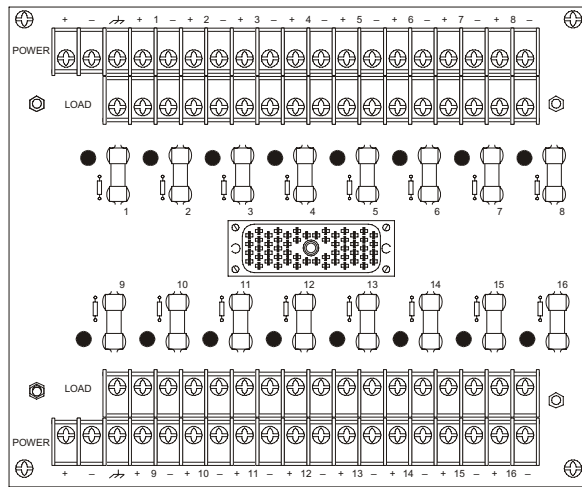


# 16-Point Non-Commoned Digital Output Term Panels

This section describes non-commoned digital output term panels. Model numbers of these term panels are:

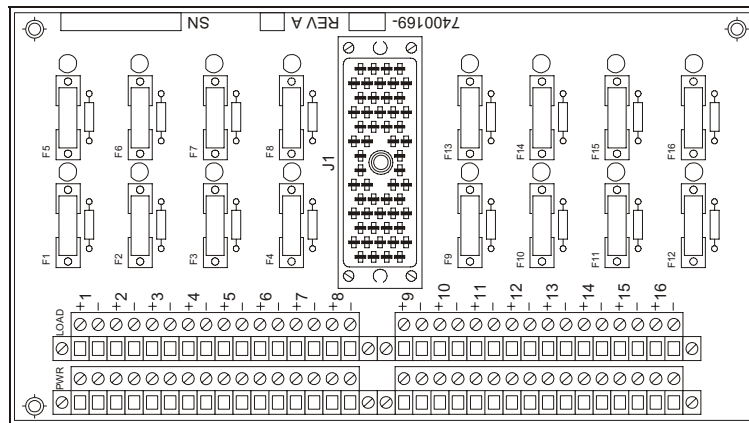
- 9251-210 (120 VDC, non-commoned, 16 pts., 3603B module)
- 9661-110 (115 VAC, non-commoned, 16 pts.)
- 9662-110 (24 VDC, non-commoned, 16 pts.)
- 9664-110 (115 VAC, non-commoned, 16 pts.)
- 9667-110 (48 VDC, non-commoned, 16 pts.)
- 9668-110 (non-commoned relay output, 16 pts.)

This figure represents a typical 16-point non-commoned digital output termination panel for the 3603B module.



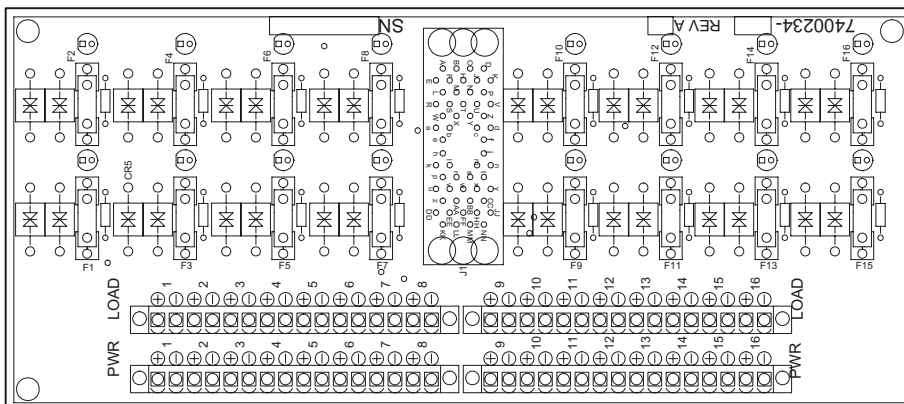
**Figure 88** Typical 16-Point Non-Commoned DO Term Panel for Module 3603B

This figure represents a typical 16-point non-commoned digital output termination panel for modules 3601E, 3604E, and 3607E.



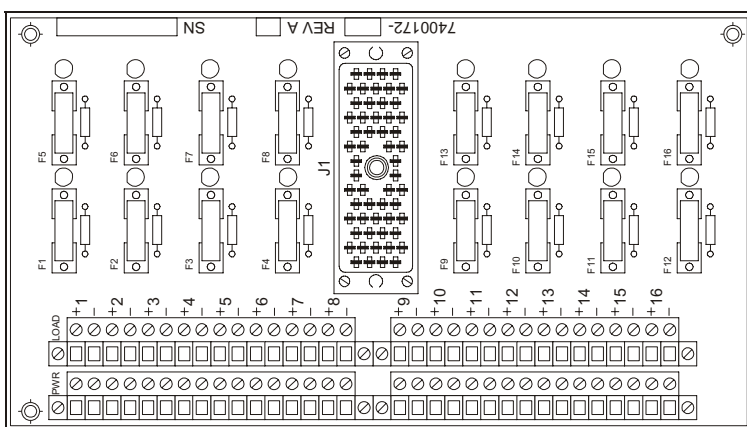
**Figure 89** Typical 16-Point Non-Commoned DO Term Panel for Modules 3601E, 3604E, and 3607E

This figure represents a typical 16-point non-commoned digital output termination panel for module 3601T.



**Figure 90** Typical 16-Point Non-Commoned DO Term Panel for Module 3601T

This figure represents a typical 16-point non-commoned relay output termination panel.



**Figure 91** Typical 16-Point Non-Commoned Relay Output Term Panel

## 9251-210 (120 VDC, non-commoned, 16 pts., 3603B module)

Termination panel 9251-210 has 16 non-commoned output points and is compatible with only 3603B digital output modules.

The 9251-210 is a 6.75 in. x 8.5 in. termination panel mounted on a 7 in. x 19 in. EIA Standard #RS-310-C mounting plate with a smoked-plexiglas cover (two pieces) and a 10-foot cable. The mounting plate has room for two termination panels. If you order a second termination panel you can mount it on the first mounting plate and save or discard the second mounting plate.

Each output point has a:

- Positive and negative terminal for connecting to a field load.
- Positive and negative terminal for connecting field power.
- Blown-fuse indicator (LED).

## Specifications

This table describes specifications for 9251-210.

**Table 77 Specifications for Term Panel 9251-210**

Feature	Description
Panel type	Non-commoned
Points	16
Leakage current per point	Maximum: 3.3 mA Typical: 2.5 mA

## Compatible Modules

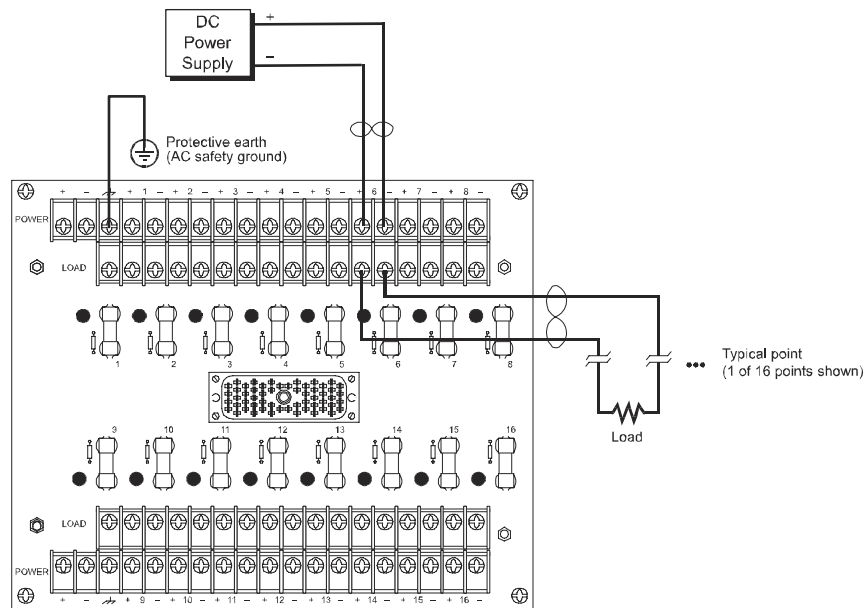
This table describes digital output modules compatible with 9251-210.

**Table 78 Modules Compatible with 9251-210**

Module Part Number	Points per Module	Module Description	Fuse
3603B	16	120 VDC, non-commoned, TMR	1A, fast

## Field Wiring Diagrams

This figure illustrates how to connect a 16-point digital output module and a 9251-210 to the field (1 of 16 points shown).



**Figure 92** Field Wiring for 9251-210 with a 3603B Module

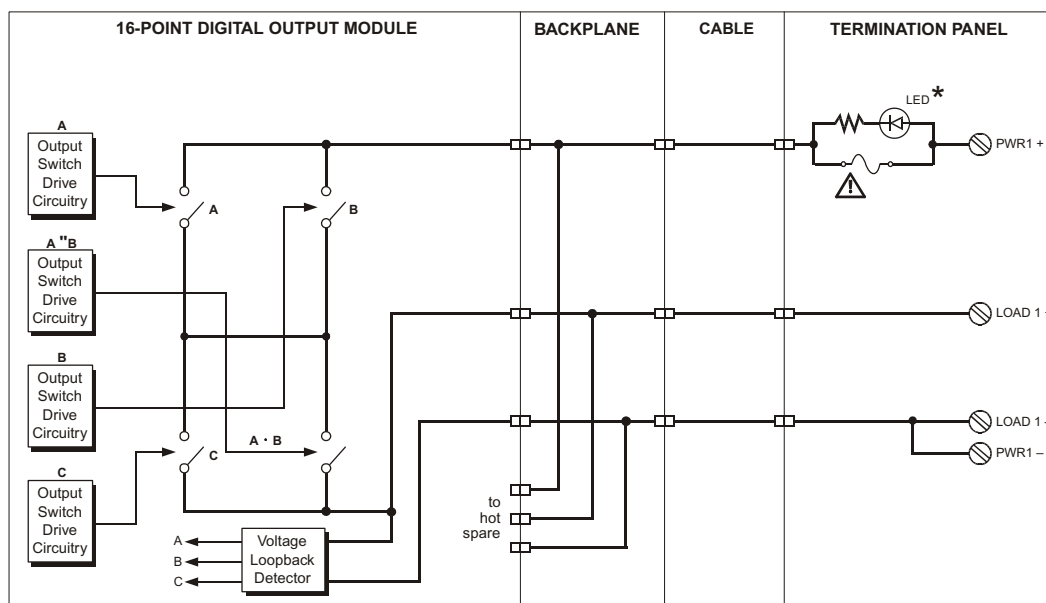
Each terminal accepts either #6 ring-lug terminals or 24-gauge to 12-gauge (0.3 mm<sup>2</sup> to 2.1 mm<sup>2</sup>) wires.

### CAUTION

Do not exceed 10 inch-pounds (1.13 Nm) of torque when securing the #6 screws on the termination panel. Although the #6 screws are rated for 16 inch-pounds (1.81 Nm), the standard industrial torque limit for #6 to #32 screws is 6 to 8 inch-pounds (0.68 to 0.90 Nm).

### Simplified Schematics

This is a simplified schematic of a typical 16-point non-commoned digital output module with a non-commoned digital output panel (1 of 16 points shown).



\* LEDs are blown-fuse indicators

Figure 93 Simplified Schematic of a 3603B DO Module with a Non-Commoned DO Panel

### 9661-110 (115 VAC, non-commoned, 16 pts.)

Termination panel 9661-110 is compatible with 115 VAC digital output modules and has:

- 16 LOAD+ and LOAD- terminals
- 16 PWR+ and PWR- terminals
- 16 fuses with blown-fuse indicators

## Specifications

This table describes specifications for 9661-110.

**Table 79 Specifications for Term Panel 9661-110**

Feature	Description
Panel type	Non-commoned
Points	16

## Compatible Modules

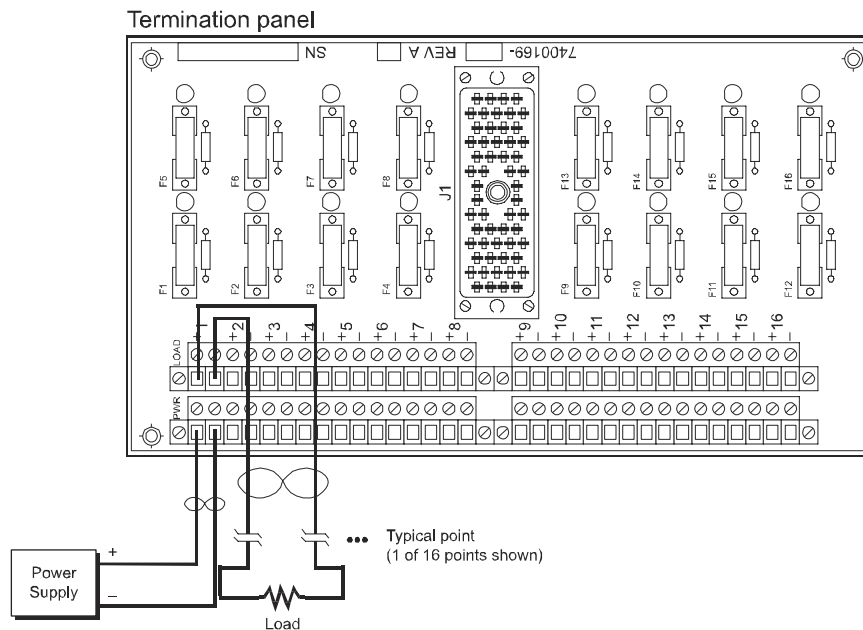
This table describes digital output modules compatible with 9661-110.

**Table 80 Modules Compatible with 9661-110**

Module Part Number	Points per Module	Module Description	Fuse
3601E	16	115 VAC, non-commoned, opto-isolated, TMR	3A, fast

## Field Wiring Diagrams

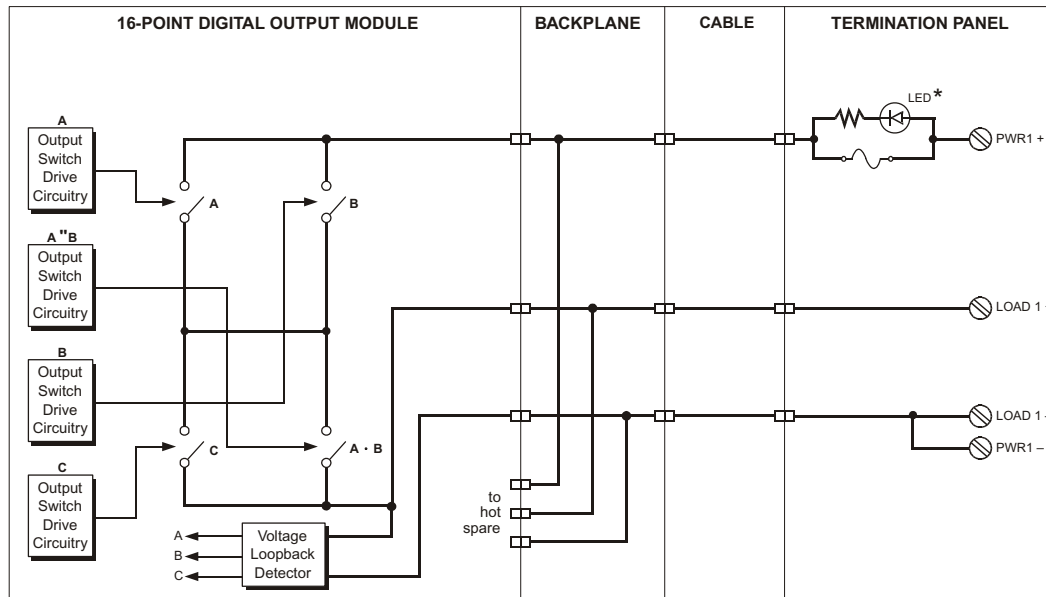
This figure illustrates how to connect a 16-point digital output module and a 9661-110 to the field (1 of 16 points shown).



**Figure 94** Field Wiring for 9661-110 with a 3601E Module

## Simplified Schematics

This is a simplified schematic of a typical 16-point non-commoned digital output module with a non-commoned digital output panel (1 of 16 points shown).



\* LEDs are blown-fuse indicators

**Figure 95** Simplified Schematic of a 3601E DO Module with a Non-Commoned DO Panel

## 9662-110 (24 VDC, non-commoned, 16 pts.)

Termination panel 9662-110 is compatible with 24 VDC digital output modules and has:

- 16 LOAD+ and LOAD- terminals
- 16 PWR+ and PWR- terminals
- 16 fuses with blown-fuse indicators

## Specifications

This table describes specifications for 9662-110.

**Table 81** Specifications for Term Panel 9662-110

Feature	Description
Panel type	Non-commoned
Points	16

## Compatible Modules

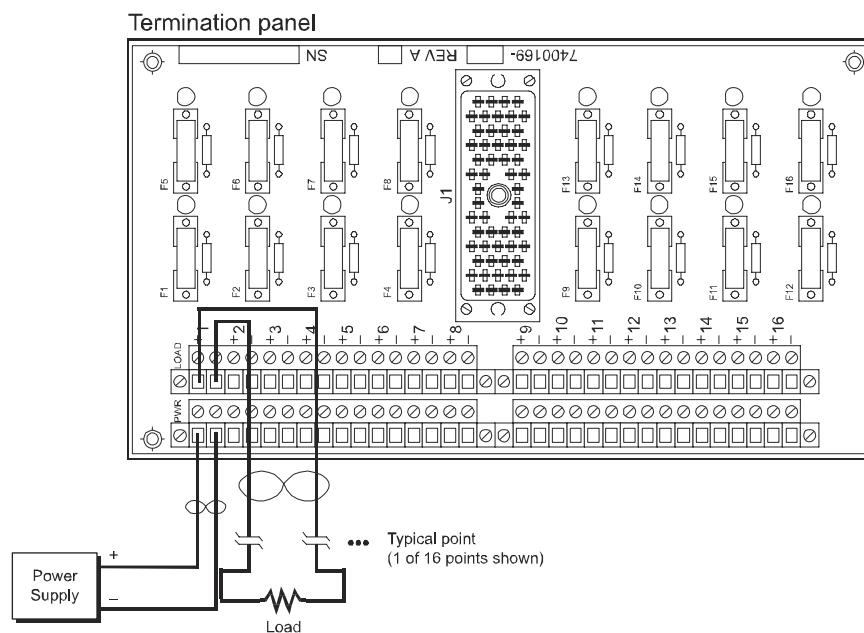
This table describes digital output modules compatible with 9662-110.

**Table 82** Modules Compatible with 9662-110

Module Part Number	Points per Module	Module Description	Fuse
3604E	16	24 VDC, non-commoned, opto-isolated, TMR	2.5A, fast

## Field Wiring Diagrams

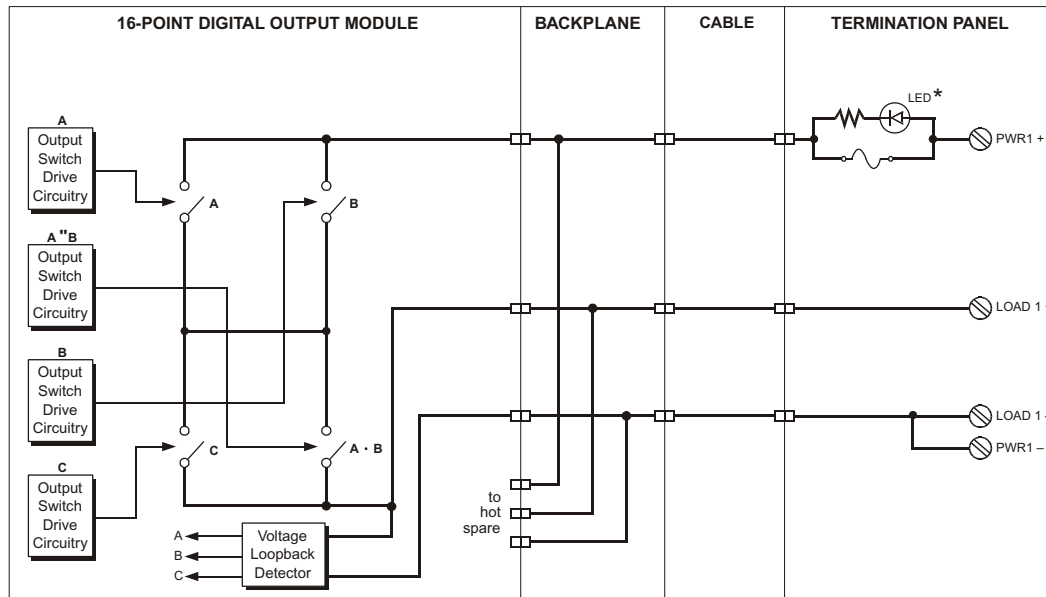
This figure illustrates how to connect a 16-point digital output module and a 9662-110 to the field (1 of 16 points shown).



**Figure 96** Field Wiring for 9662-110 with a 3604E Module

## Simplified Schematics

This is a simplified schematic of a typical 16-point non-commoned digital output module with a non-commoned digital output panel (1 of 16 points shown).



\* LEDs are blown-fuse indicators

**Figure 97** Simplified Schematic of a 3604E DO Module with a Non-Commoned DO Panel

## 9664-110 (115 VAC, non-commoned, 16 pts.)

Termination panel 9664-110 is compatible with 115 VAC digital output modules and has:

- 16 LOAD+ and LOAD- terminals
- 16 PWR+ and PWR- terminals
- 16 fuses with blown-fuse indicators

## Specifications

This table describes specifications for 9664-110.

**Table 83** Specifications for Term Panel 9664-110

Feature	Description
Panel type	Non-commoned
Points	16



## Compatible Modules

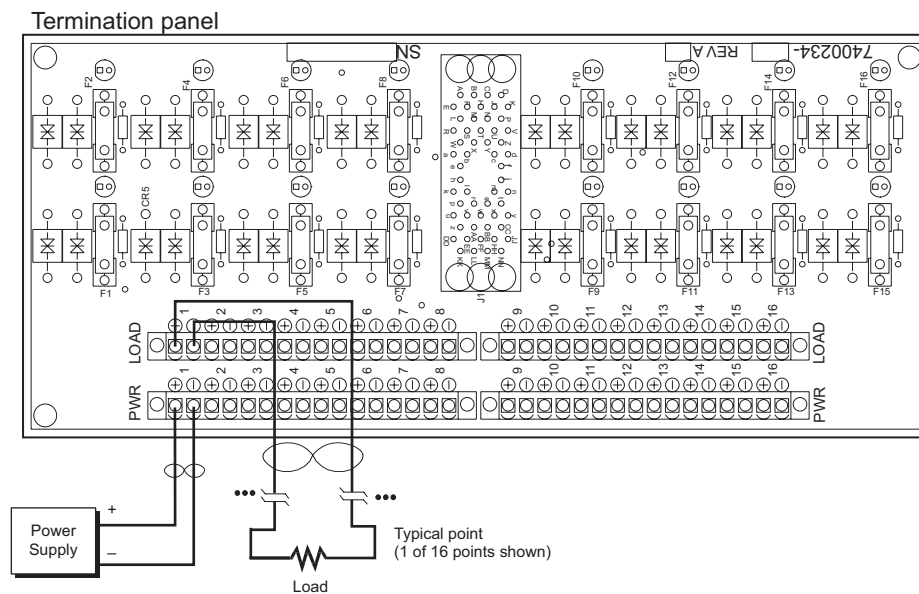
This table describes digital output modules compatible with 9664-110.

**Table 84** Modules Compatible with 9664-110

Module Part Number	Points per Module	Module Description	Fuse
3601E	16	115 VAC, non-commoned, opto-isolated, TMR	3A, fast
3601T	16	115 VAC, non-commoned, opto-isolated, TMR	3A, fast

## Field Wiring Diagrams

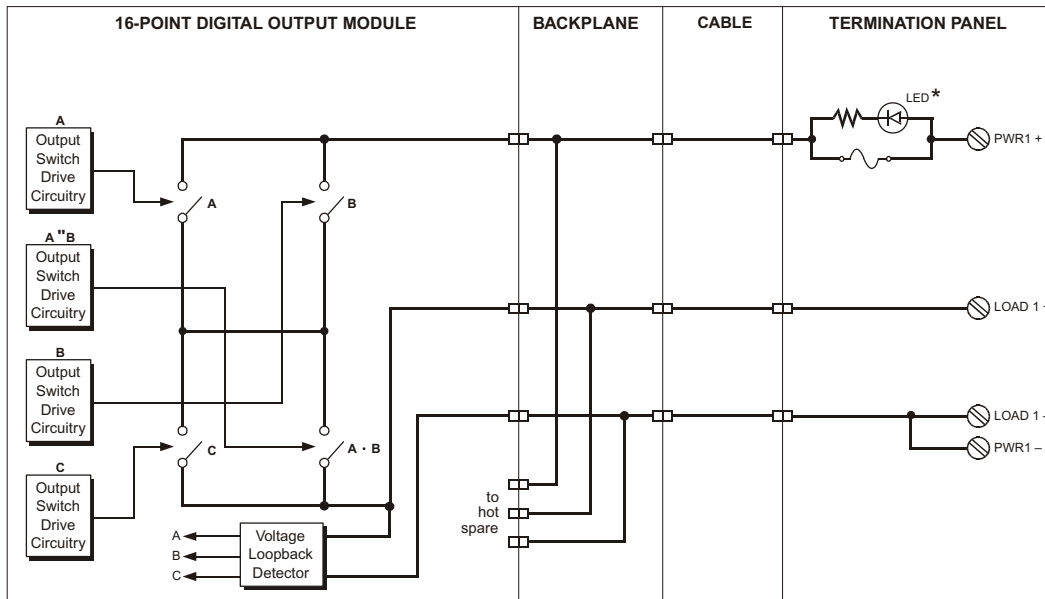
This figure illustrates how to connect a 16-point digital output module and a 9664-110 to the field (1 of 16 points shown).



**Figure 98** Field Wiring for 9664-110 with a 3601E or 3601T Module

### Simplified Schematics

This is a simplified schematic of a typical 16-point non-commoned digital output module with a non-commoned digital output panel (1 of 16 points shown).



\* LEDs are blown-fuse indicators

Figure 99 Simplified Schematic of a 3601E or 3601T DO Module with a Non-Commoned DO Panel

### 9667-110 (48 VDC, non-commoned, 16 pts.)

Termination panel 9667-110 is compatible with 48 VDC digital output modules and has:

- 16 LOAD+ and LOAD- terminals
- 16 PWR+ and PWR- terminals
- 16 fuses with blown-fuse indicators

### Specifications

This table describes specifications for 9667-110.

Table 85 Specifications for Term Panel 9667-110

Feature	Description
Panel type	Non-commoned
Points	16

## Compatible Modules

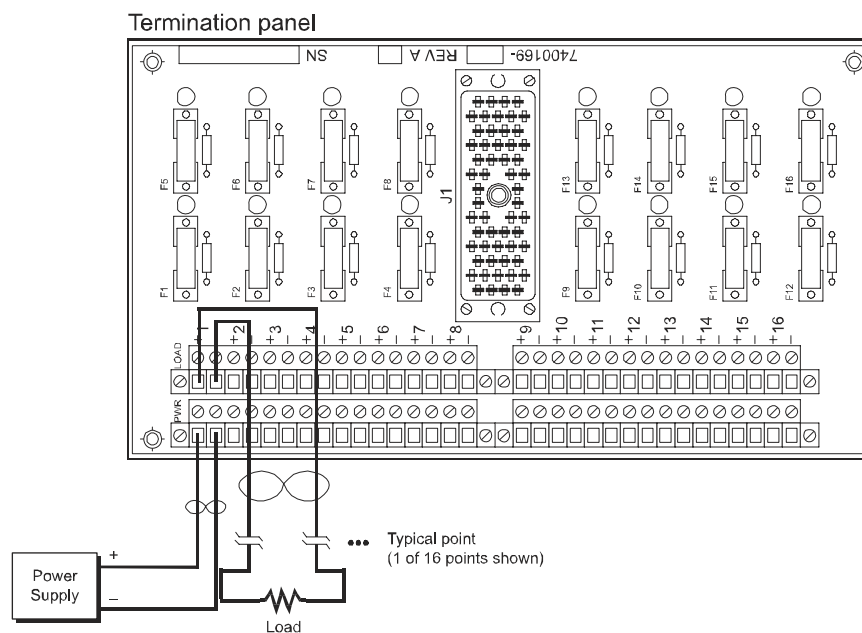
This table describes digital output modules compatible with 9667-110.

**Table 86** Modules Compatible with 9667-110

Module Part Number	Points per Module	Module Description	Fuse
3607E	16	48 VDC, non-commoned, opto-isolated, TMR	1.25A, fast

## Field Wiring Diagrams

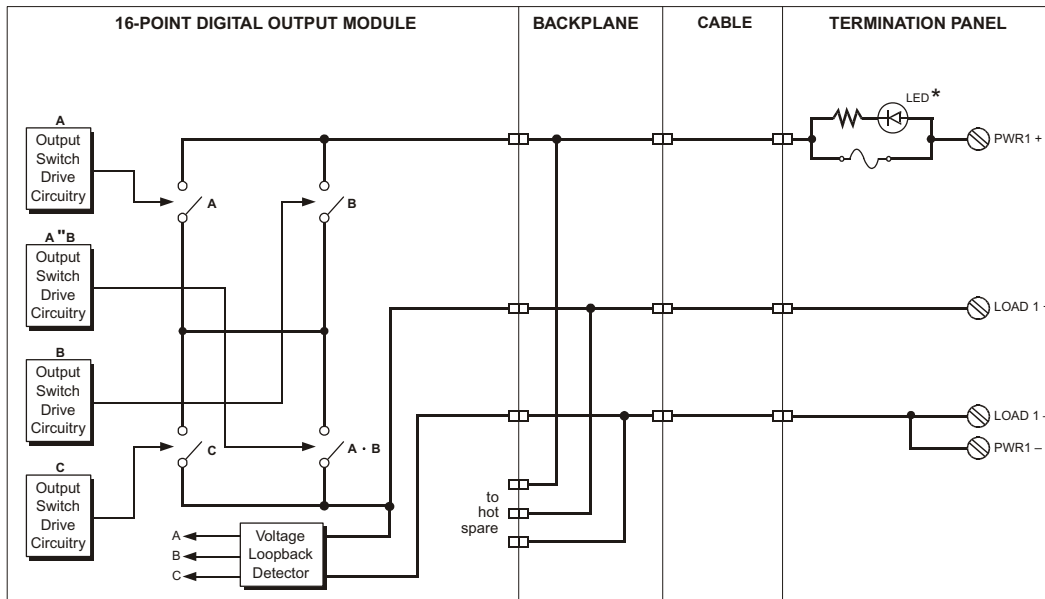
This figure illustrates how to connect a 16-point digital output module and a 9667-110 to the field (1 of 16 points shown).



**Figure 100** Field Wiring for 9667-110 with a 3607E Module

### Simplified Schematics

This is a simplified schematic of a typical 16-point non-commoned digital output module with a non-commoned digital output panel (1 of 16 points shown).



\* LEDs are blown-fuse indicators

Figure 101 Simplified Schematic of a 3607E DO Module with a Non-Commoned DO Panel

### 9668-110 (non-commoned relay output, 16 pts.)

Termination panel 9668-110 is a non-commoned relay output panel and has:

- 16 LOAD+ and LOAD- terminals
- 16 PWR+ and PWR- terminals
- 16 fuses

The modules compatible with 9668-110 have 32-points, which means that you must use two term panels for each relay output module. Each term panel comes with two sets of labels: 1-16 and 17-32. For information on how to apply the labels, see [Appendix F, Panel Labels](#).

### Specifications

This table describes specifications for 9668-110.

Table 87 Specifications for Term Panel 9668-110

Feature	Description
Panel type	Non-commoned relay output
Points	16

## Compatible Modules

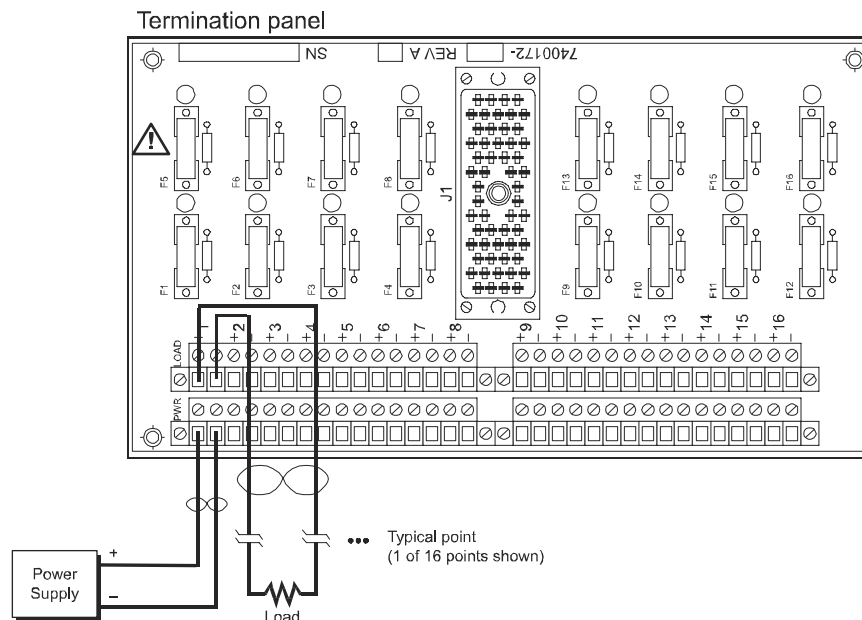
This table describes relay output modules compatible with 9668-110.

**Table 88** Modules Compatible with 9668-110

Module Part Number	Points per Module	Module Description	Fuse
3636R	32	Non-commoned, simplex, normally open, galvanically-isolated	2.5A, fast
3636T	32	Non-commoned, simplex, normally open, galvanically-isolated	2.5A, fast

## Field Wiring Diagrams

This figure illustrates how to connect a 32-point relay output module and a 9668-110 to the field (1 of 32 points shown).



**Figure 102** Field Wiring for 9668-110 with a 3636R or 3636T Relay Output Module