

MANUAL

GE-M010

2 Modules
0-10 Volts or 0-20mA



Installation Guide

GE-M010 INSTALLATION

This guide will inform the electrician on proper wiring and installation procedures for the GE-M010 module.

The manufacturer recommends that the following installation instructions be followed to as closely as possible, and that all work be performed by a certified electrician. Failure to do so may void the warranty.

Description

The GE-M010 module is designed to control 0-10Volts and 0-20mA equipments such as variable lighting, proportional heating valve, air inlets or a variable frequency modulation controller for motor. The module has two independent analog outputs and 2 relays that are controlled by a master controller equipped with an MGCB port.

The GE-M010 comes in a PVC non-corrosive enclosure that is protected from dust and humidity. The GE-M010 is covered by a complete two years warranty. The module includes a backup mode in case of a communication failure. A LED shows that the output is in backup mode. Two other LED are available on the circuit board. The first one will indicate that the module is powered and the other one shows the communication status with the master controller.

Unpacking

Unpack the GE-M010 module and inspect contents for damage. Should the contents appear to be damaged, contact your local distributor to return the material.

The package should contain the following standard items:

- 1 GE-M010 (standard 230V) or 1 GE-M010/115 (special order 115 V)
- 1 Installation guide

Mounting hardware required

This is the list of the mounting hardware needed, which is not included with the product:

- Shielded low capacity two-wire cable, AWG #22
- Screws (to mount the module on the wall)
- Screwdriver
- Soldering iron kit or approved sealed connectors

General installation guidelines

- It is recommended to install the unit in a hallway to limit the GE-M010 exposure to noxious gases. Do not install in the breeding room.
- In order to avoid condensation problems inside the GE-M010, it is recommended to install the module on an inside wall. If it is not possible, use spacers to have an air gap between the wall and the module.
- The GE-M010 should be installed in easy-access location but away from damaging elements (heat, cold, water, direct sunlight...).
- Do not install the GE-M010 near high-voltage equipment, power supply or transformer.

Wiring Procedure

1. Disconnect power source from the master controller and the GE-M010 module.
2. Open the GE-M010 module and the master controller enclosure.
3. Verify the technical specifications to know which wire to use.
4. Connect the equipment to the 4 screw green terminal block (OUT 1 and OUT 2 and REL 1 and REL 2 (if necessary) as shown in figures 2 and 3).
IMPORTANT: If a shielded wire is used, do not connect the shield.
5. Use the JP1 jumper to select the output type needed for output 1 (0-10Volts or 0-20mA).
6. Use the JP2 jumper to select the output type needed for output 2 (0-10Volts or 0-20mA).
7. Connect the power source to the 3 screw black terminal block identified as L1 and L2 (N). The ground must be also connected.
8. Connect the communication wire between the master controller and the GE-M010 module to the 2 screw green terminal block identified as IN. Use an AWG #22 wire and connect the shield to the ground of the master controller.

IMPORTANT: Low-voltage and high-voltage wire must be passed through different conduits at least 1 foot (30 cm) apart. If low-voltage and high-voltage conduits must be crossed, the crossing must be at a 90-degree angle.
9. Power up the master controller and the GE-M010 module. Verify that the GE-M010 is not in backup mode.
10. Close the master controller and the module enclosure. Don't forget to put a security screw or a padlock.

WARNING!

⚡ To avoid electric shock, disconnect power source prior to installation or troubleshooting.

Figure 1: Electronic Board

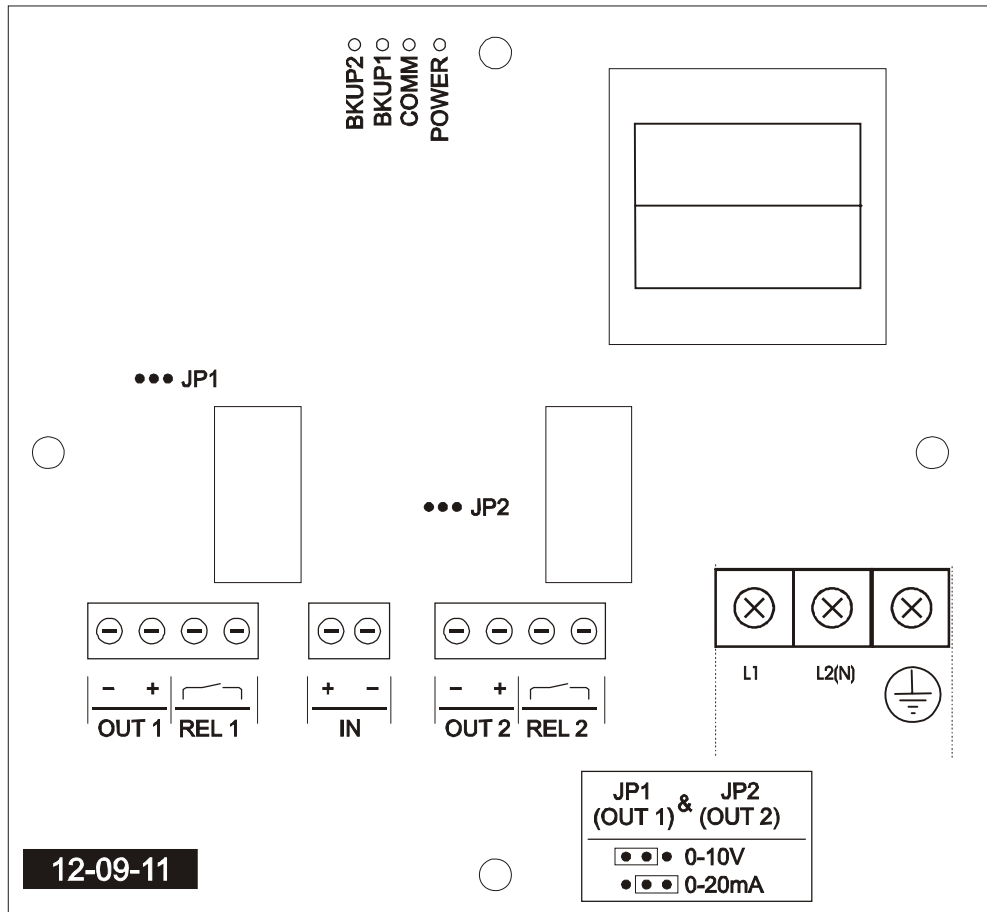
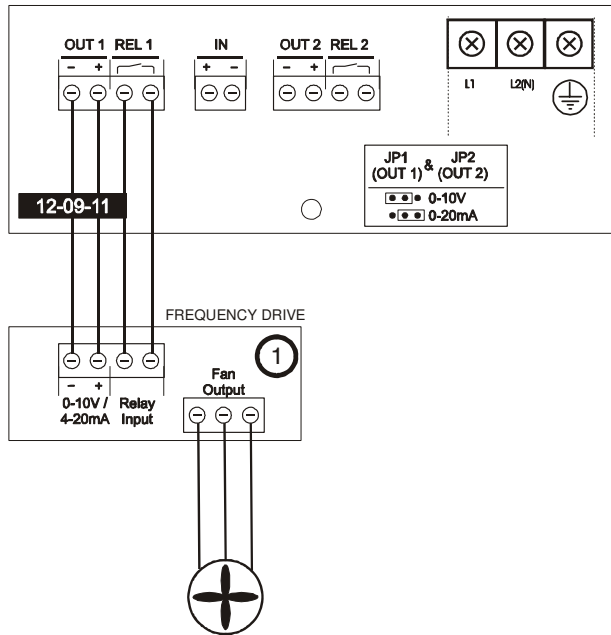
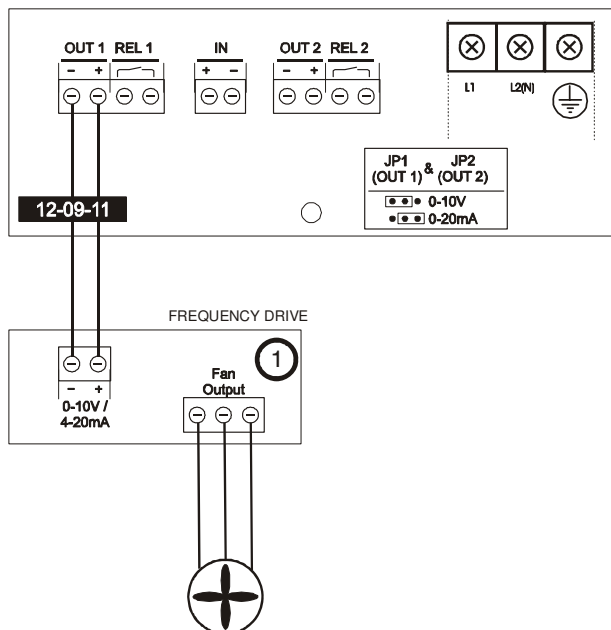


Figure 2: Connection with OUT 1 (same for OUT 2)



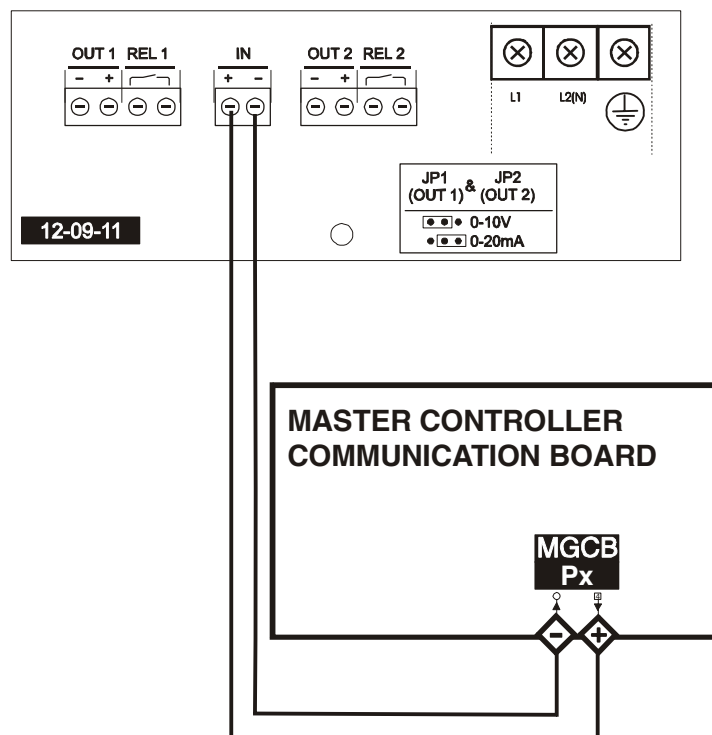
① FOR MORE INFORMATION SEE THE FREQUENCY DRIVE MANUAL.

Figure 3: Connection with OUT 1 and REL 1 (same for OUT 2 and REL 2)



① FOR MORE INFORMATION SEE THE FREQUENCY DRIVE MANUAL.

Figure 4: Connection with Master Controller



Specifications

DESCRIPTION	VALUE
Storage temperature	-4°F to 131°F (-20°C to 55°C)
Operating temperature	32°F to 113°F (0°C to 45°C)
Humidity	90% maximum Non-condensing
Weight	1,4 lb (0,6 kg)
Size	5 15/16" x 5 15/16" x 3 9/16" (15 cm x 15 cm x 10 cm)
Protection index	IP 66
Warranty	2 years
Power Supply	115/230 VAC (depending on model ordered), -20 % + 30 %, 50/60Hz, Max. Consumption. 6VA
0-10 Volts Outputs	0-10Volts, 2% precision. Maximum Load: 10 mA. Use an AWG #22 wire (maximum length: 30m).
0-20 mA Outputs	0-20mA, 2% precision. Maximum Load: 5V. Use an AWG #22 wire (maximum length 30m with non-twisted pair or 250m maximum with twisted pair).
Relays	Dry contact, Normally Open 1A at 230V.

Limited Warranty

The manufactured equipment and supplied components have gone through rigorous inspection to assure optimal quality of product and reliability. Individual controls are factory tested under load, however the possibility of equipment failure and/or malfunction may still exist.

For service, contact your local retailer or supplier. The warranty period shall be for two years from manufacturing date. Proof of purchase is required for warranty validation.

In all cases, the warranty shall apply only to defects in workmanship and specifically exclude any damage caused by over-voltage, short circuit, misuse, acts of vandalism, lightning, fortuitous events, acts of God, flood, fire, hail or any other natural disaster. Any unauthorized work, modification or repair on this product automatically voids the warranty and disclaims the manufacturer from all responsibility.

The manufacturer assumes only those obligations set forth herein, excluding all other warranties or obligations. This warranty stipulates that in all cases the manufacturer shall be liable only for the supply of replacement parts or goods and shall not be liable for any personal injury, damages, loss of profits, interrupted operations, fines for infringement of the law or damages to the production of the PURCHASER and the PURCHASER shall take up the defence and hold the manufacturer faultless regarding any legal or extra legal proceedings, notice, or claim by the customer or by a third party, and regarding any legal and extra legal expenses and fees brought forward on by such damages.

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