For 2-wire Universal Temperature Transmitter B6U

PC CONFIGURATOR Model: B6UCFG

Users Manual

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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

B6UCFG I	PC Configurat	or Ver1.0.8										X	
	B6U		Comm Status	сом	PE	OVE	FE		SME	BOE	тме		
,	Configur Monite		Device Status	MAL	CFG	CLD		AFX	AOS	AOS NPV			
De	evice Infor	PV	PV %			Te	rm.	AO			Functions		
Senso	r type	Millivolt	1000		100		10		20		Connect		
Seria	l No.	0	_		_		80		-		Diagnostics		
Senso	r wires	2 Wires	- 800-	8	30 —				-		Detailed Device Info		
PV u	unit	mV	-		_			_		16			
	Upper	1000.000	_ 600—	- 60- -			40	_				Analog Output	
PV range	Lower	0.000	-				10	-				Sensor Cal	
PV upp	er limit	1100.000						_		-			
PV low	er limit	-100.000	400— —	2	40 — —		0				Custom TC		
PV minim	um span	10.00	_		_		v	-		- - 8 –		Custom RTD	
PV da	mping	0.000	200—	2	20 —			_				Special Curve	
Burnout	detection	Upscale	_				-4	0				Polling Address	
CJC 1	node	CJC OFF	0						4			LCD Display Mode	
Transfer	function	LINEAR	0.00	().00		-40.00			0.00		File	
Term te	mp unit	degC	mV		%		de	gC		mA		Language	
			PV Graph	PV 9	% Graph		Term	Graph		AO Gra	ph	Exit	

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

B6UCFG PC Configurator Ver1.0.8		-								
B6U Configurator	Comm Status	сом	PE	OVE	FE		SME	BOE	тме	
Monitor	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
Device Connection	PV	F	PV %		Term.			AO		Functions
COM port	1000		100		10	0		20		Connect
M-System COP-HU USB modem (COM1)	_		_		- - 80 -			-		Diagnostics
	_ 800_	8	- 30 —					-		Detailed Device Info
Device address 0	_	 			_			- 16-		
						_				Analog Output
الــــــــــــــــــــــــــــــــــــ	600 <u> </u>				40 _					Trim DAC
Search device	_					_		12 -		Sensor Cal
	400—					_		- - 12- -		
					0	_				Custom TC
Connect device	-							8 -		Custom RTD
	200— —	4	20 — —			-		-		Special Curve
			_		-4	0		8 - - - - - - - - - - - - - - - - - - -		Polling Address
Disconnect device	0 —		0		- ()			4	i	LCD Display Mode
	0.00	().00		-40.00			0.00		File
	mV		%		de	gC		mA		Language
Close Device Connection	PV Graph	PV	% Graph		Term	Graph		AO Gra	ph	Exit

[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

B6UCFG	B6UCFG PC Configurator Ver1.0.8												
	B6U Configu		Comm Status	COM PE OVE		OVE	FE	FE		BOE	тме		
	Monit		Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV		
D	evice Info	PV	F	°V %		Ter	rm.	AO			Functions		
Senso	r type	Millivolt	1000		100		10			20		Connect	
Seria	al No.	1	-		_		80		- - -		Diagnostics		
Senso	r wires	2 Wires	800—	8	- 30 —			_	 16			Detailed Device Info	
PV	unit	mV	-		_			_		- 16 -			
	Upper	1000.000	_	6	- 60		40	_		- - -		Analog Output	
PV range	Lower	-50.000	-		_			_	 12			Sensor Cal	
PV upp	oer limit	1000.000	_ 400_	0- 40-				-					
PV low	er limit	-50.000	1	-	+0 — -		0	Ξ		-	1	Custom TC	
PV minim	num span	4.00	-	 20						8 – 8 –		Custom RTD	
PV da	mping	0.000	-									Special Curve	
Burnout	detection	Upscale	_ 0 _				-4	0		-		Polling Address	
CJC	mode	CJC ON	-50 —		0			٢		4		LCD Display Mode	

2.2.1. COMMUNICATION STATUS

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

Comm Stat	us	сом	PE	OVE	FE		SME	BOE	тме			
[COM] lamp	[COM] lamp Green light blinks with the normal communications condition.											
[PE] lamp	Rec	Red light turns on when the device detects Parity Error.										
[OVE] lamp	Rec	d light tur	ns on w	hen the o	device d	etects Ov	/errun E	rror.				
[FE] lamp	Rec	d light tur	ns on w	hen the o	device d	etects Fra	aming E	rror.				
[SME] lamp	Rec	d light tur	ns on w	hen the o	device d	etects Su	ım Chec	k Error.				
[BOE] lamp	Rec	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.											
			are off	togothor	whon no	ormal con	dition					

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

2.2.2. DEVICE STATUS

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

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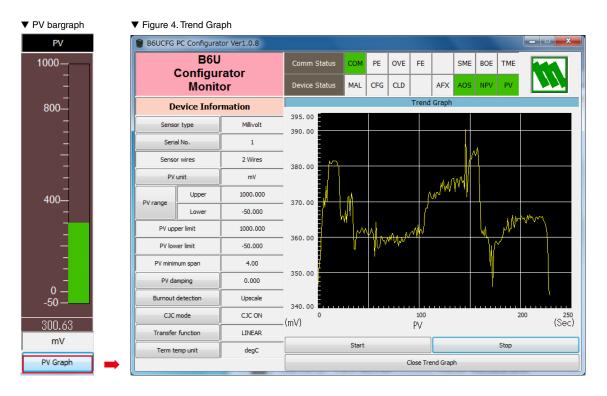
Device Stat	us	MAL	CFG	CLD	AFX	AOS	NPV	PV				
[MAL] lamp	 Red light turns on when malfunction(s) occur(s) in the device. (Off when normal condition) The device enters a malfunction state when a burnout is detected with input signal. 											
[CFG] lamp		Red light turns on when the device configuration is modified. This lamp can be turned off by [Reset configuration change flag] in the Diagnostics view.										
[CLD] lamp	Alwa	Always OFF										
[AFX] lamp		0			nalog output e nal output moe			•	de. according to the input.			
[AOS] lamp		•			analog outpu utput is satura	0			I.			
NPV	Gre	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.



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	Туре В	Type PR							
	Pt500	Type E	Custom TC							
	Pt1000	Type J	POT 4000 ohms							
	Pt50 (JIS81)	Туре К	POT 2500 ohms							
	JPt100 (JIS89)	Type N	POT 1200 ohms							
	Ni100	Type R	POT 600 ohms							
	Ni120	Type S	POT 300 ohms							
	Cu10@25	Туре Т	POT 150 ohms							
	new sensor type is ch	and number of extens osen, the default setti and PV upper/lower l	ngs are automatically							
Serial No.	Specifies a serial num	ber for the sensor.								
Sensor wires	Indicates current num	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.	input values.							
PV upper/lower limit	Indicates measurable	maximum and minimu	um values.							
PV upper/lower limit PV minimum span		maximum and minimu an of the input range.								
	Indicates minimum sp	han of the input range. Int (0.5 to 30 seconds)								
PV minimum span	Indicates minimum sp Specifies time consta	han of the input range. Int (0.5 to 30 seconds)								
PV minimum span PV damping Burnout detection	Indicates minimum sp Specifies time consta Set to 0 to cancel the Upscale	an of the input range. Int (0.5 to 30 seconds) function. Downscale utput should go upsca	for damping function.							
PV minimum span PV damping Burnout detection	Indicates minimum sp Specifies time consta Set to 0 to cancel the Upscale Specifies either the ou	an of the input range. Int (0.5 to 30 seconds) function. Downscale utput should go upsca detected.	for damping function.							
PV minimum span PV damping Burnout detection (3 selections) CJC mode	Indicates minimum sp Specifies time consta Set to 0 to cancel the Upscale Specifies either the or case that a burnout is CJC OFF Enables/disables the mocouple input. Whe	an of the input range. Int (0.5 to 30 seconds) function. Downscale Utput should go upsca detected. Cold junction compens n a thermocouple is si e is set to ON at defau	for damping function. None le or downscale in CJC ON sation (CJC) for ther- pecified as the input							
PV minimum span PV damping Burnout detection (3 selections) CJC mode	Indicates minimum sp Specifies time consta Set to 0 to cancel the Upscale Specifies either the or case that a burnout is CJC OFF Enables/disables the mocouple input. Whe sensor, the CJC mode	an of the input range. Int (0.5 to 30 seconds) function. Downscale Utput should go upsca detected. Cold junction compens n a thermocouple is si e is set to ON at defau	for damping function. None le or downscale in CJC ON sation (CJC) for ther- pecified as the input							
PV minimum span PV damping Burnout detection (3 selections) CJC mode (2 selections) Transfer function	Indicates minimum sp Specifies time consta Set to 0 to cancel the Upscale Specifies either the or case that a burnout is CJC OFF Enables/disables the mocouple input. Whe sensor, the CJC mode this function is disable LINEAR Enables/disables the put should be linear to curve data. The B6U function (SPECIAL_C	an of the input range. Int (0.5 to 30 seconds) function. Downscale Utput should go upsca detected. Cold junction compens n a thermocouple is si e is set to ON at defau ed. SQRT Transfer Function, spe to the input signal or lin supports the user-spe	for damping function. None le or downscale in CJC ON sation (CJC) for ther- pecified as the input It. With other sensors SPECIAL_CURVE cifying either the out- tearized to a custom scific linearization table need to be defined in							
PV minimum span PV damping Burnout detection (3 selections) CJC mode (2 selections) Transfer function	Indicates minimum sp Specifies time consta Set to 0 to cancel the Upscale Specifies either the or case that a burnout is CJC OFF Enables/disables the mocouple input. Whe sensor, the CJC mode this function is disable LINEAR Enables/disables the put should be linear to curve data. The B6U function (SPECIAL_C	an of the input range. Int (0.5 to 30 seconds) function. Downscale Utput should go upsca detected. Cold junction compens n a thermocouple is si e is set to ON at defau ed. SQRT Transfer Function, spe to the input signal or lin supports the user-spe URVE), data of which	for damping function. None None le or downscale in CJC ON sation (CJC) for ther- pecified as the input It. With other sensors SPECIAL_CURVE cifying either the out- tearized to a custom tecific linearization table need to be defined in tis.							

Device Information							
Senso	or type	Type K					
Seria	al No.	1					
Senso	r wires	2 Wires					
PV	unit	degC					
DV	Upper	1370.000					
PV range	Lower	-150.000					
PV upp	per limit	1370.000					
PV low	ver limit	-270.000					
PV minin	num span	20.00					
PV da	mping	5.000					
Burnout	detection	None					
CJC	mode	CJC ON					
Transfer	function	LINEAR					
Term te	emp unit	degC					

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

B6UCFG PC C	onfigurat	tor Ver1.0.8										_ _ X
Co	B6U nfigui		Comm Status	СОМ	PE	OVE	FE		SME	BOE	тме	
	Monit		Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
Detailed D	Detailed Device Information			PV %			Term.			AO		Functions
Manufacture	er	M-System CO	1000		100		10			20		Connect
Device type	2	B6U	-		_		80	_		-		Diagnostics
Device identific	ation	7745	800—	{				_	 16			Detailed Device Info
Number of prea	mbles	5	-		_		-			16 – -		
Universal cmd re	vision	5	_				- - 40-			-		Analog Output
Transmitter specific	revision	1	-				-		- - 12-		Sensor Cal	
Hardware revi	sion	0	_ 400—					-		- 12		
Software revis	sion	6		, í	40			Ξ		-		Custom TC
Final assembly n	umber	1	_	 20						- - 8		Custom RTD
Tag name		B6U TEST	-									Special Curve
Descriptor	Descriptor DESCRIPTORSAMPLE		0 _	-			-40 -			- 8 - - - - - - - - - - - - - - - - - -		Polling Address
Date 2017/12/28			-50 —		0					4		LCD Display Mode
	Message		282.25	31.45			25.		9.03		File	
MESS	AGE SAMP	LE TEST	mV	%			degC			mA		Language
Close Detaile	d Devi	ce Information	PV Graph	PV	% Graph		Term (Graph		AO Gra	ph	Exit

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

B6UCFG PC Configurator Ver1.0.8										- • ×
B6U Configurator	Comm Status	сом	PE	OVE	FE		SME	BOE	TME	
Monitor	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
Diagnostics	PV	F	°V %		Ter	rm.		AO		Functions
Execute diagnostics	1000		100		10	0		20		Connect
Read additional status			-		80	_		-		Diagnostics
Reset configuration change flag	800—	8				-		-		Detailed Device Info
Additional Status	-		_			_				
EEPROM SUM error (Basic)		¢	- 60		40	_		_		Analog Output
EEPROM SUM error (Custom TC)	-	,			40	-				Trim DAC
EEPROM SUM error (Custom RTD)	1		_					12_		Sensor Cal
EEPROM SUM error (Special Curve)	400—	4	40			-		-		
EEPROM SUM error (Summary)	1		- ⁻		0	-		-		Custom TC
EEPROM hardware error	-		-		U	-		- - 8		Custom RTD
	_	2	0			-		- 8 - - - - - - - - - - - - - - - - - -		Special Curve
	0				-4	•]		-		Polling Address
	-50 —		0					4		LCD Display Mode
	277.68	3	1.42		26.	.02		9.03		File
	mV		%		de	gC		mA		Language
Close Diagnostics	PV Graph	PV 9	% Graph		Term (Graph		AO Gra	ph	Exit

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,
	EEPROM SUM error (Custom TC)	while read in error.
	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

B6UCFG PC Configurator Ver1.0.8										_ _ X
B6U Configurator	Comm Status	сом	PE	OVE	FE		SME	BOE	TME	
Monitor	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
Analog Output	PV	F	v %		Te	rm.		AO		Functions
Set AO for current PV output	1000		100		10			20		Connect
Set AO for specified value			_		80	_		-		Diagnostics
Exit fixed AO mode	800—	{				-		-		Detailed Device Info
	- - - 400- - - - - - - - - - - - - - - 50 -	4			40 0 -4			16 12 8 8		Analog Output Trim DAC Sensor Cal Custom TC Custom RTD Special Curve Polling Address
	286.26	3	2.02		26.			9.12		LCD Display Mode
	mV		%			gC		mA		Language
Close Analog Output	PV Graph	PV	% Graph	j	Term	Graph		AO Gra	ph	Exit

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.

B6UCFG PC Configurator Ver1.0.8										×
B6U Configurator	Comm Status	СОМ	PE	OVE	FE		SME	BOE	тме	
Monitor	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
Trim DAC	PV	F	V %		Ter	m.		AO		Functions
Enter 4mA trim mode	1000		100		10			20		Connect
Enter 20mA trim mode			_		80	_		- -		Diagnostics
Trim by actual measured value	800—	8	30 —			-		-		Detailed Device Info
Clear trim DAC data			_			_		16 - - - - 12 -		Analog Output
	-	(- 60		40	_				Trim DAC
	-		_			-		- 12		Sensor Cal
	_ 400—		- 10			-				
	1		~		0	_		-		Custom TC
	-		_			-		8 -		Custom RTD
	-	2	20 — —			-		-		Special Curve
	0 — -50 —		 		-4	٥		8 -		Polling Address
	-50 —		0					4		LCD Display Mode
	287.17	3	1.55		26.	00		9.05	j	File
	mV		%		de	gC		mA		Language
Close Trim DAC	PV Graph	PV	% Graph		Term	Graph		AO Gra	ph	Exit

▼ 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.

B6UCFG	PC Configurator Ver1.0	.8										X
	B6U		Comm Status	сом	PE	OVE	FE		SME	BOE	тме	
(Configurator Monitor		Device Status	MAL	CFG	CLD		AFX	AOS	NPV PV		
S	ensor Calibration		PV		PV %		Ter	rm.		AO		Functions
	Read calibration data		1000-		100		10			20		Connect
Cl	ear sensor calibration data				_		80	_				Diagnostics
	Zero calibration		800—	{				_		- - 16-		Detailed Device Info
	Span calibration				_			_		16 -		
PV	317.026886	mV	_	6	- 60		40	-		-		Analog Output
Zero point	285.9490	mV		Ì	-		70	-		- - 12-		Trim DAC Sensor Cal
Zero value	300.0000	mV	_ 400—		_			_		- 12		Sensor Cai
Gain	1.0000		_	<u> </u>	40 — —		0	Ξ				Custom TC
		1	-				U	-		- - 8 -		Custom RTD
			-		20 —			_		-		Special Curve
			0 -		-		-4	•		8		Polling Address
			-50 —		0 -			Ć		4		LCD Display Mode
			317.03 mV	3	4.41		26.		9.50			File
					%		de	gC		mA		Language
Clos	Close Sensor Calibration			PV	% Graph		Term (Graph		AO Gra	ph	Exit

▼ 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 $^{\circ}$ 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 )</pre>
/*
    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)
}
```

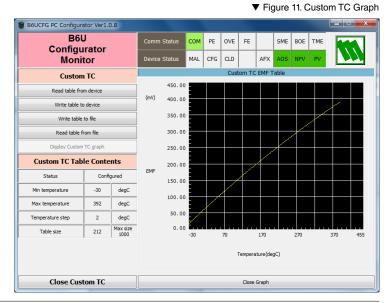
2.9.2. CUSTOM TC SETTING

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

▼ Figure 10. Custom TC

B6UCFG PC Configura	ator Ver1.0).8										×
	B6U			сом	PE	OVE	FE		SME	BOE	тме	
Configu Monit			Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
Custom	TC		PV	PV %			Term.			AO		Functions
Read table from	m device		1000	100			100			20		Connect
Write table to	device		-		-		80	_		-		Diagnostics
Write table	to file		800—	8				-			1	Detailed Device Info
Read table fr	rom file		-		_			_		16-		
Display Custom	TC graph		_	_ 60_			40					Analog Output
Custom TC Tab	le Conte	nts	-	Ì			40	_		12_		Trim DAC Sensor Cal
Status	Confi	gured	_ 400—	 40				-		- 21		
Min temperature	-30	degC	1	40 -			o _					Custom TC
Max temperature	392	degC	1	_			ŤΞ		8			Custom RTD
Temperature step	2	degC		4	20 — _			-				Special Curve
Table size	Table size 212 Max size		 0			1	-4	0				Polling Address
	1 1000				- 0-					4		LCD Display Mode
				3	4.00		26.	62		9.44	ļ	File
				%			degC			mA		Language
Close Cust	tom TC	PV Graph	PV	% Graph		Term	Graph		AO Gra	ph	Exit	

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 download- ing is successfully complete, Status under Custom TC Table Contents shows 'Config- ured'.
	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 indi- cated 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	Summarizes the custom TC	table contents.
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.



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 )</pre>
/*
    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 (\Omega)
:
200.000000
                  \leftarrowResistance value for maximum temperature Tmax (\Omega)
}
```

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

B6UCFG PC Configur	rator Ver1.	0.8										×
B6 Configu	-		Comm Status	сом	PE	OVE	FE		SME	BOE	TME	
Moni	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV			
Custon	RTD		PV	F	PV %		Te	rm.		AO		Functions
Read table fr	om device		1000-		100		10			20		Connect
Write table	to device		-		-		80	3		_		Diagnostics
Write table	e to file		800-	8	- 30 —			-		- 16		Detailed Device Info
Read table	from file		-		_			-		16		
Display Custom	RTD graph							_				Analog Output
Custom RTD Ta	ble Cont	ents	_	,	- 0.		40	-		-		Trim DAC
Status	Confi		_ 400—					-		12 8 8		Sensor Cal
Min temperature	-200	degC			••		0	Ξ				Custom TC
Max temperature	433	degC	_					-		8 -		Custom RTD
Temperature step	3	degC		2	20 —			-				Special Curve
Table size	212	Max size 500	o _		-		-4	0				Polling Address
		,	-50 —		0					4		LCD Display Mode
			308.51	3	4.14		26.	59		9.46		File
			mV		%		de	gC		mA		Language

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 down- loading 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 indi- cated 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	Summarizes the custom RT	D table contents.
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 )</pre>
/*
    -15 <= X(i), Y(i) <= 115 %
/*
    X(i) < X(i+1)
/*
    2 <= Size <= 128
{
0.000000, 0.000000
                        ← The minimum X and Y values
:
                            ← The maximum X and Y values
100.000000, 100.000000
}
```

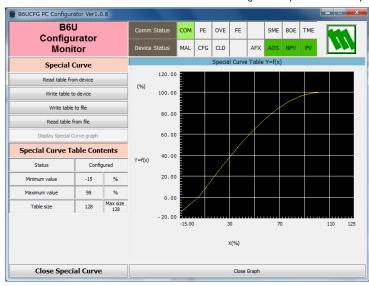
2.11.2. SPECIAL CURVE SETTING

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

▼ Figure 14. Special Curve

B6UCFG PC Configura	ator Ver1.0).8										
B6l	-		Comm Status	сом	PE	OVE	FE		SME	BOE	тме	
	Configurator Monitor				CFG	CLD		AFX	AOS	NPV	PV	
Special (Curve		PV	PV %			Te	rm.		AO		Functions
Read table fro	m device		1000		100		10	0		20		Connect
Write table to	o device		-		_		80	-		-		Diagnostics
Write table	to file		800—	{				-				Detailed Device Info
Read table f	rom file		_		_			-		16 -		
Display Special C	Curve graph		-	(_ 60		40	-		-		Analog Output
Special Curve Ta	able Cont	tents	-		-		10	-		16 12 8		Sensor Cal
Status	Config	gured	_ 400—	,	_ 40			-				
Minimum value	-15	%	-	- 40-			0	Ξ		-		Custom TC
Maximum value	98	%			-			2		8 -		Custom RTD
Table size	128	Max size 128	1		20 — _			-		-		Special Curve
	,		0 _		_		-4	0		-		Polling Address
					0					4		LCD Display Mode
					4.30		26.	.77		9.49)	File
					%		degC			mA		Language
Close Speci	al Curve		PV Graph	PV	% Graph		Term	Graph		AO Gra	ph	Exit

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 indi- cated under Special Curve Table Contents.
	Display Special Curve graph	Displays a curve table graph (Figure 15). The characteristics of the transfer func- tion can be confirmed.
Special Curve Table	Summarizes the special curve	table contents.
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

B6UCFG PC Config	urator Ver1.0.8										_ _ x
	6U jurator	Comm Status	сом	PE	OVE	FE		SME	BOE	тме	
	nitor	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
Polling	Address	PV	F	∾V %		Te	rm.		AO		Functions
Device address	0	1000		100		10			20		Connect
Number of preambles	5	-		_		80	-		_		Diagnostics
Write devi	ce address	800-	8				Ξ				Detailed Device Info
		400- - - - - - - - - - - - - - - - - - -	4	20		40 0 -4			16 12 8 8		Analog Output Trim DAC Sensor Cal Custom TC Custom RTD Special Curve Polling Address LCD Display Mode
		303.46	3	3.23		26.			9.32		File
		mV		%		de	gC		mA		Language
Close Polli	ng Address	PV Graph	PV	% Graph		Term	Graph		AO Gra	ph	Exit

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 unavail- able.
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

B6UCFG PC Configurator Ver1.0.8										
B6U Configurator	Comm Status	сом	PE	OVE	FE		SME	BOE	TME	
Monitor	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV	
LCD Display Mode	PV	F	∾ W		Te	m.		AO		Functions
LCD display mode	1000—		100 -		10			20	-	Connect
PV engineering unit]]					-				Diagnostics
O PV % unit	_ 800_	_			80	-	Τ_	_		Detailed Device Info
O AO % unit	_	- {	30 —			-		16 16 12		
AO engineering unit	-	_	_				Τ_			
Term temp	-		-			-		_		Analog Output
Read LCD display mode		6	60 —		40	-		-		Trim DAC
	-					-		12-		Sensor Cal
Write LCD display mode	400-		-							
	-	4	10 —			-				
	_					_				Custom TC
			-			-		8 –		Custom RTD
	_	2	20 —			-				Special Curve
	-		- 1					_		
	0 _	_	-		-4	٩Ţ		8 - - - - - - - - - - - - - - - - - - -		Polling Address
	-50 —		0					4		LCD Display Mode
	306.11	3	3.45		26.	63		9.35		File
	mV		%		de	gC		mA		Language
Close LCD Display Mode	PV Graph	PV 9	% Graph		Term	Graph		AO Grap	ph	Exit

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

B6UCFG PC C	onfigurator Ver:	1.0.8									X
Exit	Page		Read File	Writ	e File			Upload		Download	4
EXIL	1		Compare	All Co	ру <<]:	>> All Copy		Compare	
Prop	erties		File Conf	iguration				Device Cor	figuration	n	
Tag r	name	CHG				<	>				CHG
Descr	iptor	CHG				<	>				CHG
Da	te	CHG				<	>				CHG
Mess	age	CHG				<	>				CHG
Device ide	ntification	CHG				<	>				CHG
								-			
Sensor	r type	- CHG				<	>				CHG
Sensor	wires					Ì					Chie
PV	unit	CHG									CHG
PV uppe	r range	СНБ				<	>				СНБ
PV lowe	r range										ChG
PV da	mping	CHG		Sec	:	<	>			Sec	CHG
Transfer	function	CHG				<	>				CHG
Burnout	letection	CHG				<	>				CHG
								,			

▼ Figure 19. File Management, 2nd Page

B6UCFG PC C	Configurator Ver1.	0.8							×
Exit	Page		Read File	Write File			Upload	Download	
Exit	2		Compare	All Copy <-	<	>	> All Copy	Compare	
Prop	erties		File Conf	iguration			Device Cor	nfiguration	
Term temp	erature unit	CHG			<	>			CHG
CJC	mode	CHG			<	>			CHG
			-				-		_
Sensor	serial No.	CHG			<	>			CHG
Final assen	nbly number	CHG			<	>			CHG
LCD disp	olay mode	CHG			<	>			CHG

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.

Exit	Page		Read File	Write File	•		Upload	Downloa	d
LAR	1		Compare	All Copy <	<)[;	>> All Copy	Compar	e
Pro	operties		File Configu	ration			Device Configur	ation	
Та	g name	CHG	B6U TES	ат	<	>	B6U TEST		0
Des	scriptor	CHG	DESCRIPTORS	SAMPLE	<	>	DESCRIPTORSA	MPLE	0
(Date	CHG	2013/07/	/10	<	>	2017/12/28	3	0
Me	ssage	CHG	MESSAGE 1	TEST	<	>	MESSAGE SAMPLE	TEST1	0
Device is	dentification	CHG	7745		<	>	7745		
Sens	sor type		Type E	}			Milivolt		
Sens	or wires	- CHG	2 Wire	5	<	>	2 Wires		
P	V unit	CHG	degC				mV		0
PV up	per range	сна	1760.000	degC	<	>	1000.000	mV	1
PV lov	ver range	- CHG	400.000	degC			-50.000	mV	- 0
PV o	lamping	CHG	0.000	Sec	<	>	0.000	Sec	0
Transf	er function	CHG	LINEAF	2	<		LINEAR		
Burnou	t detection	CHG	Downsca	ale	<	>	Upscale		

▼ 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	Up	load	ed
---	--------	-----	------	----	------	----

Exit	Page		Read File	Write Fil	e		Upload	Downloa	d
EXIL	1		Compare	All Copy «	<] :	>> All Copy	Compar	e
Pro	perties		File Confi	iguration			Device Con	figuration	
Tag	name	CHG			<	>	B6U TI	EST	C
Des	criptor	CHG			<	>	DESCRIPTO	RSAMPLE	C
D	ate	CHG			<	>	2017/1	2/28	CH
Mes	ssage	CHG			<	>	MESSAGE SAM	IPLE TEST	G
Device id	entification	CHG			<	>	774	5	C
			-						
Sensi	or type	- CHG			~	>	Millive	olt	- 0
Senso	or wires	Chid					2 Wir	es	
PV	unit	CHG					mV		C
PV upp	er range	CHG			<	>	1000.000	mV	
PV low	er range	- CHG					-50.000	mV	Cł
PV da	amping	CHG		Sec	<	>	0.000	Sec	C
Transfe	r function	CHG			<	>	LINE/	AR	C
Burnout	detection	CHG			<	>	Upsca	ale	C

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.

▼ Fig	gure 22.	File	Read	Out
-------	----------	------	------	-----

Exit	Page		Read File	Write File	e		Upload	Downloa	d
	1		Compare	All Copy <	<		>> All Copy	Compar	e
Pro	operties		File Config	guration			Device Confi	guration	
Tag	g name	CHG	B6U T	EST	<	>	B6U TE	ST	CH
Des	scriptor	CHG	DESCRIPTO	RSAMPLE	<	>	DESCRIPTOR	SAMPLE	CH
(Date	CHG	2017/1	2/28	<	>	2017/12	/28	СН
Me	ssage	СНБ	MESSAGE SAI	MPLE TEST	<	>	MESSAGE SAM	PLE TEST	СН
Device in	dentification	CHG	774	5	<	>	7745		СН
			r				1		·
Sens	sor type	СНБ	Pt20	00	<	>	Milivol	t	СН
Sens	or wires		2 Wir	res			2 Wire	s	
P	V unit	CHG	deg	с			mV		СН
PV up	per range	СНБ	850.000	degC	<	>	1000.000	mV	Сн
PV lov	ver range	Critic	-200.00	degC			-50.000	mV	
PV o	lamping	CHG	0.000	Sec	<	>	0.000	Sec	CH
Transf	er function	CHG	LINE	AR	<	>	LINEA	R	CH
	t detection	CHG	Upsca	ale	<	>	Upscal	e	CH

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.

Exit	Page		Read File	Write File	e		Upload	Download	d
	1		Compare	All Copy <	<	;	>> All Copy	Compare	•
Pro	perties		File Configu	ration			Device Confi	guration	
Tag	name	CHG	B6U TES	ят	<	>	B6U TE	ST	СН
Des	criptor	CHG	DESCRIPTORS	SAMPLE	<	>	DESCRIPTOR	SAMPLE	СН
C	ate	CHG	2017/12/	28	<	>	2017/12	/28	СН
Me	ssage	СНБ	MESSAGE SAME	PLE TEST	<	>	MESSAGE SAM	PLE TEST	СН
Device id	entification	CHG	7745		<	>	7745		СН
Sens	or type	CHG	Pt200		<	>	Millivot	t	СН
C			2 Wire	5			2 Wire	s	
Sensi	or wires								
	unit	СНС	degC				mV		СН
PV			degC 850.000	degC	<	>	mV 1000.000	mV	
PV PV upp	unit	CHG	-	degC degC	<	>		mV mV	
PV PV upp PV low	unit er range		850.000		<	> >	1000.000		СН
PV PV upp PV low PV d	unit er range er range	СНБ	850.000	degC Sec			1000.000	mV Sec	СН

▼ Figure 23. Parameters Compared

2.14.5. FILE MANAGEMENT EXAMPLES

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

Exit 1			Read File	Write File	2		Upload	Download		
			Compare	All Copy <	<		>> All Copy	Compare		
Properties			File Config	guration	Device Configuration					
Та	ig name	CHG	B6U T	EST	<	>			СНО	
De	scriptor	CHG	DESCRIPTO	RSAMPLE	<	>			СНО	
Date		CHG	2017/12/28		<	>			СНО	
Message		CHG	MESSAGE SAMPLE		<	>			СНО	
Device identification		CHG	774	<	>]		СНО		
Sensor type		- CHG	Pt10	<	· >			СНО		
Sen	sor wires		3 Wir	/ires						
P	PV unit	CHG	deg	с					СНО	
PV up	oper range	СНБ	850.000	degC	<	>			СНО	
PV lo	wer range	- und	-200.000	degC					Che	
PV	damping	CHG	0.000	Sec	<	>		Sec	СНО	
Transf	fer function	CHG	LINE	AR	<	>			СНО	
Burnou	ut detection	CHG	Downs	cale	<	>			CHG	

Exit Page			Read File		Write File		Upload	Download			
			Compare	All Copy <	<	>	> All Copy	Compare			
Properties			File Configur	ation			Device Config	uration			
Tagi	name	CHG	B6U TES	т	<		B6U TEST		СН		
Desc	riptor	CHG	DESCRIPTORS	AMPLE	<		DESCRIPTORSAMPLE		DESCRIP TORSAMPLE		СН
Da	Date		2017/12/28				2017/12/28				
Mes	sage	CHG	MESSAGE SA	MPLE	<	>	MESSAGE SAMPLE TEST		сн		
Device ide	ntification	CHG	7745		<	>	7745		СН		
								_			
Senso	r type	010	Pt100				Pt100		СН		
Senso	r wires	- CHS	3 Wires	Wires			2 Wires				
PV	unit	CHG	degC				degC	degC			
PV upper range			850.000	degC	<	>	850.000	degC			
PV lowe	r range	- CHG	-200.000	degC			-200.000	degC	- CHG		
PV da	mping	CHG	0.000	Sec	<		0.000 Se		СН		
Transfer	function	CHG	LINEAR		<		LINEAR		СН		
Burnout	detection.	CHG	Downsca	le	<		Upscale	Linscale			

Exit	Page		Read File	Write Fil	e		Upload	Downloa	d		
Exit 1			Compare	All Copy <	<) >	> All Copy	Compare			
Properties			File Configuration				Device Config	ration			
Tag	name	CHG	B6U TES	т	<	>	B6U TES	т	a		
Des	criptor	CHG	DESCRIPTORS	AMPLE	<	>	DESCRIPTORS	AMPLE	a		
0	Date	CHG	2017/12/	28	<	>	2017/12/28		2017/12/28		a
Me	ssage	СНС	MESSAGE SA	MPLE	<	>	MESSAGE SAMPLE TEST		MESSAGE SAMPLE TEST		a
Device identification		CHG	7745	<	>	7745		a			
					· · · · ·				_		
Sensor type		CHG	CHG Pt100		<	>	Pt100		a		
Sens	or wires		3 Wires				2 Wires				
P١	/ unit	CHG	degC				degC		C		
PV upp	per range	СНБ	850.000	degC	<	>	850.000	degC			
PV lower range		- CHG	-200.000	degC			-200.000	degC	- CH		
PV d	lamping	CHG	0.000 Sec		<	>	0.000 Sec		a		
Transfe	ransfer function CHG LINEAR				>	LINEAR		C			
Burnout detection CHG		CHG	Downscale		<	> Upscale			C		

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.

 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.

Exit Page			Read File	Write File	2		Upload	Download			
			Compare	All Copy <	<)[>	> All Copy				
Properties			File Config	guration		Device Configuration					
Taj	g name	CHG	B6U TE	EST	<	>	B6U TES	т	СНС		
De	scriptor	CHG	DESCRIPTO	DESCRIPTORSAMPLE < > DESCRIP		DESCRIPTORS	AMPLE	СНС			
1	Date	CHG	2017/1	2017/12/28		>	2017/12/28		2017/12/28		CHG
Me	essage	СНБ	MESSAGE S	ESSAGE SAMPLE < > MESSAGE		MESSAGE SAMPLE TEST		СНО			
Device in	dentification	CHG	774	5	<	>	> 7745		CHG		
Sensor type		CHG	CHG Pt100			,	Pt100		- сн		
Sens	sor wires		3 Wir	es			3 Wires				
P	V unit	CHG	degC				degC		CHG		
PV up	PV upper range PV lower range		850.000	degC	<	>	850.000	degC	- CHG		
PV lov			-200.000	degC			-200.000	degC			
PV o	damping	CHG	0.000	Sec	<	>	0.000	Sec	CHG		
Transf	er function	CHG	LINEAR		<		LINEAR		СНО		
Burnou	t detection	CHG Downscale		<		Downscale		СНО			

Exit 1			Read File	Write File	e		Upload	Download			
			Compare	All Copy <	<) >	> All Copy				
Properties			File Configu	ration		Device Configuration					
Tag	name	CHG	B6U TES	т	<		B6U TES	т	C		
Des	criptor	CHG	DESCRIPTORSAMPLE		<	>	DESCRIPTORS	AMPLE	C		
D	ate	CHG	2017/12/	28	<	>	2017/12/28		C		
Me	ssage	CHG	MESSAGE SA	AMPLE	<	>	MESSAGE SAMPLE TEST		MESSAGE SAMPLE TEST		G
Device id	entification	CHG	7745		<	>	7745		C		
Sensor type			Pt100				Pt100				
Sense	or wires	- CHG	3 Wire	5	<	>	3 Wires		- C		
PV	unit	CHG	degC				degC		G		
PV upp	er range	СНБ	850.000	degC	<	>	850.000	degC	-		
PV low	PV lower range		-200.000	degC			0.000	degC	— сн		
PV d	amping	CHG	0.000	Sec	<	>	0.000	Sec	o		
Transfer function CHG LINE		LINEAF	۲.	<	>	LINEAR		O-			
Burnout	detection	CHG	Downsc	ale	<	>	Downsca	le	C		

Exit 1			Read File Write File				Upload	Downloa	d				
			Compare	All Copy <	<)[;	> All Copy	Compare					
Properties			File Configu	ration			Device Config	uration					
Tag	name	CHG	B6U TES	ST	<	>	B6U TES	т	C				
Des	criptor	CHG	DESCRIPTORS	SAMPLE	<) >	DESCRIPTORS	AMPLE	0				
D	ate	CHG	2017/12/	/28	<	>	2017/12/28		2017/12/28		2017/12/28		a
Mes	isage	СНС	MESSAGE SA	AMPLE	<	>	MESSAGE SAMPLE TEST				G		
Device identification		CHG	7745				7745						
Sensor type			Pt100			Pt100							
	or wires	- CHG	3 Wires		<	>	3 Wires		— сн				
PV	unit	CHG	degC				degC		СН				
PV upp	er range		850.000 deg0		<	>	850.000	degC	- сна				
PV lower range		- CHG	-200.000	degC			0.000	degC					
PV da	amping	CHG	0.000	Sec	<		0.000	Sec	C				
Transfer function CHG LINEAR		EAR <			LINEAR		C						
Burnout detection		CHG	Downsca	ale	<	>	Downsca	Downscale					

 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.

B6UCFG PC Configurator Ver1.0.8										_ _ X		
B6U Configurator	Comm Status	сом	PE	OVE	FE		SME	BOE	тме			
Monitor	Device Status	MAL	CFG	CLD		AFX	AOS	NPV	PV			
Language	PV	F	v %		Term.			AO		Functions		
Select language English	1000		100		10			20		Connect		
	-		_		80	- - 80-		-		Diagnostics		
	_ 800—	8	- 30		-			-		Detailed Device Info		
			_							16 12 8 8		
	_		_					-		Analog Output		
		(60 —		40 _		40					Trim DAC
			_			=		12 -		Sensor Cal		
	400—	4	- 40 —			-						
	1		-		0	-				Custom TC		
	1					=		8 -		Custom RTD		
		2	20 —			-		-		Special Curve		
	_		-	10	-4	 D		-		Polling Address		
	- - - - - - - - 50 -		0					4		LCD Display Mode		
	296.29	3	2.90		27.	23 _		9.26		File		
	mV		%			gC		mA		Language		
Close Language	PV Graph	PV 9	% Graph		Term	Graph		AO Gra	ph	Exit		

▼ 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.