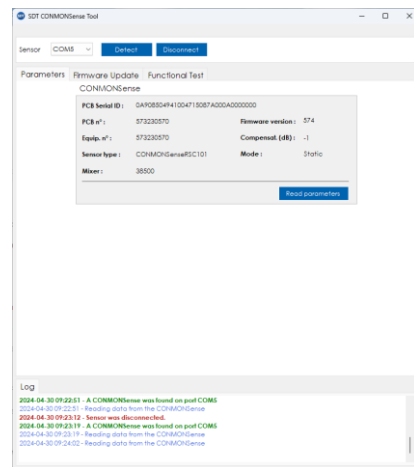


Certain settings might not be available depending on the sensor you are Please note that some settings and features provided by the FU.RSC.ACC.001 may vary depending on the specific COMMONSense sensor model used.

- In the main menu, click on **“Read parameters”** to retrieve and display current sensor information, including its identification (ID), Firmware version, Operating mode and Gain settings.

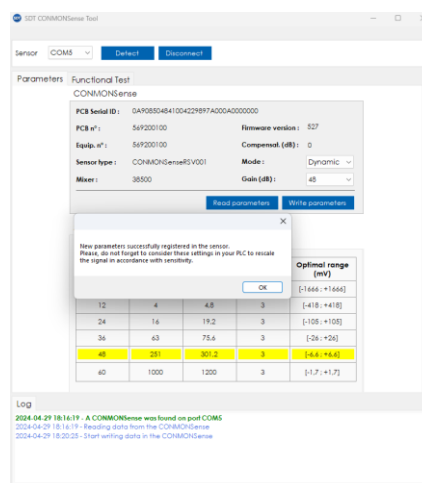


Available options for RSV/RSC/RSIE.OOX  
(AC analog output)



Available options for RSC.10X  
(DC analog output)

- If available, Use the drop-down menu to select the desired **Gain level** then click on **“Write parameters”** to assign a new configuration, a dialog box confirms the modifications. Adjusting the Gain helps ensure that the sensor's output does not get clipped (too high) or under-amplified (too low), which is critical for maintaining signal integrity.



Alongside the confirmation, a sensitivity table will be displayed. This table outlines the new sensitivity settings and the optimal range for your sensor under the newly applied conditions.



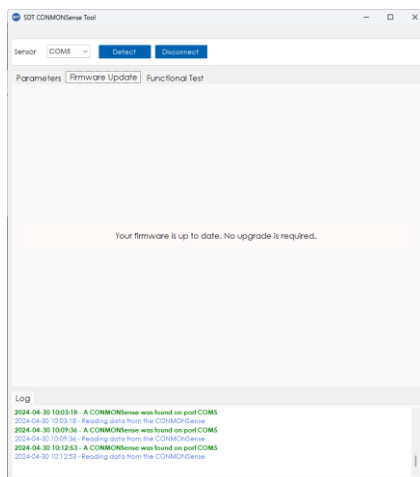
It is essential to manually update these new sensitivity values and optimal range settings in your data acquisition system to properly rescale the signal. This step ensures that the data collected post-configuration reflects the accurate operational parameters of the sensor.

- If applicable, use the submenu “Functional test” to perform basic testing. A graph displays RMS vs time over a minute. User can scratch the housing of the sensor to make sure that it’s reactive.

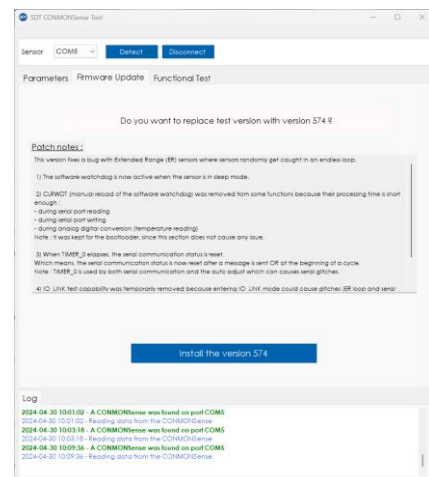


It is important to note that the values processed by the embedded CPU and displayed in the graph may not exactly mirror the raw analog output of the sensor. This feature is not available for the entire sensor range

- If applicable, use the submenu “Firmware update” to apply a firmware update.



Firmware is up to date



Firmware update available

Press “install” to install a new firmware version in the sensor. The process takes a few minutes.



The firmware version is embed in the SDT COMMONSENSE software so no internet connection is required. Stay up-to-date on the software to make sure that the latest version can be installed

## Safety recommendations:

To ensure longevity of your equipment, please adhere to the following guidelines:

- Avoid rough handling and protect the equipment from heavy impacts to prevent damage.
- Always read and follow the instructions.
- Do not open the equipment's housing. Unauthorized access to the internal components may lead to hazardous mishandling and will void the warranty.
- This equipment is not suitable for use in explosive environments. Ensure it is operated in safe areas free from potential explosion risks.
- Avoid exposing the equipment to high humidity or direct contact with water to prevent electrical malfunctions and potential damage. All repair work should be performed by SDT or authorized service centers.
- All repairs should be performed by SDT or an authorized service provider to ensure it is done correctly and safely.
- Use the interface exclusively with SDT-COMMONSENSE.

Note : Using non-SDT instruments can lead to internal damage and may affect the equipment's functionality.

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2	CMA 30/04/24	Product change (case redesign)	NZO 30/04/24
1	CGR 13/01/22	Original version	CMA 08/02/22
<b>Ver.</b>	<b>Editor</b>	<b>Nature of modification</b>	<b>Verified</b>

*The information herein is believed to be accurate to the best of our knowledge.  
Due to continuous research and development, specifications are subject to change without prior notice.*