



# MAN-652-OM13

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**Note:**

Biffi Italia has taken every care in collecting and verifying the documentation contained in this Instruction and Operating Manual.

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# F02

## OM13: Three-wire Module Card

### INDEX

<b>1. OPTIONAL MODULE 13: THREE-WIRE MODULE CARD.....</b>	<b>5</b>
1.1 MANUFACTURER .....	5
1.2 OM13 CARD FUNCTIONALITY .....	5
<b>2. INSTALLATION.....</b>	<b>6</b>
<b>3. OM13 CARD SETTING AND CONFIGURATION.....</b>	<b>13</b>
<b>4. OM13 KIT .....</b>	<b>13</b>
<b>5. OM13 WIRING DIAGRAM.....</b>	<b>14</b>



# 1. OPTIONAL MODULE 13: THREE-WIRE MODULE CARD

## 1.1 MANUFACTURER

Manufacturer with respect to Machinery Directive 98/37: BIFFI ITALIA as specified on the motor label.

## 1.2 OM13 CARD FUNCTIONALITY


The OM13 THREE-WIRES MODULE CARD is supplied as an OPTION on BIFFI F02 actuators.


It is possible to have the actuator already equipped with the OM13, ordering it with the basic feature.


Alternatively, it is possible to order the OM13 as a separate kit and install it on the basic actuator in the factory or in the field.


The **OM13** is an optional module suitable to accomplish the following F02 actuator additional functionalities:

- 120/240 Vac, 50/60 Hz, 3-wire control module for Open / Close operations.

<b>Warning:</b> 	F02 actuator must be electrically insulated before any disassembling and reassembling operations. Before any disassembling or reassembling operations, please follow in detail the relevant paragraph of the Basic Instruction and Operating Manual MAN 652 (latest revision available).
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<b>Warning:</b> 	The electronic parts of the F02 actuators or all the options can be damaged by a discharge of static electricity. Before you start, touch a grounded metal surface to discharge any static electricity.
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<b>Warning:</b> 	It is assumed that the installation, setting, commissioning, maintenance and repair works are carried out by qualified personnel and checked by responsible Specialists.
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<b>Warning:</b> 	Repair work, other than operations outlined in this manual, is strictly reserved to qualified BIFFI ITALIA personnel or authorized by the Company itself.
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## 2. INSTALLATION

To assemble the OM13 into the F02 actuator, proceed as follows:

- Ensure that all the parts received with the OM13 are available:
  - Models 063 and 125: 3 metal spacers with the relevant screws for card installation (Fig. 1a)
  - Models 250 through 2000: 4 plastic spacers with the relevant screws for card installation (Fig. 1b)

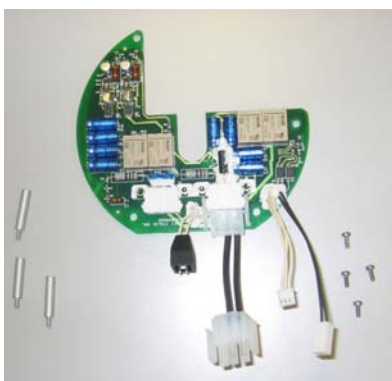


Fig. 1a: OM13 kit for models 63/125



Fig. 1b: OM13 kit for models 250 to 2000

- Gather the right tools for the assembly and for setting the actuator controls;
- With an Allen wrench unscrew the cover screws (Fig. 2):



Fig. 2

- Remove the actuator cover (Fig .3):



Fig. 3

- Remove the local mechanical indicator (Fig. 4):



Fig. 4

- Remove the 3 pins connector cable as indicated in Fig. 5;

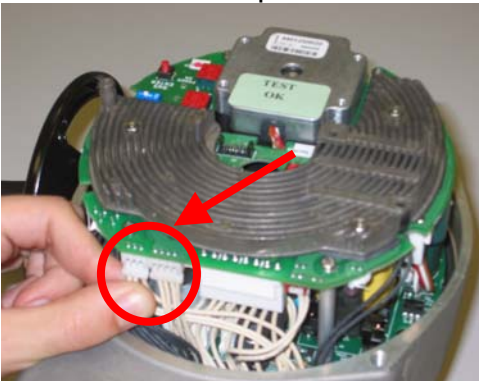


Fig. 5a: Models 63/125

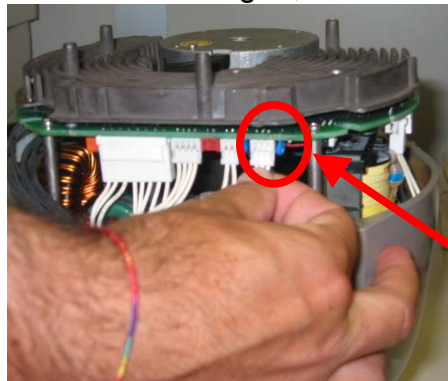


Fig. 5b: Models 250 through 2000

- Remove the 4 pins connector cable as indicated in Fig. 6;

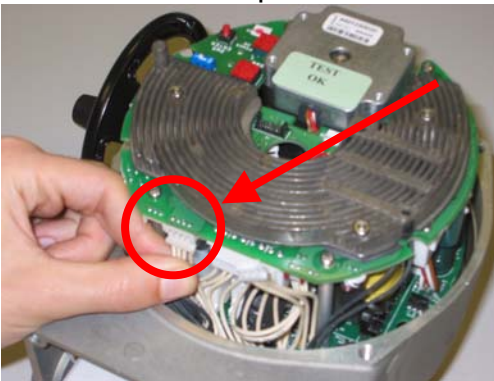


Fig 6a: Models 63/125

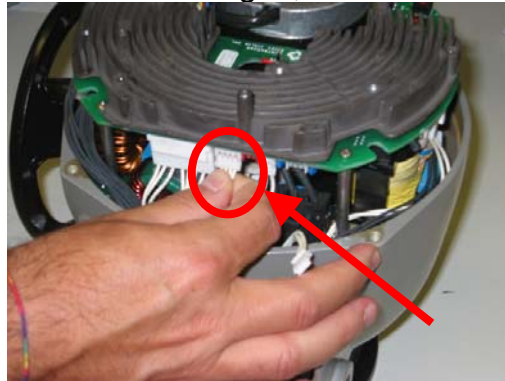


Fig. 6b: Models 250 through 2000

- Remove the 8 wire connector cable as indicated in Fig. 7 using a flat screwdriver to make the operation easier;

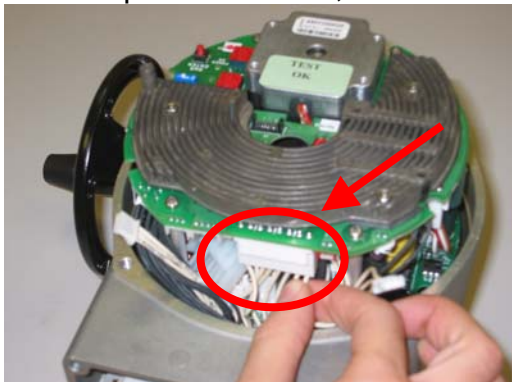


Fig. 7a: Models 63/125

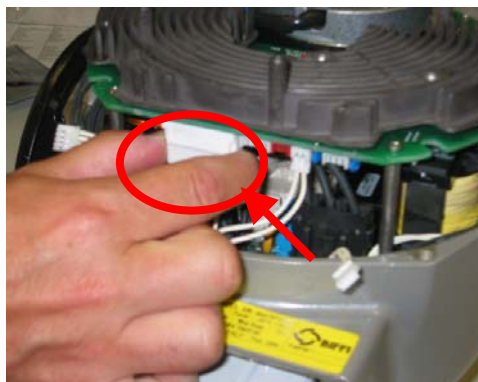


Fig. 7b: Models 250 through 2000

- Remove the 3 wire power connector cable as indicated in Fig. 8;

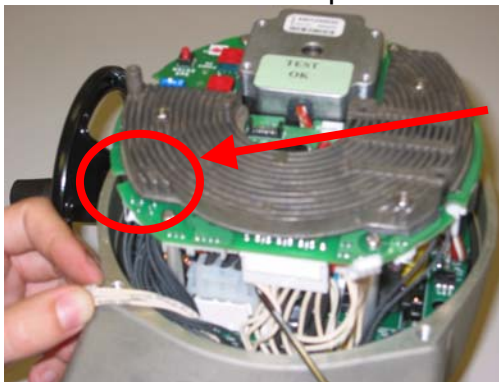


Fig. 8a: Models 63/125

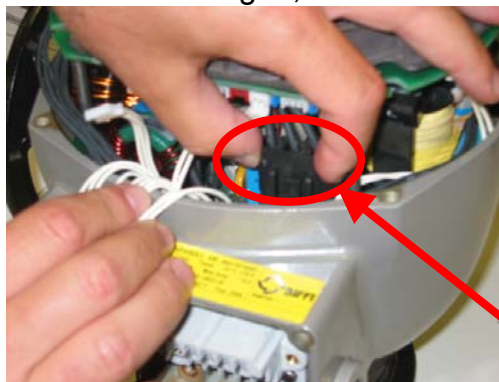


Fig. 8b: Models 250 through 2000

- Remove the 2 pins connector cable as indicated in Picture 9:

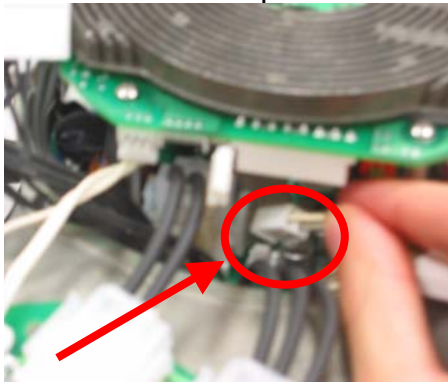


Fig. 9a: Models 63/125



Fig. 9b: Models 250 through 2000



- Remove the 2 wires connector cable as indicated in Fig. 10:

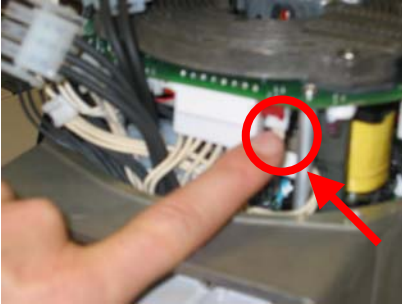


Fig. 10a: Models 63/125

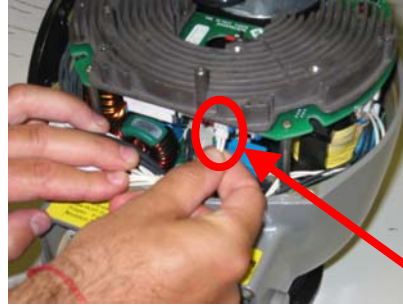


Fig. 10b: Models 250 through 2000

- For F02 models from 250 to 2000, mount the 4 plastic spacers supplied in the kit under the card, as shown in Fig. 11:

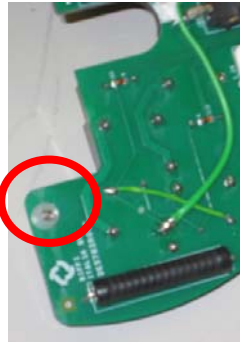
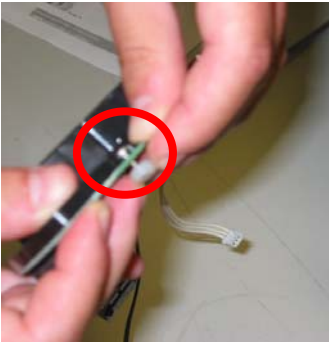


Fig. 11a & b: Models from 250 through 2000

If the heat exchanger of your F02 actuator has a battery holder housing (see Fig. 12) the 4 plastic spacers are not necessary.

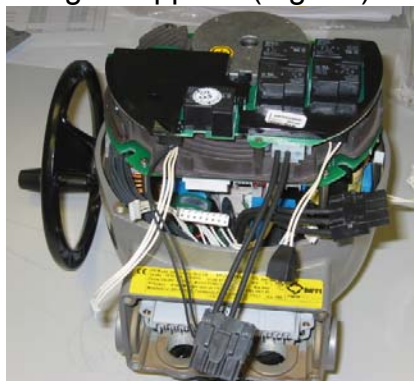


Fig. 12: Heat exchanger with battery holder housing (models 250 through 2000)

- Place the OM13 card onto the F02 heat exchanger supports (Fig. 13):

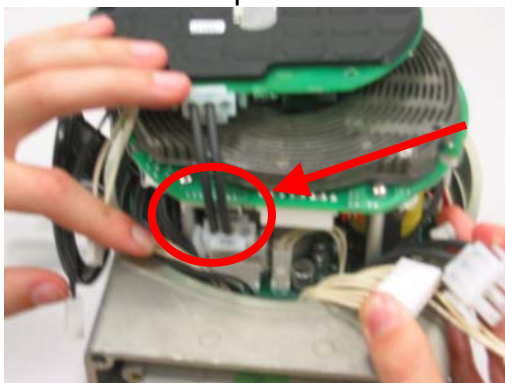


**Fig. 13a: Models 63/125**

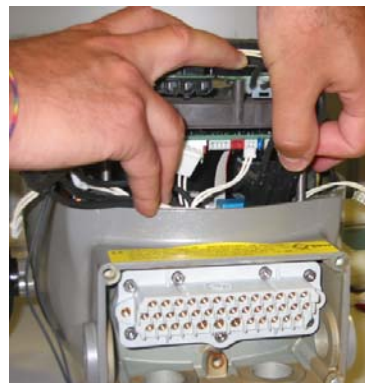


**Fig.13b: Models 250 through 2000**

- Connect the power cable as indicated in Fig. 14;

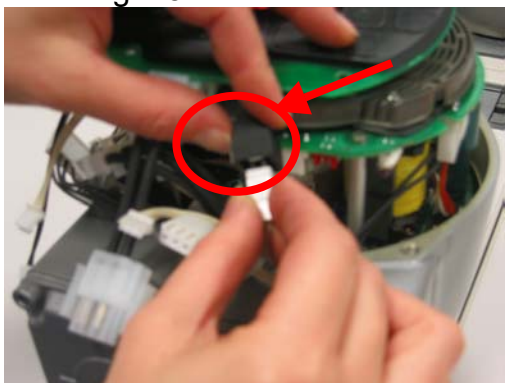


**Fig. 14a: Models 63/125**



**Fig.14b: Models 250 through 2000**

- Connect the 2 pins black connector to the 2 pins connector removed in Fig. 9, as indicated in Fig. 15:



**Fig. 15a: Models 63/125**



**Fig.15b: Models 250 through 2000**

- Connect the 2 pins connector cable as indicated in Fig. 16;

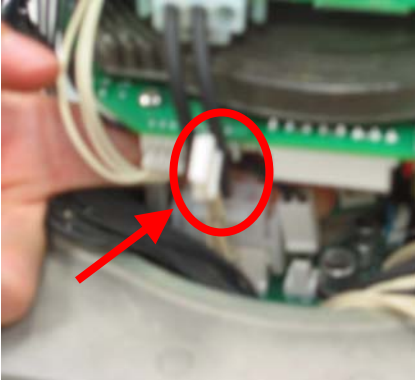


Fig. 16a: Models 63/125

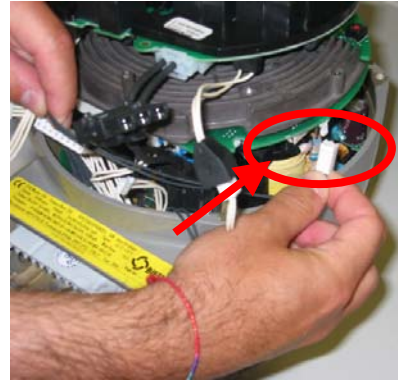


Fig. 16b: Models 250 through 2000

- Connect the 3 wire power connector cable as indicated in Fig. 17;

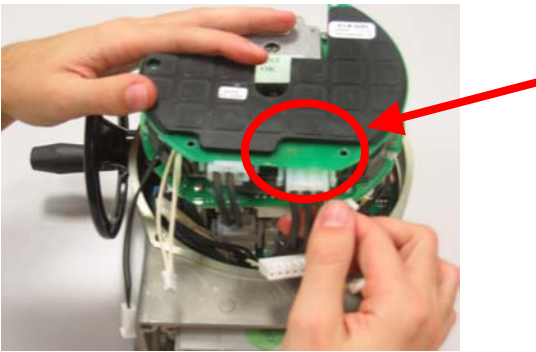


Fig. 17a: Models 63/125

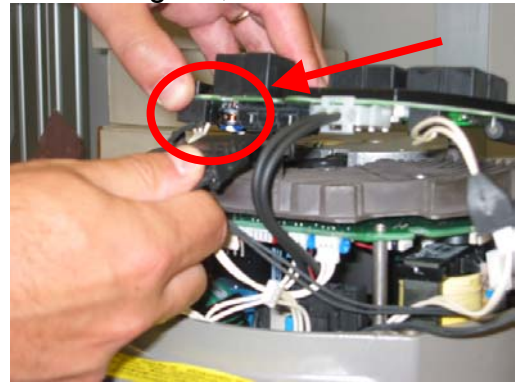


Fig. 17b: Models 250 through 2000

- Connect the 3 pins connector cable as indicated in Fig. 18;

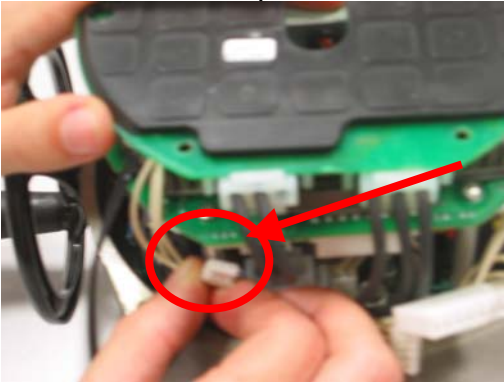


Fig. 18a: Models 63/125

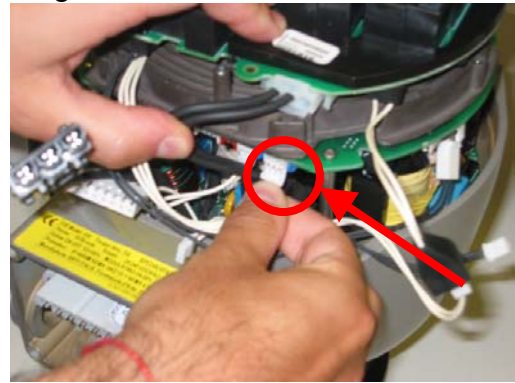
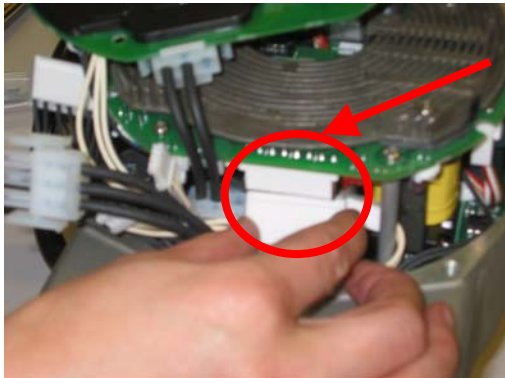
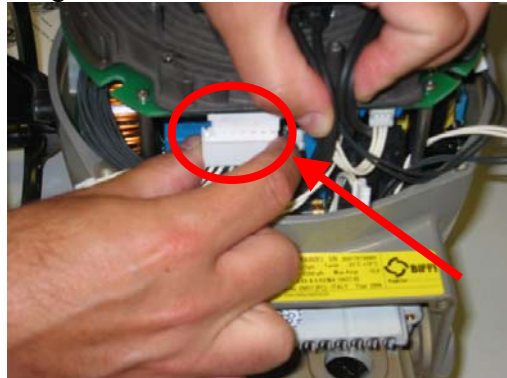


Fig. 18b: Models 250 through 2000

- Connect the 8 wire connector cable as indicated in Fig. 19;

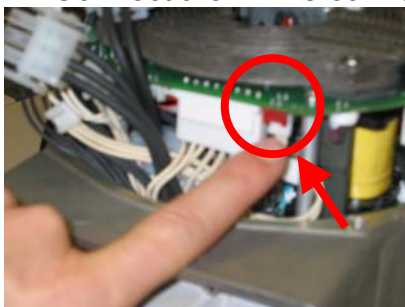


**Fig. 19a: Models 63/125**



**Fig. 19b: Models 250 through 2000**

- Connect the 2 wire connector cable as indicated in Fig. 20;



**Fig. 20a: Models 63/125**

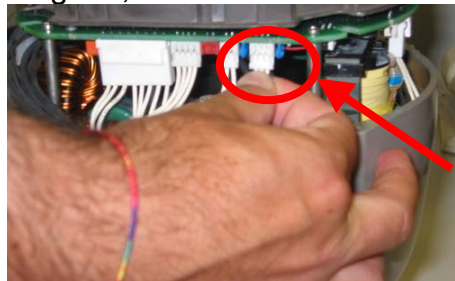


**Fig. 20b: Models 250 through 2000**

- Connect the 3 pins connector cable as indicated in Fig. 21;



**Fig. 21a: Models 63/125**



**Fig. 21b: Models 250 through 2000**

- Screw the three metal spacer (only for models 63 and 125).


- Screw the four screws to fix the OM13 card to the base card:



**Fig. 22a: Models 63/125**



**Fig. 22b: Models 250 through 2000**

<b>Important:</b> 	Please note that all the connectors provided with the basic actuator and any optional card are physically different each from the other (in term of design and number of pins). In no way is it possible to make a wrong connection.
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- The OM13 card is now connected.
- Re-install the local mechanical indicator (Fig. 23):




Fig. 24

- Replace and fix the actuator cover properly.

### 3. OM13 CARD SETTING and CONFIGURATION

For the F02 basic actuator settings, please refer to the base Instruction Handbook MAN 652. The OM13 is already set and configured (as the card does not need any setting and configuration) when all the operations described in previous Chapter 2 are completed.

<b>Warning:</b> 	<b>Do not electrically operate the F02 when the electrical enclosures are removed. Operating the unit with the electrical enclosures removed could cause personal injury.</b>
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### 4. OM13 KIT

This section includes the list of each component and subassembly of OM13 card.



Fig. 25a: OM13 kit for models 63 and 125

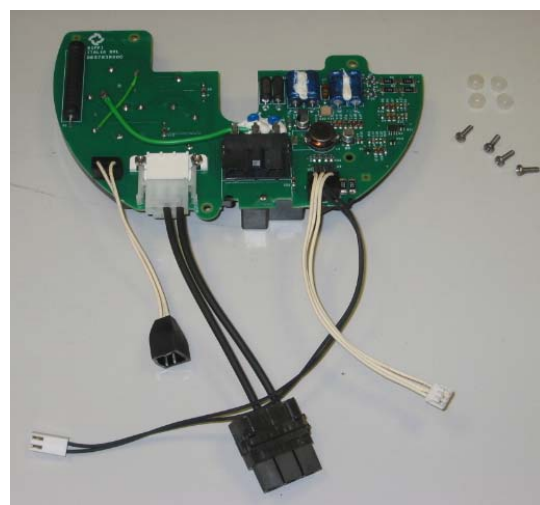
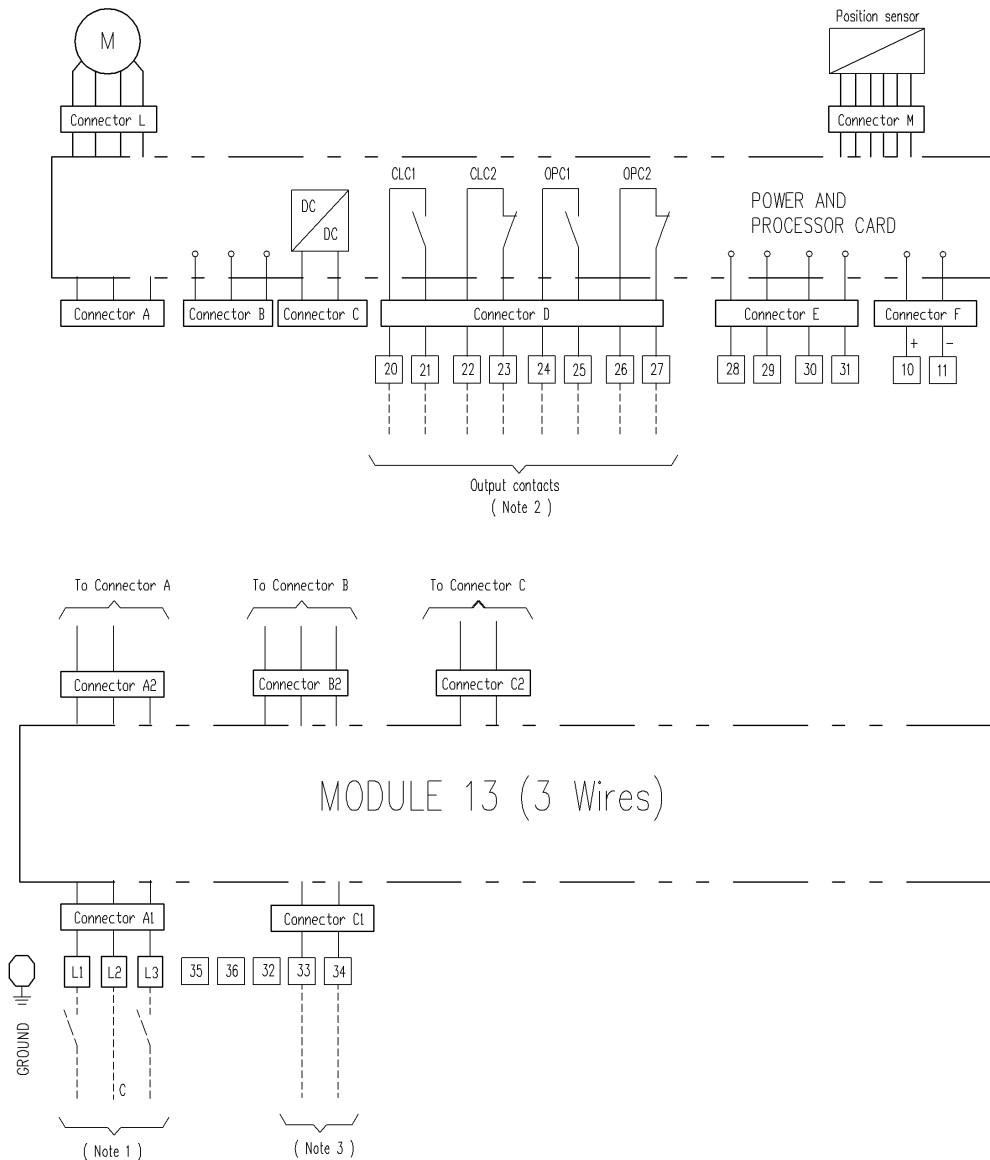


Fig. 25b: OM13 kit for 250 through 2000

## 5. OM13 WIRING DIAGRAM



**NOTES :**

- 1) L1-L2 connection to OPEN  
 L2-L3 connection to CLOSE  
 Supply from 110 to 240VAC/1ph
- 2) Contacts shown in intermediate position CLC1-CLC2 end of travel signalling in CLOSING  
 Contacts shown in intermediate position OPC1-OPC2 end of travel signalling in OPENING
- 3) Internal heater (max 10watt) is actionated when power supply from 110 to 240 VAC is connected to the terminals 33-34





**COMPANY  
WITH QUALITY SYSTEM  
CERTIFIED BY DNV  
=ISO 9001/2000=**

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