

## 1. PRECAUTION

Please read through this Manual before use of the instrument for correct handling. Please keep this Manual carefully after use. This instrument has been thoroughly tested at the factory before shipment. When you receive it, visually inspect it for damage and check the accessories.

- ① Model number and specifications check  
Check to see model number and specifications on the plate attached to side face of the isolator are as ordered.
- ② Contents of the instruction manual  
This instruction manual provides instructions on handling, external wiring and safety use of the isolator.

## 2. GENERAL

This compact plug-in type super high speed isolator inputs DC voltage or DC current signal and converts it into isolated DC voltage or DC current signal at super high speed of 50μs (65% response).

Accessories :

- Tag Number Label ..... 1
- Module Resistor (Use for current input)... 1

## 3. MOUNTING METHOD

JUXTA VJ Series Transmitters can be mounted on wall, DIN rail or multi-mounting base.

**NOTE:** Direction of insertion/extraction

Insertion/extraction of main body into and from socket should be done in vertical direction against face of socket.

Slanting insertion or extraction makes terminals bent causing bad contact with socket.

### 3.1 Wall Mounting

Loosen the socket's fixing screw as shown in Fig. 1 and pull out the main body from socket. Then fix the socket on the wall with screws. See Fig. 3 for mounting.

### 3.2 DIN rail mounting

Insert DIN rail into the upper of the DIN rail groove on rear of socket of the isolator and fix the rail with slidelock at the lower of the isolator as shown in Fig.2.

### 3.3 Multi-base mounting

As for multi-base mounting, refer to Instruction Manual for VJCE (VJ mounting base).

### 3.4 Duct Installation

Install ducts, if necessary, aparting from top and bottom of the isolator more than 30mm.

## 4. EXTERNAL WIRING

**CAUTION** Wiring should be done after ensuring power break of cable.

See Fig.4 for terminal arrangement and Fig.5 for wiring.

Wiring should be done to M3 screw terminals of the socket.

Use round crimp-on terminals for connection to terminals.

FIG.1 WALL MOUNTING

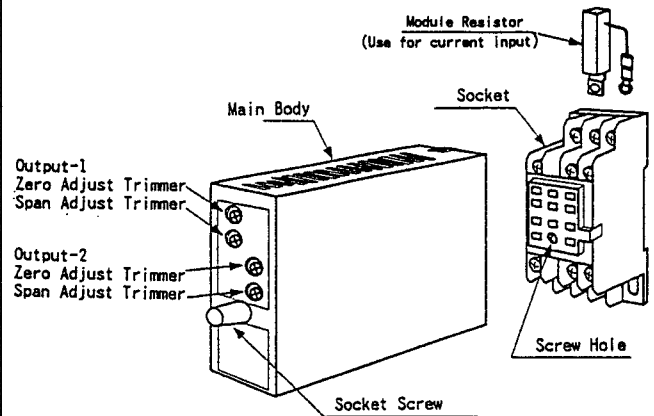


FIG.2 DIN RAIL MOUNTING

When remove the isolator from DIN Rail, lower the slidelock with (-) screwdriver

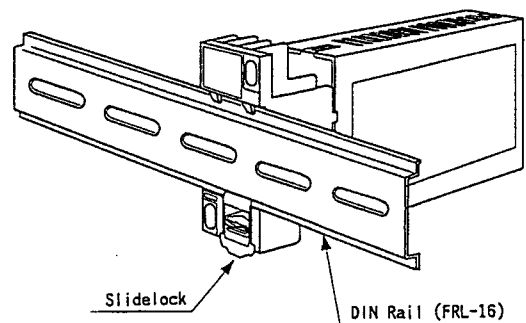
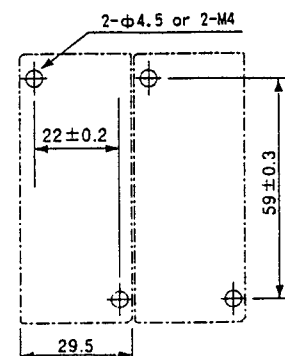


FIG.3 MOUNTING DIMENSION



Unit : mm

- Signal cable having more than  $0.5\text{mm}^2$  and power cable having more than  $1.25\text{mm}^2$  of nominal cross-sectional area of conductor are recommended to be used.

#### 4.1 Wiring

In case of 2 output type

- ① Connect input signal cable to 1(+), 3(-) of the isolator.
- ② Connect Output-1 signal cable to 7(+), 9(-).
- ③ Connect Output-2 signal cable to 2(+), 5(-).
- ④ Connect power cable to 8(GND), 10(L+), 11(N-).
- ⑤ In case of current input, connect module resistor to 3(-) and cable side to 1(+).

NOTE : Apart wiring of power cable and input/output cable from noise source. Otherwise, accuracy may not be warranted. Be careful for wire break by excessive power be put on module resistor.

#### 5. INSTALLATION AND HANDLING

- ① Avoid installation in such environments as shock, vibration, corrosive gas, dust, water, oil, solvent, direct sunlight, radiation, powerful electric and magnetic fields.
- ② In order to protect the isolator from thunder surges in power and signal cables, use arrester between the isolator and equipment installed in the field.

#### 6. SAFETY USE

Following caution for safety should be taken for handling of the isolator. We are not responsible for damage caused by use contrary to caution.

##### CAUTION

- When install the main body, fix it to the socket with screws after inserting it into socket.
- Following items should be checked before power on. Use of the isolator by ignoring the specifications may cause overheating and burning.
  - (a) Voltage of power supply and input signal be applied to the isolator should meet with required specifications.
  - (b) External wiring to terminals should be connected correctly (See Article 4).
- Do not use the isolator in such dangerous places where exist inflammable and explosive gas or steam.

#### 7. MAINTENANCE

Carry out the following calibration after warmup the isolator for more than 10~15 minutes to satisfy its specified performance.

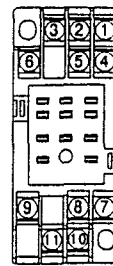
##### 7.1 Calibration equipment

- Voltage/Current Generator ..... 1 (Yokogawa Type 7561 or equivalent)
- Voltmeter ..... 1 (Yokogawa Type 7562 or equivalent)
- Precision Resistor  $250\Omega \pm 0.01\%$  1W ..... 1

##### 7.2 Calibration

- ① Connect each equipment as shown in Fig.6
- ② Input/output characteristic check  
First, check output-1 and then check output-2. Use Voltage/Current Generator and apply input signal corresponding 0%, 25%, 50%, 75%, 100% of input span to the isolator. Check to see corresponding output voltages are 0%, 25%, 50%, 75%, 100% respectively and are within specified accuracy rating. R is used for current output.
- If output signal is out of accuracy rating range, adjust it using span and zero adjust trimmer on front face of the isolator. (See Fig.1)

FIG.4 TERMINAL ARRANGEMENT & TERMINAL CONNECTION



1	INPUT (+)
2	OUTPUT2 (+)
3	INPUT (-)
4	N.C.
5	OUTPUT2 (-)
6	N.C.
7	OUTPUT1 (+)
8	GND
9	OUTPUT1 (-)
10	SUPPLY (L+)
11	SUPPLY (N-)

In case of one output type, OUTPUT2 is N.C.

FIG.5 WIRING

Wiring of 2 outputs type

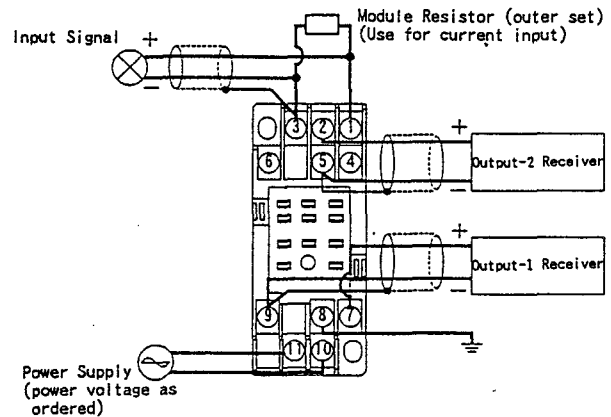
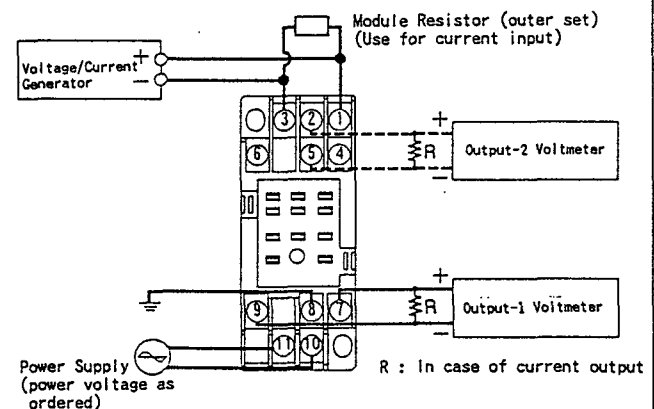


FIG.6 WIRING OF CALIBRATION EQUIPMENT

Wiring of 2 outputs type



R : In case of current output