

Signet 0252 Configuration Tool



3-0252.090 Rev. A 01/16

Operating Instructions



Description

The 0252 Configuration Tool is a USB to Digital (S³L) convertor and Microsoft® Windows® compatible software program used for interfacing with Signet 9900 Transmitters and blind sensors via a computer.

The 0252 tool and software allows:

- Set application parameters (Engineering units, 4 to 20 mA span, etc.)
- Save the setting configuration data to a computer file.
- Upload a previously stored configuration data file into the Signet product.
- Monitor a sensor's performance and log the data to a file.
- Reset the product settings to factory default condition.

Certain parameters (such as calibration) cannot be changed because access to an external sensor is required.

Table of Contents

Warranty Statement	2
Product Registration	2
Safety Information	2
Specifications	2
Required Equipment	3
Install Software	3
Run Software	3
Set Software Language	3
Sensor Wiring (2250, 2350, 2450, 2750)	4
2551 Magmeter Wiring	5
2552 Magmeter Wiring	5
9900 Wiring	6
General Software Operation	6
Sensor Operation	7
2551 & 2552 Operation	8-9
9900 Operation	10-11
Datalogger Operation	12
Ordering Information	12



- [English](#)
- [Deutsch](#)
- [Français](#)
- [Español](#)



Warranty Information

Refer to your local Georg Fischer Sales office for the most current warranty statement.

All warranty and non-warranty repairs being returned must include a fully completed Service Form and goods must be returned to your local GF Sales office or distributor.

Product returned without a Service Form may not be warranty replaced or repaired.

Signet products with limited shelf-life (e.g. pH, ORP, chlorine electrodes, calibration solutions; e.g. pH buffers, turbidity standards or other solutions) are warranted out of box but not warranted against any damage, due to process or application failures (e.g. high temperature, chemical poisoning, dry-out) or mishandling (e.g. broken glass, damaged membrane, freezing and/or extreme temperatures).




Product Registration

Thank you for purchasing the Signet line of Georg Fischer measurement products.

If you would like to register your product(s), you can now register online in one of the following ways:

- Visit our website www.gfsignet.com. Under **Service and Support** click on **Product Registration Form**
- If this is a pdf manual (digital copy), [click here](#)

Safety Information

	<p>Caution / Warning / Danger Indicates a potential hazard. Failure to follow all warnings may lead to equipment damage, injury, or death</p>
	<p>Electrostatic Discharge (ESD) / Electrocutation Danger Alerts user to risk of potential damage to product by ESD, and/or risk of potential of injury or death via electrocution.</p>
	<p>Note / Technical Notes Highlights additional information or detailed procedure.</p>

Specifications

Compatibility

Signet Products 2250, 2350, 2450, 2750, 2551, 2552, and 9900 Transmitter

Operating System..... Windows XP, Windows Vista, Windows 7 (32 and 64 bit), Windows 8, 8.1 (32 and 64 bit) Windows 10 (32 and 64 bit)

General

Enclosure..... ABS

Red Indicator POWER ON

Blue Indicator..... DATA COMMUNICATION

Input connections 3-terminal connectors, max. 14 AWG

Electrical

Communication rate Maximum 19.2 kbs

Input power..... Supplied by USB interface

Output power 5 VDC ± 5%

Power consumption..... 5 V @ 15 mA

Maximum current source..... 50 mA

Maximum cable 300 m (1000 ft)

Environmental

Storage Temperature..... -20 °C to 100 °C
(-4 °F to 212 °F)

Relative Humidity..... 0 to 90% non-condensing

Operating Temperature..... -15 °C to 55 °C
(5 °F to 131 °F) (module only)

Shipping Weight 0.22 kg (0.48 lb)

Standards and Approvals

CE, RoHS Compliant



China RoHS

FC This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and,
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Required Equipment

Equipment:

- 3-0252 Tool: one USB to Digital (S³L) converter
- 1 m (3 ft) 9900 programming cable with terminal plug
- USB to USB extension cable
- Software installation CD
- PC / laptop with free USB port
- 24 VDC Isolated power source (Required to program 4 to 20 mA sensors, 2551 and 2552 only)

Application specific information:

2250, 2350, 2450, 2750:

- Engineering Units, 4 to 20 mA span

2551 & 2552:

- Engineering Units, K-Factor, Pipe ID, Timebase, Averaging, Sensitivity, Noise Rejection, Low Flow Cut-Off, 4 to 20 mA span

9900:

- Instrument Type (Flow, pH, ORP, Cond/Resist, Pressure, Level, Temperature, 4 to 20 mA, Salinity)
- Sensor type specific settings

Install Software



Caution

Managed systems and network systems may have security measures enabled that block the installation of this program.

See the network administrator or IT (Information Technology) staff if the software cannot be installed.

1. Insert the CD ROM into the computer's CD/DVD drive.
 - If Autorun is enabled on the computer, the installation wizard will start.
 - If Autorun is disabled on the computer, use Windows Explorer to browse the contents of the CD and double-click on the setup.exe file.
2. Follow the prompts in the installation wizard to complete installing the software.

Run Software

1. On the PC, click **Start** and select **Program Files**.
2. Click on the **Georg Fischer Signet LLC** folder.
3. Click on the **0252** folder.
4. Click on the **0252 Tool icon**.
5. The 0252 software screen shown here should be on the computer display.

NOTE: Each time the 0252 software is launched, it automatically checks for and applies updates.

Software version is displayed by clicking on the **Help** menu, then clicking on **About**.



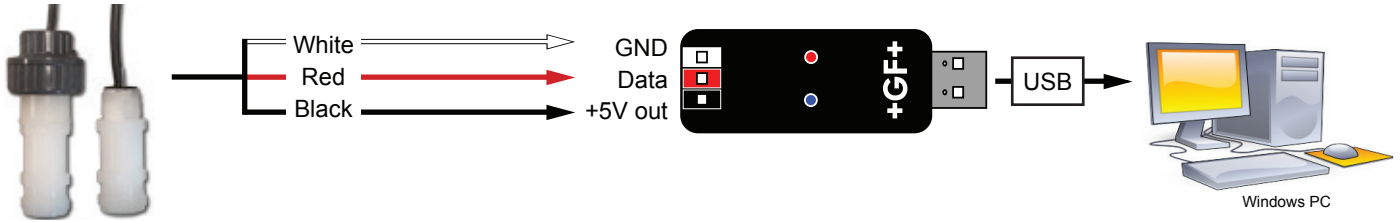
Set Software Language

The 0252 software saves your language preferences. Each time the software is launched, the previous language selection will be used. English is the default language.

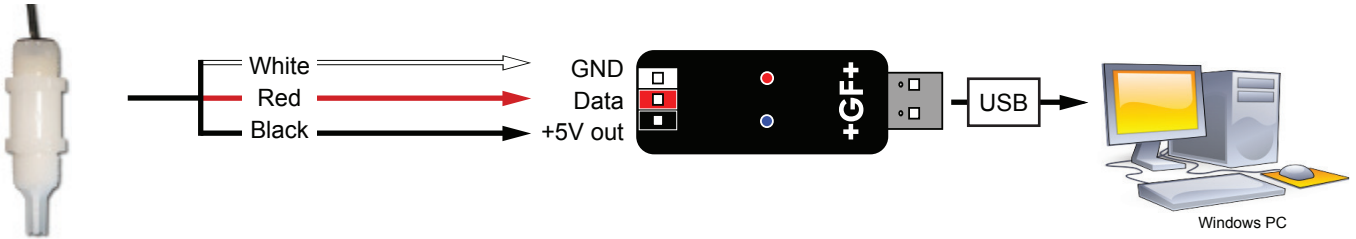
1. Click on the **File** menu in the upper left.
2. Click on **Preferences**.
3. A separate Preferences dialog box should be on the computer display.
4. Select the desired language from the drop-down menu.
Supported languages: English, French, German, Spanish, Italian, Portuguese, Chinese
5. Click **Save** to set language preference.

Sensor Wiring

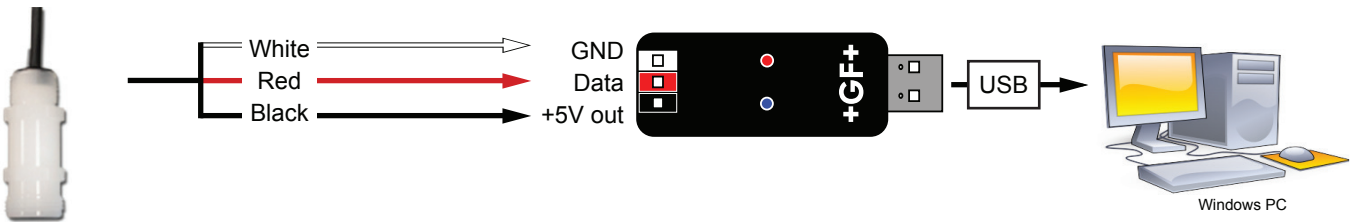
Signet 2250 Hydrostatic Level Sensor



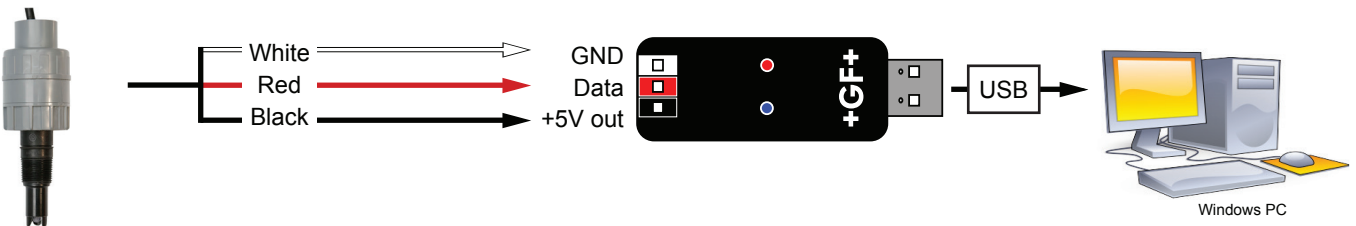
Signet 2350 Temperature Sensor



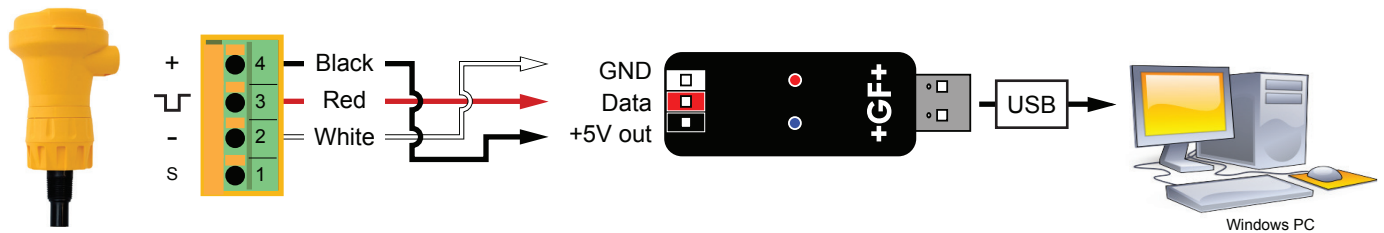
Signet 2450 Pressure Sensor



Signet 2750 Submersible pH Sensor

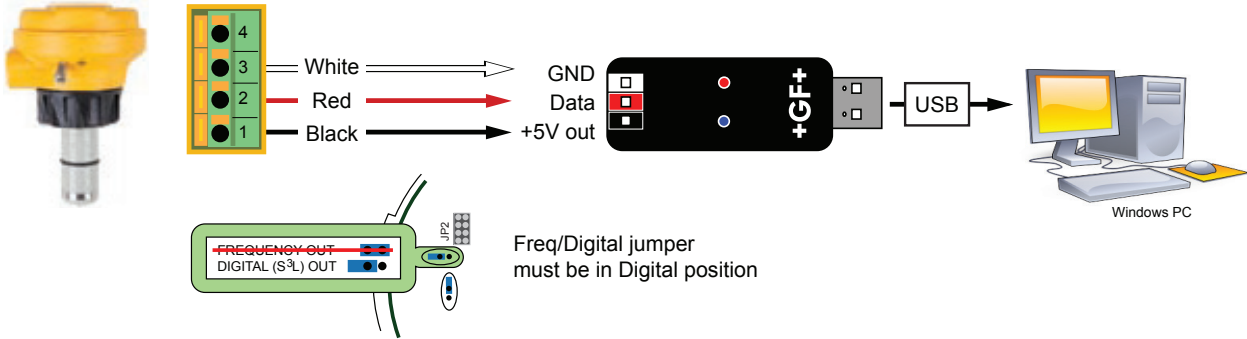


Signet 2750 In-Line pH/ORP Sensor

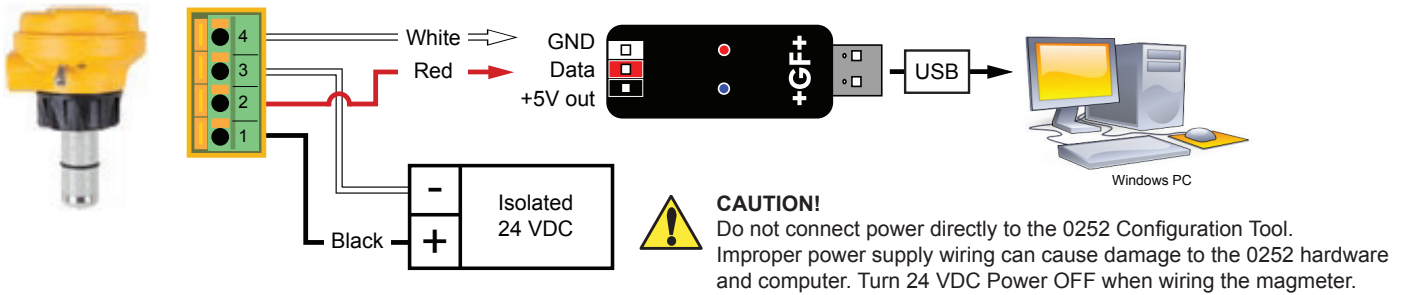


2551 Magmeter Wiring

Frequency or Digital (S³L) Output

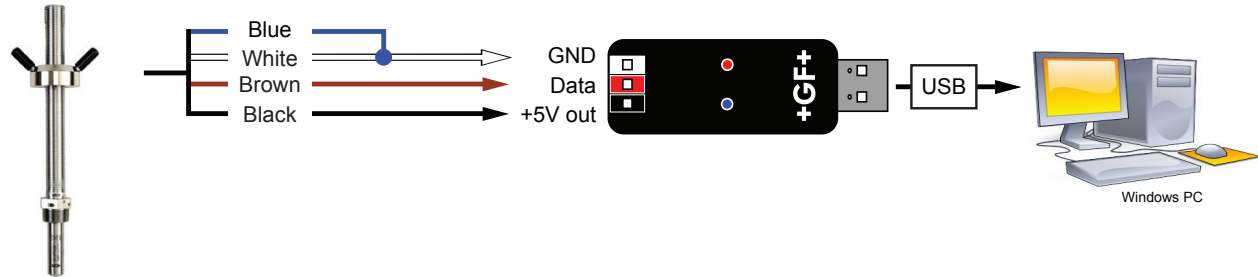


4 to 20 mA Output

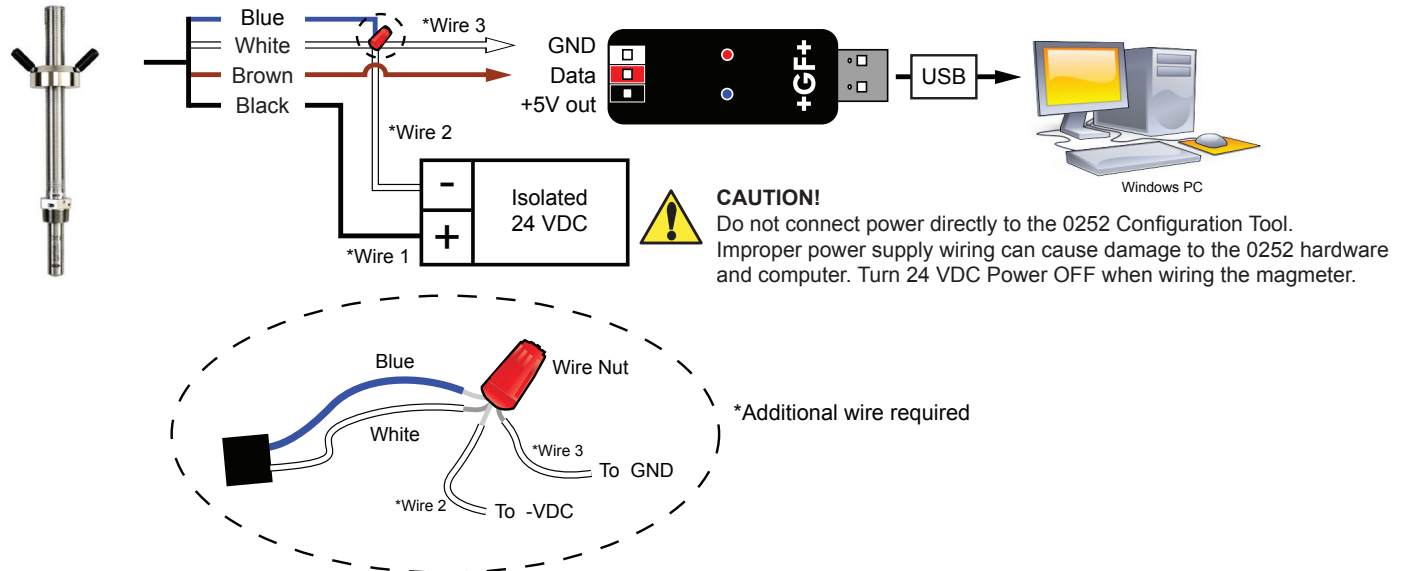


2552 Magmeter Wiring

Frequency or Digital (S³L) Output



4 to 20 mA Output



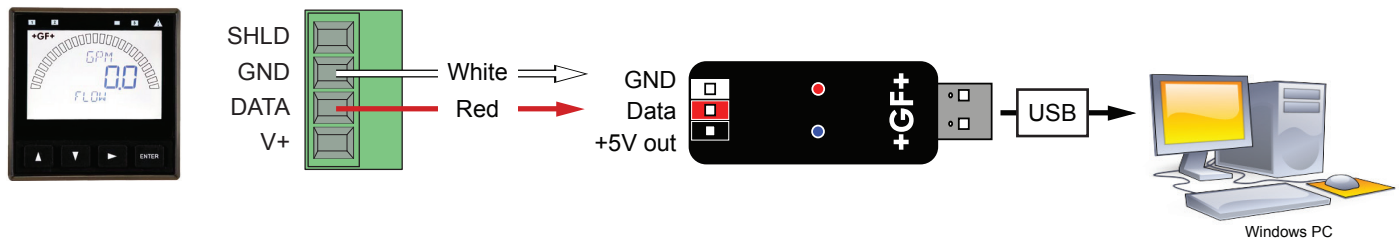
9900 Wiring



Disconnect power on the 9900 prior to proceeding.

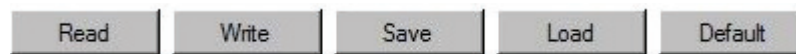
If the 9900 is using the Direct Conductivity/Resistivity Module, the module will need to be removed from the 9900. Refer to the Direct Conductivity/Resistivity Module Instruction Sheet for instructions.

1. Disconnect power on the 9900.
2. Unplug the sensor connector from the S³L/Frequency input jack on the 9900 and connect the 0252 Tool in its place.
3. Reconnect power to the 9900.



General Software Operation

On all screens **Read**, **Write**, **Save**, **Load**, and **Default** buttons can be found in the lower right corner.



Read Loads the data from the connected device (sensor or transmitter) and updates the software's display.

NOTE: This will overwrite any changes made in the 0252 software since the last **Write**.

Write Applies the data entered in the 0252 software to the connected device. Once you have entered the desired setting changes in the software screens, press **Write** to load your new settings onto the connected device.

Save Stores the entire 0252 settings configuration, as currently displayed in the application, to a specified location on your computer. (You will be asked to select a file location and provide a file name)

Load Opens a previously saved settings configuration file. See **Save** function above.

NOTE: The file must be a 0252 settings configuration file.

The software will verify whether the user-selected file is the correct type.

Default Resets all data on all application screens to a factory default condition. A confirmation dialog box will be presented with a warning explaining all un-saved configuration information will be erased.

After resetting the software to a factory default condition, click **Write** to reset the connected device to a factory default condition.

NOTE: Performing the above reset to factory default condition will not change the input type on the 9900 Transmitter.

Sensor Operation



Application settings:		2250	2350	2450	2750
1	Engineering units	in., ft, cm, m	°C or °F	psi, kpa, bar	pH or (ORP)

Loop Output settings:

2	4 mA Set Point	Min	0	-10 °C (14 °F)	0	0 pH (-1000 mV)
		Max	-XU: 276.8 in., 23.07 ft, 703.1 cm, 7.03 m -XL: 1384.0 in, 115.33 ft, 3515.0 cm, 35.15 m	100 °C (212 °F)	10, 50, 250 psi (69, 344.7, 1723.7 kpa) (0.7, 3.5, 17.2 bar)	14 pH (2000 mV)
3	20 mA Set Point	Min	0	-10 °C (14 °F)	0	0 pH (-1000 mV)
		Max	-XU: 276.8 in., 23.07 ft, 703.1 cm, 7.03 m -XL: 1384.0 in, 115.33 ft, 3515.0 cm, 35.15 m	100 °C (212 °F)	10, 50, 250 psi (69, 344.7, 1723.7 kpa) (0.7, 3.5, 17.2 bar)	14 pH (2000 mV)

Write or Save settings:

- | | |
|----|--|
| 4a | Click "Write" to copy these settings to the product. |
| or | |
| 4b | Click "Save" to save these settings to a local computer file for later use. |
| 5 | To use a saved file (from 4b):
1. Click "Load"
2. Navigate to the saved file
3. Select "Open"
4. Click "Write"
5. Click "Read" to confirm |

2551 & 2552 Operation



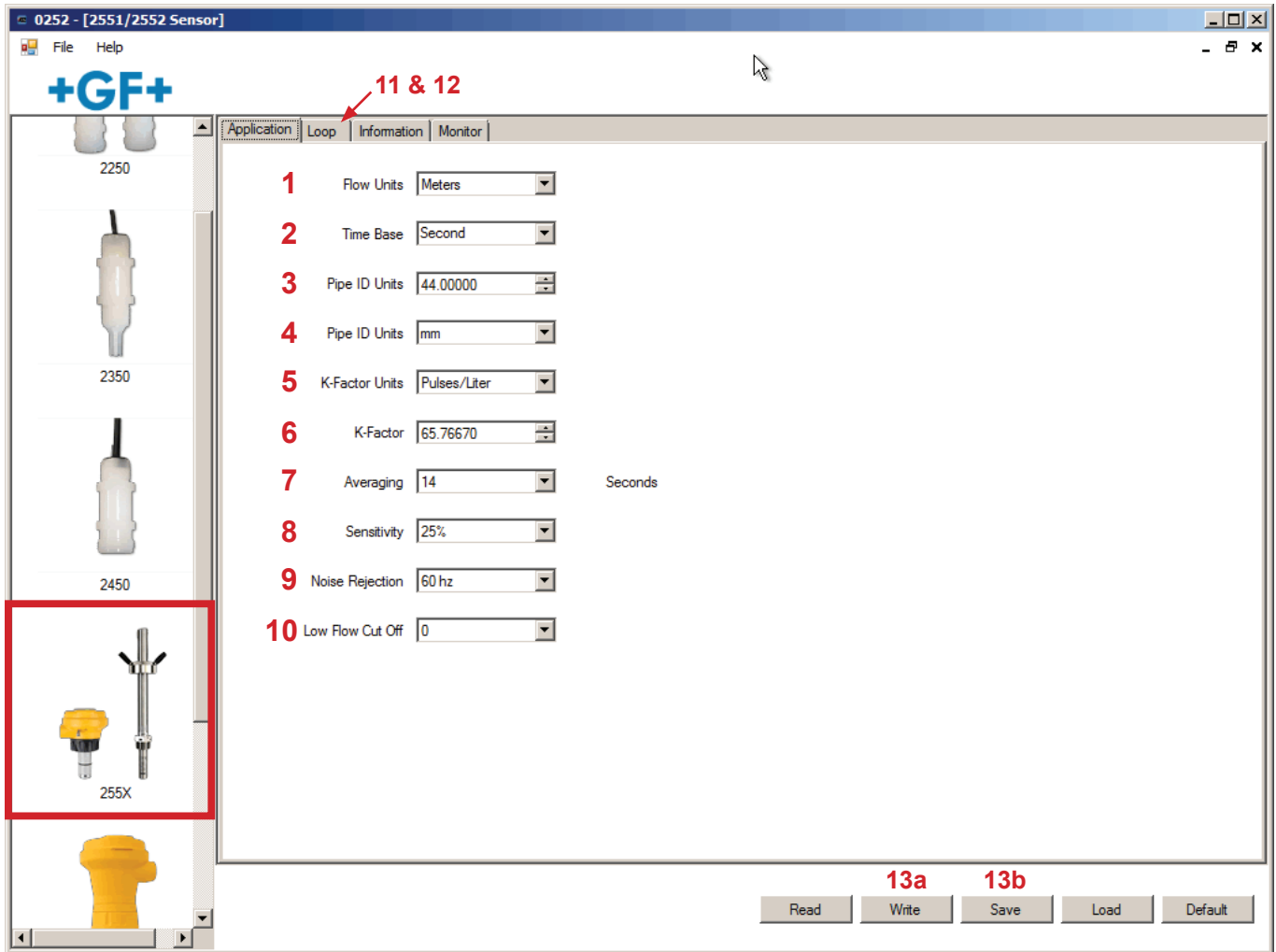
Application settings:		Factory Set	2551 & 2552
1	Flow Units	m	m, ft, m ³ , L, ft ³ , US Gal, Imp. Gal, Acre in.
2	Time Base	sec	Sec, Min, Hour, Day
3	Pipe ID (Inside Diameter)	44.0	0 - 5000
4	Pipe ID Units	mm	mm, in.
5	K-Factor Units	Pulses / Liter	Pulses / Liter, Pulses / Gallon
6	K-Factor	65.76670	0.000100 - 999999.1 See Magmeter manual. Available at www.gfsignet.com
7	Averaging (in seconds)	14	1/10, 1/4, 1/2, 1, 1 1/2, 3, 7, 14, 25, 50, 100
8	Sensitivity (%)	25	100, 50, 30, 25, 20, 15, 10, 8, 5, 2
9	Noise Rejection (Hz)	60	50 or 60
10	Low Flow Cut Off (% of full scale)	0	0 to 20% Full Scale

Loop Output settings:

11	4 mA Set Point (Flow Units / Time Base)	0.00000	0.00000 - 999999.00000
12	20 mA Set Point (Flow Units / Time Base)	5.00000	

Write or Save settings:

13a or 13b	Click "Write" to copy these settings to the product.
13b	Click "Save" to save these settings to a local computer file for later use.
14	To use a saved file (from 13b): <ol style="list-style-type: none"> 1. Click "Load" 2. Navigate to the saved file 3. Select "Open" 4. Click "Write" 5. Click "Read" to confirm



(General Software Operation, pg. 6)

Notes:

<p>Averaging</p>	<p>Set the time the Magmeter will use as the averaging period. Example: With averaging at 14 seconds, each display is an average of the previous 14 seconds input. Use higher averaging times to smooth the display and current output where the flow in the pipe is erratic.</p>
<p>Sensitivity</p>	<p>Set the percentage of change in the flow rate required to allow the Magmeter to override AVERAGING and jump to a new flow rate immediately (2551 maximum range is 10 m/s). See Magmeter manual for an explanation of Averaging and Sensitivity: www.gfsignet.com</p>
<p>Noise Rejection</p>	<p>Select 50 Hz or 60 Hz according to local AC power specifications.</p>
<p>Low Flow Cut Off</p>	<p>Set the flow rate where all Magmeter outputs will be forced to zero. When the flow rate drops below this value, the frequency output will be 0 Hz and the current output will be 4 mA.</p>

Initiating Communication with the 9900:

- | | |
|-----------|--|
| 1a | <p>Factory Configured 9900 (new or reset):</p> <ol style="list-style-type: none"> If the display reads "PUSH Enter SELECT SENSOR" the 9900 is ready for communication. Proceed to step 2 below. |
| 1b | <p>Previously configured 9900:</p> <ol style="list-style-type: none"> Press and hold ENTER for 3 seconds. The display will change to the MENU mode. Press ▲ once. The OPTION menu will flash. Press ENTER The CONTRAST setting will be displayed.
Press ▲ twice (Gen II, III, IV) or press ▲ once (Gen I) to display REMOTE SETUP. Press ▶ to edit REMOTE SETUP. If required, enter the security code. Press ▲ to change the flashing NO to YES. Press ENTER to confirm change. REMOTE SETUP should be flashing, indicating the 9900 is ready for communication with the 0252 Tool. |

Set Instrument Type:

- | | | |
|----------|--|---|
| 2 | Select sensor type to be wired to the 9900 from the drop-down menu at the top of the screen. | Flow, pH, ORP, Conductivity, Pressure, Level, Temperature, 4 to 20 mA Input, Salinity |
|----------|--|---|

Application settings:

- | | |
|----------|---|
| 3 | Select the Input, Calibration, Loop, Relay, or Option tabs to choose the desired menu for the selected sensor. |
| 4 | Refer to the 9900 manual for details pertaining to specific settings for each sensor type and menu item.
Available at www.gfsignet.com . Click Products > Multi-Parameter Instruments > 9900 Transmitter |

Write or Save settings:

- | | |
|-----------|---|
| 5a | Click "Write" to copy these settings to the product. |
| or | |
| 5b | Click "Save" to save these settings to a local computer file for later use. |
| 6 | <p>To use a saved file (from 5b):</p> <ol style="list-style-type: none"> Click "Load" Navigate to the saved file Select "Open" Click "Write" Click "Read" to confirm |

When configuration is complete:

- | | |
|-----------|---|
| 7 | Disconnect power from the 9900. |
| 8 | Disconnect the 0252 Tool from the 9900. |
| 9 | Reconnect the sensor or reinstall the Direct Conductivity/Resistivity Module. |
| 10 | Reconnect Power to the 9900. |

To configure an additional 9900 Transmitter with the same settings:

- | | |
|-----------|---|
| 11 | Click "Save" to save these settings to a local computer file. |
| 12 | Wire another 9900 as shown on page 7. |
| 13 | Initiate communication with the 9900 via step 1a or 1b above. |
| 14 | Load the saved settings via step 6 above. |

0252 - [9900 Transmitter]

File Help

+GF+

Instrument Type pH **2**

Calibration Input Loop Relay Options **3**

Relay 1 Relay 2 Relay 3

Mode Window In

Polarity Normally Open

Source pH

Low Set Point 4.00000 pH

High Set Point 8.00000 pH

Hysteresis 0.50000 pH

Turn On Delay 0.00000 Seconds

2450

255X

2750

9900

Read **5a** **5b** Write Save Load Default

(General Software Operation, pg. 6)

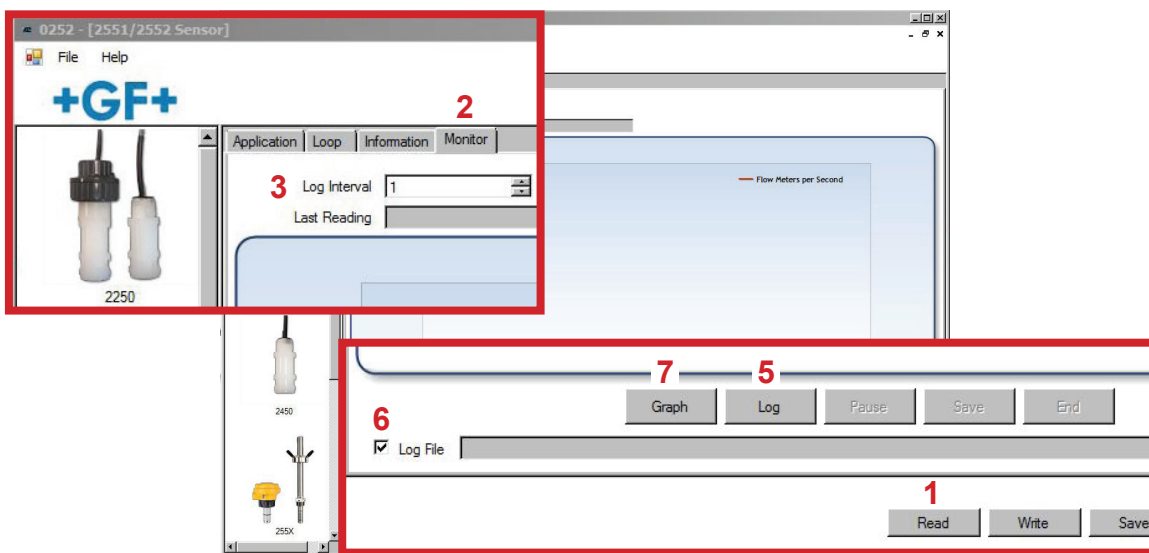
Datalogger Operation

The 0252 can serve as a field data logger to download data directly into a *.csv (Comma Separated Value) file.

NOTE: The 0252 does NOT have internal memory to store data.

It must be connected to a computer to use the datalog function.

1. Select the sensor type and click on **Read**.
2. Click the **Monitor** tab to open the datalog setup window.
3. Enter the Logging Interval. This value represents the time between log records.
The minimum interval is 1 second, and the maximum interval is 86400 seconds (24 hours).
Example: If the Log Interval is set to 60 seconds, the 0252 will record the temperature once every minute.
4. The 0252 saves data files in *.csv format. The maximum number of records allowed for this type of file is 65535 records. **If the logging interval is 60 seconds = 1092 hours of continuous recorded data.**
5. Click **Log** and enter the file name for the 0252 to store the recorded data and click Save.
6. Click **Log File** check box to enable logging. If you do not wish to save the data, skip to step 7.
7. Click **Graph** to start monitoring the sensor.



Ordering Information

Mfr. Part No.	Code	Description
3-0252	159 001 808	0252 Configuration Tool

Replacement Parts

6682-3004	159 001 725	Replacement 9900 Terminal Block Plug
-----------	-------------	--------------------------------------



Georg Fischer Signet LLC, 3401 Aero Jet Avenue, El Monte, CA 91731-2882 U.S.A. • Tel. (626) 571-2770 • Fax (626) 573-2057
For Worldwide Sales and Service, visit our website: www.gfsignet.com • Or call (in the U.S.): (800) 854-4090
For the most up-to-date information, please refer to our website at www.gfsignet.com