

Table 3-1. Ovation Module Choices (Cont'd)

| Module Type                                                                                             | Channel | Electronic Module | Personality Module                        |
|---------------------------------------------------------------------------------------------------------|---------|-------------------|-------------------------------------------|
| Digital Input (24 VAC/DC or 48 VDC differential)                                                        | 16      | 1C31107G01        | 1C31110G02                                |
| Digital Input (24 VAC/DC or 48 VDC single ended)                                                        | 16      | 1C31107G01        | 1C31110G01                                |
| Compact Digital Input (125 VAC/DC differential)                                                         | 16      | 1C31232G03        | 5X00034G01 or Cavity Insert) <sup>2</sup> |
| Compact Digital Input (24/48 VAC/DC differential)                                                       | 16      | 1C31232G02        | 5X00034G01 or Cavity Insert) <sup>2</sup> |
| Compact Digital Input (24/48 VDC single ended)                                                          | 16      | 1C31232G01        | Cavity Insert) <sup>2</sup>               |
| Digital Output (0 - 60 VDC)                                                                             | 16      | 1C31122G01        | 1C31125G01                                |
| Digital Output (0 - 60 VDC w/relay pnl comm)                                                            | 16      | 1C31122G01        | 1C31125G02                                |
| Digital Output (0 - 60 VDC w/relay pnl comm ext fuses)                                                  | 16      | 1C31122G01        | 1C31125G03                                |
| HART Analog Input (4 - 20 mA)                                                                           | 8       | 5X00058G01        | 5X00059G01                                |
| HART Analog Output (4 - 20 mA)                                                                          | 8       | 5X00062G01        | 5X00063G01                                |
| HART High Performance Analog Input (4 - 20 mA)                                                          | 8       | 5X00062G01        | 5X00063G01                                |
| Loop Interface (AI: 0 - 10V AO: 0 - 10V)                                                                | 6       | 1C31174G01        | 1C31177G01                                |
| Loop Interface (AI: 0 - 10V AO: 0 - 10V)<br>User defined Digital Inputs <sup>3</sup>                    | 6       | 1C31174G21        | 1C31177G01                                |
| Loop Interface (AI: 0 - 5V AO: 0 - 10V)                                                                 | 6       | 1C31174G02        | 1C31177G01                                |
| Loop Interface (AI: 0 - 5V AO: 0 - 10V)<br>User defined Digital Inputs <sup>3</sup>                     | 6       | 1C31174G22        | 1C31177G01                                |
| Loop Interface (AI: 4 - 20mA<br>AO: 4 - 20mA remote powered)                                            | 6       | 1C31174G03        | 1C31177G03                                |
| Loop Interface (AI: 4 - 20mA<br>AO: 4 - 20mA remote powered)<br>User defined Digital Input <sup>3</sup> | 6       | 1C31174G23        | 1C31177G03                                |
| Loop Interface (AI: 4 - 20mA<br>AO: 4 - 20mA local powered)                                             | 6       | 1C31174G03        | 1C31177G02                                |
| Loop Interface (AI: 4 - 20mA<br>AO: 4 - 20mA local powered)<br>User defined Digital Input <sup>3</sup>  | 6       | 1C31174G23        | 1C31177G02                                |
| Loop Interface (AI: 4 - 20mA remote powered)                                                            | 4       | 1C31174G04        | 1C31177G03                                |

# Section 12. Digital Output Module

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## 12-1. Description

The Ovation digital output module provides a means to switch up to 60 VDC at moderate currents (for example, relay coils and lamps). The digital output module contains 16 current sinking transistor outputs capable of switching 60 VDC loads at up to 500mA.

The digital output module provides configurable communication timeout periods and LEDs to indicate the status of each output.

The Digital Output Module is applicable for CE Mark Certified Systems.

### Note

See **Section 3. I/O Modules** for environmental, installation, wiring, and fuse information.

## 12-2. Module Groups

### 12-2.1. Electronics Module

There is one Electronics module group for the Digital Output Module:

- 1C31122G01 provides for switching 60 VDC loads.

### 12-2.2. Personality Modules

There are three Personality module groups for the Digital Output Module:

- 1C31125G01 is used to interface the digital output module to the field through the terminal blocks.
- 1C31125G02 is used to interface the digital output module to the relay modules when power is supplied locally (from the I/O backplane auxiliary power supply). It can also be used to interface the digital output module to the field through the terminal blocks.

- 1C31125G03 is used to interface the digital output module to the relay modules when power is supplied remotely (from the relay modules). It can also be used to interface the digital output module to the field through the terminal blocks.

### Caution

**When 1C31125G03 is used, the returns for the remote power supply and the local power supply are connected together. Therefore, to avoid problems with differences in earth ground potentials, ensure that the power supply return lines are earth grounded at only ONE point.**

**Table 12-1. Digital Output Subsystem**

| Description                                                                                              | Channels | Electronic Module<br>or<br>Panel Kit | Personality<br>Module |
|----------------------------------------------------------------------------------------------------------|----------|--------------------------------------|-----------------------|
| <b>0-60 VDC Single ended Direct</b>                                                                      | 16       | 1C31122G01                           | 1C31125G01            |
| <b>Relay Panel Interface:</b>                                                                            |          |                                      |                       |
| Local Power Supply                                                                                       | 16       | 1C31122G01                           | 1C31125G02            |
| Field Power Supply                                                                                       | 16       | 1C31122G01                           | 1C31125G03            |
| <b>Relay Panels:</b>                                                                                     |          |                                      |                       |
| Solid State Relay Panel (AC)                                                                             | 16       | 5A22410G01                           |                       |
| Solid State Relay Panel (DC)                                                                             | 16       | 5A22410G02                           |                       |
| G2R Relay Panel<br>(Low Power Electromechanical)                                                         | 16       | 5A22411G01                           |                       |
| KU Relay Panel <sup>1</sup><br>(High Power Electromechanical)                                            | 16       | 5A22412G01, G02,<br>G03              |                       |
| <sup>1</sup> Two panels (8 relays each) are included in the KU Relay Panel kit 5A22412G01, G02, and G03. |          |                                      |                       |

All configurations are CE Mark certified, except AC/DC Solid State Relay Panels.

## 12-3. External Power Supplies

The Digital Output module may obtain voltage from the internal auxiliary power supply (backplane) or from an external power supply.

If an external power supply is used, see [Appendix D](#) for the steps to be undertaken before connecting the external power supply to the Digital Output module base unit terminal block. The external power supply DC output voltage level depends on the Digital Output module application.

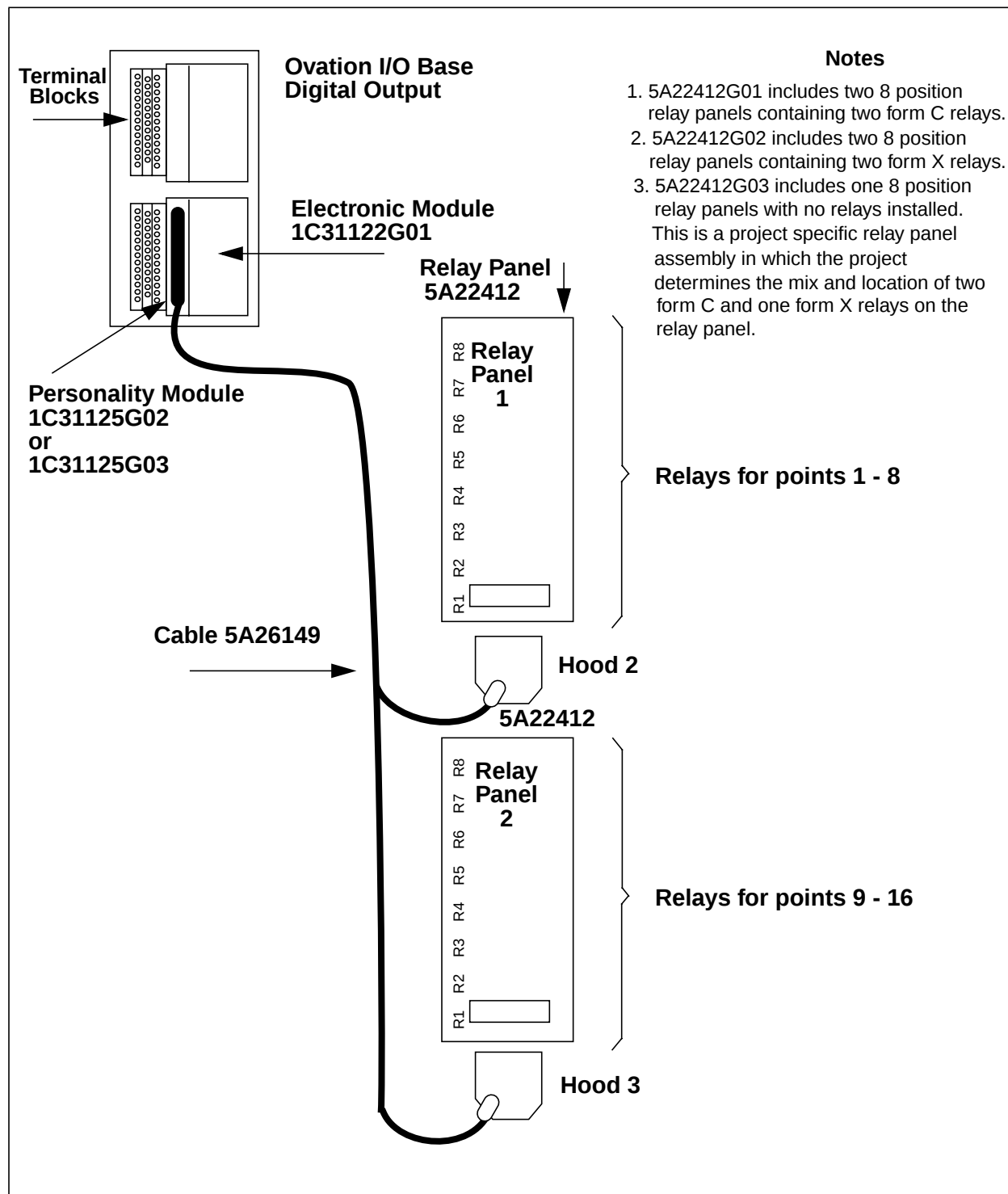


Figure 12-16. KUEP Relay Panels to Ovation I/O Base

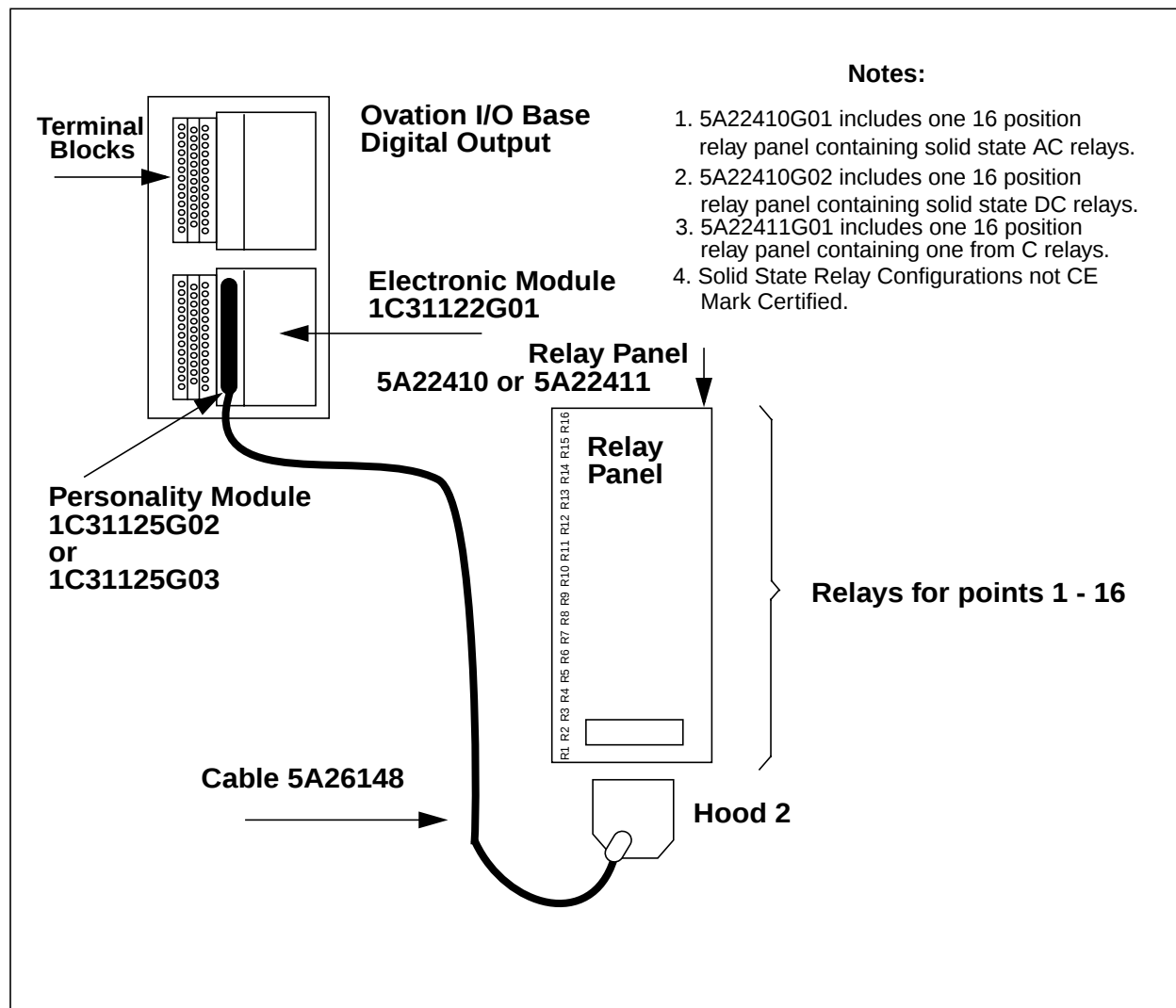


Figure 12-17. Solid State or G2R Relay Panels to Ovation I/O Base