

ZS-6103EG

User's Manual

High-Speed GP-IB Extender

ZS-6103EG Series

ZS-6103EG-F1

ZS-6103EG-F5



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Warning To Use This Product Safely



Follow instruction

1. Before Power On

Be sure to operate the product with the specified power supply.



Follow instruction

2. Environmental condition

Operating temperature: 0 to 40 °C, Humidity: 10 to 90%, Use the product at the indoor place where no corrosive gas is present.



Electrical Hazard

3. Electrical Hazard

Make sure that the product is grounded safety.

Be sure to use the green cable for grounding when you see the 2p-3p conversion adapter.

Before replacing the fuse, be sure to turn off the power switch and disconnect the power cable from the switchboard and power outlet.

Use the specified fuse for fire prevention when replacing the fuse.



Caution

4. Handling precautions for the power cable

Do not suspend the device in midair by grabbing the power cable that is connected to the device.



Follow instruction

5. Proper use of the device

Do not remove the device cover.

When there is a removal instruction of the device cover for DIP switch setting in the User's manual, be sure to turn off the power switch and disconnect the power cable from the switchboard and power outlet.

Do not use at location subject to vibrations.



Caution

6. Repairing

If you find a malfunction, strange noise or unusual smell;

① Turn off the power.

② Disconnect the AC adapter or cable from the power outlet.

③ Do not remodel(decompose/repair)

④ Make a request for repair to your agent or Sales Department of
Zenisu Keisoku, Inc

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1. Out line

ZS-6103EG is the unit to expand the GP-IB function. Using this unit, you can extend the GP-IB cable and connect more devices. Furthermore, this unit can be used as the measure against noise for the precision measuring instruments and can be used to exclude the interface wave like a thunder. One set of ZS-6103EG is made of two devices and the dedicated cable. Parallel GP-IB information is converted to serial information by ZS-6103EG and transmitted through the dedicated cable.

We can provide ZS-6103EG of the following types in accordance with cable type;

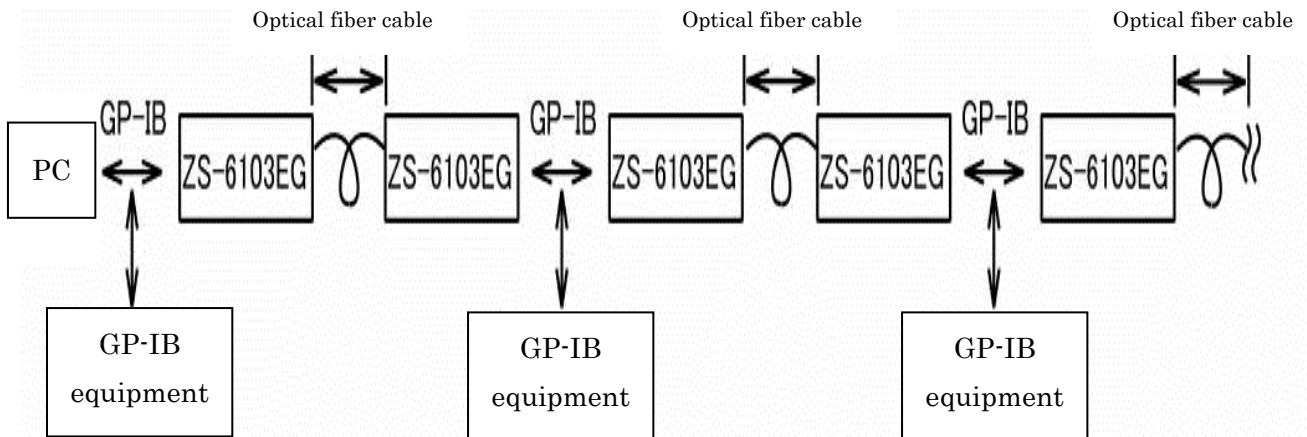
F1(FC)Type: Quartz fiber optic cable and F01 type optical connector use.

Suitable for medium-speed and long-distance transmission.

F5 Type: Quartz fiber optic cable and F05 type optical connector use.

Suitable for high-speed and medium-distance transmission.

< Example of connection >



2. Specifications

(1) Specifications by Type

Model	ZS-6103EG-F1	ZS-6103EG-F5
Abbreviated name	F1(FC)	F5
Connector	JIS F01	JIS F05
Cable	GI 50/125	HPCF 200/230
Cable type (inside panel)	ZS-F1NR-xxx	ZS-F5NR-xxx
Cable type (indoor use)	ZS-F1ND-xxx	ZS-F5ND-xxx
Cable type (outdoor use)	ZS-F1ET-xxx	ZS-F5ET-xxx
Communication speed	MAX125kb/sec	MAX250kb/sec
Transmission distance	MAX3km	MAX1km
Power	DC+5V 400mA or less	DC+5V 400mA or less
Features	Long transmission distance	Low price

(2) GP-IB standard

Compliant with IEEE-488 1978STD

Supports all function excluding the parallel port function

(3) General Specification

Power source: DC+5V 400mA or less

The range AC90 to 120V will be available with the optional AC adapter.

Size: 60mm(W)×24mm(H)×84.5mm(D)

Accessories: DC cable or AC adapter (option)

Weight : 500g or less

Operation temperature : 0 to 40°C

3. Related Products

The connection cable between ZS-6103EGs is optional. Please order according to the usage environment. “XX” part of the cable model represents the cable length in meters. “-10” represents 10m, “-1H” represents 100m and “-1K” represents 1KM.

- (1) For ZS6103EG-F1(FC)
 - ZS-F1NR-XX : F1 type, inside panel
 - ZS-F1ND-XX : F1 type, indoor use
 - ZS-F1ET-XX : F1 type, outdoor use
- (2) For ZS-6103EG-F5
 - ZS-F5NR-XX : F5 type, inside panel
 - ZS-F5ND-XX : F5 type, indoor use
 - ZS-F5ET-XX : F5 type, outdoor use

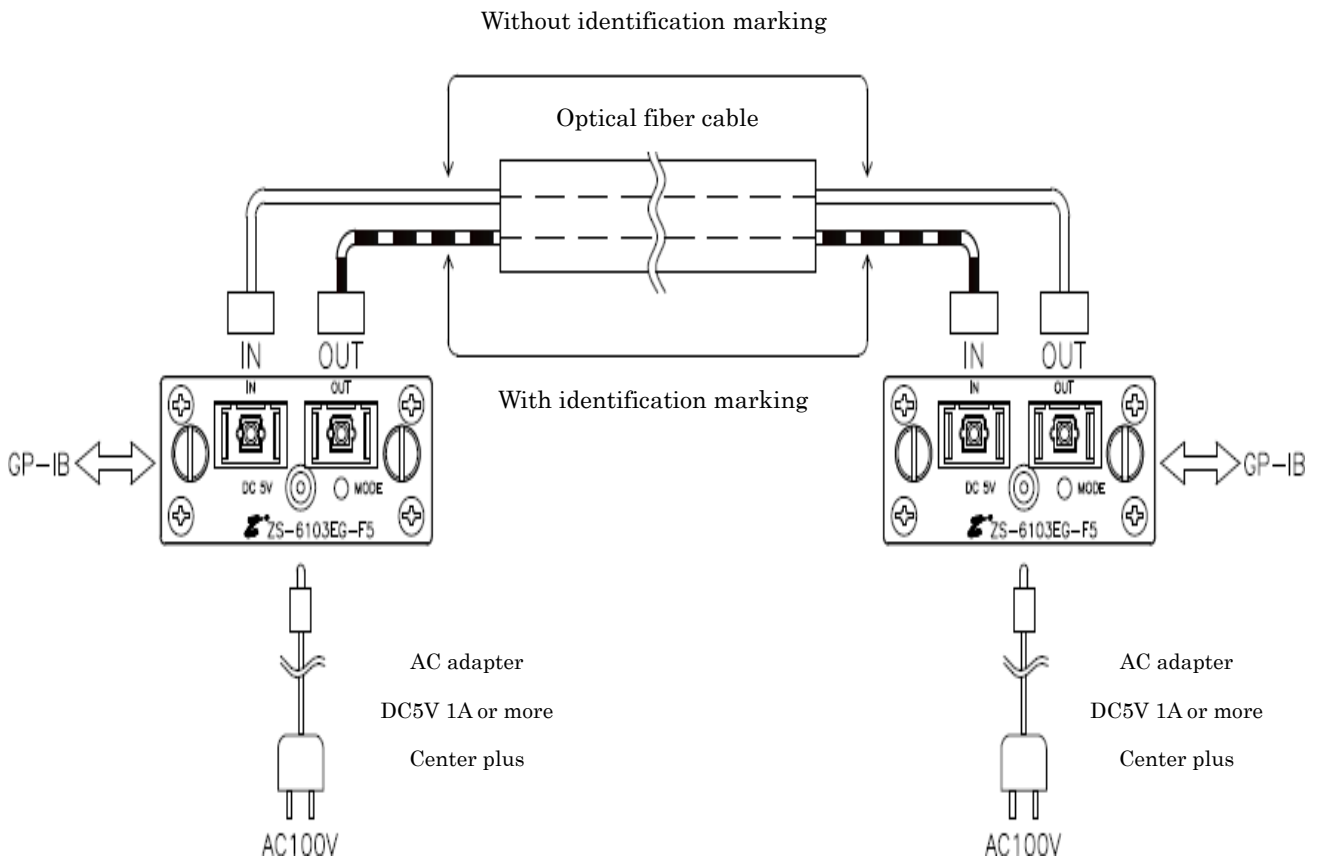
Note) “inside panel” is applicable for cabling inside the protected tube or inside the panel where pressure and tension are not applied to the cable.

Note) “indoor use” is applicable for cabling at indoor place where the method of suspending that applies tension to the cable is possible and it is not exposed to the wind and rain.

Note) “outdoor use” is applicable for cabling at outdoor place where the method of suspending that applies tension to the cable is possible and it is exposed to wind and rain.

4. Preparation for Use

Connection of cable and others are as follows;



Example of F1(FC) type, F5 type

- (1) Connect the optical fiber cable with each other. Make a cross-connection between “IN” and “OUT”. The cable connected to “OUT” of the one device should be connected to “IN” of the other one.
- (2) Connect the GP-IB cable.
- (3) Connect the power code to DC.
- (4) Confirm that POWER LED is lit on and other LEDs are not lit.

5. Operation

This unit conducts Serial-Parallel(S/P) conversion and Parallel-Serial(P/S) conversion using CODEC, to ensure that cable can transmit the parallel signal type of GP-IB as bit serial.

Error correction function for serial data transmission between cables is implemented to increase data transmission reliability.

6 . LED Display

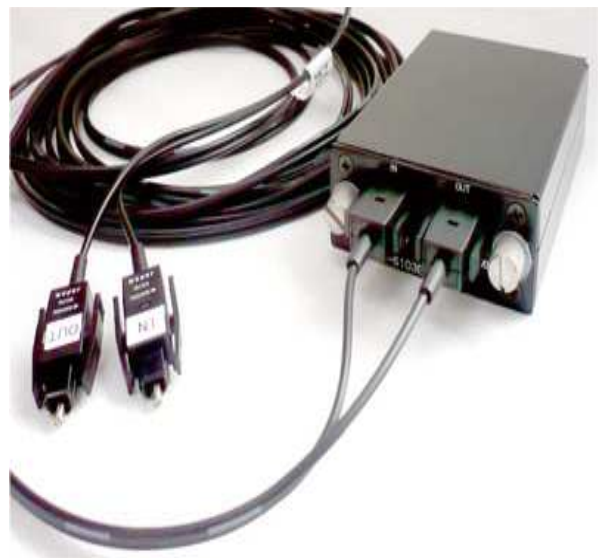
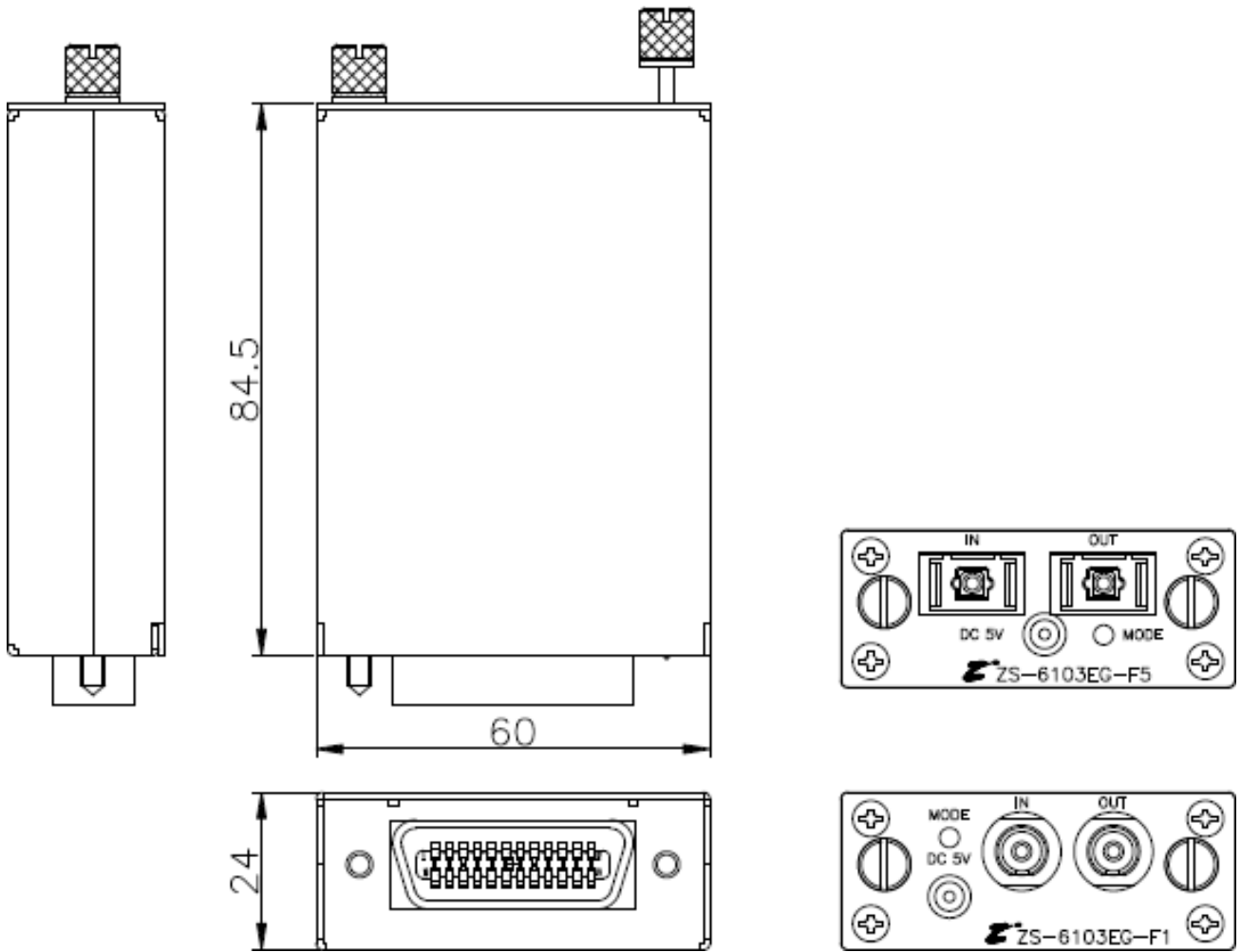
LED lights in three colors depending on the condition.

- The LED lit green color when the optical fiber cables are connected to each other and the power cord is connected to DC. It indicates power ON and communication enabled status.
- The LED lit red color when the optical fiber cables are connected to each other and the power cord is connected to DC. It indicates an error occurs in transmission between cables.
- The LED lit blue color when the optical fiber cables are connected to each other and the power cord is connected to DC. It indicates a status that data is being transmitted received from GP-IB.

7 . Precautions for Use

- (1) Your eyes may be harmed when you see directly the optical connector of ZS-6103EG. If you need to see directly it with the unaided eye, put paper or others in front of the connector and check the reflected light.
- (2) Do not bend the optical fiber cable to radius less than 60mm. Do not give a strong shock mechanically.
- (3) In case of F1(FC)model, fasten the inserted screws after checking the concave part of device's connector and the convex part of cable's connector. Fasten the screw to the end with force not too strong.
- (4) For the optical fiber cable connector of the F5model, be sure to insert securely. In this case, do not grip the optical fiber cable during tightening. Be sure to insert the connector while holding the connector body part always.
- (5) Be sure not to apply vibration to the optical connector from the cable or others. Communication failure can be caused by shifting of optical axis.
- (6) When you want to use the optical fiber cable outdoor, be sure to specify the outdoor use always.

8. Appearance



Optical cable (option)