

1. PRECAUTION

Please read thorough 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 converter are as ordered.
- ② Contents of the instruction manual
This instruction manual provides instructions on handling, external wiring and safety use of the converter.

2. GENERAL

This compact plug-in type converter has function of distributor and converts pulse train signal into isolated DC signal.

Accessories :

- Tag Number Label 1
- Range Label 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 method.

3.2 DIN rail mounting

Insert DIN rail into the upper of the DIN rail groove on rear of socket of the converter and fix the rail with slidelock at the lower of the converter 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, aperting from top and bottom of the converter 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

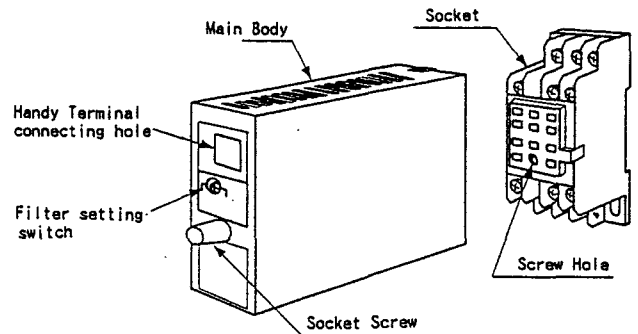


FIG.2 DIN RAIL MOUNTING

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

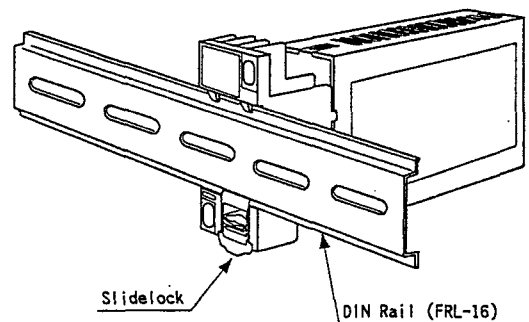
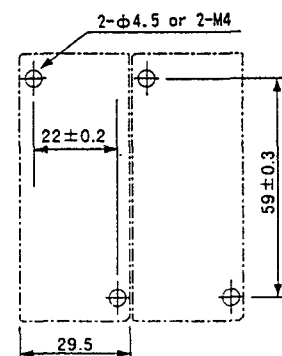


FIG.3 MOUNTING DIMENSION



Unit : mm

● Signal cable having more than 0.5mm² and power cable having more than 1.25mm² of nominal cross-sectional area of conductor are recommended to be used.

4.1 Wiring

- ① Connect voltage pulse or dry voltage contact pulse signal cable from transmitter to 3(+), 4(-) of the converter.
- ② When receiving voltage pulse by driving generator through internal power supply, connect input signal to 1(PS+), 3(+), 4(-).
- ③ When receiving current pulse by driving generator through internal power supply, connect input signal to 1(PS+), 3(+).
- ④ Connect output signal cable to 7(+), 9(-).
- ⑤ Connect power cable to 8(GND), 10(L+), 11(N-).

NOTE : Apart wiring of power cable and input/output cable from noise source. Otherwise, accuracy may not be warranted.

5. Setting of Dry Voltage Contact Input Filter

If chattering noise is arised when receiving dry contact (mechanical relay, etc.), noise affect can be controlled by making switch on in front face of transmitter. However, in this case, input frequency range is limited to less than 100Hz (pulse width more than 3ms).

(See Fig.6)

6. INSTSLLATION 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 converter from inducement of thunder surges in power and signal cables, use arrester between the converter and the equipment installed in the field.

7. SAFETY USE

Following caution for safety should be taken for handling of the transmitter. 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 converter by ignoring the specifications may cause overheating and burning.
 - (a) Voltage of power supply and input signal be applied to the converter should meet with required specifications.
 - (b) External wiring to terminals should be connected correctly (See Article 4).
- Do not use the converter in such dangerous places where exist inflammable and explosive gas or steam.

8. MAINTENANCE

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

8.1 Calibration Equipment

- Pulse Generator.....1 (Yokogawa Type FG300 or equivalent)
- Voltmeter.....1 (Yokogawa Type 7551 or equivalent)
- Counter1 (Japan Hewlett-Packard Type 5334B or equivalent)
- Precision Resistor 250Ω±0.01% 1W (Use for current output)

FIG. 4 TERMINAL ARRANGEMENT & TERMINAL CONNECTION

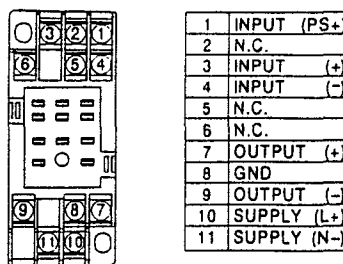
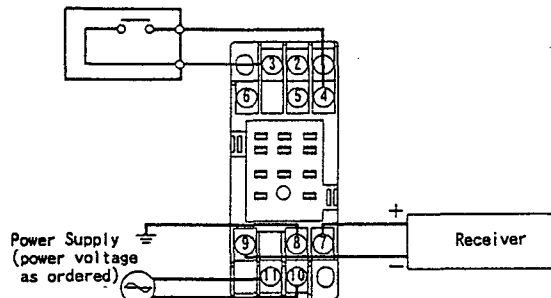
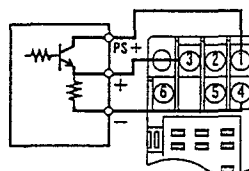


FIG. 5 WIRING

- (1) To receive contact pulse (open collector) or voltage pulse [In case of voltage pulse, make 3 to (+) and 4 to (-)]



- (2) To receive voltage pulse by driving generator using internal power supply



- (3) To receive current pulse by driving generator using internal power supply

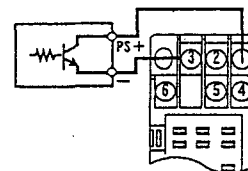


FIG. 6 SETTING OF FILTER

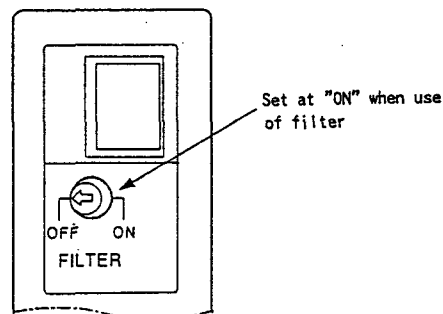
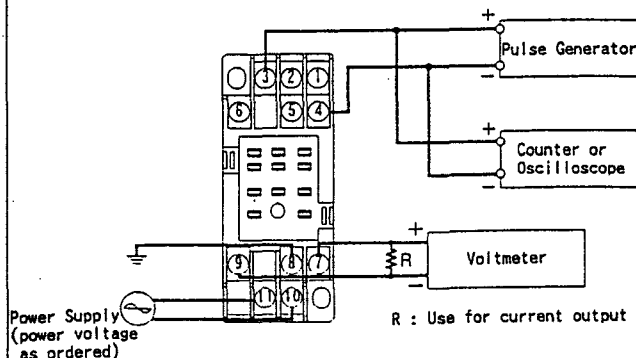


FIG. 7 WIRING OF CALIBRATION EQUIPMENT

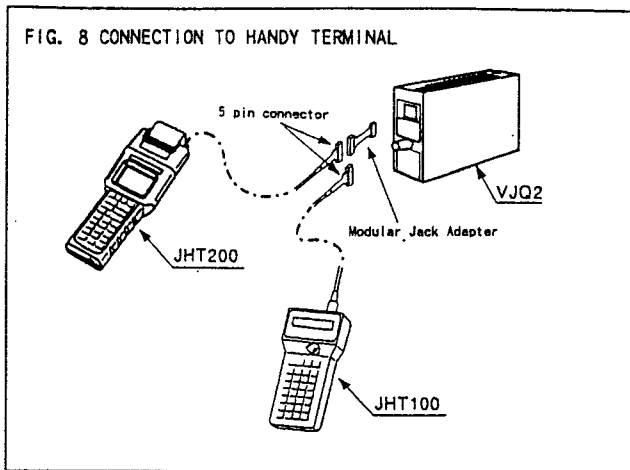


8.2 Calibration

- ① Connect each equipment as shown in Fig.7.
- ② Input/output characteristic check
Use Voltage/Current Generator and apply input signals corresponding 0%, 25%, 50%, 75%, 100% to the converter. Check to see outputs are 0%, 25%, 50%, 75%, 100% respectively and are within specified accuracy rating.
- If output signal is out of accuracy rating range, adjust it using Handy Terminal (JHT200 or JHT-100) Please refer Instruction Manual of Handy Terminal (JHT200 : IMJF81-02E, JHT-100 : IM JF81-01E)

NOTE 1 : In case use of Handy Terminal, modular jack conversion adapter (E9786WH) is required. As shown in Fig.8, connect furnished 5 pin type communication cable (F9182EE) to Handy Terminal and set modular jack conversion adapter to 5 pin connector.

NOTE 2 : If different input range other than ordering specs. is set, write input range on furnished label and stick it on old label.



9. PARAMETER LIST

	Display	Communication Item	Data Display
	MODEL	Model	VJQ2
	TAG NO	Tag No.	Alphanumeric 16 characters
	SELF CHK	Self Check	GOOD or ERROR

① F1 or ② HOME	HOME MENU																		
To Display Item	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Display</th> <th style="width: 30%;">Communication Item</th> <th style="width: 55%;">Data Display</th> </tr> </thead> <tbody> <tr> <td>A : DISPLAY</td> <td>Display</td> <td></td> </tr> <tr> <td>A01 : INPUT</td> <td>Input</td> <td>5 digits Hz (including decimal point)</td> </tr> <tr> <td>A02 : OUTPUT</td> <td>Output</td> <td>□□□.□%</td> </tr> <tr> <td>A03 : STATUS</td> <td>Status</td> <td>FF (Hexadecimal 2 digits)</td> </tr> <tr> <td>A04 : REV NO</td> <td>Rev No</td> <td>n.nnn (n : Rev No.)</td> </tr> </tbody> </table>	Display	Communication Item	Data Display	A : DISPLAY	Display		A01 : INPUT	Input	5 digits Hz (including decimal point)	A02 : OUTPUT	Output	□□□.□%	A03 : STATUS	Status	FF (Hexadecimal 2 digits)	A04 : REV NO	Rev No	n.nnn (n : Rev No.)
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① F2 or ② SET	SET MENU																																	
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C02 : OUT 100%	Output 100%	Numeric Data (±10.00)											

- ① : Key when use JHT200
② : Key when use JHT-100

Subject to change without notice for grade up quality and performance.

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