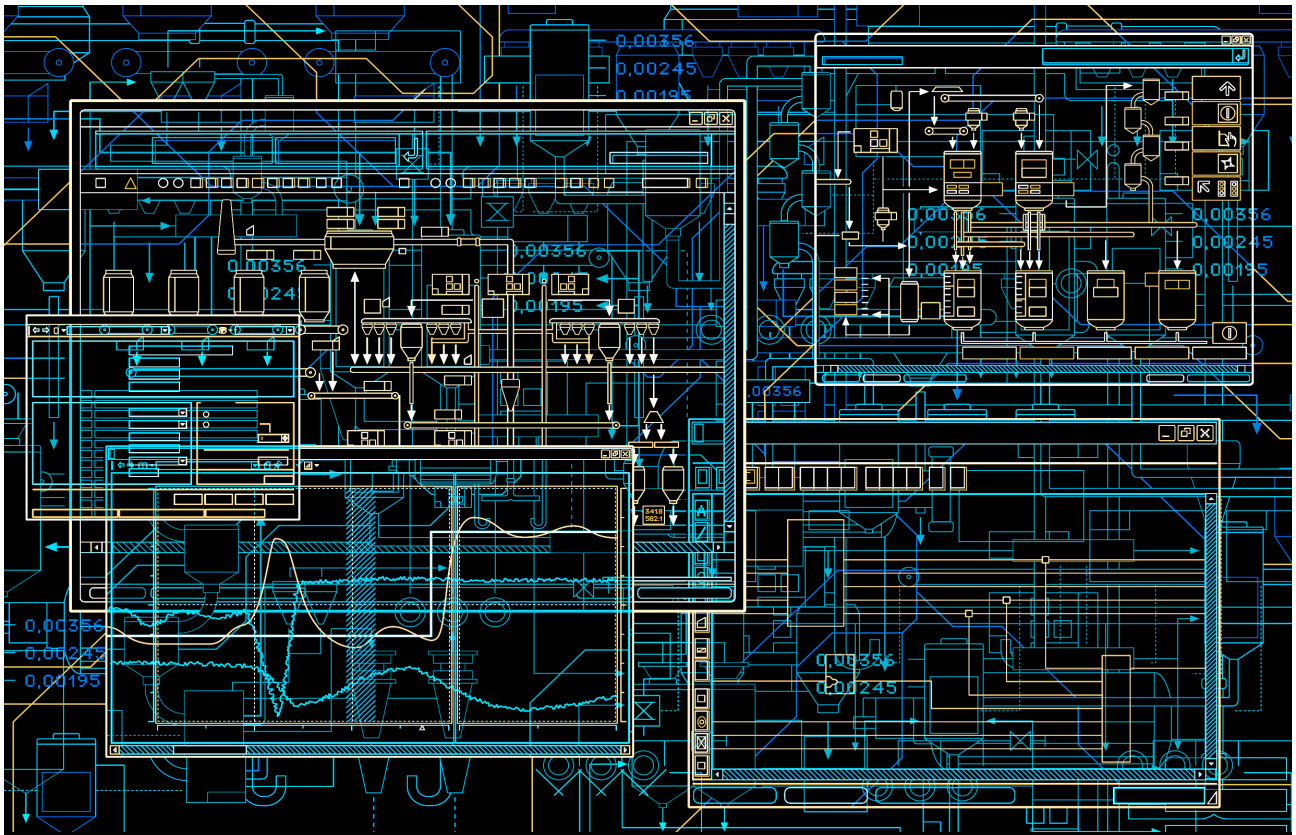


# S200 I/O

## Hardware

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# Safety Summary




**Electrostatic Sensitive Device**
Devices labeled with this symbol require special handling precautions as described in the installation section.

**GENERAL WARNINGS**

**Equipment Environment**
All components, whether in transportation, operation or storage, must be in a noncorrosive environment.

**Electrical Shock Hazard During Maintenance**
Disconnect power or take precautions to insure that contact with energized parts is avoided when servicing.

This section is mandatory reading for anyone planning to use the control system.

## Be Careful – Prevent Accidents and Protect Valuable Equipment

A control system is a general tool which can be used in various processes. Responsibility for attaining and maintaining a reasonable level of safety must therefore rest with the people who engineer, operate and maintain the equipment. They must have intimate knowledge of the functions and inherent safety risks of the processes involved, and the imaginative power to anticipate situations in which accidents may occur.

## Using 200-PS1.3 to Supply the Remote I/O System

If 200-PS1.3 is used to supply the remote I/O system the following applies.

### Connecting the power supply cables

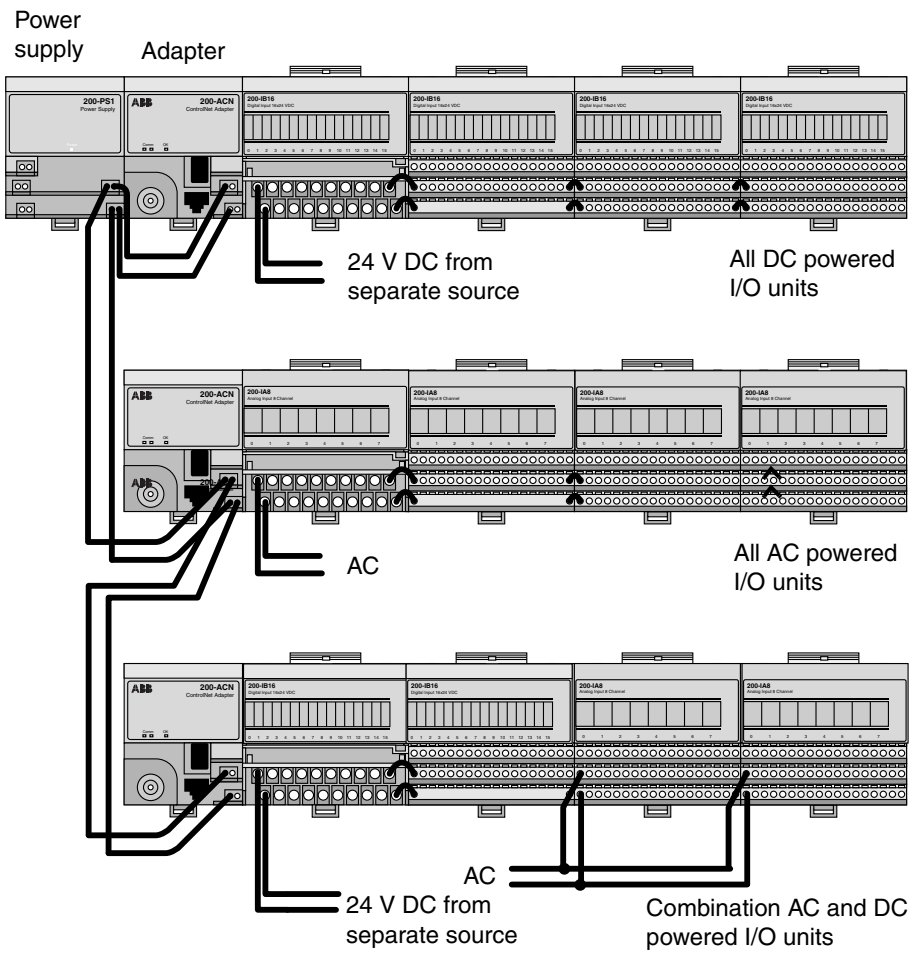



*Figure 6. Example of using a 200-PS1.3 Power supply to power 3 adapters in a remote I/O system.*



The 200-PS1.3 power supply provides sufficient 24 V DC power to operate up to 4 adapter units. Do not attempt to operate an entire I/O system with this power supply.

# Calculating the 24 V Supply to the I/O System

To calculate the total current required from the 24 V I/O supply, both the current required by the I/O units themselves and that required by the inputs/outputs must be considered. For the digital inputs the maximum number of simultaneous on-state inputs powered from the supply must be known. For analog and digital outputs the total simultaneous output current must be known. Refer to Appendix A, Technical Specifications for the basic data.



See Power Installation on page 34.

**Example**

In this example, a maximum of 32 of the 48 digital outputs can be on and the output load is 0.1 A per channel.

Number of I/O units used: 3 200-IB16, 3 200-OB16, 1 200-IE8 and 1 200-OE4
Number of adapters used: 1 200-ACN

| | |
|---|---|
| 3 200-IB16 require 3 * 16 inputs * 0.008 A = | 0.38 A |
| 3 200-OB16. 32 on-state outputs require 3 * 0.05 + 32 * 0.1 A = | 3.35 A |
| 1 200-IE8 requires 1 * 0.06 A = | 0.06 A |
| 1 200-OE4 requires 1*0.07 A = | 0.07 A |
| 1 200-ACN requires 1*0.4 A = | 0.4 A |
| Total current required from 24 V I/O supply: | 4.26 A |

This means that the 24 V DC power supply should be able to deliver at least 5 A.