Before installation these instructions must be fully read and understood.

INDEX
1. Optional module 1: Modulating I/O module ................................ 1
2. Installation ....................................................2
3. OM1 card setting and configuration ......................6
4. Monitor relay functionality and setting ...........9
5. OM1 kits ......................................................10
6. OM1 wiring diagram ......................................11

1 OPTIONAL MODULE 1: MODULATING I/O MODULE

1.0 OM1 MODULAR FUNCTIONALITY

The OM1 Modulating I/O module is supplied as an option on Keystone EPI-2 actuators. It is possible to receive the actuator already equipped with the OM1, ordering it with the basic feature. Alternatively, it is possible to order the OM1 as a separate kit and install it in the basic actuator in the factory or in the field.

The OM1 is an optional module suitable to accomplish the following EPI-2 actuator additional functionalities:
- Positioner with analog position input 4-20 mA or 0-10 V DC optocoupled.
- Analog output position transmitter 4-20 mA or 0-10 V DC optocoupled.
- Monitor relay remote indication for:
  - loss of power
  - stop by torque out of limit
  - direction failure
  - over-temperature
  - position sensor alarm
  - valve jammed
  - hardware malfunction
  - alarm on local control panel (if present)
  - stroke failure
- Blinker/Local selector relay remote indication.
- 4 additional SPST output contacts to be set independently at 12.5% intervals along the stroke. Contacts are configurable (MAKE or BREAK).
- Optional Bluetooth connection feature.

IMPORTANT
For decommissioning instructions, please refer to the relevant chapter in the EPI-2 manual ref. VCIOM-02881.

WARNING
EPI-2 actuator must be electrically isolated before any disassembling or reassembling operations. Before any disassembling or reassembling operations, please follow in detail the relevant paragraph of the basic installation and operating manual [latest revision available].

WARNING
The electronic parts of the EPI-2 actuators and all option modules can be damaged by a discharge of static electricity. Before you start, touch a grounded metal surface to discharge any static electricity.

WARNING
It is assumed that the installation, configuration, commissioning, maintenance and repair works are carried out by qualified personnel and checked by responsible specialists.

WARNING
Repair work, other than operations outlined in this manual, is strictly reserved to qualified Keystone personnel or to personnel authorized by the company itself.

1.2 MANUFACTURER

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

To assemble the OM1 into the EPI-2 actuator, proceed as follows:

- Ensure that all the parts received with the OM1 are available as described in paragraph 5.
- Using paragraph 5, select only mechanical parts (screws and spacers) depending on actuator models.
- Gather the right tools for the assembly and for setting the actuator controls.
- With an Allen wrench of 5 mm unscrew the cover screws (Figure 1).
- Remove the actuator cover (Figure 2).

Follow one of the following assembling procedures depending on actuator model.

2.1 ASSEMBLING PROCEDURE FOR MODELS 63-125 Nm OLD VERSION (US OR NO US MARKET)

- Detect the 4 black cables required for the OM1 which are already included in the basic actuator (Figure 3).
- Connect the flat cable furnished into the kit to connector J9 on OM1 (Figure 4).

- Unscrew the 3 screws (Figure 5):
  3 pcs M3x10.
- Tighten the 3 metal spacers (Figure 6).
- Connect OM1 flat cable to connector J8 on the logic board (Figure 7).
- Place the OM1 card onto the spacer and tighten the 4 screws (Figure 8).
KEYSTONE OM1 - EPI-2 MODULATING INPUT/OUTPUT MODULE
INSTALLATION AND MAINTENANCE INSTRUCTIONS

• Connect [Figure 9]:
  - the 8-pins connector to connector J3 on OM1
  - the 4-pins connector to connector J2 on OM1
  - the 3-pins connector to connector J6 on OM1
  - the 2-pins connector to connector J7 on OM1

2.2 ASSEMBLING PROCEDURE FOR MODELS 250-500-1000-2000 Nm OLD VERSION
(US OR NO US MARKET)

• Detect the 4 black cables required for the OM1 which are already included in the basic actuator; disassemble local mechanical indicator [Figure 10].

• Connect the flat cable furnished into the kit to connector J9 on OM1 [Figure 11].
• Connect OM1 flat cable to connector on the logic board [Figure 12].

• Place the OM1 card onto the heatsink spacers and tighten the 4 screws; assemble local mechanical indicator [Figure 13].
• Connect [Figure 14]:
  - the 8-pins connector to connector J3 on OM1
  - the 4-pins connector to connector J2 on OM1
  - the 3-pins connector to connector J6 on OM1
  - the 2-pins connector to connector J7 on OM1

2.3 ASSEMBLING PROCEDURE FOR MODELS 63-125 Nm NEW VERSION
(US OR NO US MARKET)

• Detect the 3 black cables required for the OM1 which are already included in the basic actuator [Figure 15].
• Connect the flat cable furnished into the kit to connector J9 on OM1 [Figure 16].
**KEYSTONE OM1 - EPI-2 MODULATING INPUT/OUTPUT MODULE**

**INSTALLATION AND MAINTENANCE INSTRUCTIONS**

- Unscrew the 3 screws (Figure 17).
- Tighten the 3 metal spacers and the plastic metal spacer (Figure 18).

![FIGURE 17](image17.jpg)
![FIGURE 18](image18.jpg)

- Connect OM1 flat cable to connector J8 on the logic board (Figure 19).
- Place the OM1 card onto the spares and tighten the 3 screws (Figure 20).

![FIGURE 19](image19.jpg)
![FIGURE 20](image20.jpg)

- Connect (Figure 21):
  - the 8-pins connector to connector J3 on OM1
  - the 3-pins connector to connector J6 on OM1
  - the 2-pins connector to connector J7 on OM1

![FIGURE 21](image21.jpg)

**2.4 ASSEMBLING PROCEDURE FOR MODELS 250-500-1000-2000NM NEW VERSION (US OR NO US MARKET)**

- Detect the 3 black cables required for the OM1 which are already included in the basic actuator (Figure 22).
- Connect the flat cable furnished into the kit to connector J9 on OM1 (Figure 23).

![FIGURE 22](image22.jpg)
![FIGURE 23](image23.jpg)
• Screw the 3 spacers and unscrew the screw that fix the motor cable (Figure 24).
• Disassemble local mechanical indicator and connect OM1 flat cable to connector on the logic board (Figure 25).

• Place the OM1 card onto the spacers and tighten the 4 screws; assemble local mechanical indicator (Figure 26).
• Connect (Figure 27):
  - the 8-pins connector to connector J3 on OM1
  - the 3-pins connector to connector J6 on OM1
  - the 2-pins connector to connector J7 on OM1

**IMPORTANT**
Please note that all the connectors provided with the base actuator and all optional cards are different from each other (in terms of design and number of pins). In no way is it possible to make a wrong connection.

• The OM1 card is now connected.
• Replace the actuator cover and fix it properly.
3 OM1 MODULE SETTING AND CONFIGURATION

For the EPI-2 basic actuator settings, please refer to the basic instruction and operation manual. The OM1 can be set once the basic EPI-2 has been completely set.

The OM1 configuration can be carried out through the control panel on the optional card itself. In order to get access to the panel, remove the actuator cover and when the setting is complete replace the cover properly.

3.1 LOCAL SETTING OF THE OM1

3.1.1 OM1 module default general setting
Please refer to the last column in the table on the next page.

3.1.2 OM1 module setting
If the application requires a different actuator setting than by default, please proceed as described in this chapter.

The setting of the actuator parameters is made through the following tools:
- Three selector switches SW7, SW8 and SW9 for functionalities settings
- Input and output voltage/current selection (through switches SW1, SW3, SW5 and SW6)
- Monitor relay contact type (through the welding pin J1)
- ENTER pushbutton SW2 (confirmation pushbutton)
- Dip switch SW4 (enable configuration mode)
- Red LED for ENTER action confirmation (switches on when setting is confirmed).

1. Set the requested parameter and functionality accordingly to the following table.
2. Enter setup configuration: move SW4 switch to position ON [configuration mode].
3. Confirm each setting by pushing ENTER pushbutton SW2.
4. When pushing SW2, the red LED switches on for confirmation.
5. Exit configuration mode (move SW4 switch to position 1).
6. Repeat this setting for each parameter.

WARNING
Do not electrically operate the EPI-2 when the electrical enclosures are removed. Operating the unit with the electrical enclosures removed could cause personal injury.

FIGURE 28

IMPORTANT
Please note that the OM1 module setting does not require to be done in succession as indicated in the following pages. Each parameter can be set independently.
# KEYSONE OM1 - EPI-2 MODULATING INPUT/OUTPUT MODULE

## INSTALLATION AND MAINTENANCE INSTRUCTIONS

**SETUP OPTIONAL CARD 4-20 mA (OM1)**

<table>
<thead>
<tr>
<th>Setup</th>
<th>Rotary switch settings</th>
<th>Dip switch</th>
<th>Confirm button</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position relay LS3 (AUXC1)</td>
<td>every position</td>
<td>SW9 0, SW8 0-9</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Position relay LS4 (AUXC2)</td>
<td>every position</td>
<td>SW9 1, SW8 0-9</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Position relay LS5 (AUXC3)</td>
<td>every position</td>
<td>SW9 2, SW8 0-9</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Position relay LS6 (AUXC4)</td>
<td>every position</td>
<td>SW9 3, SW8 0-9</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Set 0% input 4-20 mA</td>
<td>every position</td>
<td>SW9 4, SW8 0</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Set 100% input 4-20 mA</td>
<td>every position</td>
<td>SW9 5, SW8 0 [off]</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Fail safe</td>
<td>every position</td>
<td>SW9 1</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Dead band</td>
<td>every position</td>
<td>SW9 7, SW8 0-9</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Relays LS3-LS5</td>
<td>every position</td>
<td>SW9 6, SW8 0-9</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Relays LS4-LS6</td>
<td>every position</td>
<td>SW9 8, SW8 0-break</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Blinker / Local selector</td>
<td>every position</td>
<td>SW9 0, SW8 9 0-off</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Retransmission direct/reverse</td>
<td>every position</td>
<td>SW9 9, SW8 0-direct</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Retransmission volt/mA</td>
<td>every position</td>
<td>SW9 9, SW8 0-direct</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Set direct/reverse</td>
<td>every position</td>
<td>SW9 2, SW8 9 0-direct</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Position request</td>
<td>every position</td>
<td>SW9 3, SW8 9 0-off</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Set 4-20 mA</td>
<td>every position</td>
<td>SW9 4, SW8 9 0-off</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Set 0-10 V</td>
<td>every position</td>
<td>SW9 4, SW8 9 0-on</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Offset open for retransmission</td>
<td>every position</td>
<td>SW9 5, SW8 9 0-increase</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
<tr>
<td>Offset closed for retransmission</td>
<td>every position</td>
<td>SW9 6, SW8 9 1-decrease</td>
<td>ON</td>
<td>PUSHED</td>
</tr>
</tbody>
</table>
3.1.3 4-20 mA / 0-10 V DC input setting
The setting of the input signal 4-20 mA or 0-10 V DC is done on the hardware of the OM1 card.
By moving switches SW3 and SW5 shown below, it is possible to select 4-20 mA or 0-10 V DC. Input setting is 4-20 mA by default.

**WARNING**
This configuration is an hardware setting; so it is mandatory to do it with system off (no power supply).

**Input 4-20 mA**
In order to set input as a 4-20 mA signal, please proceed as follows:
SW3_1 = OFF; SW3_2 = On
SW5 = ON
Impedance = 385 Ohm

**Input 0-10 V DC**
In order to set input as a 0-10 V DC signal, please proceed as follows:
SW3_1 = ON; SW3_2 = OFF
SW5 = OFF
Impedance = 200 kOhm

3.1.4 4-20 mA / 0-10 V DC output setting
The setting of the output signal 4-20 mA or 0-10 V DC is done on the hardware of the OM1 card.
By moving switches SW1 and SW6 shown below, it is possible to select 4-20 mA or 0-10 V DC.
Output setting is 4-20 mA by default.

**WARNING**
This configuration is an hardware setting; so it is mandatory to do it with system off (no power supply).

**Output 4-20 mA**
In order to set output as a 4-20 mA signal, please proceed as follows:
SW1_1 = ON; SW1_2 = OFF; SW1_3 = OFF; SW1_4 = On
SW6 = OFF
Impedance = 250 Ohm

Output 0-10 V DC
In order to set output as a 0-10 V DC signal, please proceed as follows:
SW1_1 = OFF; SW1_2 = ON; SW1_3 = ON; SW1_4 = OFF
SW6 = ON

### AUXC1 (LS3)
<table>
<thead>
<tr>
<th>SW8</th>
<th>SW7</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>inactive</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>12.5%</td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>0</td>
<td>4</td>
<td>37.5%</td>
</tr>
<tr>
<td>0</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>0</td>
<td>6</td>
<td>62.5%</td>
</tr>
<tr>
<td>0</td>
<td>7</td>
<td>75%</td>
</tr>
<tr>
<td>0</td>
<td>8</td>
<td>87.5%</td>
</tr>
<tr>
<td>0</td>
<td>9</td>
<td>99%</td>
</tr>
</tbody>
</table>

### AUXC2 (LS4)
<table>
<thead>
<tr>
<th>SW8</th>
<th>SW7</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>inactive</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>12.5%</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>37.5%</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>62.5%</td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>75%</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>87.5%</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>99%</td>
</tr>
</tbody>
</table>

### AUXC3 (LS5)
<table>
<thead>
<tr>
<th>SW8</th>
<th>SW7</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>inactive</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>12.5%</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>37.5%</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>62.5%</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>75%</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>87.5%</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>99%</td>
</tr>
</tbody>
</table>

### AUXC4 (LS6)
<table>
<thead>
<tr>
<th>SW8</th>
<th>SW7</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>inactive</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>12.5%</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>25%</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>37.5%</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>62.5%</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>75%</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>87.5%</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>99%</td>
</tr>
</tbody>
</table>
3.1.6 Dead band settings
Please find below the table with the setting of the dead band.

<table>
<thead>
<tr>
<th>DEAD BAND</th>
<th>Description*</th>
<th>Description**</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW8</td>
<td>SW7</td>
<td></td>
</tr>
<tr>
<td>6 0</td>
<td>0.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td>6 1</td>
<td>0.4%</td>
<td>1.5%</td>
</tr>
<tr>
<td>6 2</td>
<td>0.5%</td>
<td>2.0%</td>
</tr>
<tr>
<td>6 3</td>
<td>0.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>6 4</td>
<td>0.7%</td>
<td>3.0%</td>
</tr>
<tr>
<td>6 5</td>
<td>0.8%</td>
<td>3.5%</td>
</tr>
<tr>
<td>6 6</td>
<td>0.9%</td>
<td>4.0%</td>
</tr>
<tr>
<td>6 7</td>
<td>1.0%</td>
<td>4.5%</td>
</tr>
<tr>
<td>6 8</td>
<td>1.5%</td>
<td>5.0%</td>
</tr>
<tr>
<td>6 9</td>
<td>2.0%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

* Firmware revision minor or equal 2.14
** Firmware revision major or equal 2.15

3.1.7 Position request
To use the positioner feature [with analog position input 4–20 mA or 0–10 VDC] it is mandatory to set the position request parameter to 1: on. The position request parameter is set to 0: off as default (see the setup table on page 7).

3.2 ADDITIONAL BLUETOOTH OPTIONAL CARD
It’s possible to receive the OM1 module with integrated Bluetooth module (see Figure 31). To use Bluetooth option, dip switch SW10 is to be ‘on’.

On valves.emerson.com website, please download AManager program and its related documentation. By means this software and Bluetooth connection, it is possible to configure/setting the entire actuator without using local settings area. Please refer to ‘Installation and User Manual’ document for details.

4 MONITOR RELAY
FUNCTIONALITY AND SETTING
The Monitor relay indicates the following failures:

<table>
<thead>
<tr>
<th>MONITOR RELAY FUNCTIONALITY</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Missing input 4-20 mA</td>
</tr>
<tr>
<td>2</td>
<td>Stop by torque out of the limits</td>
</tr>
<tr>
<td>3</td>
<td>Direction failure</td>
</tr>
<tr>
<td>4</td>
<td>Temperature too high</td>
</tr>
<tr>
<td>5</td>
<td>Position sensor failure</td>
</tr>
<tr>
<td>6</td>
<td>Local control panel with selector in local position</td>
</tr>
<tr>
<td>7</td>
<td>Valve jammed</td>
</tr>
<tr>
<td>8</td>
<td>Hardware malfunction</td>
</tr>
<tr>
<td>9</td>
<td>Alarm on the local control panel (if present)</td>
</tr>
<tr>
<td>10</td>
<td>Stroke failure</td>
</tr>
<tr>
<td>11</td>
<td>Bluetooth™ failure (if present)</td>
</tr>
</tbody>
</table>

The Monitor relay contacts can be set as closed or open by changing the welding of pin J1. As a default setting, pins 2 and 3 are welded together, and the Monitor relay contact operates as follows:
- contact closed in normal condition with relay energized, and open in case of malfunction (relay is de-energized).
- In case of request, if contact must be open in normal condition and closed in case of malfunction, the contacts of pin J1 must be modified by welding pins 1 and 2 together.

WARNING
This configuration is an hardware setting; so it is mandatory to do it with system off (no power supply).
5 OM1 KITS

The OM1 kit consists of the following parts (see Figure 32):
- OM1 modulating input/output module
- 3 pcs metal spacers
- 1 pc metal exagonal spacer 15 mm
- 3 pcs metal exagonal spacers 25 mm
- 1 plastic spacer
- 1 flat cable with connectors
- 3 screws M3x8
- 4 screws M3x10

This kit allows to assemble optional module OM1 over all different EPI-2 models. Depending on models, only some spacers and screws have to be used.
Refer to tables below and Figure 33 to choose the correct mechanical parts.

FIGURE 32
Points A, B, C and D to fix the board on standard group

FIGURE 33

EPI-2 CROSS REFERENCE TABLE (NON US MARKET)

<table>
<thead>
<tr>
<th>Actuator model</th>
<th>Old 63-125</th>
<th>Old 250-2K</th>
<th>New 63-125</th>
<th>New 250-2K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product coding chart</td>
<td>UV - VU</td>
<td>UV - VU</td>
<td>LV - HV</td>
<td>LV - HV</td>
</tr>
<tr>
<td>digit X/Xg 1-phase</td>
<td>31, 32, 33</td>
<td>31, 32, 33</td>
<td>3A, 3B, 3C</td>
<td>3A, 3B, 3C</td>
</tr>
<tr>
<td>Product coding chart</td>
<td>1, 11</td>
<td>11</td>
<td>4, 8</td>
<td>5, 8</td>
</tr>
<tr>
<td>A</td>
<td>2, 12</td>
<td>12</td>
<td>1, 11</td>
<td>6, 9</td>
</tr>
<tr>
<td>B</td>
<td>3, 13</td>
<td>13</td>
<td>2, 12</td>
<td>7, 10</td>
</tr>
<tr>
<td>C</td>
<td>14</td>
<td>14</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>D</td>
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EPI-2 CROSS REFERENCE TABLE (US MARKET)

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<td>L - H</td>
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<td>1, 2, 3</td>
<td>A, B, C</td>
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<td>4, 8</td>
<td>5, 8</td>
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<td>12</td>
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<tr>
<td>C</td>
<td>14</td>
<td>14</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

FIGURE 34
Label for NON US MARKET - Digits X/Xg on product coding chart

FIGURE 35
Label for US MARKET - Digit 6 on product coding chart

FIGURE 36
Example of EPI-2 old version (heatsink present)

FIGURE 37
Example of EPI-2 new version (heatsink not present)
**KEYSTONE OM1 - EPI-2 MODULATING INPUT/OUTPUT MODULE**

**INSTALLATION AND MAINTENANCE INSTRUCTIONS**

### 6 OM1 WIRING DIAGRAM

**NOTES**

1. Power connection L1-L2 for V DC or V AC single phase motor supply: from 24 to 48 V or from 100 V to 240 V
   - Power connection L1-L2-L3 for 3-phase motor supply from 208 to 575 V (check on the actuator label the correct voltage to be applied.)
2. Remote commands options
   - 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. Output contact rating 240 V AC / 5 A - 30 V DC / 5 A - 120 V DC / 0.5 A
4. Control command rating: 24 to 120 V AC or V DC
5. Blinker or Local selector monitoring function (when module OM3 is present) to be configured
6. Position request 4-20 mA or 0-10 V to be selected on (OM1)
7. Position retransmission
8. Monitor and Blinker/Local selector relays are available on EPI-2 standard control group
9. Relay output contacts can be set normally (MAKE or BREAK)
10. Position retransmission

---

**Optional Module OM3**

- **Monitor relay**
- **Blinker/Local selector relay**
- **AUXC1**
- **AUXC2**
- **AUXC3**
- **AUXC4**
- **Retransmission position**

---

**Optional Module 1**

- **Monitor relay**
- **Blinker/Local selector relay**
- **Additional contacts independent adjustable along all the stroke 10 steps**

---

**Remote commands (Note 2, 5)**

- **Output contacts (Note 3, 4)**

---

**Internal supply 24 V DC**

- **External supply 24/120 V AC**
- **External supply 24/120 V DC**

---

**Notes**

1. Power connection L1-L2 for V DC or V AC single phase motor supply: from 24 to 48 V or from 100 V to 240 V
   - Power connection L1-L2-L3 for 3-phase motor supply from 208 to 575 V (check on the actuator label the correct voltage to be applied.)
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