

UI-54A-120/UI-54A-350 INSTRUCTION MANUAL

Bridge Adapter for Quarter Bridge System for the EDX-11A Only

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The contents of the Instruction Manual, standard accessories, and specifications of the UI-54A-120/UI-54A-350 are subjected to change without prior notice.

STANDARD ACCESSORIES

The following accessories are packed with the UI-54A-120/UI-54A-350.

When unpacking, check to be sure that they are included.

Instruction Manual	1
Warranty and Test Certificate	1 each

SAFETY PRECAUTIONS (Do not forget to read the safety precautions prior to use.)

The UI-54A-120/UI-54A-350 is a simplified bridge adapter for the EDX-11A. Connect 120-ohm strain gages to the UI-54A-120 and 350-ohm strain gages to the UI-54A-350. UI-54A-120/UI-54A-350 conforms to the EN61326-1:2013 of EMC standards.

Do not use the UI-54A-120/UI-54A-350 in an environment exceeding the range of the above specifications of the EDX-11A. Or, system failure may result in.

PRIOR TO USE

For safe use of the UI-54A-120/UI-54A-350, do not forget to read the “Safety Precautions” prior to use. Kyowa Electronic Instruments Co., Ltd. assumes no liability for any damage resulting from the user’s failure to comply with the safety precautions.

SAFETY SYMBOLS

For safety operation of the UI-54A-120/UI-54A-350, the following symbol marks are used in the Instruction Manual.

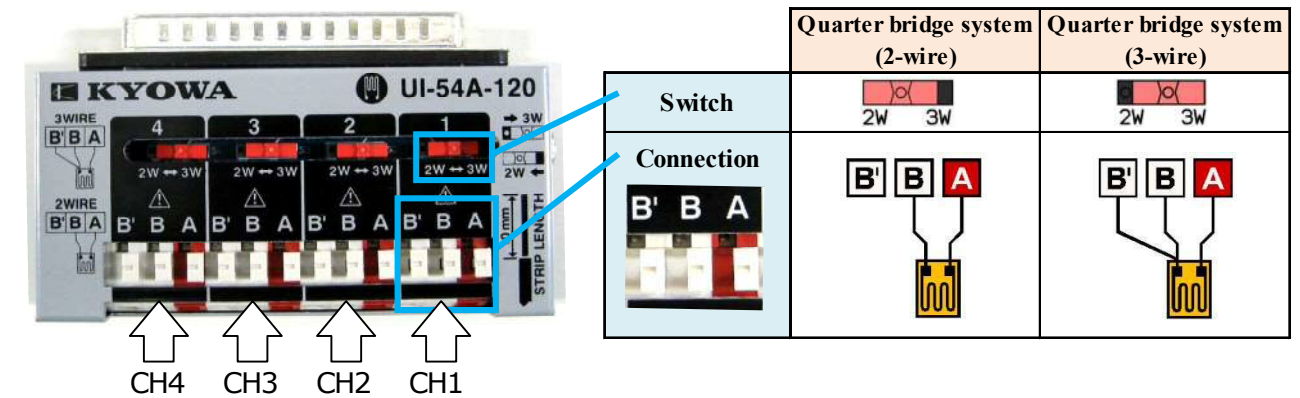
 WARNING	Improper operation of the system may result in death or severe injury of the operator.
 CAUTION	Improper operation of the system may result in injury of the operator and physical damage of the system.

 WARNING	
●	To prevent the risk of fire hazard or explosion, do not use the UI-54A-120/UI-54A-350 in environment with inflammable gas, vapor, or dust.
●	Do not operate the UI-54A-120/UI-54A-350 in environment with excessive moisture, dust or oil dust.
●	If the UI-54A-120/UI-54A-350 is emitting smoke, ignited, or producing abnormal heat, disconnect the USB cable and AC adapter of the EDX-10A, immediately turn OFF the EDX-10A.
●	When connecting strain gages into the terminal block, peel off the cable jacket (approximately 9 to 10 mm) properly. Take care not to make one of the tiny strands gets separated from the rest of the strands. Or, electric shock or fire hazard of the instrument may result.
 CAUTION	
●	Do not store the UI-54A-120/UI-54A-350 at a place exposing to direct sunlight or with excessively high temperature, humidity or to dust.
●	Do not get the UI-54A-120/UI-54A-350 close to water. Or never handle the UI-54A-120/UI-54A-350 with wet hands.
●	Do not attempt remodel the UI-54A-120/UI-54A-350. Kyowa Electronic Instruments Co., Ltd. assumes no liability for any failure, damage, and accidents resulting from user's remodeling.
●	The UI-54A-120/UI-54A-350 is an adapter specified for strain gages. Do not connect the strain gages other than specified. Or, damage of the product may result.
●	Lay lead wires with a certain allowance so that unreasonable force is applied to the connections. Pulling or unreasonable force may cause troubles or interrupt the measurement.

1. HOW TO USE THE UI-54A-120/UI-54A-350

1.1 CONNECTING BARE WIRES INTO THE TERMINAL BLOCK

Insert lead wires of strain gages into the terminal block. For details, see the following table.



NOTE

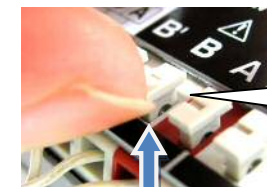
- Do not connect gage leads (lead wires directly connected from the strain gage) directly. A breaking will happen since gage leads are thin. Use a gage terminal and convert the gage leads to the applicable lead wires or use a strain gage with pre-attached lead cables.
- Peel off the cable jacket, approximately 9 to 10 mm, properly. And connect strain gages into the terminal block. The UI-54A-120/UI-54A-350 has the "Lead wire sample" at actual size. The coating of the sample is peeled off 10 mm. You can check that the actual lead wire is correctly peeled off approx. 10 mm by using it.
- Connect a lead wire with the button pressed on the terminal block and release the button to lock. Be sure to connect and disconnect lead wires by pressing the button on the terminal block.
- The available wires are as follows.

Solid wire	φ0.3 to φ1.6mm (UL AWG28 to 14)
Stranded wire	0.2mm ² to 1.3mm ² (UL AWG24 to 16)

 Be sure to use the above lead wires. Or, a breaking or connection error will happen.
- The replacement frequency of the terminal block is about 1 year, assuming twice a day (connection and disconnection) of use, 20 days a month. Through repeated connections/disconnections, the terminal block will wear out and will give a poor connection. In that case, push up the button with your nail with the lead wires connected.



The center button is not locked properly.

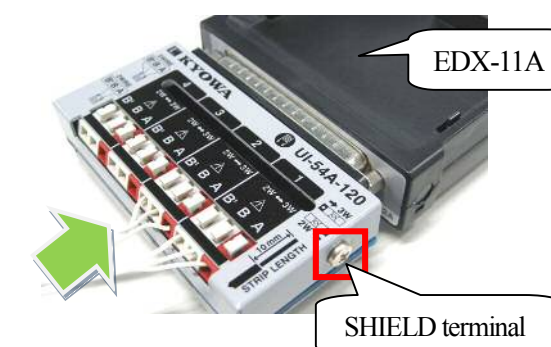


Push up the button with your nail.

- The one-touch type terminal block is made of plastic. Through repeated connections/disconnections, the button will wear out and may give a poor connection even though the button is pushed up. The one-touch type terminal block is considered to be a consumable item. It is not covered under the terms of the warranty.
- Switch the switch using a pair of tweezers and clock driver.

1.2 MOUNTING THE UI-54A-120/UI-54A-350 TO THE EDX-11A

Insert the UI-54A-120/UI-54A-350 to the input connector of the EDX-11A.



NOTE

- Every CH is not isolated.
- Since the UI-54A-120/UI-54A-350 is not fastened by screws, after mounting the UI-54A-120/UI-54A-350 to the EDX-11A, do not apply force to the UI-54A-120/UI-54A-350. Insert the UI-54A-120/UI-54A-350 firmly until it hit a wall.
- Connect the shield wire to the SHIELD terminal if the shield wire is included in the gage lead wire. And grounding should be carried out by EDX-10A side.