

# Instruction manual

## Sensing Cable Set TL09-PFX

This product consists of a dedicated voltage sensing cable and thermocouple for connecting the DUT (battery) to a Kikusui PFX2500 Series Charge/Discharge System Controller in which an OP01-PFX/ OP02-PFX Volt/Thermometer Unit is installed. This product supports four voltage and four temperature measurement points. Because the cables that are necessary for making this connection are already assembled, you can connect the system controller and the DUT easily and in a short amount of time. For details on connecting the cables, see the PFX2500 Series Charge/Discharge System Controller operation manual.

Before you use the product, thoroughly read the “ ⚠ Safety Symbols ” and “ ⚠ Safety Precautions ” that are written in the PFX2500 Series Charge / Discharge System Controller operation manual.

### How to Use

Using the cable when its extra length is wound or twisted may cause problems such as abnormal oscillation or overshoot. To avoid these problems, make the cable as short as possible.

It is recommended to install fuses between the PFX2500 series and the DUT (battery) to prevent short-circuiting of the voltage sensing cable and to secure the connection. Install the fuse or switch as close to the DUT (battery) terminal as possible.

Use the included cable ties to avoid problems such as cable or thermocouple twisting and incorrect wiring. We recommend that you use these ties to improve the safety of your system.

#### ⚠ WARNING

To avoid short-circuiting, observe the following precautions.

- First connect the cable to the PFX2500 series unit, and then connect the cable to the DUT (battery).
- Do not step on or place heavy objects on the cable.

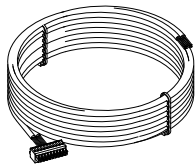
#### ⚠ CAUTION

- If you are using the cable in a high-temperature environment such as in a heat chamber, make sure that the maximum operating temperature and operating temperature range does not exceed.
- If you use the cable ties, do not exceed their maximum operating temperature of cable ties.

### Checking the Package Contents

Check the following package contents.

If any of the package contents are damaged or missing, contact your Kikusui agent or distributor.



Voltage sensing cable



Thermocouple



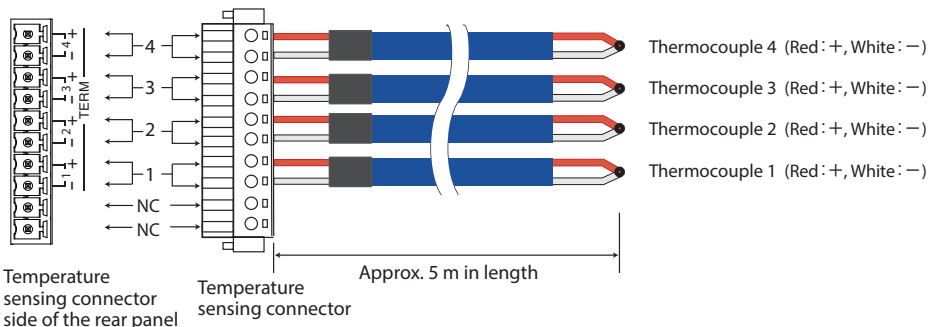
Cable tie (20 EA)



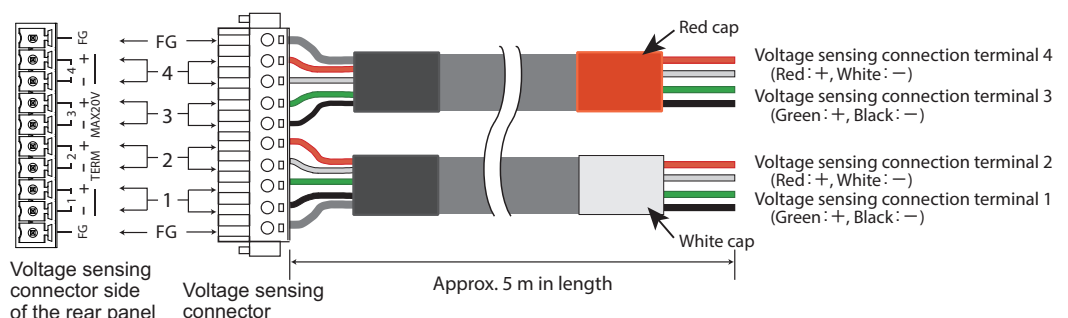
Cable tie [With tag] (10 EA)

\*Use it to identify the terminal.

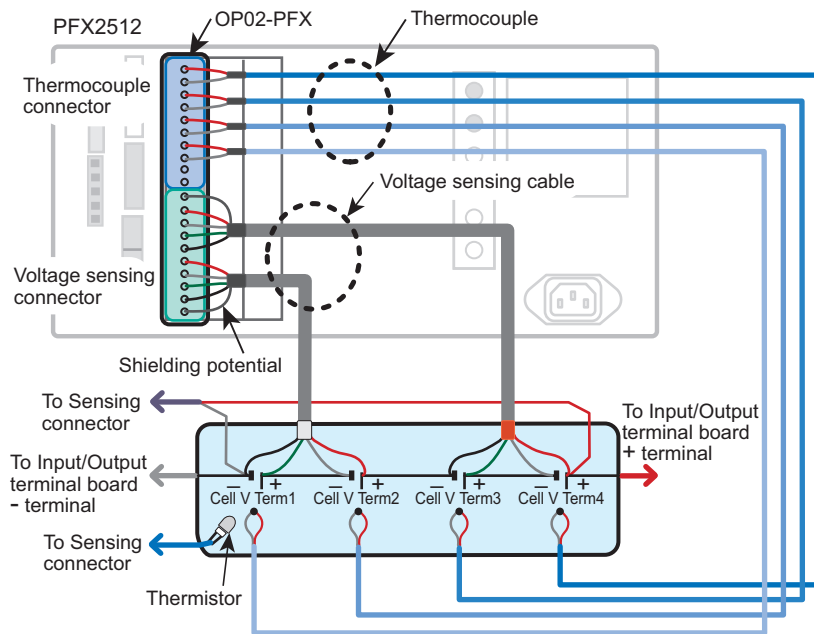
Thermocouple cable



Voltage sensing cable



Example of Connecting a PFX2512 in which an OP02-PFX Is Installed to the DUT (battery)



Rating of the fuse for the voltage sensing cable	less than 0.1 A
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## Specifications

Voltage sensing cable (Shielded wire)		Thermocouple	
Maximum operating voltage	80 Vdc (20 Vdc when an OP01-PFX is installed)	Type	K type, Type of covering : Teflon
Maximum operating temperature	105 °C	Operating temperature range	-200 °C to +200 °C
Wires	Shielded wire (core wire) : AWG24 Length : Approx. 5 m	Wires	Element-wire diameter: 0.32 mm Length : Approx. 5 m
Cable tie	Maximum operating temperature : 85 °C, Length : Approx. 100 mm		