Instruction Manual

Model WH1A/V
Isolator

JUXTA

1. PRECAUTION

Please read thorough this Manaual before use 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 specification check
Check to see the model number and specifications on the nameplate attached to the front face of the insrument are as ordered.

② Contents of instruction manual
This instruction manual provides instructions on handling, external wiring and safety use of the isolator.

2. GENERAL

This instrument receives current or voltage signal and converts it into isolated current or voltage signal.

Accessories:

Mounting block	2
Tag number label	1
Mounting screw M4	4

3. MOUNTING METHOD

JUXTA signal conditioners can be mounted on racks, walls or DIN rails.

3.1 Rack mounting

Use panel (FRK-16) and install it on an angle as shown in Fig.1. This is a convenient method for high density mounting of the isolators on 19-inch rack panel. (See Fig. 7.)

3.2 Wall mounting

Use panel (FRK-16) to mount the isolator as shown in Fig. 2 or directly mount the single unit on the wall. (See Figs. 7 and 8 for mounting dimensions.)

3.3 DIN rail mounting

Insert DIN rail into the upper section of the DIN rail groove on the rear of the isolator and fix the rail with the slidelock at the base of the isolator as shown in Figs. 3 and 4.

3.4 Angle mounting

If the isolator is mounted without using the panel (FRK-16), refer Fig. 5 for its mounting dimension.

3.5 Mounting block installation and removal

Insert mounting block into the isolator groove as shown in Fig. 6 and slide it until it is fixed with the stopper. To remove it, lift up the mounting block with a (-) screwdriver.

4. EXTERNAL WIRING

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

Wires should be connected to M4 screw terminals after opening the isolator terminal cover as shwon in Fig.10. For wiring, flexible twisted wires wiring, and good contact of durable round crimp-on terminals (JIS C2805) are recommended to be used.

Fig.1 Rack Mounting

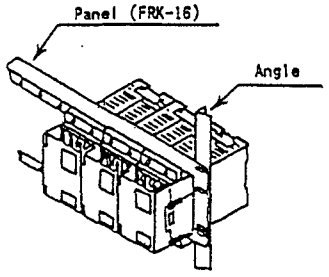


Fig.2 Wall Mounting

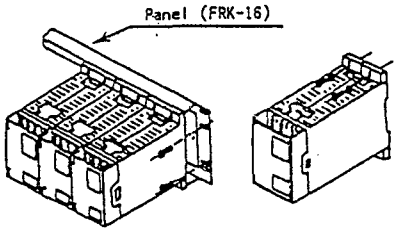


Fig.3 DIN Rail Mounting

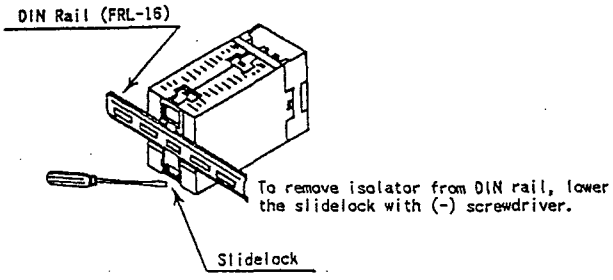


Fig.4 DIN Rail Mounting

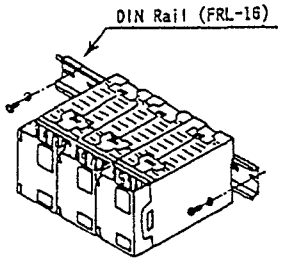
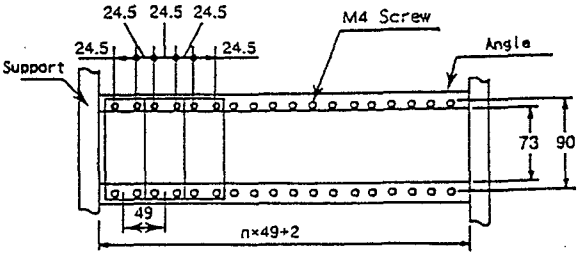


Fig.5 Angle Mounting Dimension

Unit : mm



- Signal wiring should has more than 0.5mm² and power cable should has more than 1.25mm² of nominal cross-sectional area of conductor.

4.1 Wiring
① See Fig. 9 for terminal arrangement.
② Connect input signal cable to isolator terminals 7(+) and 8(−).
③ Connect isolator output signal cable to its terminals 11(+) and 12(−).
④ When use of dual outputs type, connect Output-2 signal cable to 9(+), 10(−).
⑤ Connect 85～265V AC or 24V DC power cable to isolator terminals 14(L+), 15(N−) and 16(G). (See Fig. 10.)

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

5. INSTALLATION AND HANDLING

① Aviod 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 instrument from inducement of thunder surges in power and signal cables by thunder fall, use arrester between isolator and equipment installed in the field.

6. SAFETY USE

Following caution for safety should taken for handling of instrument. We are not responsible for damage incurred by use contrary to caution.

CAUTION

- Following items should be checked when turing power on. Use of instrument by ignoring the specifications may cause overheating or burning.
  (a) Voltage of power supply and input value be applied to the instrument should meet with required specifications.
  (b) External wiring to terminals should be connected correctly.(See preceding Article 4)
- Do not use the instrument in such dangerous places where exist inflammable and explosive gas or steam.
- In case of AC power supply, high voltage of 85～264V AC would be applied on 14, 15 terminals shown in Fig.10 during power on. Also, high voltage of 300V AC may be applied on 7, 8 terminals. Do not touch terminals when zero and span adjustment.

7. CALIBRATION

Carry out the following calibration after warming up the instruments for more than 10～15 minutes.

7.1 Calibration equipment
- Voltage/current generator (Yokogawa model 2558 or equivalent) 1
- Voltmeter (Yokogawa model 7552 or equivalent) 1
- Precision resistor 250Ω ±0.01% 1W 1 (Use in case of current output)

7.2 Calibration
① Connect each unit of equipment as shown in Fig. 11.
② Input/output characteristics check
Apply input signals equivalent 0, 25, 50, 75 and 100% to the isolator through voltage/current generator.
Check that corresponding isolator outputs are 0, 25, 50, 75 and 100% respectively and are within accuracy rating range.
- If output signal is out of tolerance, adjust it through span and zero adjustment trimmer on front panel of the instrument.

Fig.6 Mounting Block installation and removal

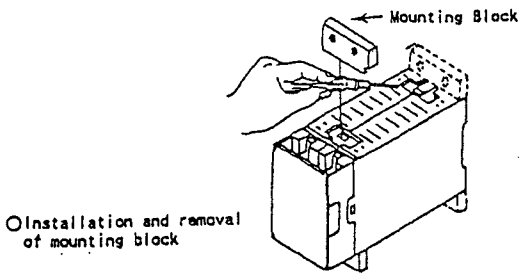


Fig.7 Rack Mounting Dimension

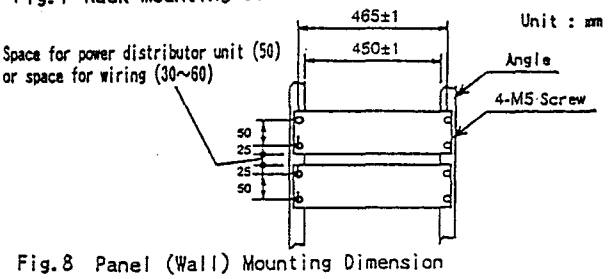


Fig.8 Panel (Wall) Mounting Dimension

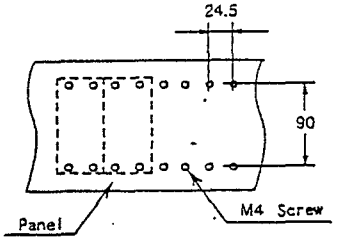
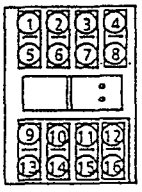


Fig.9 Terminal Arrangement



7	INPUT	(+)
8	INPUT	(−)
9	OUTPUT-2	(+)
10	OUTPUT-2	(−)
11	OUTPUT-1	(+)
12	OUTPUT-1	(−)
13		
14	SUPPLY	(L+)
15	SUPPLY	(N−)
16	GND	(G)

Fig.10 Wiring Diagram

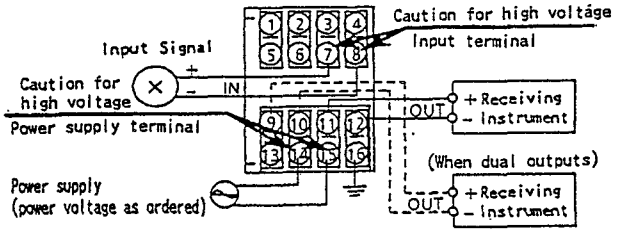
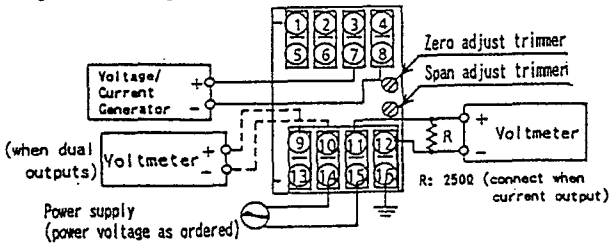


Fig.11 Wiring of Calibration Equipment



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

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