For 2-wire Universal Temperature Transmitter B6U

PC CONFIGURATOR
Model: B6UCFG

Users Manual

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Contents

1. GETTING STARTED

1.1. HARDWARE REQUIREMENTS

PC	IBM PC compatible
OS	Windows XP Service Pack 3 Windows Vista (32-bit) Service Pack 1 Windows 7 (32-bit, 64-bit) Windows 10 (32-bit, 64-bit) The software may not operate adequately in certain conditions.
CPU/Memory	Must meet the relevant Windows' requirements.
Hard disk	10 MB minimum free space
Cable	HART modem cable (model: COP-HU)

1.2. INSTALLING & UNISTALLING THE B6UCFG

INSTALL

The program is provided as compressed archive at our web site. Decompress the archive and execute 'SetupB6UCFG.msi' to start up the B6UCFG installer program. Follow instructions on the Windows.

UNINSTALL

Open Control Panel > Programs > Programs and Features. Select the B6UCFG from the program list and click Uninstall button.

Note: For Windows XP, "Add or Remove Programs".

For Windows 10, open Settings from Start menu > System > Apps & features.

1.3. STARTING UP THE B6UCFG

Press Start on the task bar and choose B6UCFG from the Program menu.

The model B6U Universal Temperature Transmitter must be connected to the PC via a HART modem.

1.4. NOTE

The B6UCFG does not support a device in the burst mode.

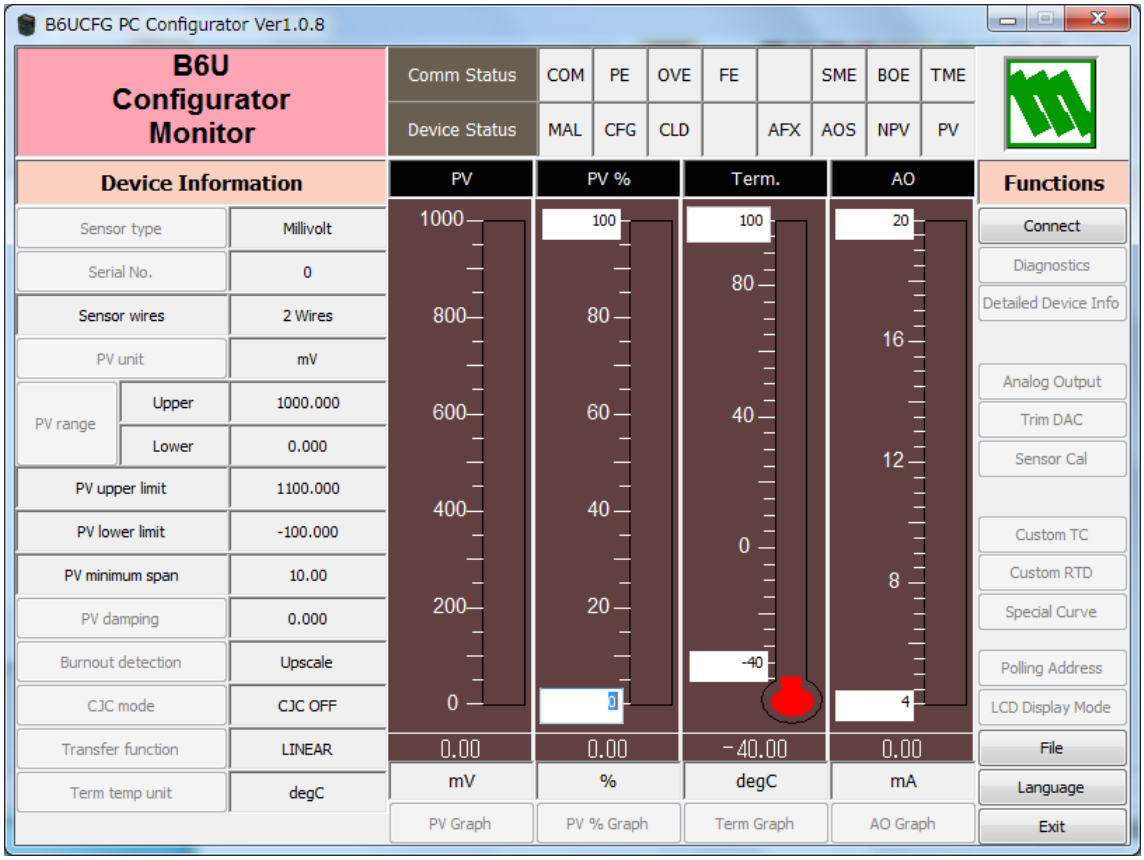
Use Emerson's 275 or 375 HART Communicator.

2. OPERATING THE B6UCFG PC CONFIGURATOR

Figure 1 shows the initial view of the B6UCFG PC Configurator window.

In order to enable the settings shown on the screen, the model B6U Universal Temperature Transmitter must be connected to the PC via a HART modem.

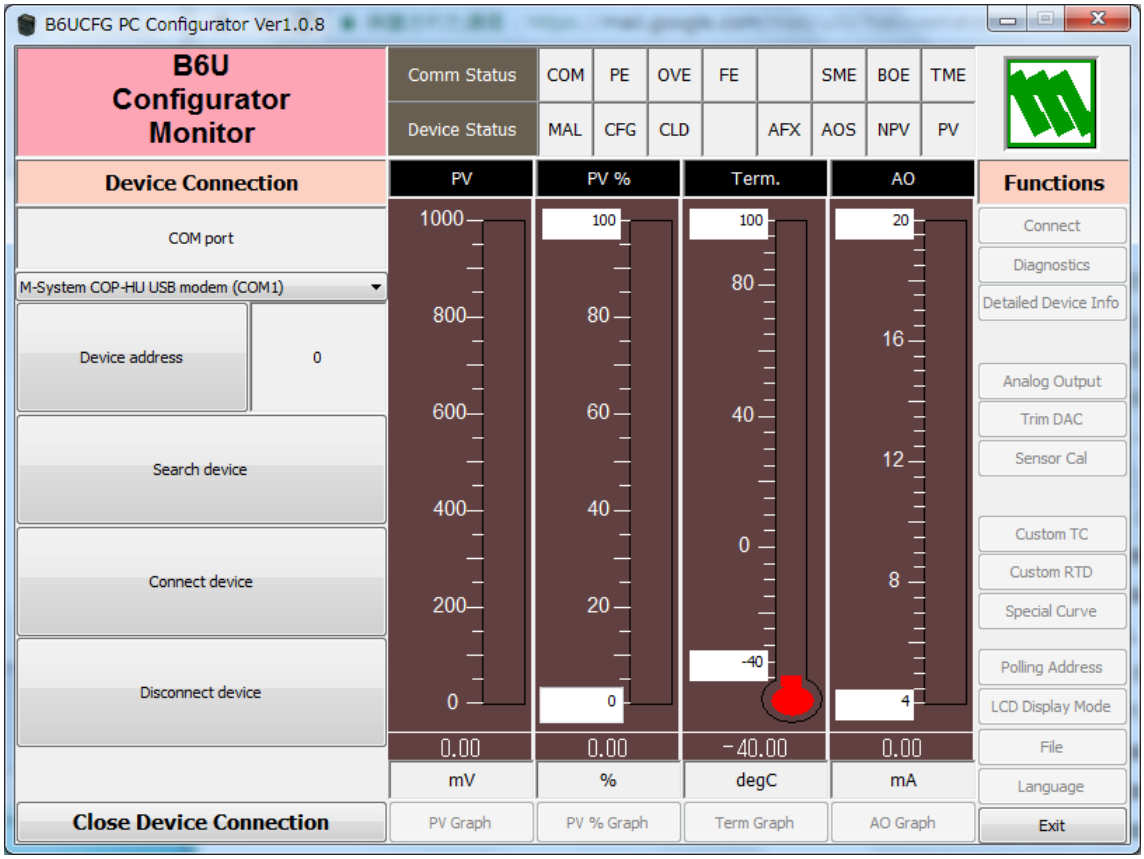
▼ Figure 1. Initial View



2.1. CONNECTING THE DEVICE (B6U)

On the initial view, click [Connect] and the Device Connection menu appears on the screen.

▼ Figure 2. Device Connection

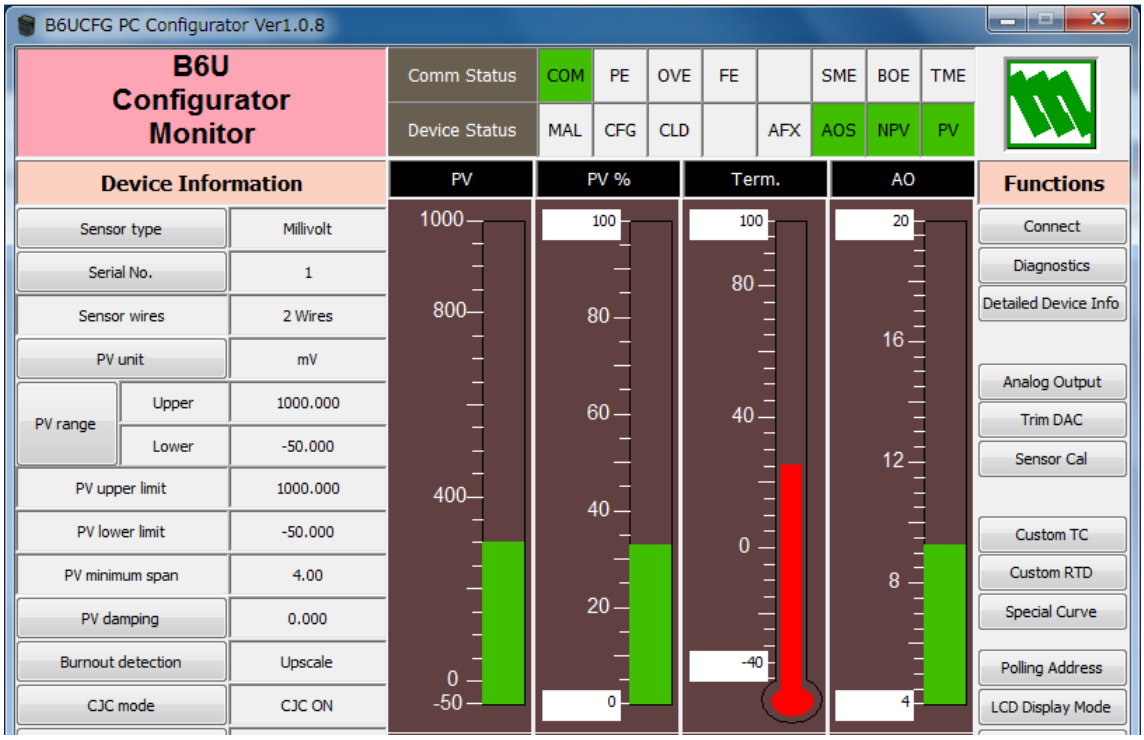


[COM port]	Choose an adequately configured COM port to be connected.
[Device address]	Specify polling address of the device to be connected.
[Search device]	Searches connectable devices among the ones whose polling address is already set between 0 and 15. Starts at the address specified in 'Device address' field.
[Connect device]	Starts communication with the B6U. Once the connection is established, the program uploads the device's configuration information and automatically calls up the Device Information view. The Device Information view is the base for various operations to configure the B6U.
[Disconnect device]	Terminates the communication with the device.
[Close Device Connection]	Quits the Device Connection view.

2.2. MONITORING TRENDS

Once the device is connected, the Device Information menu and the trend monitors appear on the screen. The user can configure various parameters of the B6U.

▼ Figure 3. Device Information



2.2.1. COMMUNICATION STATUS

Comm Status summarizes the current communication status in the HART commands by lamps.

[COM] lamp	Green light blinks with the normal communications condition.
[PE] lamp	Red light turns on when the device detects Parity Error.
[OVE] lamp	Red light turns on when the device detects Overrun Error.
[FE] lamp	Red light turns on when the device detects Framing Error.
[SME] lamp	Red light turns on when the device detects Sum Check Error.
[BOE] lamp	Red light turns on when the device detects Buffer Over Flow Error.
[TME] lamp	Red light turns on when the device detects the communication time out.

PE, OVE, FE, SME, BOE, TME are off together when normal condition.

2.2.2. DEVICE STATUS

Device Status summarizes the current device status in the HART commands by lamps.

[MAL] lamp	Red light turns on when malfunction(s) occur(s) in the device. (Off when normal condition) The device enters a malfunction state when a burnout is detected with input signal.
[CFG] lamp	Red light turns on when the device configuration is modified. This lamp can be turned off by [Reset configuration change flag] in the Diagnostics view.
[CLD] lamp	Always OFF
[AFX] lamp	Red light turns on when the analog output entered in Fixed Output mode. This lamp turns off in the normal output mode, where the output varies according to the input.
[AOS] lamp	Green light turns on when the analog output is diagnosed to be normal. Red light turns on when the output is saturated upscale or downscale.
NPV	Green light always ON
[PV] lamp	Green light turns on when the sensor input is in the specified PV range. Red light turns on when it is out of the range.

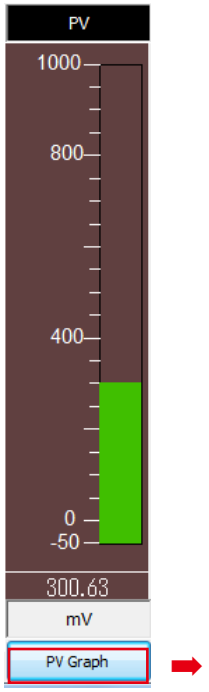
2.2.3. BARGRAPH & TREND GRAPH

Four bargraphs indicating PV in engineering unit, PV in % of the selected range, the terminal temperature and analog output current are available.

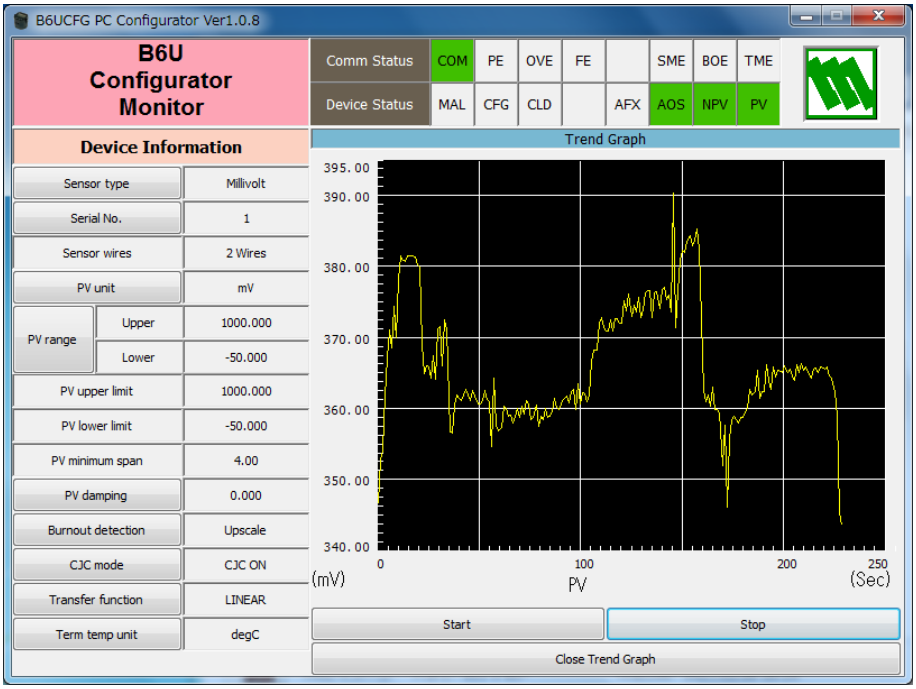
The graph scales can be modified except for the PV in engineering unit of which the scales are automatically determined and fixed according to the PV range (Upper/Lower).

At the bottom of each bargraph is [Graph] button which opens a trend graph for the item. The example below shows the trend graph for [PV Graph]. Use [Start] and [Stop] buttons to activate/deactivate trending, and click [Close Trend Graph] to quit the trend graph view.

▼ PV bargraph



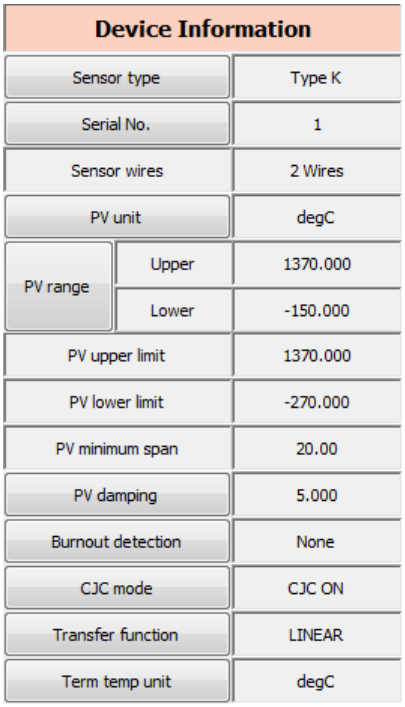
▼ Figure 4. Trend Graph



2.3. DEVICE CONFIGURATION

In Figure 3, the Device Information menu on the left shows the basic configuration information of the connected device. When you need to change configurations, click the left button for the required item to modify the setting.

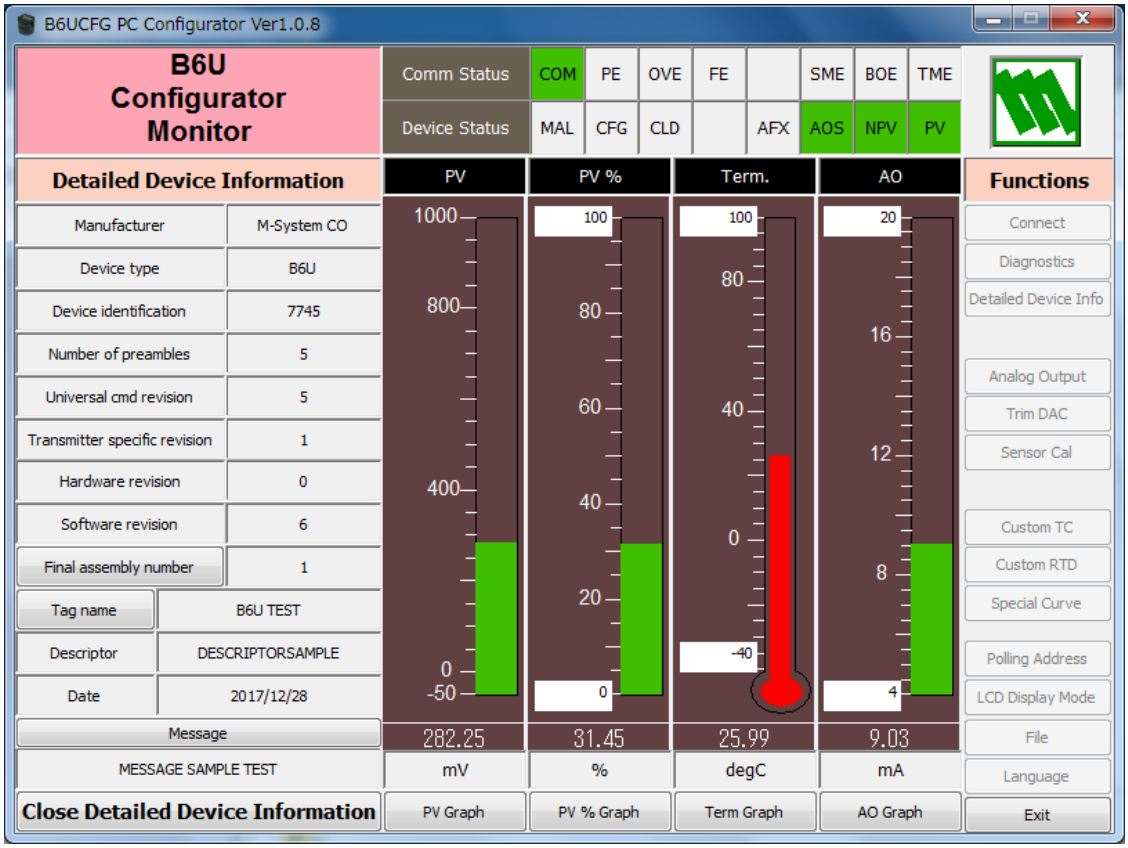
Sensor type (36 selections)	OHM / Ni508.4 / Type W5 Pt100 / NiFe604 / Type U Pt200 / Custom RTD / Type L Pt300 / Millivolt / Type P Pt400 / Type B / Type PR Pt500 / Type E / Custom TC Pt1000 / Type J / POT 4000 ohms Pt50 (JIS81) / Type K / POT 2500 ohms JPt100 (JIS89) / Type N / POT 1200 ohms Ni100 / Type R / POT 600 ohms Ni120 / Type S / POT 300 ohms Cu10@25 / Type T / POT 150 ohms Specifies sensor type and number of extension wires. When a new sensor type is chosen, the default settings are automatically selected for PV range and PV upper/lower limits.
Serial No.	Specifies a serial number for the sensor.
Sensor wires	Indicates current number of the sensor wires.
PV unit	Specifies the engineering unit for the PV. When this setting is changed, other related items such as PV range (Upper/Lower), PV upper/lower limits, PV minimum span are automatically shown in the new unit.
PV range	Specifies 0% and 100% input values.
PV upper/lower limit	Indicates measurable maximum and minimum values.
PV minimum span	Indicates minimum span of the input range.
PV damping	Specifies time constant (0.5 to 30 seconds) for damping function. Set to 0 to cancel the function.
Burnout detection (3 selections)	Upscale / Downscale / None Specifies either the output should go upscale or downscale in case that a burnout is detected.
CJC mode (2 selections)	CJC OFF / CJC ON Enables/disables the cold junction compensation (CJC) for thermocouple input. When a thermocouple is specified as the input sensor, the CJC mode is set to ON at default. With other sensors, this function is disabled.
Transfer function (3 selections)	LINEAR / SQRT / SPECIAL_CURVE Enables/disables the Transfer Function, specifying either the output should be linear to the input signal or linearized to a custom curve data. The B6U supports the user-specific linearization table function (SPECIAL_CURVE), data of which need to be defined in advance. Refer to Section 2.11 for the details.
Term temp unit (4 selections)	degC / degF / degR / Kelvin Specifies the temperature unit at the cold junction terminal.



2.4. DETAILED DEVICE INFORMATION

In Figure 3, clicking [Detailed Device Info] opens the Detailed Device Information menu as shown in Figure 5.
Figure 5. Detailed Device Information.

▼ Figure 5. Detailed Device Information



Manufacturer	Indicates the manufacturer.
Device type	Indicates the device type.
Device identification	Indicates the device ID.
Number of preambles	Indicates the number of preambles (value used in HART communication).
Universal cmd revision	Indicates universal command revision.
Transmitter specific revision	Indicates transmitter specific revision.
Hardware revision	Indicates hardware revision.
Software revision	Indicate software revision.
Final assembly number	You can enter a final assembly number (0 to 16777215).
Tag name	You can enter a tag name and its description (Descriptor). Date is automatically set at the data modified date. Max. 8 alphanumeric characters for the tag, max. 16 alphanumeric characters for the descriptor.
Descriptor	Indicates description of the tag name.
Date	Indicates the device's production date.
Message	You can enter a memo in this field. Up to 32 alphanumeric characters.
Close Detailed Device Information	Quits the view.

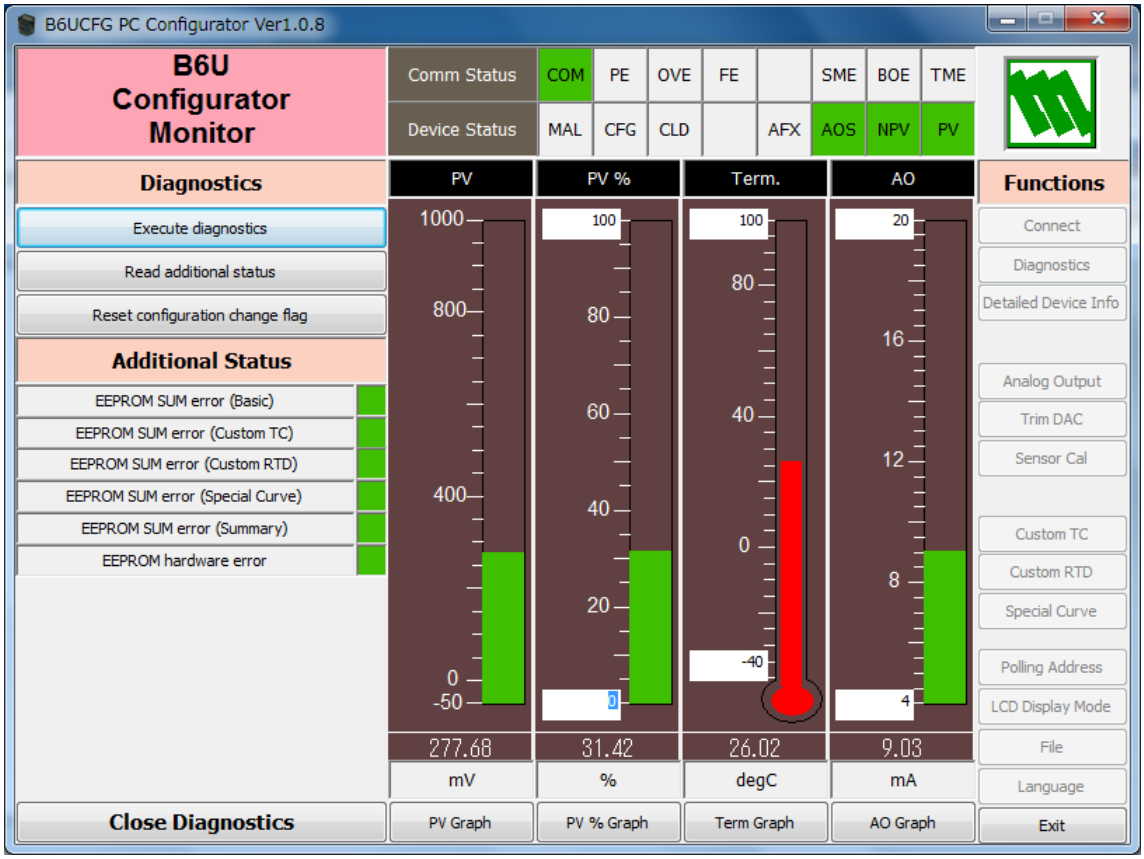
NOTE

- Only capital letters are used as 'Tag name', 'Descriptor' and 'Message'. Small letters will be automatically converted to capital letters.

2.5. DIAGNOSTICS

Click [Diagnostics] button to open the Diagnostics view as shown in Figure 6.

▼ Figure 6. Diagnostics

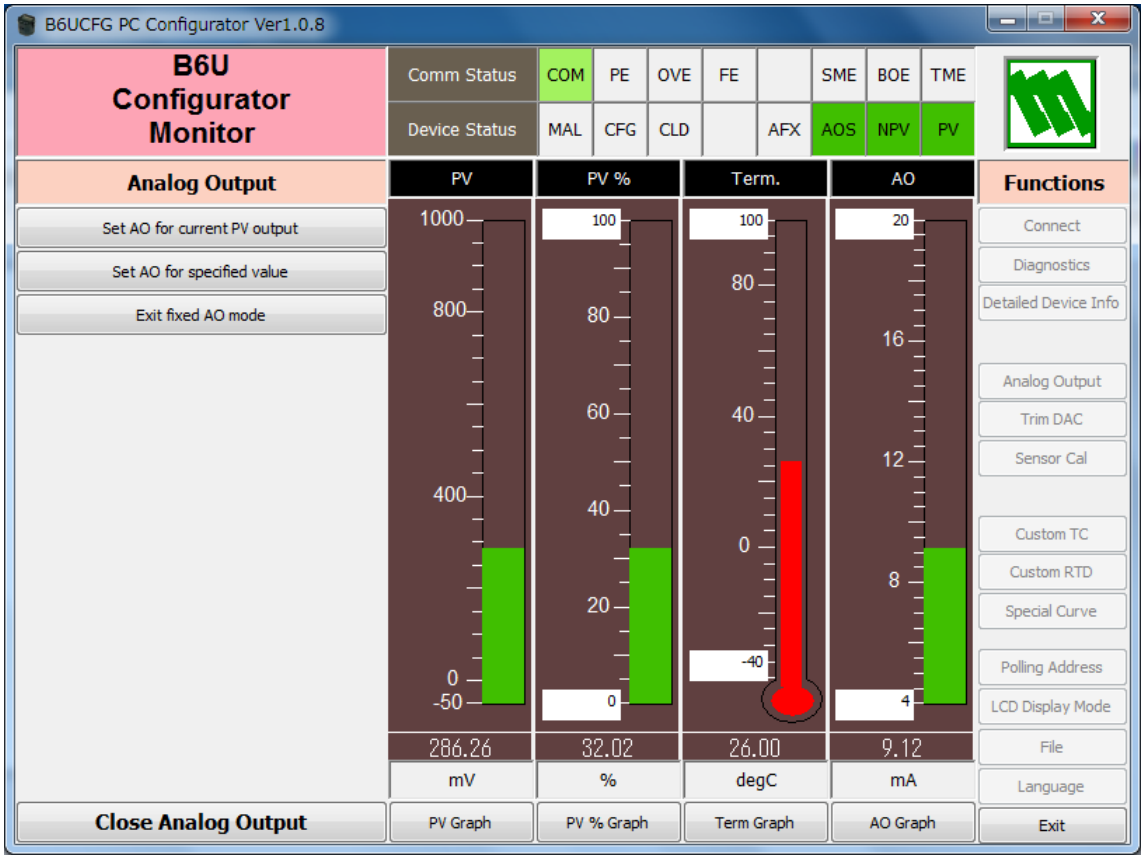


Diagnostics	Execute diagnostics	Activates the diagnostics program and the results are displayed under the Additional Status.
	Read additional status	Calls up the current contents of Additional Status from the device.
	Reset configuration change flag	Turns off the CFG lamp in Device Status.
Additional Status	EEPROM SUM error (Basic)	Shows the status of each Additional Status item: green in normal status, while read in error.
	EEPROM SUM error (Custom TC)	
	EEPROM SUM error (Custom RTD)	
	EEPROM SUM error (Special Curve)	
	EEPROM SUM error (Summary)	
	EEPROM hardware error	
	Close Diagnostics	Quits the view.

2.6. FIXED ANALOG OUTPUT

Click [Analog Output] button to open the Analog Output view as shown in Figure 7. You can perform the output loop test.

▼ Figure 7. Analog Output

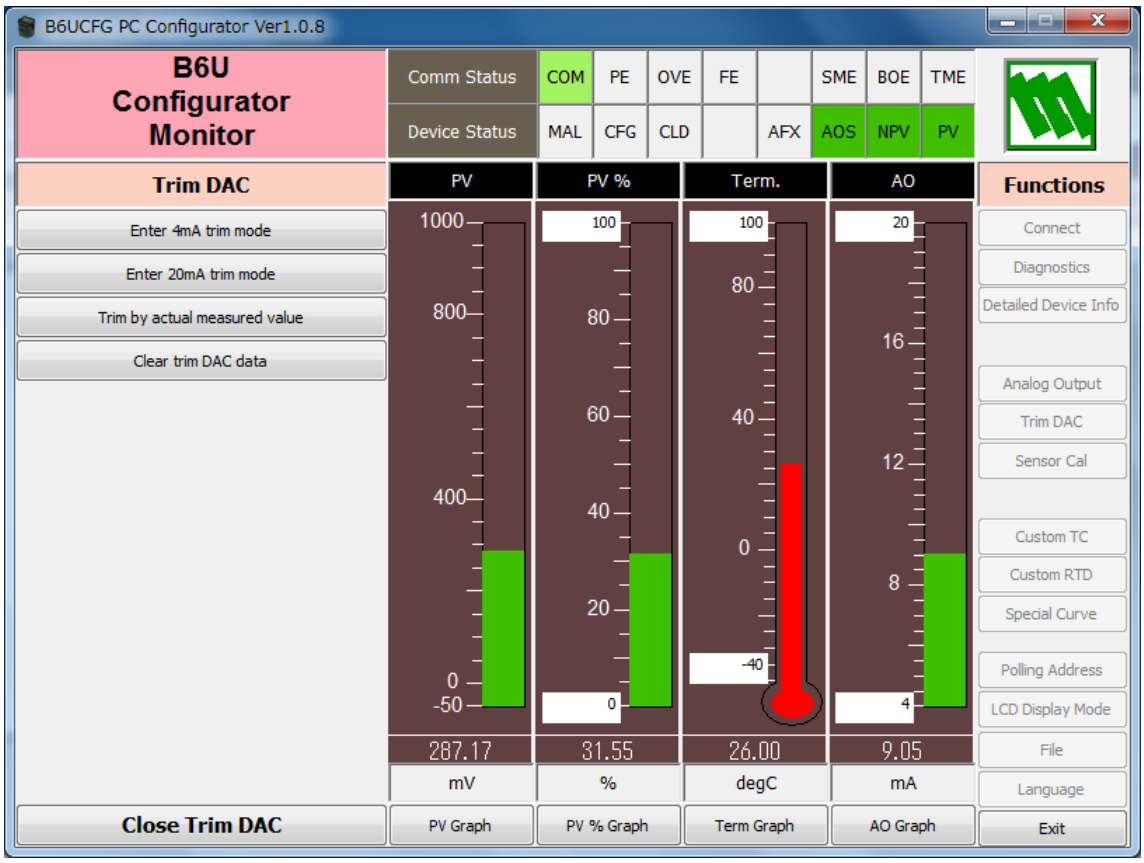


Set AO for current PV output	The output is held at the current value.
Set AO for specified value	You can set a specific value within the range to fix the output, which enables output loop test.
Exit fixed AO mode	Cancels the fixed output mode to return the device into normal output mode. Note: It is recommended to fix the analog output signal while those parameters affecting the output signal such as PV range are changed, and then to reset the device to normal mode after the setting is done.
Close Analog Output	Quits the view.

2.7. DAC TRIMMING

Click [Trim DAC] button to open the Trim DAC view as shown in Figure 8.
You can adjust the output zero and span.

▼ Figure 8. Trim DAC



2.7.1. ENTER 4mA TRIM MODE

1) Click [Enter 4mA trim mode]. The device outputs a fixed 4mA signal.
2) Measure the actual output current at the receiving instrument to which the device output should be matched.
3) Click [Trim by actual measured value] to set the measured value. The actual value can be set from 3.8mA up to 4.2mA.
4) Repeat setting [Trim by actual measured value] until the measured output shows 4mA.

2.7.2. ENTER 20mA TRIM MODE

1) Click [Enter 20mA trim mode]. The device outputs a fixed 20mA signal.
2) Measure the actual output current at the receiving instrument to which the device output should be matched.
3) Click [Trim by actual measured value] to set the measured value. The actual value can be set from 19.8mA up to 20.2mA.
4) Repeat setting [Trim by actual measured value] until the measured output shows 20mA.

2.7.3. RESETTING TO THE DEFAULT

Click [Clear trim DAC data] to return the device to the factory default trimming values.

[Close Trim DAC] quits the view.

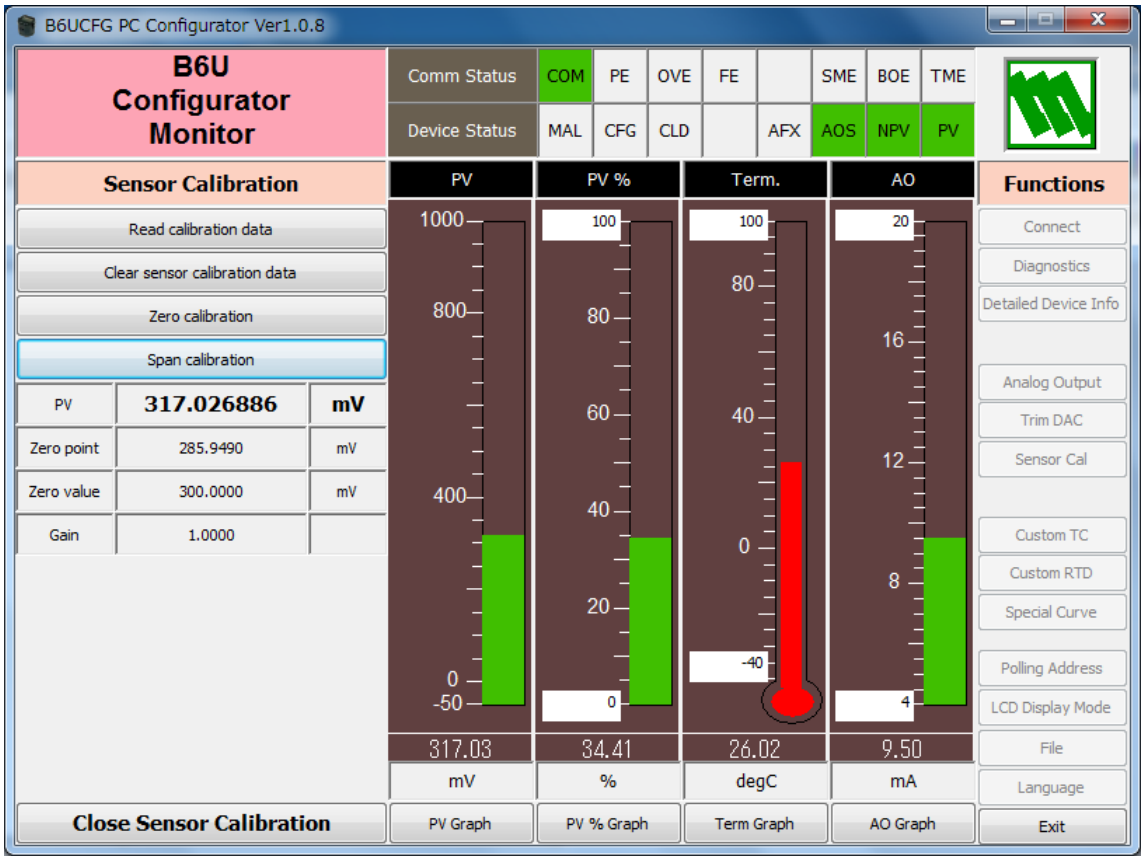
2.8. SENSOR CALIBRATION

The input sensor can be calibrated with Zero and Span: the Zero is represented as offset at the calibration point, while the Span is represented as gain against the zero point. The gain must be set from 0.1 to 10.0.

Calibration points can be specified to any point within the PV range. The mV and thermocouple inputs are calibrated against the measured voltage; while the RTD and resistance inputs are against the measured resistance. Errors caused by extension wire resistance for 2-wire RTDs and by imbalance in that for 3-wire RTDs can be calibrated by the Zero adjustment.

Click [Sensor Cal] button to open the Sensor Calibration view as shown in Figure 9.

▼ Figure 9. Sensor Calibration



The present measured value is indicated in the middle column of the PV row. Refer to this value when calibrating the sensor. It takes 5 or 6 seconds for the calibration result to affect the measured value on the display.

Apply zero calibration point input signal and click [Zero calibration] to open the field where you can enter a target value. The result is shown in the PV display field. Data before calibration is shown in the Zero point field, while that after calibration is shown in the Zero value field.

Apply span calibration point input signal and click [Span calibration] to open the field where you can enter a target value. The result is shown in the PV display field. Span point gain against the zero point is shown in the Gain field.

[Read calibration data] calls up the present calibrated values from the B6U and display them in these fields.

Click [Clear sensor calibration data] button to return the device to the factory default status. The factory default setting for the DC and TC is zero point = zero value = 0 mV, gain = 1.0, and for the RTD, zero point = zero value = resistance (ohm) at 0 ˚C, gain = 1.0. When the sensor type has been changed, the sensor calibration data will automatically be set to the factory default setting.

[Close Sensor Calibration] quits the view.

2.9. CUSTOM TC

The B6U supports the user-specific thermocouple table function. In order to use a user-specific table, the data must be defined and registered.

Following is the procedure to use the user-specific TC table.

1) Create a custom TC table as follows.
2) Click [Custom TC] button to open the Custom TC view.
3) Click [Read table from file] button to upload a file stored in the PC. When uploaded, the file contents summary is indicated under Custom TC Table Contents. Data longer than 1000 points are ignored. Set 1000 points or less.
4) Click [Display Custom TC graph] button to show the I/O characteristics data in a graph.
5) Click [write table to device] button to download the data to the B6U.
6) When the downloading is successfully complete, Status under Custom TC Table Contests shows 'Configured'. Then the option 'Custom TC' becomes available to choose among the Sensor type selections. If 'Custom TC' has been already selected before this setting is done, you cannot download a particular data file.
7) Click [Read table from device] button to upload the I/O characteristics data registered in the B6U. If there is no file registered, Status under Custom TC Table Contents shows 'Non configured'.
8) Click [Close Custom TC] button to quit the view.

2.9.1. CUSTOM TC FILE FORMAT

The thermocouple characteristics data must be defined in text format.

The file format is as following.

Define the minimum temperature value in Celsius at Minimum TC Temperature.

Specify the Temperature Step used in the table, from 1˚C to 50˚C.

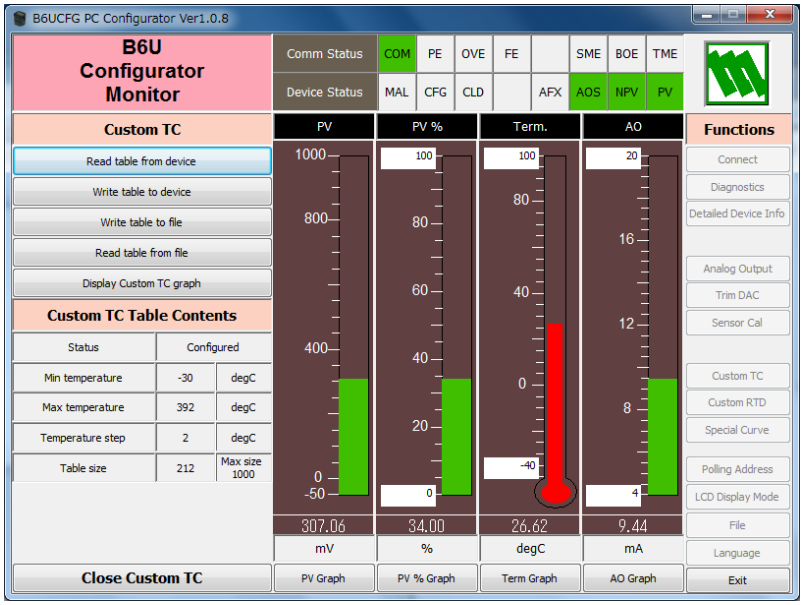
Describe the characteristics data within { }. Data must be between -100 and 1000, and be entered in mV. Up to 1000 points can be specified.

```
/*******************************************************
/* Custom TC Table Definition
/* Ti = f(Xi) ( 0 <= i < Size )
/*    Temperature Step (1 to 50 degC)
/*    -100 <= X(i)<= 1000 mV
/*    X(i) < X(i+1)
/*    2<= Size <= 1000
/*******************************************************
Minimum TC Temperature = 0   ← Minimum temperature T0 (˚C)
Step = 10              ← Temperature step (˚C)
{
10.000000              ← Voltage value for T0 (mV)
:
20.000000              ←Voltage value for maximum temperature Tmax (mV)
}
```

2.9.2. CUSTOM TC SETTING

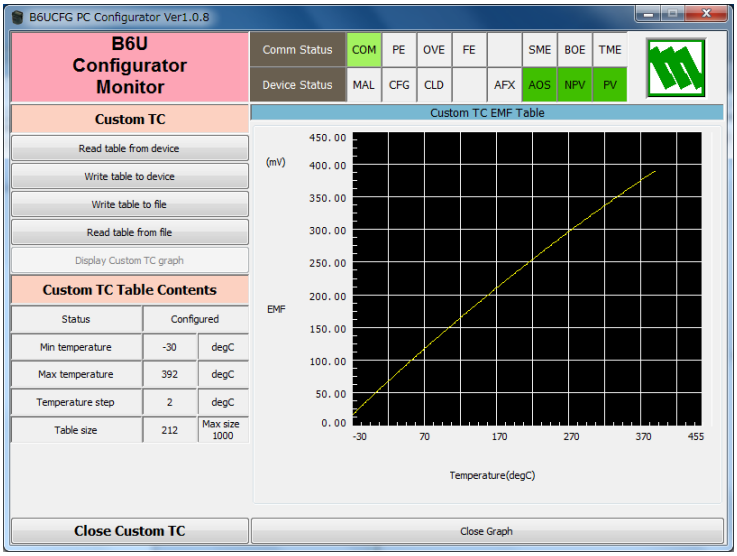
Click [Custom TC] button to open the Custom TC view as shown in Figure 10.

▼ Figure 10. Custom TC



Custom TC	Read table from device	Uploads the custom TC table registered in the B6U. If there is no file registered, Status under Custom TC Table Contents shows 'Non configured'.
	Write table to device	Downloads the currently displayed custom TC table to the B6U. When the downloading is successfully complete, Status under Custom TC Table Contents shows 'Configured'.
	Write table to file	Saves the currently displayed custom TC table to a file. Upload data from the B6U with [Read table from device] button before saving.
	Read table from file	Uploads a file stored in the PC. When uploaded, the file contents summary is indicated under Custom TC Table Contents.
	Display Custom TC graph	Displays a TC table graph (Figure 11). The characteristics of the transfer function can be confirmed.
Custom TC Table Contents	Summarizes the custom TC table contents.	
	Status	Indicates the custom TC table registration of the B6U.
	Min temperature	Indicates minimum temperature in ˚C.
	Max temperature	Indicates maximum temperature in ˚C.
	Temperature step	Indicates temperature step in ˚C.
	Table size	Indicates number of points defined.
	Close Custom TC	Quits the view.

▼ Figure 11. Custom TC Graph



2.10. CUSTOM RTD

The B6U supports the user-specific RTD table function. In order to use a user-specific table, the data must be defined and registered.

Following is the procedure to use the user-specific RTD table.

1) Create a custom RTD table as follows.
2) Click [Custom RTD] button to open the Custom RTD view.
3) Click [Read table from file] button to upload a file stored in the PC. When uploaded, the file contents summary is indicated under Custom RTD Table Contents. Data longer than 500 points are ignored. Set 500 points or less.
4) Click [Display Custom RTD graph] button to show the I/O characteristics data in a graph.
5) Click [Write table to device] button to download the data to the B6U.
6) When the downloading is successfully complete, Status under Custom RTD Table Contests shows 'Configured'. Then the option 'Custom RTD' becomes available to choose among the Sensor type selections. If 'Custom RTD has been already selected before this setting is done, you cannot download a particular data file.
7) Click [Read table from device] button to upload the I/O characteristics data registered in the B6U. If there is no file registered, Status under Custom RTD Table Contents shows 'Non configured'.
8) Click [Close Custom RTD] button to quit the view.

2.10.1. CUSTOM RTD FILE FORMAT

The RTD characteristics data must be defined in text format.

The file format is as following.

Define the minimum temperature value in Celsius at Minimum RTD Temperature.

Specify the Temperature Step used in the table, from 1˚C to 50˚C.

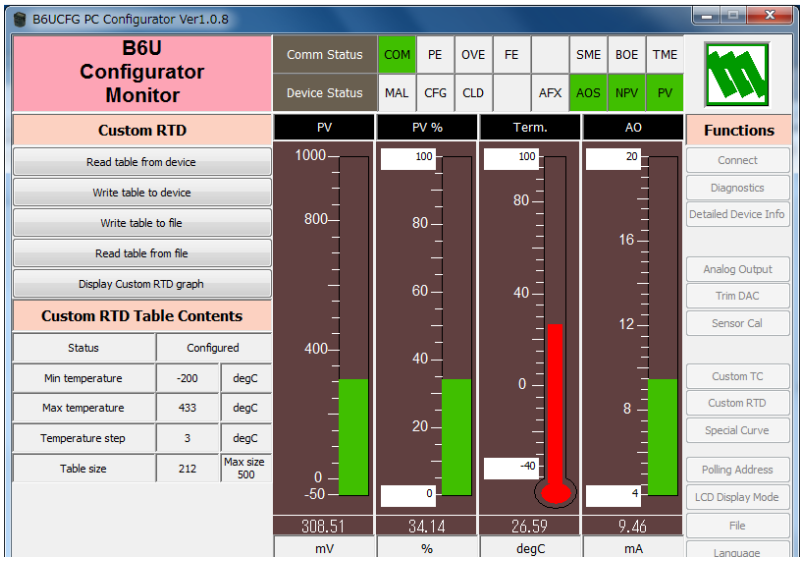
Describe the characteristics data within { }. Data must be between 0 and 4000, and be entered in ohms. Up to 500 points can be specified.

```
/*******************************************************
/* Custom RTD Table Definition
/* Ti = f(Xi) ( 0 <= i < Size )
/*    Temperature Step (1 to 50 degC)
/*    0 < X(i)<= 4000 Ohm
/*    X(i) < X(i+1)
/*    2<= Size <= 500
/*******************************************************
Minimum RTD Temperature = 0  ← Minimum temperature T0 (˚C)
Step = 10              ← Temperature step (˚C)
{
100.000000             ← Resistance value for T0 (Ω)
:
200.000000             ←Resistance value for maximum temperature Tmax (Ω)
}
```

2.10.2. CUSTOM RTD SETTING

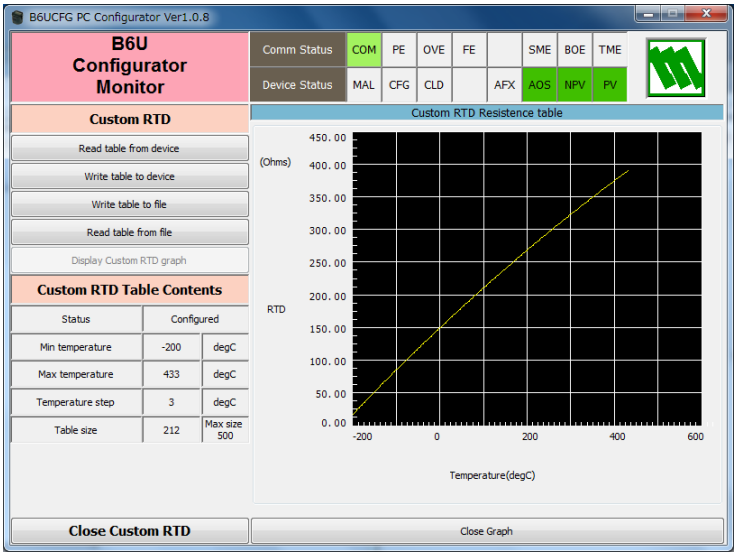
Click [Custom RTD] button to open the Custom RTD view as shown in Figure 12.

▼ Figure 12. Custom RTD



Custom RTD	Read table from device	Uploads the custom RTD table registered in the B6U.If there is no file registered, Status under Custom RTD Table Contents shows 'Non configured'.
	Write table to device	Downloads the currently displayed custom RTD table to the B6U. When the downloading is successfully complete, Status under Custom RTD Table Contents shows 'Configured'.
	Write table to file	Saves the currently displayed custom RTD table to a file. Upload data from the B6U with [Read table from device] button before saving.
	Read table from file	Uploads a file stored in the PC. When uploaded, the file contents summary is indicated under Custom RTD Table Contents.
	Display Custom RTD graph	Displays a RTD table graph (Figure 13). The characteristics of the transfer function can be confirmed.
Custom RTD Table Contents	Summarizes the custom RTD table contents.	
	Status	Indicates the custom RTD table registration of the B6U.
	Min temperature	Indicates minimum temperature in ˚C.
	Max temperature	Indicates maximum temperature in ˚C.
	Temperature step	Indicates temperature step in ˚C.
	Table size	Indicates number of points defined.
	Close Custom RTD	Quits the view.

▼ Figure 13. Custom RTD Graph



2.11. SPECIAL CURVE

The B6U supports the user-specific linearization table function (SPECIAL_CURVE). In order to use the SPECIAL_CURVE, the data must be defined and registered.

Following is the procedure to use the user-specific special curve table.

1) Create a special curve table as follows.
2) Click [Special Curve] button to open the Special Curve view.
3) Click [Read table from file] button to upload a file stored in the PC. When uploaded, the file contents summary is indicated under Special Curve Table Contents. Data longer than 128 points are ignored. Set 128 points or less.
4) Click [Display Special Curve graph] button to show the I/O characteristics data in a graph.
5) Click [Write table to device] button to download the data to the B6U.
6) When the downloading is successfully complete, Status under Special Curve Table Contests shows 'Configured'. Then the option 'SPECIAL_CURVE' becomes available to choose among the Transfer function selections. If 'SPECIAL_ CURVE' has been already selected before this setting is done, you cannot download a particular data file.
7) Click [Read table from device] button to upload the I/O characteristics data registered in the B6U. If there is no file registered, Status under Special Curve Table Contents shows 'Non configured'.
8) Click [Close Special Curve] button to quit the view.

2.11.1. SPECIAL CURVE FILE FORMAT

The special curve data must be defined in text format.

The file format is as following.

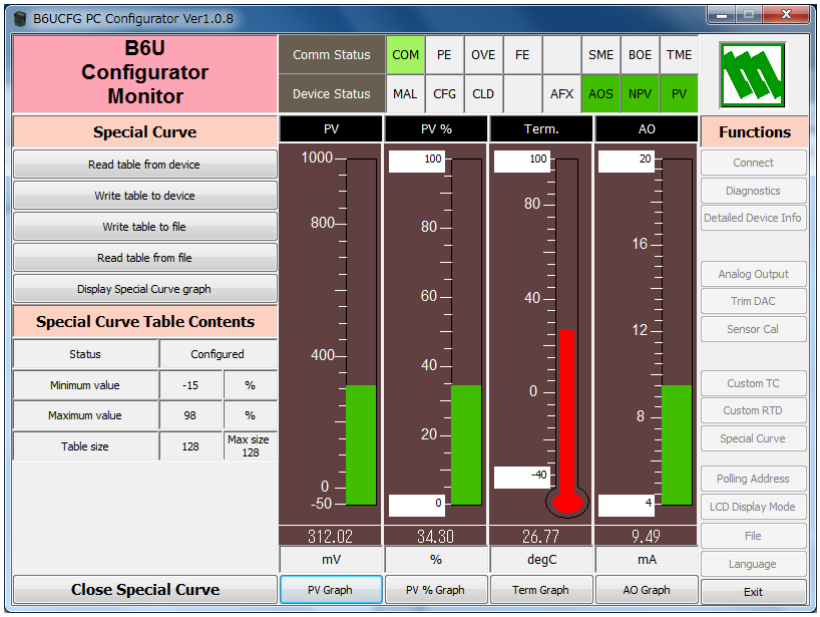
Describe the characteristics data within { }. Sets of X (input) and Y (output) values must be between -15 and 115, and be entered in %. Up to 128 points can be specified.

```
/*******************************************************
/* Linearization Table( Special Curve ) Definition
/* Yi = f(Xi)   ( 0 <= i < Size )
/*    -15 <= X(i), Y(i) <= 115 %
/*    X(i) < X(i+1)
/*    2 <= Size <= 128
/*******************************************************
{
0.000000,  0.000000               ← The minimum X and Y values
:
100.000000,  100.000000                ← The maximum X and Y values
}
```

2.11.2. SPECIAL CURVE SETTING

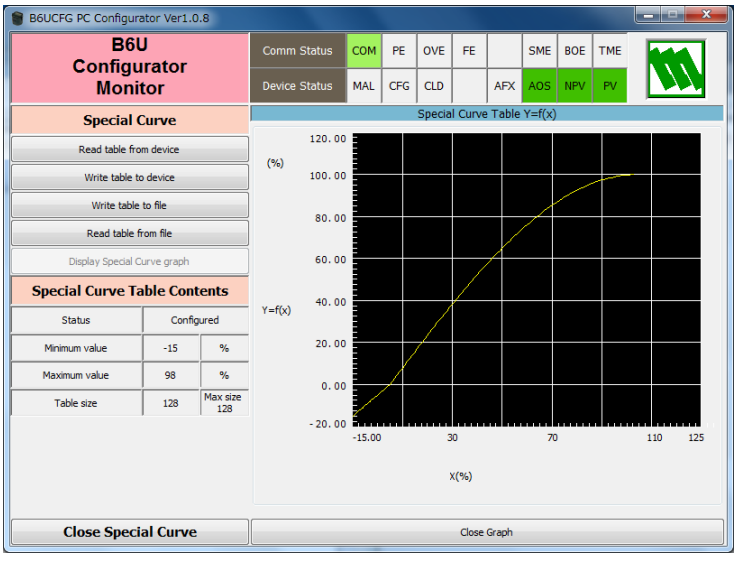
Click [Special Curve] button to open the Special Curve view as shown in Figure 14.

▼ Figure 14. Special Curve



Special Curve	Read table from device	Uploads the special curve table registered in the B6U. If there is no file registered, Status under Special Curve Table Contents shows 'Non configured'.
	Write table to device	Downloads the currently displayed special curve table to the B6U. When the downloading is successfully complete, Status under Special Curve Table Contents shows 'Configured'.
	Write table to file	Saves the currently displayed special curve table to a file. Upload data from the B6U with [Read table from device] button before saving.
	Read table from file	Uploads a file stored in the PC. When uploaded, the file contents summary is indicated under Special Curve Table Contents.
	Display Special Curve graph	Displays a curve table graph (Figure 15). The characteristics of the transfer function can be confirmed.
Special Curve Table Contents	Summarizes the special curve table contents.	
	Status	Indicates the special curve table registration of the B6U.
	Minimum value	Indicates minimum value in %.
	Maximum value	Indicates maximum value in %.
	Table size	Indicates number of points defined.
	Close Special Curve	Quits the view.

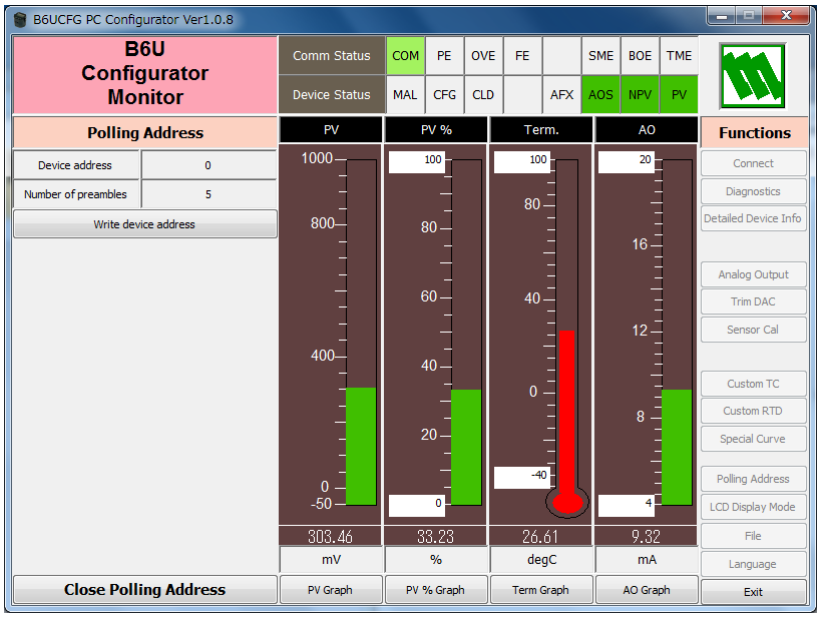
▼ Figure 15. Special Curve Graph



2.12. POLLING ADDRESS

Click [Polling Address] button to open the Polling Address view as shown in Figure 16.

▼ Figure 16. Polling Address

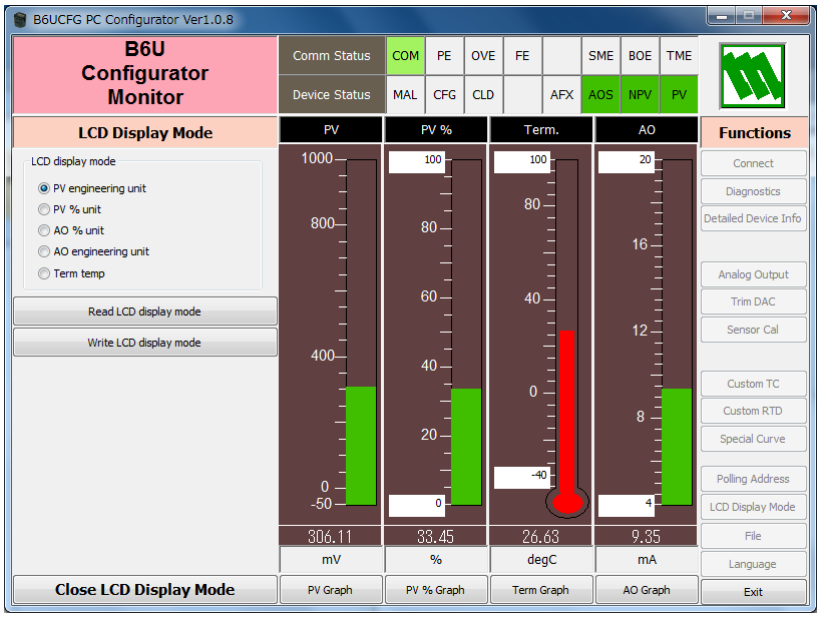


Device address	Shows the polling address of currently connected device.
Number of preamble	Shows number of preamble at HART communication. Not rewritable.
Write device address	Write to the device a new polling address. Selectable addresses are from 0 to 15. The output current is fixed to 4mA, and [Analog Output] or [Trim DAC] functions become unavailable.
Close Polling Address	Quits the Polling Address view.

2.13. LCD DISPLAY MODE

Click [LCD Display Mode] button to open the LCD Display Mode view as shown in Figure 17.

▼ Figure 17. LCD Display Mode



LCD Display Mode	Shows the current LCD display mode with 5 radio buttons below. • PV engineering unit • PV % unit • AO % unit • AO engineering unit • Term temp
Read LCD Display Mode	Reads the current mode from the device and shows the information on the screen.
Write LCD Display Mode	Write the current mode selected in the LCD Display Mode list on the screen to the device.
Close LCD Display Mode	Quits the LCD Display Mode view.

2.14. FILE MANAGEMENT

The B6U's configurations can be saved in a file, be read out and be downloaded to the device.

Click [File] button to open the File Management view as shown in Figure 18.

While this view is active, the device connection is severed, therefore the device can be removed and mounted freely except during Upload or Download operations.

The view is separated in two areas: 'File Configuration' and 'Device Configuration.' 'File Configuration' shows data transfer (Read or Write) between the PC Configurator and the PC, while 'Device Configuration' shows data transfer (Upload or Download) between the configurator and the device.

The B6UCFG's configuration views consist of two pages. Click [Page] button to switch between pages.

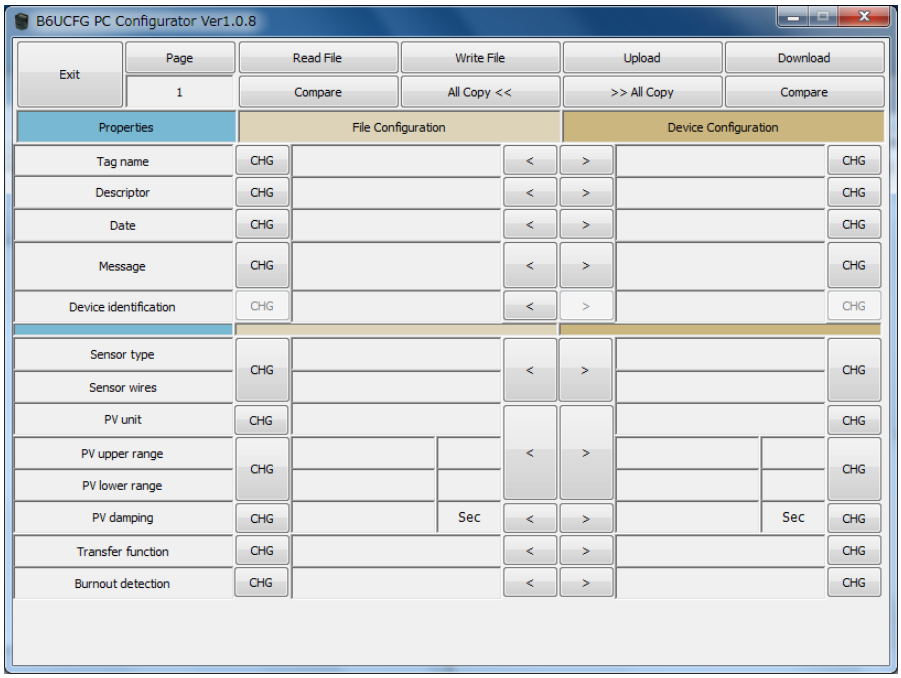
The second page appears as follows (Figure 19).

Click [Exit] to complete the file management operations. The device will remain disconnected and must be 'Connected' to start monitoring.

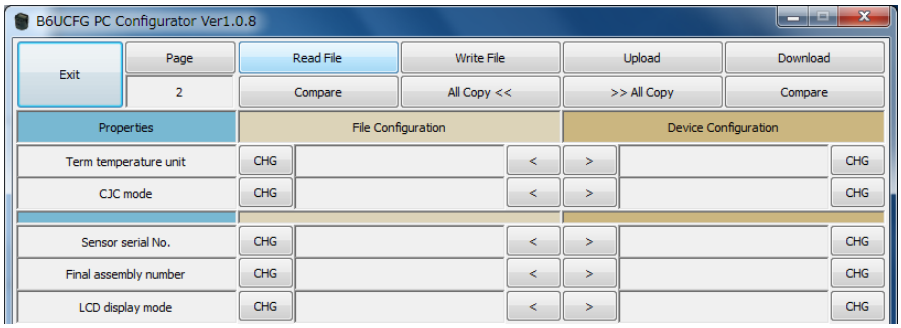
NOTE

- The validity of the selected range values is not verified in this view. Please make sure to set them according to the described specifications.
- Custom TC, Custom RTD or Linearization Table data are not handled in this view but in each specific function view.
- A comment can be entered in 'Descriptor' in File Configuration area, which is saved in a configuration file. It cannot be written to the device.
- It is unavailable to write to the device the calibration data [DAC Trim], [Sensor Cal] read out from a configuration file.

▼ Figure 18. File Management, 1st Page



▼ Figure 19. File Management, 2nd Page



2.14.1. MODIFYING PARAMETERS

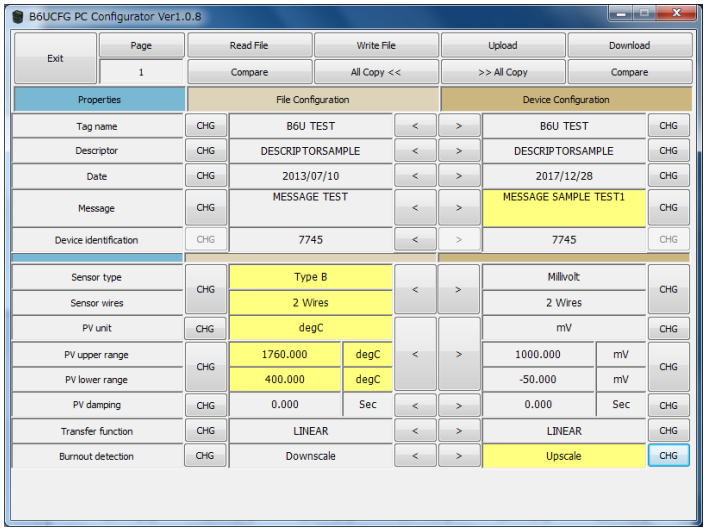
Click [CHG] button next to each field to modify the parameter. The field in which the parameter has been changed will be highlighted in light yellow background color. [CHG] buttons placed across multiple fields indicate that these parameters can be modified in single sequence.

When one parameter has been changed, related fields are also affected. For example, when 'Sensor type' is modified, 'PV unit', 'PV upper range' and 'PV lower range' may be automatically changed.

Parameters can be copied between 'File Configuration' and 'Device Configuration' using [>] and [<] buttons. Copied fields will be highlighted in light yellow background color (Figure 20).

Using [All Copy <<] or [>> All Copy] buttons enables transferring all parameters between the areas. Copied fields will be highlighted in light yellow background color.

▼ Figure 20. Parameters Modified



2.14.2. TRANSFERRING DATA TO/FROM DEVICE

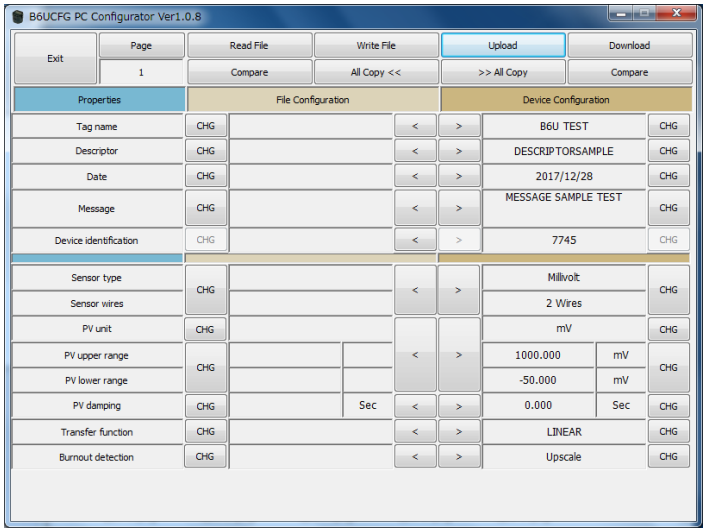
Click [Upload] button to connect to the B6U device, to read out its configuration data and to show it in 'Device Configuration' area on the screen (Figure 21). Once the uploading is complete, all background colors are back to the initial state. 'Device identification' in 'Device Configuration' area indicates the ID number of the device, which cannot be modified, or copied from 'File Configuration' area.

Click [Download] button to connect and write the configuration data in 'Device Configuration' area to the B6U device.

If an error occurs and downloading is stopped during the process, erred data field is highlighted in med pale red background color.

When the downloading is successfully complete, the configuration data is automatically uploaded and the background color returns to the initial state.

▼ Figure 21. Data Uploaded

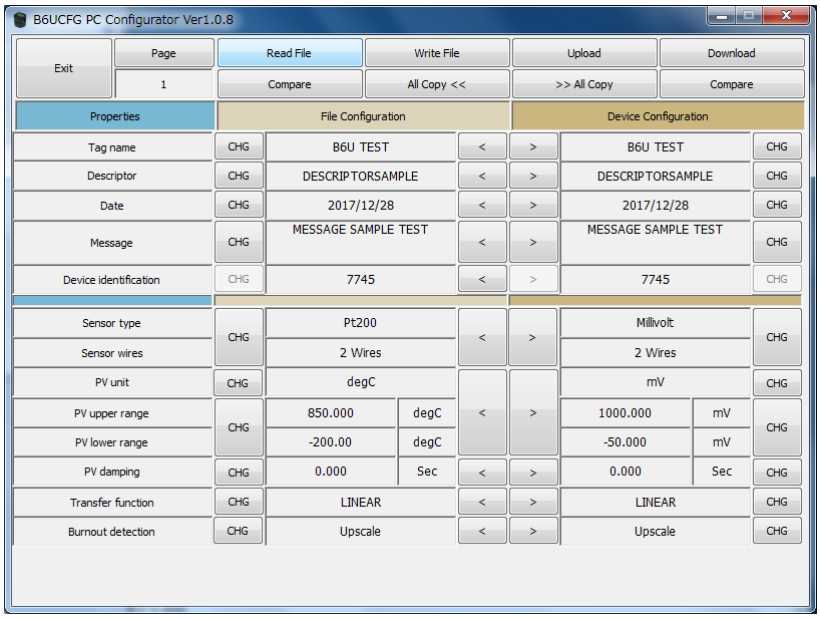


2.14.3. READING/WRITING FILES

Click [Read File] button to read out the configuration data from a specified file and to show it in 'File Configuration' area on the screen (Figure 22). All background colors are back to the initial state.

Click [Write File] button to write the configuration data in 'File Configuration' area to a specified file.

▼ Figure 22. File Read Out

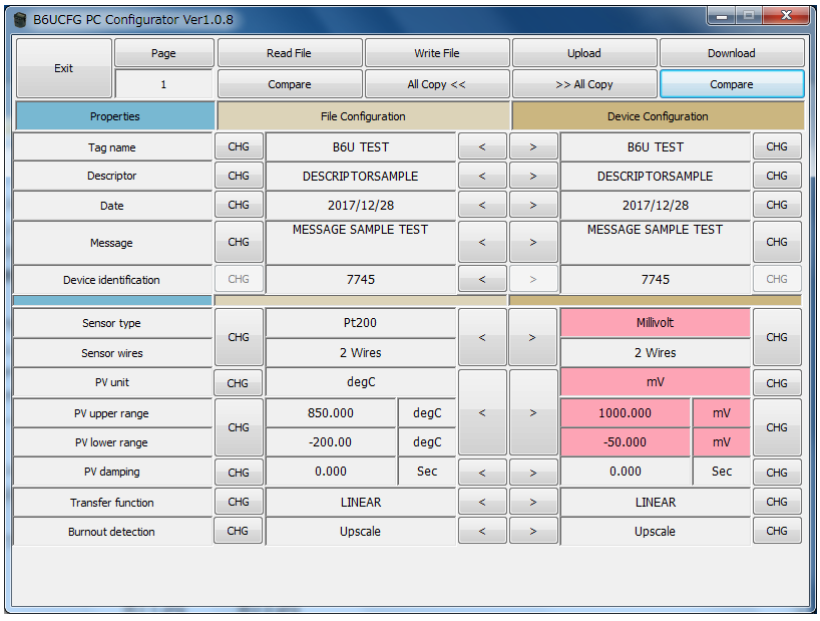


2.14.4. COMPARING FILE AND DEVICE

You can compare the configuration data in 'File Configuration' area and 'Device Configuration' area.

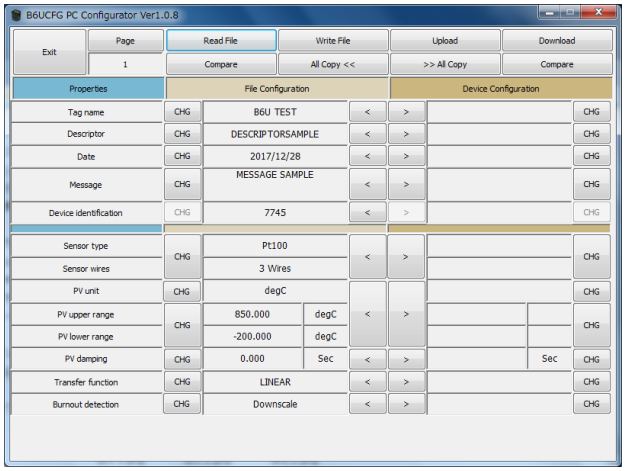
Click [Compare] button in 'Device Configuration' area to compare its data to those in 'File Configuration' area. Deviations will be highlighted in med pale red background color (Figure 23).
Click [Compare] button in 'File Configuration' area to compare its data to those in 'Device Configuration' area. Deviations will be highlighted in med pale red background color.

▼ Figure 23. Parameters Compared

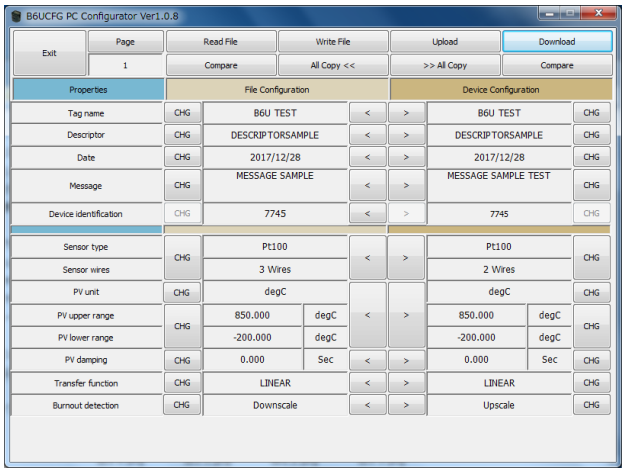


2.14.5. FILE MANAGEMENT EXAMPLES

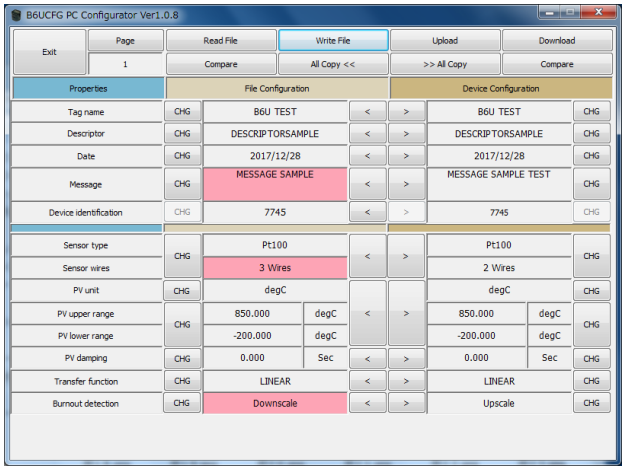
Operation procedure to modify the device configurations using file configuration data is as follows.



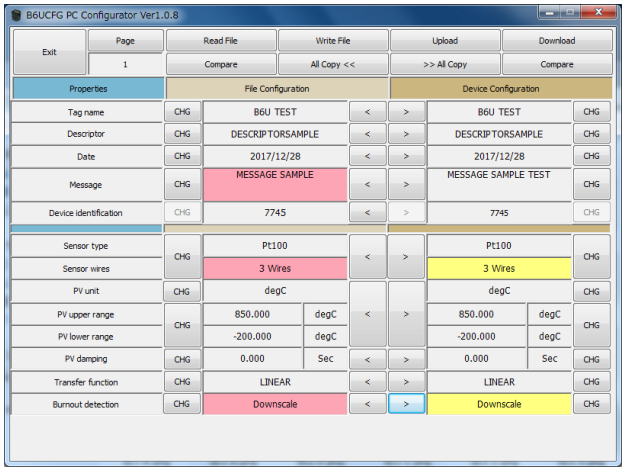
1) Click [Read File] button to read out the configuration data from a specified file.



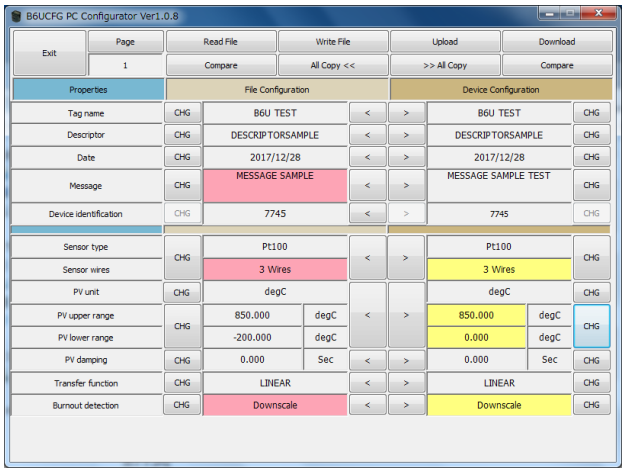
2) Click [Upload] button to read out the configuration data of the connected device.



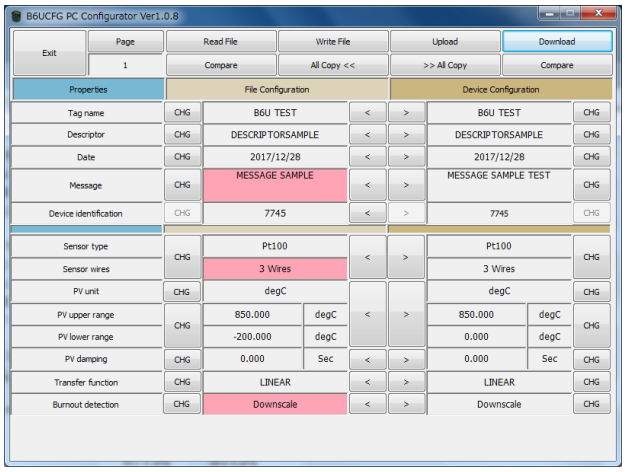
3) Click [Compare] button in ‘File Configuration’ area to compare its data to those in ‘Device Configuration’ area. Deviations will be highlighted in med pale red background color.



4) Click [>] button of a field to copy the data in ‘File Configuration’ area to ‘Device Configuration’ area. The copied field will be highlighted in light yellow background color.



5) Click [CHG] button of a field to modify the data. The field in which the parameter has been changed will be highlighted in light yellow background color.

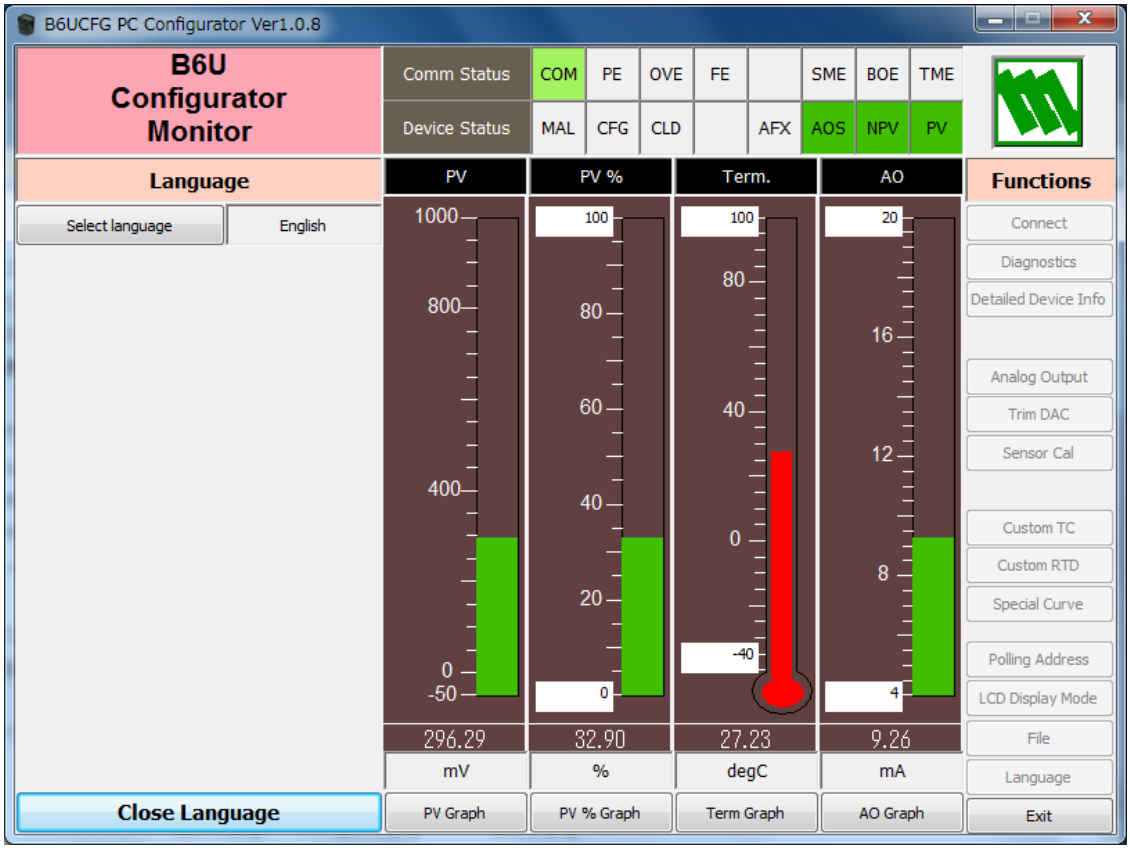


6) Click [Download] button to write the configuration data in ‘Device Configuration’ area to the connected device. When the downloading is successfully complete, the configuration data is automatically uploaded and the background color returns to the initial state.

2.15. LANGUAGE

Click [Language] button to open the Language view as shown in Figure 24. The user can select the display language of the B6U.

▼ Figure 24. Language



Click [Select language], and select the available language. The selected language is shown on the screen immediately.

English is available in each language version of Windows, while Windows in your PC must support Japanese in order to display it.

[Close Language] quits the view.