

F940

CONNECTOR CONVERSION BOX F9GT-HCNB

HARDWARE MANUAL

[MAIN UNIT INSTRUCTION MANUAL]

JY992D88901B

This manual only describes the specifications for Connector Conversion Box F9GT-HCNB. For complete operation, wiring, mounting and programming instructions please refer to the F940GOT-SWD-H-E/F940GOT-LWD-H-E HARDWARE MANUAL and F940GOT OPERATION MANUAL. These manuals should be read and understood before attempting to install or use the unit.

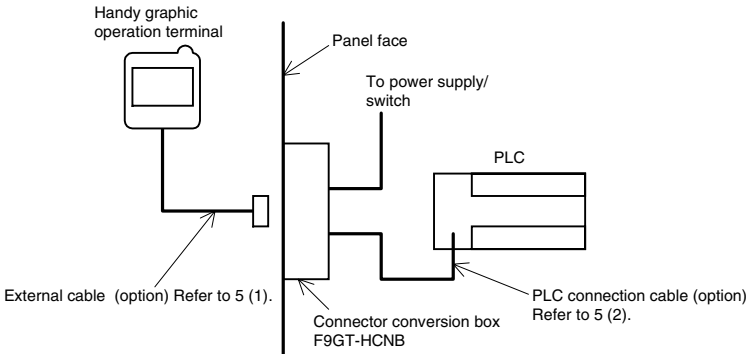
1. Introduction

When using the connector conversion box F9GT-HCNB, refer to not only this manual but also the manual offered with the handy graphic operation terminal. Especially, read carefully cautions on safety described in the following manual before starting wiring or installation.

- Hardware Manual of F940GOT-SBD/LBD-H-E (separate manual JY992D77001 packed together with F940GOT-SBD/LBD-H-E)
This manual describes the installation, wiring, specifications, etc. of the handy graphic operation terminal F940GOT-SBD/LBD-H-E.

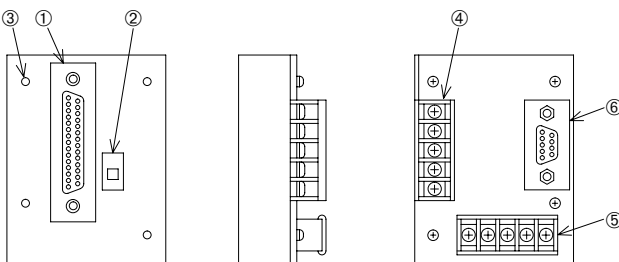
2. Outline of Product

The F9GT-HCNB is a relay box which converts the D-sub 25-pin connector of an external cable, connected to the handy graphic operation terminal into a connector and terminal block to enable connection of the PLC, the power supply and the switches.



3. Name of Each Part

The name and the function of each part of the F9GT-HCNB are described below.



- Front face

- ① Connector for handy graphic operation terminal (D-sub, 25-pin, female type)
Connects a handy graphic operation terminal through an external connection cable.
- ② Power switch
Supplies the power to the handy graphic operation terminal.
When this switch is set to ON, the power is supplied.
- ③ Mounting hole (for M3 screw)
Allows to fix the F9GT-HCNB on the panel face directly or through a mounting bracket.
- ④ Terminal block for operation switches
Connects the operation switches SW1 to SW4 of the handy graphic operation terminal.
- ⑤ Terminal block for power supply and emergency stop switch
Connects the 24 VDC power supply of the handy graphic operation terminal and the emergency stop switch ES1.
- ⑥ Connector for PLC (D-sub, 9-pin, female type)
Connects the PLC through a PLC cable.

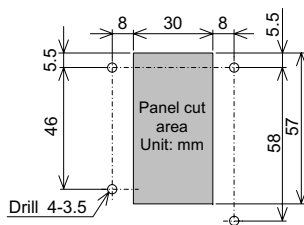
4. Installation

The F9GT-HCNB can be installed on the panel face directly or with mounting bracket offered as an accessory.

Direct mounting on the panel face

1) Direct mounting on the panel face

Drill a mounting slot of the following size on the panel face.

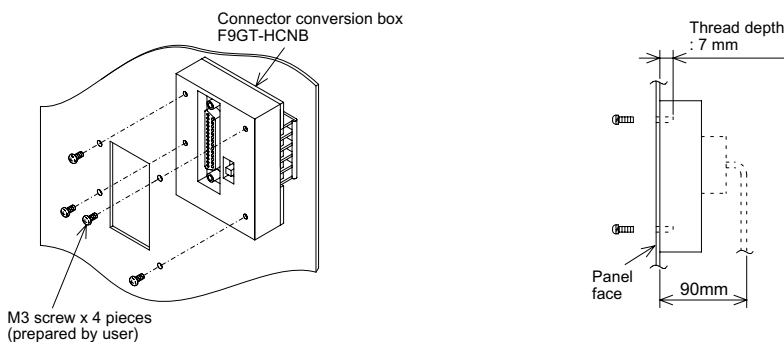


2) Mounting on the panel face

Fit the F9GT-HCNB from the back side of the panel face, and fix it with four M3 screws (prepared by user).

In the F9GT-HCNB, thread of M3, 7 mm in depth is cut in each mounting hole. Prepare four M3 mounting screws separately while considering the thickness of the panel face.

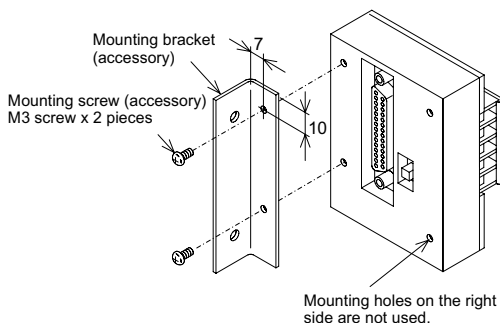
Make sure that interfering objects are not located within 90 mm from the rear face so that the connector of a PLC cable is not hindered.



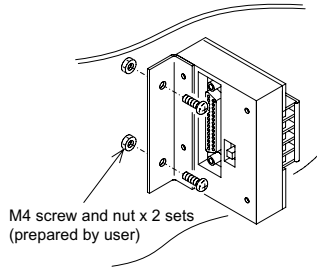
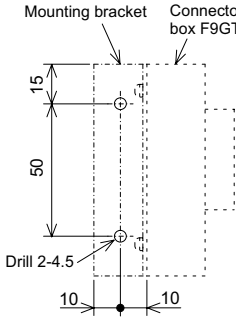
Mounting with a mounting bracket

1) Attaching a mounting bracket

Attach a mounting bracket offered as an accessory to the F9GT-HCNB.



- 2) Mounting on the panel face
 Mount the F9GT-HCNB on the panel face.
 Drill a mounting slot of the following size on the panel face.



Fix the F9GT-HCNB on the panel face with M4 screws and nuts (prepared by user).

5. Wiring

The D-sub, 25-pin connector of an external connection cable is converted into the terminal block and the D-sub, 9-pin connector for PLC as shown below. (For the connector name, refer to Section 3.)

Connector for handy graphic operation terminal		Connector for PLC (D-sub, 9-pin)
D-sub, 25-pin	Signal name	
2	RDA	1
6	SDA	2
4	-	3
8	-	4
10	SG	5
3	RDB	6
7	SDB	7
5	-	8
9	-	9
1	FG	Shell

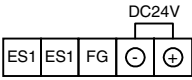
Connector for handy graphic operation terminal		Terminal block for power supply and emergency stop switch
D-sub, 25-pin	Signal name	
24, 25	24V DC+	24V DC+
12, 13	24V DCG	24V DCG
1	FG	FG
21	ES1	ES1
22	ES1	ES1

Connector for handy graphic operation terminal		Terminal block for operation switches
D-sub, 25-pin	Signal name	
14	SWCOM	SWCOM
15	SW1	SW1
16	SW2	SW2
17	SW3	SW3
18	SW4	SW4

Use the following cables for each connector and terminal block.

- Connector for handy graphic operation terminal (D-sub, 25-pin type provided on front face)
 External cable
 : F9GT-HCAB-3M (3 m) or
 : F9GT-HCAB-10M (10 m)
- Connector for PLC (D-sub, 25-pin type provided on rear face)
 CPU direct connection
 : FX/FX_{2C}/A/QnA Series
 : FX-40DU-CAB (3 m)
 : FX₀/FX_{0S}/FX_{0N}/FX_{2N}/FX_{2NC} Series
 : FX-50DU-CAB0-1M (1 m) or
 : FX-50DU-CAB0 (3 m)
 Computer link connection
 : Cable prepared by user

3) Terminal arrangement for power supply and emergency stop switch



Wiring by user: Wire the power supply and the frame ground with untied wires of 0.75 mm² or more (0.3 mm² or more for ES1).

Caution: The power switch provided on the front face of the F9GT-HCNB turns ON or OFF the power supply of the handy graphic operation terminal display unit. The wiring of the operation switches and the emergency stop switch (ES1) is already connected. Accordingly, if the operation switches and the emergency stop switch are wired to the PLC, these switches are effective only while the power of the PLC is turned on.

4) Terminal block for operation switches

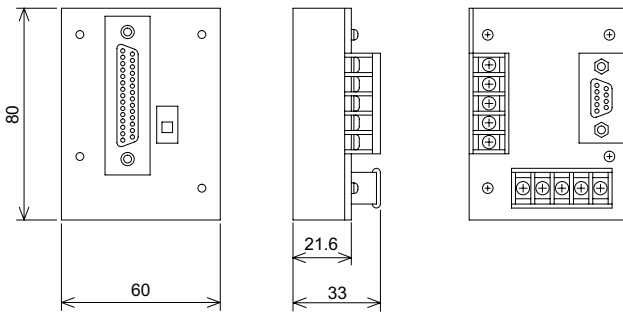


Wiring by user: Wire the operation switches with untied wires of 0.3 mm² or more.

6. Specifications

Outside dimensions

Unit: mm



Outer painting color: Munsell 0.08GY 7.64/0.81

Mass: 0.15 kg

General specifications

Ambient operating temperature	0 to 55°C
Ambient operating humidity	35 to 85%RH (no condensation)
Vibration resistance	10 to 57 Hz Single amplitude: 0.035 mm, 57 to 150 Hz Acceleration: 4.9 m/s ² 10 times sweeping in each of X, Y and Z directions (80 min in total in each direction)
Operating atmosphere	Must be free of lamp black, corrosive gas, flammable gas, or excessive amount of electroconductive dust particles and must be no direct sunlight. (Same as for saving)

General specifications other than the above are same as those of the GOT main unit. Refer to the following.

GOT-F900 Series HARDWARE MANUAL [CONNECTION]

Guidelines for the safety of the user and protection of the Connector Conversion Box F9GT-HCNB

- This manual has been written to be used by trained and competent personnel. This is defined by the European directives for machinery, low voltage and EMC.
- If in doubt at any stage during the installation of the Connector Conversion Box F9GT-HCNB always consult a professional electrical engineer who is qualified and trained to the local and national standards. If in doubt about the operation or use of the Connector Conversion Box F9GT-HCNB please consult the nearest Mitsubishi Electric distributor.
- Under no circumstances will Mitsubishi Electric be liable or responsible for any consequential damage that may arise as a result of the installation or use of this equipment.
- All examples and diagrams shown in this manual are intended only as an aid to understanding the text, not to guarantee operation. Mitsubishi Electric will accept no responsibility for actual use of the product based on these illustrative examples.
- Owing to the very great variety in possible application of this equipment, you must satisfy yourself as to its suitability for your specific application.

Warranty

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi; opportunity loss or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

For the detailed warranty, refer to the GOT-F900 Series HARDWARE MANUAL [CONNECTION].

Manual number : JY992D88901

Manual revision : B

Date : Sep. 2008



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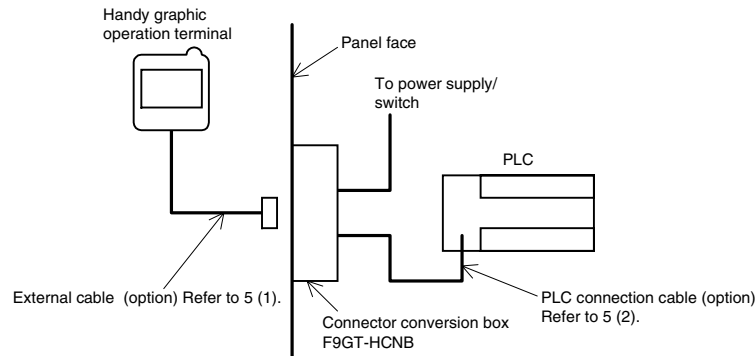
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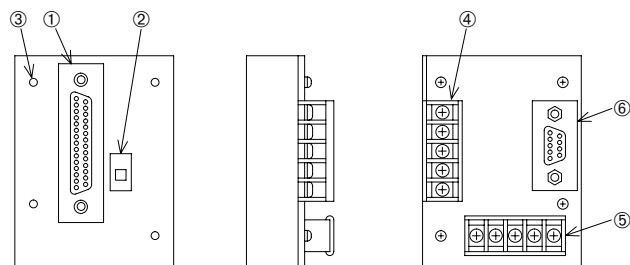
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The F9GT-HCNB is a relay box which converts the D-sub 25-pin connector of an external cable, connected to the handy graphic operation terminal into a connector and terminal block to enable connection of the PLC, the power supply and the switches.



3. Name of Each Part

The name and the function of each part of the F9GT-HCNB are described below.



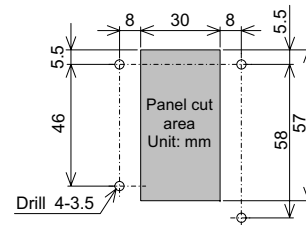
- Front face
 - Connector for handy graphic operation terminal (D-sub, 25-pin, female type)
Connects a handy graphic operation terminal through an external connection cable.
 - Power switch
Supplies the power to the handy graphic operation terminal. When this switch is set to ON, the power is supplied.
 - Mounting hole (for M3 screw)
Allows to fix the F9GT-HCNB on the panel face directly or through a mounting bracket.
 - Terminal block for operation switches
Connects the operation switches SW1 to SW4 of the handy graphic operation terminal.
 - Terminal block for power supply and emergency stop switch
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 - Connector for PLC (D-sub, 9-pin, female type)
Connects the PLC through a PLC cable.

4. Installation

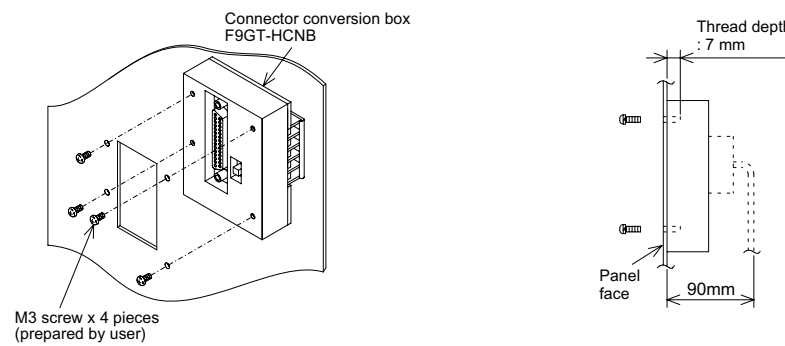
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Direct mounting on the panel face

- Direct mounting on the panel face
Drill a mounting slot of the following size on the panel face.

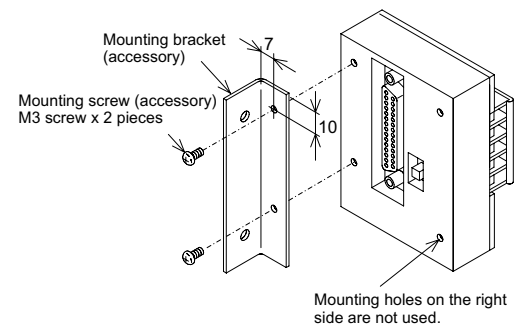


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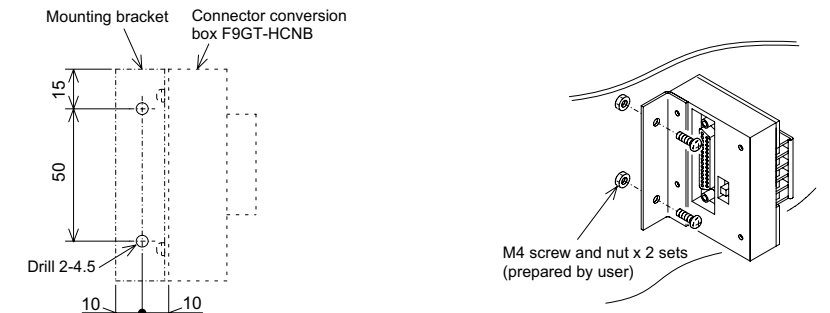


Mounting with a mounting bracket

- Attaching a mounting bracket
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- Mounting on the panel face
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Fix the F9GT-HCNB on the panel face with M4 screws and nuts (prepared by user).

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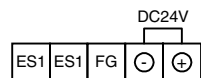
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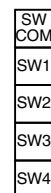
3) Terminal arrangement for power supply and emergency stop switch



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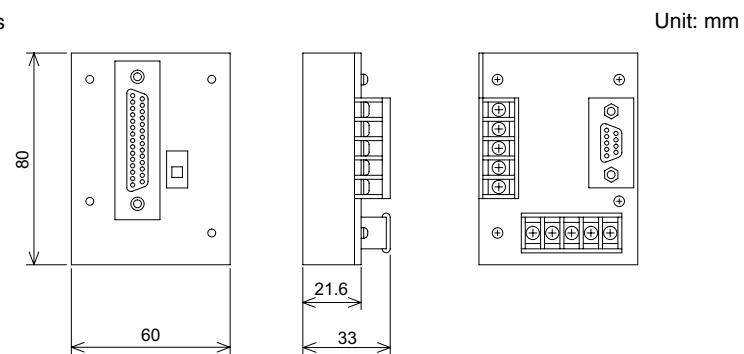
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