5691 I/O Simulator Module

Installation, Operation and Maintenance Setup Manual

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Schneider Electric

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

All pertinent state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When devices are used for applications with technical safety requirements, the relevant instructions must be followed. Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operating results.

Failure to observe this information can result in injury or equipment damage.

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Safety Information

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

	The addition of this symbol to a Danger or Warning safety label indicates that an electrical hazard exists, which will result in personal injury if the instructions are not followed.

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **can result** in death or serious injury.

⚠CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **can result** in minor or moderate.

CAUTION

CAUTION used without the safety alert symbol, indicates a potentially

hazardous situation which, if not avoided, **can result** in equipment damage..

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and the installation, and has received safety training to recognize and avoid the hazards involved.

BEFORE YOU BEGIN

Do not use this product on machinery lacking effective point-of-operation guarding. Lack of effective point-of-operation guarding on a machine can result in serious injury to the operator of that machine.

⚠ CAUTION

EQUIPMENT OPERATION HAZARD

Verify that all installation and set up procedures have been completed.

Before operational tests are performed, remove all blocks or other temporary holding means used for shipment from all component devices.

Remove tools, meters, and debris from equipment.

Failure to follow these instructions can result in injury or equipment damage.

Follow all start-up tests recommended in the equipment documentation. Store all equipment documentation for future references.

Software testing must be done in both simulated and real environments.

Verify that the completed system is free from all short circuits and grounds, except those grounds installed according to local regulations (according to the National Electrical Code in the U.S.A, for instance). If high-potential voltage testing is necessary, follow recommendations in equipment documentation to prevent accidental equipment damage.

Before energizing equipment:

- Remove tools, meters, and debris from equipment.
- Close the equipment enclosure door.
- Remove ground from incoming power lines.
- Perform all start-up tests recommended by the manufacturer.

OPERATION AND ADJUSTMENTS

The following precautions are from the NEMA Standards Publication ICS 7.1-1995 (English version prevails):

- Regardless of the care exercised in the design and manufacture of equipment or in the selection and ratings of components, there are hazards that can be encountered if such equipment is improperly operated.
- It is sometimes possible to misadjust the equipment and thus produce unsatisfactory or unsafe operation. Always use the manufacturer's instructions as a guide for functional adjustments. Personnel who have access to these adjustments should be familiar with the equipment manufacturer's instructions and the machinery used with the electrical equipment.
- Only those operational adjustments actually required by the operator should be accessible to the operator. Access to other controls should be restricted to prevent unauthorized changes in operating characteristics.

About The Book

At a Glance

Document Scope

This manual describes the operation and maintenance of the 5691 I/O Simulator module.

Validity Notes

This document is valid for all versions of the 5691 I/O Simulator module.

Product Related Information

⚠WARNING

UNINTENDED EQUIPMENT OPERATION

The application of this product requires expertise in the design and programming of control systems. Only persons with such expertise should be allowed to program, install, alter and apply this product.

Follow all local and national safety codes and standards.

Failure to follow these instructions can result in death, serious injury or equipment damage.

User Comments

We welcome your comments about this document. You can reach us by e-mail at technicalsupport@controlmicrosystems.com.

Overview

The Model 5691 simulator module provides four adjustable analog input simulators, four toggled digital input simulators and one counter simulator.

The Model 5691 is designed to work with a variety of different SCADAPacks.

Specifications

Model 5691 Specifications		
I/O Summary	Signal	
	Analog Input Simulation	4
	Digital Input Simulation	4
	Counter simulation	1
Analog Outputs	0 - 5V or 0 - 20mA	potentiometer adjustable
Digital Outputs	User configurable to either: 12-24V sourcing or Switch to common.	
Counter	0 - 12V digital output	
	10 to 150 Hz.	potentiometer adjustable
Power Requirements	12-24V	
Dimensions	2.9 inch (74 mm) wide 4.9 inch (124 mm) high	

Installation

The Model 5691 IO Simulator is mounted in a 5000 IO expansion module enclosure. It is designed for desktop use when demonstrating or training with SCADAPack controllers.

Power Supply

The Model 5691 requires an external 12-24Vdc power supply. This power can come from the SCADAPack or from the power supply used to power the SCADAPack. Control Microsystems supplies wiring harnesses for connectors to different controllers. Input power is applied on the first two pins (counting from left to right) of the P1 connector.

Wiring

The digital output terminals labeled ‘To DIGITAL INPUTS’ on a 5691 can be configured as a source or sink. When configured as a source, these

outputs terminals provide power supply voltage when the switches are turned on.

Sourcing Digital Outputs

To configure the digital outputs as a voltage source to the digital inputs on an I/O board, do the following:

Connect DIN WETTING pins +V and COM on connector P1 of the 5691 board.

Connect the digital outputs on the P1 connector of the 5691 to the digital inputs on your IO board.

Connect a GND terminal from the 5691 board to the COM terminal serving the digital inputs on the IO board. On a 5601 I/O board for example the digital inputs are optically isolated from the power supply ground.

Refer to ***Wiring Examples*** for examples.

Sinking Digital Outputs

To configure the digital outputs as a current sink for sourcing digital outputs, such as those you will find on a 5604 I/O board, do the following:

Connect DIN WETTING pins COM and GND on connector P1 of the 5691 board.

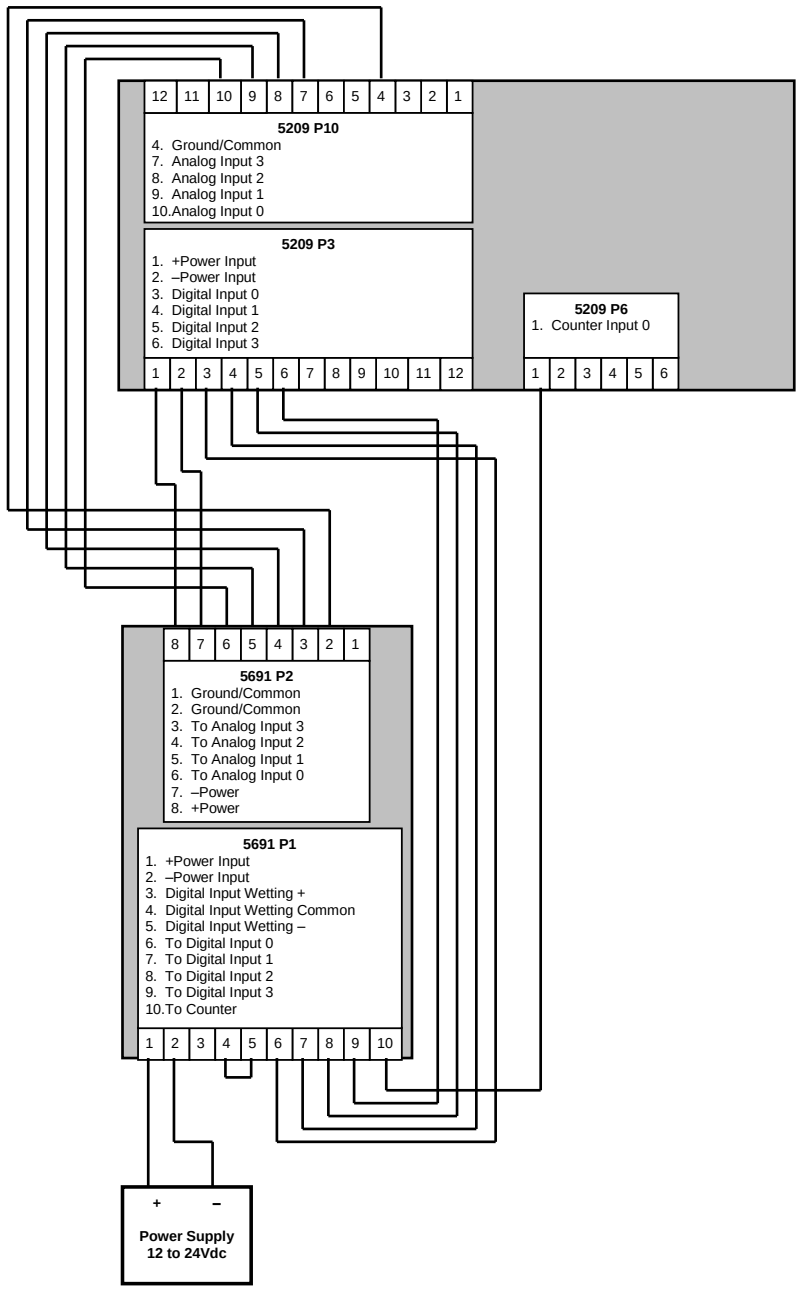
Connect the digital outputs on the P1 connector of the 5691 to the digital inputs on your IO board.

Connect a GND terminal from the 5691 board to the COM terminal serving the digital inputs on the IO board. On a 5601 I/O board for example as the digital inputs are optically isolated from the power supply ground.

Refer to Section ***Wiring Examples*** for examples.

Wiring Examples

5691 to SCADAPack 350 (5209) Wiring Example



5691 to SCADAPack (5601) Wiring Example

Notes

The following are special characteristics unique to using the 5691 with a 5601. Wiring details for these characteristics are included in the tables below:

SCADAPack counters and digital inputs are isolated from the power supply ground. To use the 5691 simulated inputs, the common of the counters and digital inputs are connected to chassis ground so that it is in common with the power supply. Use the two extra leads provided with the 5691 to do this.

The 5601 digital inputs required a wetting voltage. Connect the 5691 DIN WETTING jumper between COM and +V to apply a wetting voltage.

Use a short pair of wires to connect DC power from 5203 (or 5204) P5 to 5601 P3.

Power to SCADAPack

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5203 (or 5204) P5, 3	AC/DC PWR IN
PWR OUT –	5691 P2, 7	5203 (or 5204) P5, 4	AC/DC PWR IN

Power to 5601

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
DC PWR +	5601 P3, 5	5203 (or 5204) P5, 5	DC PWR +
DC PWR –	5601 P3, 6	5203 (or 5204) P5, 6	DC PWR –

Analog Inputs

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
TO ANALOG INPUT 0	5691 P2, 6	5601 P4, 1	ANALOG INPUT 0
TO ANALOG INPUT 1	5691 P2, 5	5601 P4, 2	ANALOG INPUT 1
TO ANALOG INPUT 2	5691 P2, 4	5601 P4, 3	ANALOG INPUT 2
TO ANALOG INPUT 3	5691 P2, 3	5601 P4, 4	ANALOG INPUT 3

TO ANALOG INPUT GND	5691 P2, 2	5601 P4, 9	ANALOG INPUT COM

Digital Inputs

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
DIN WETTING +V	5691 P1, 3	5691 P1, 4	DIN WETTING COM
TO DIGITAL INPUT 0	5691 P1, 6	5601 P5, 1	DIN 0
TO DIGITAL INPUT 1	5691 P1, 7	5601 P5, 2	DIN 1
TO DIGITAL INPUT 2	5691 P1, 8	5601 P5, 3	DIN 2
TO DIGITAL INPUT 3	5691 P1, 9	5601 P5, 4	DIN 3
signal ground	5601 P3, 2	5601 P5, 9	0-7 COM

Counter Input

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5203 (or 5204) P6, 5	COUNTER 0
signal ground	5203 (or 5204) P5, 2	5203 (or 5204) P6, 8	COUNTER COM

Power to 5691

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –

5691 to SCADAPack 32 (5601) Wiring Example

The following are special characteristics unique to using the 5691 with a 5601. Wiring details for these characteristics are included in the tables below:

SCADAPack 32 counters and digital inputs are isolated from the power supply ground. To use the 5691 simulated inputs, the common of the counters and digital inputs are connected to chassis ground so that it is in common with the power supply. Use the two extra leads provided with the 5691 to do this.

The 5601 digital inputs required a wetting voltage. Connect the 5691 DIN WETTING jumper between COM and +V to apply a wetting voltage.

Use a short pair of wires to connect DC power from 5232 P3 to 5601 P3.

Power to SCADAPack 32

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5232 P3, 3	AC/DC PWR IN
PWR OUT –	5691 P2, 7	5232 P3, 4	AC/DC PWR IN

Power to 5601

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DC PWR +	5601 P3, 5	5232 P3, 5	DC PWR +
DC PWR –	5601 P3, 6	5232 P3, 6	DC PWR –

Analog Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO ANALOG INPUT 0	5691 P2, 6	5601 P4, 1	ANALOG INPUT 0
TO ANALOG INPUT 1	5691 P2, 5	5601 P4, 2	ANALOG INPUT 1
TO ANALOG INPUT 2	5691 P2, 4	5601 P4, 3	ANALOG INPUT 2
TO ANALOG INPUT 3	5691 P2, 3	5601 P4, 4	ANALOG INPUT 3
TO ANALOG INPUT GND	5691 P2, 2	5601 P4, 9	ANALOG INPUT COM

Digital Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DIN WETTING +V	5691 P1, 3	5691 P1, 4	DIN WETTING COM
TO DIGITAL INPUT 0	5691 P1, 6	5601 P5, 1	DIN 0
TO DIGITAL INPUT 1	5691 P1, 7	5601 P5, 2	DIN 1
TO DIGITAL INPUT 2	5691 P1, 8	5601 P5, 3	DIN 2
TO DIGITAL INPUT 3	5691 P1, 9	5601 P5, 4	DIN 3
signal ground	5601 P3, 2	5601 P5, 9	0-7 COM

Counter Input

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5232 P4, 5	COUNTER 0
signal ground	5232 P3, 2	5232 P4, 8	COUNTER COM

Power to 5691

FROM		TO	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –

5691 to SCADAPack (5604) Wiring Example

The following are special characteristics unique to using the 5691 with a 5604. Wiring details for these characteristics are included in the tables below:

SCADAPack counters are isolated from the power supply ground. To use the 5691 simulated counter input, the common of the counter is connected to chassis ground so that it is in common with the power supply. Use the extra leads provided with the 5691 to do this.

The 5604 digital inputs provide their own wetting current. Connect the 5691 DIN WETTING jumper between COM and GND to remove wetting.

Use a short pair of wires to connect DC power from 5203 (or 5204) P5 to 5604 P3.

Power to SCADAPack

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5203 (or 5204) P5, 3	AC/DC PWR IN
PWR OUT –	5691 P2, 7	5203 (or 5204) P5, 4	AC/DC PWR IN

Power to 5604

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR IN +	5604 P3, 1	5203 (or 5204) P5, 5	DC PWR +
PWR IN –	5604 P3, 2	5203 (or 5204) P5, 6	DC PWR –

Analog Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO ANALOG INPUT 0	5691 P2, 6	5604 P4, 1	ANALOG INPUT 0
TO ANALOG INPUT 1	5691 P2, 5	5604 P4, 2	ANALOG INPUT 1
TO ANALOG INPUT 2	5691 P2, 4	5604 P4, 3	ANALOG INPUT 2
TO ANALOG INPUT 3	5691 P2, 3	5604 P4, 4	ANALOG INPUT 3
TO ANALOG INPUT GND	5691 P2, 2	5604 P4, 10	ANALOG INPUT GND

Digital Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DIN WETTING COM	5691 P1, 4	5691 P1, 5	DIN WETTING GND
TO DIGITAL INPUT 0	5691 P1, 6	5604 P9, 1	DI/O 0

TO DIGITAL INPUT 1	5691 P1, 7	5604 P9, 2	DI/O 1
TO DIGITAL INPUT 2	5691 P1, 8	5604 P9, 3	DI/O 2
TO DIGITAL INPUT 3	5691 P1, 9	5604 P9, 4	DI/O 3

Counter Input

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5203 (or 5204) P6, 5	COUNTER 0
signal ground	5203 (or 5204) P5, 2	5203 (or 5204) P6, 8	COUNTER COM

Power to 5691

FROM		**TO**	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –

5691 to SCADAPack 32 (5604) Wiring Example

The following are special characteristics unique to using the 5691 with a 5604. Wiring details for these characteristics are included in the tables below:

SCADAPack 32 counters are isolated from the power supply ground. To use the 5691 simulated counter input, the common of the counter must be connected to chassis ground so that it is in common with the power supply. Use the extra leads provided with the 5691 to do this.

The 5604 digital inputs provide their own wetting current and do not require wetting from the 5691. Connect the 5691 DIN WETTING jumper between COM and GND to remove wetting.

Use a short pair of wires to connect DC power from 5232 P3 to 5604 P3.

Power to SCADAPack 32

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5232 P3, 3	AC/DC PWR IN
PWR OUT –	5691 P2, 7	5232 P3, 4	AC/DC PWR IN

Power to 5604

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR IN +	5604 P3, 1	5232 P3, 5	DC PWR +
PWR IN –	5604 P3, 2	5232 P3, 6	DC PWR –

Analog Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO ANALOG INPUT 0	5691 P2, 6	5604 P4, 1	ANALOG INPUT 0
TO ANALOG INPUT 1	5691 P2, 5	5604 P4, 2	ANALOG INPUT 1
TO ANALOG INPUT 2	5691 P2, 4	5604 P4, 3	ANALOG INPUT 2
TO ANALOG INPUT 3	5691 P2, 3	5604 P4, 4	ANALOG INPUT 3
TO ANALOG INPUT GND	5691 P2, 2	5604 P4, 10	ANALOG INPUT GND

Digital Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DIN WETTING COM	5691 P1, 4	5691 P1, 5	DIN WETTING GND
TO DIGITAL INPUT 0	5691 P1, 6	5604 P9, 1	DI/O 0
TO DIGITAL INPUT 1	5691 P1, 7	5604 P9, 2	DI/O 1
TO DIGITAL INPUT 2	5691 P1, 8	5604 P9, 3	DI/O 2
TO DIGITAL	5691 P1, 9	5604 P9, 4	DI/O 3

INPUT 3			

Counter Input

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5232 P4, 5	COUNTER 0
signal ground	5232 P3, 2	5232 P4, 8	COUNTER COM

Power to 5691

FROM		TO	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –

5691 to SCADAPack (5606) Wiring Example

The following are special characteristics unique to using the 5691 with a 5606. Wiring details for these characteristics are included in the tables below:

SCADAPack counters and digital inputs are isolated from the power supply ground. To use the 5691 simulated inputs, the common of the counters and digital inputs are connected to chassis ground so that it is in common with the power supply. Use the two extra leads provided with the 5691 to do this.

The 5606 digital inputs required a wetting voltage. Connect the 5691 DIN WETTING jumper between COM and +V to apply a wetting voltage.

Use a short pair of wires to connect DC power from 5203 (or 5204) P5 to 5606 P3.

Power to SCADAPack

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5203 (or 5204) P5, 3	AC/DC PWR IN
PWR OUT –	5691 P2, 7	5203 (or 5204) P5, 4	AC/DC PWR IN

Power to 5606

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DC PWR +	5606 P3, 1	5203 (or 5204) P5, 5	DC PWR +
DC PWR –	5606 P3, 2	5203 (or 5204) P5, 6	DC PWR –

Analog Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO ANALOG INPUT 0	5691 P2, 6	5606 P4, 1	AI 0
TO ANALOG INPUT 1	5691 P2, 5	5606 P4, 2	AI 1
TO ANALOG INPUT 2	5691 P2, 4	5606 P4, 3	AI 2
TO ANALOG INPUT 3	5691 P2, 3	5606 P4, 4	AI 3
TO ANALOG INPUT GND	5691 P2, 2	5606 P4, 9	AIN COM

Digital Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DIN WETTING +V	5691 P1, 3	5691 P1, 4	DIN WETTING COM
TO DIGITAL INPUT 0	5691 P1, 6	5606 P7, 1	DIN 0
TO DIGITAL INPUT 1	5691 P1, 7	5606 P7, 2	DIN 1
TO DIGITAL INPUT 2	5691 P1, 8	5606 P7, 3	DIN 2
TO DIGITAL INPUT 3	5691 P1, 9	5606 P7, 4	DIN 3
chassis ground	5203 (or 5204) P5, 1	5606 P7, 9	DIN COM

Counter Input

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5203 (or 5204) P6, 5	COUNTER 0
signal ground	5203 (or 5204) P5, 2	5203 (or 5204) P6, 8	COUNTER COM

Power to 5691

FROM		TO	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –

5691 to SCADAPack 32 (5606) Wiring Example

The following are special characteristics unique to using the 5691 with a 5606. Wiring details for these characteristics are included in the tables below:

SCADAPack 32 counters and digital inputs are isolated from the power supply ground. To use the 5691 simulated inputs, the common of the counters and digital inputs are connected to chassis ground so that it is in common with the power supply. Use the two extra leads provided with the 5691 to do this.

The 5606 digital inputs required a wetting voltage. Connect the 5691 DIN WETTING jumper between COM and +V to apply a wetting voltage.

Use a short pair of wires to connect DC power from 5232 P3 to 5606 P3.

Power to SCADAPack 32

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5232 P3, 3	AC/DC PWR IN
PWR OUT –	5691 P2, 7	5232 P3, 4	AC/DC PWR IN

Power to 5606

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DC PWR +	5606 P3, 1	5232 P3, 5	DC PWR +
DC PWR –	5606 P3, 2	5232 P3, 6	DC PWR –

Analog Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO ANALOG INPUT 0	5691 P2, 6	5606 P4, 1	AI 0
TO ANALOG INPUT 1	5691 P2, 5	5606 P4, 2	AI 1
TO ANALOG INPUT 2	5691 P2, 4	5606 P4, 3	AI 2
TO ANALOG INPUT 3	5691 P2, 3	5606 P4, 4	AI 3
TO ANALOG INPUT GND	5691 P2, 2	5606 P4, 9	AIN COM

Digital Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DIN WETTING +V	5691 P1, 3	5691 P1, 4	DIN WETTING COM
TO DIGITAL INPUT 0	5691 P1, 6	5606 P7, 1	DIN 0
TO DIGITAL INPUT 1	5691 P1, 7	5606 P7, 2	DIN 1
TO DIGITAL INPUT 2	5691 P1, 8	5606 P7, 3	DIN 2
TO DIGITAL INPUT 3	5691 P1, 9	5606 P7, 4	DIN 3
chassis ground	5232 P3, 1	5606 P7, 9	DIN COM

Counter Input

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5232 P4, 5	COUNTER 0

signal ground	5232 P3, 2	5232 P4, 8	COUNTER COM

Power to 5691

FROM		TO	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –

5691 to SCADAPack 314 (5607) Wiring Example

The following are special characteristics unique to using the 5691 with a 5607. Wiring details for these characteristics are included in the tables below:

SCADAPack 314 counters are isolated from the power supply ground. To use the 5691 simulated counter input, the common of the counter is connected to chassis ground so that it is in common with the power supply. Use the extra leads provided with the 5691 to do this.

The 5607 digital inputs provide their own wetting current. Connect the 5691 DIN WETTING jumper between COM and GND to remove wetting.

Use a short pair of wires to connect DC power from 5212 P3 to 5607 P3.

Power to SCADAPack 314

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5212 P3, 1	DC PWR IN
PWR OUT –	5691 P2, 7	5212 P3, 2	DC PWR IN

Power to 5604

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR IN +	5607 P3, 1	5212 P3, 5	DC PWR +
PWR IN –	5607 P3, 2	5212 P3, 6	DC PWR –

Analog Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO ANALOG INPUT 0	5691 P2, 6	5607 P4, 1	ANALOG INPUT 0
TO ANALOG INPUT 1	5691 P2, 5	5607 P4, 2	ANALOG INPUT 1
TO ANALOG INPUT 2	5691 P2, 4	5607 P4, 3	ANALOG INPUT 2
TO ANALOG INPUT 3	5691 P2, 3	5607 P4, 4	ANALOG INPUT 3
TO ANALOG INPUT GND	5691 P2, 2	5607 P4, 9	ANALOG INPUT GND

Digital Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DIN WETTING COM	5691 P1, 4	5691 P5, 9	DIN WETTING GND
TO DIGITAL INPUT 0	5691 P1, 6	5607 P5, 1	DI/O 0
TO DIGITAL INPUT 1	5691 P1, 7	5607 P5, 2	DI/O 1
TO DIGITAL INPUT 2	5691 P1, 8	5607 P5, 3	DI/O 2
TO DIGITAL INPUT 3	5691 P1, 9	5607 P5, 4	DI/O 3

Counter Input

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5212 P4, 5	COUNTER 0
signal ground	5212 P3, 2	5212 P4, 8	COUNTER COM

Power to 5691

FROM		TO	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –

5691 to SCADAPack 334 (5607) Wiring Example

The following are special characteristics unique to using the 5691 with a 5607. Wiring details for these characteristics are included in the tables below:

SCADAPack 334 counters are isolated from the power supply ground. To use the 5691 simulated counter input, the common of the counter is connected to chassis ground so that it is in common with the power supply. Use the extra leads provided with the 5691 to do this.

The 5607 digital inputs provide their own wetting current. Connect the 5691 DIN WETTING jumper between COM and GND to remove wetting.

Use a short pair of wires to connect DC power from 5210 P3 to 5607 P3.

Power to SCADAPack 32

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR OUT +	5691 P2, 8	5210 P3, 1	DC PWR IN
PWR OUT –	5691 P2, 7	5210 P3, 2	DC PWR IN

Power to 5604

FROM		TO	
Label	**Pin**	**Pin**	**Label**
PWR IN +	5607 P3, 1	5210 P3, 5	DC PWR +
PWR IN –	5607 P3, 2	5210 P3, 6	DC PWR –

Analog Inputs

FROM	TO

Label	Pin	Pin	Label
TO ANALOG INPUT 0	5691 P2, 6	5607 P4, 1	ANALOG INPUT 0
TO ANALOG INPUT 1	5691 P2, 5	5607 P4, 2	ANALOG INPUT 1
TO ANALOG INPUT 2	5691 P2, 4	5607 P4, 3	ANALOG INPUT 2
TO ANALOG INPUT 3	5691 P2, 3	5607 P4, 4	ANALOG INPUT 3
TO ANALOG INPUT GND	5691 P2, 2	5607 P4, 9	ANALOG INPUT GND

Digital Inputs

FROM		TO	
Label	**Pin**	**Pin**	**Label**
DIN WETTING COM	5691 P1, 4	5691 P5, 9	DIN WETTING GND
TO DIGITAL INPUT 0	5691 P1, 6	5607 P5, 1	DI/O 0
TO DIGITAL INPUT 1	5691 P1, 7	5607 P5, 2	DI/O 1
TO DIGITAL INPUT 2	5691 P1, 8	5607 P5, 3	DI/O 2
TO DIGITAL INPUT 3	5691 P1, 9	5607 P5, 4	DI/O 3

Counter Input

FROM		TO	
Label	**Pin**	**Pin**	**Label**
TO CTR	5691 P1, 10	5210 P4, 5	COUNTER 0
signal ground	5210 P3, 2	5210 P4, 8	COUNTER COM

Power to 5691

FROM		TO	
Label	**Pin**	**Pin**	**Label**
12 to 24 VDC	power supply +	5691 P1, 1	PWR IN 12-24Vdc +
12 to 24 VDC	power supply –	5691 P1, 2	PWR IN 12-24Vdc –