

**Keithley Instruments**  
28775 Aurora Road  
Cleveland, Ohio 44139  
1-800-935-5595  
<http://www.tek.com/keithley>

## Introduction

The Model 7709-308, 25-Pin, D-Sub connector accessory allows you to make connections to the digital I/O, interlock, or output enable of Series 2600A, 2600B, and 2650A System SourceMeter® instruments, or to card connectors on Series 2700 compatible plug-in cards.

## Description

The Model 7709-308 is a 25-pin D-shell male connector with solder cups. It can be used with Model 7701, 7707, 7709, and Series 2600A SourceMeters.

**Figure 1: Model 7709-308A connector**



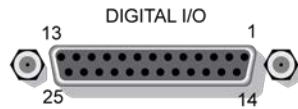
## Electrical characteristics

- Type: 25 position crimp
- Voltage: 250 V AC
- Current:
  - 18 AWG: 3.1 A
  - 22 AWG: 2.0 A
  - 28 AWG: 1.2 A
- Temperature: -5 °C to 105 °C
- Shell plating: Zinc
- Insulation material: Thermoplastic
- Insert flammability rating: UL 94V-0



## Using with Series 2600B and 2650A SMU instruments

### Digital I/O port pinouts



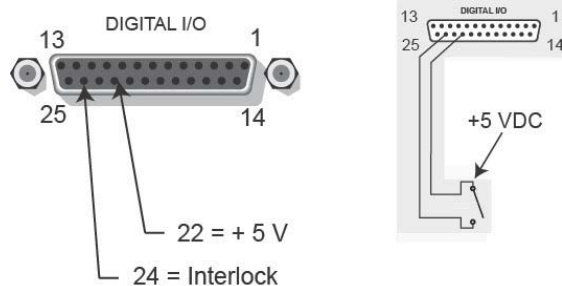
NOTE The digital I/O lines (pins 1 through 14) are not used by the Model 2604B/2614B/2634B.

- |                      |   |
|----------------------|---|
| 1 = Digital I/O #1   | 11 = Digital I/O #11                        |
| 2 = Digital I/O #2   | 12 = Digital I/O #12                        |
| 3 = Digital I/O #3   | 13 = Digital I/O #13                        |
| 4 = Digital I/O #4   | 14 = Digital I/O #14                        |
| 5 = Digital I/O #5   | 15-21 = Ground                              |
| 6 = Digital I/O #6   | 22 = +5 V                                   |
| 7 = Digital I/O #7   | 23 = +5 V                                   |
| 8 = Digital I/O #8   | 24 = Output enable (OE) or Interlock (INT)* |
| 9 = Digital I/O #9   | 25 = +5 V                                   |
| 10 = Digital I/O #10 |   |

\* Models 2601B/2602B/2604B: Output enable (OE)  
 Models 2611B/2612B/2614B/2634B/2635B/2636B: Interlock (INT)

### Connect to the interlock

Enable the interlock by pulling the interlock line to more than 4 V through an external normally-open switch. This switch is normally attached to the lid of a safety test fixture and closes when the lid is closed. See the interlock connections schematic below. For additional information about using the interlock, refer to the Reference Manual for your System SourceMeter instrument.



### Connect to the digital I/O

For information about connecting to the digital I/O, refer to the Reference Manual for your System SourceMeter instrument.