

# SIEMENS

Introduction

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Wiring I/O modules and  
compact CPUs with Fast  
Connect

2




## SIMATIC

### Product Information for Fast Connect Connector

Product Information

## Safety Guidelines

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

 <b>DANGER</b>
indicates that death or severe personal injury <b>will</b> result if proper precautions are not taken.
 <b>WARNING</b>
indicates that death or severe personal injury <b>may</b> result if proper precautions are not taken.
 <b>CAUTION</b>
with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken.
<b>CAUTION</b>
without a safety alert symbol, indicates that property damage can result if proper precautions are not taken.
<b>NOTICE</b>
indicates that an unintended result or situation can occur if the corresponding information is not taken into account.


If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

## Qualified Personnel

The device/system may only be set up and used in conjunction with this documentation. Commissioning and operation of a device/system may only be performed by **qualified personnel**. Within the context of the safety notes in this documentation qualified persons are defined as persons who are authorized to commission, ground and label devices, systems and circuits in accordance with established safety practices and standards.

## Prescribed Usage

Note the following:

 <b>WARNING</b>
This device may only be used for the applications described in the catalog or the technical description and only in connection with devices or components from other manufacturers which have been approved or recommended by Siemens. Correct, reliable operation of the product requires proper transport, storage, positioning and assembly as well as careful operation and maintenance.

## Trademarks

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## Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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## Introduction

This product information describes supplements to:

S7-300 CPU 31xC and CPU 31x: Installation Operating Instructions, A5E00105491-07,  
Edition 12/2006, Chapter 6, Wiring.

You can find this manual on the Internet at:

<http://support.automation.siemens.com/WW/view/en/10805161/133300>



# Wiring I/O modules and compact CPUs with Fast Connect

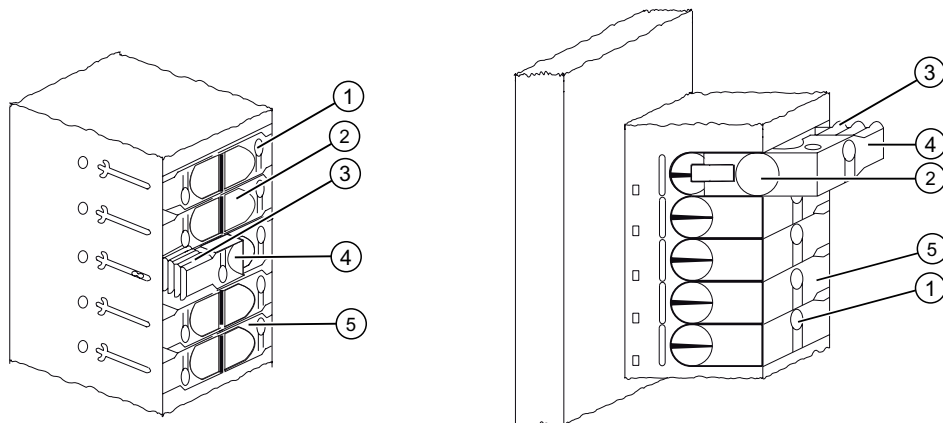
# 2

## Order numbers for Fast Connect Connectors

- 20-pin connector: 6ES7392-1CJ00-0AA0
- 40-pin connector: 6ES7392-1CM00-0AA0

## Wiring I/O modules and compact CPUs with Fast Connect

- I/O modules and compact CPUs can be wired with Fast Connect. The individual wires are connected by means of the front connector using Fast Connect technology, which requires no stripping.
- Fast Connect is a connection method that requires no conductor preparation (i.e., the conductor insulation does not have to be stripped).
- Each terminal with Fast Connect has a test opening (e.g. for measuring the voltage). The test opening is suitable for test probes with a maximum diameter of 1.5 mm.
- Wire end ferrules are not permitted.



### Numerical Designation

- |   |  |
|---|--|
| ① | Opening for testing: max. $\varnothing$ 1.5 mm                       |
| ② | Opening for a conductor: 0.25 mm <sup>2</sup> to 1.5 mm <sup>2</sup> |
| ③ | Tothing for opening the terminal                                     |
| ④ | Guide clip opened (the wire can be inserted)                         |
| ⑤ | Guide clip closed (the wire is connected)                            |

### Wiring rules for front connector with Fast Connect

	20-pin front connector	40-pin front connector
<b>Solid wires</b>	No	No
<b>Connectable wire cross-section of flexible wires</b>		
• Without wire end ferrule	0.25 mm <sup>2</sup> to 1.5 mm <sup>2</sup>	0.25 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
• With wire end ferrule	---	---
<b>Number of wires per terminal</b>	1	1
<b>Number of terminating cycles for the same conductor cross-section</b>	25 <sup>1</sup>	25 <sup>1</sup>
<b>Maximum external diameter of the wire insulation</b>	∅ 3,0 mm <sup>2</sup>	∅ 3,0 mm <sup>2</sup>
<sup>1</sup> For 1.5 mm <sup>2</sup> only 10 terminating cycles are possible. If different conductor cross-sections are used in a connecting terminal as a result of rewiring, it can be wired a maximum of 10 times.		

### Required tools

Screwdriver, 3.0 mm or 3.5 mm.

### Connectable wires

- Flexible conductors with PVC insulation and a conductor cross-section of: 0.25 mm<sup>2</sup> to 1.5 mm<sup>2</sup>

A list of the tested conductors can be found at: [http://www .weidmueller.de](http://www.weidmueller.de)

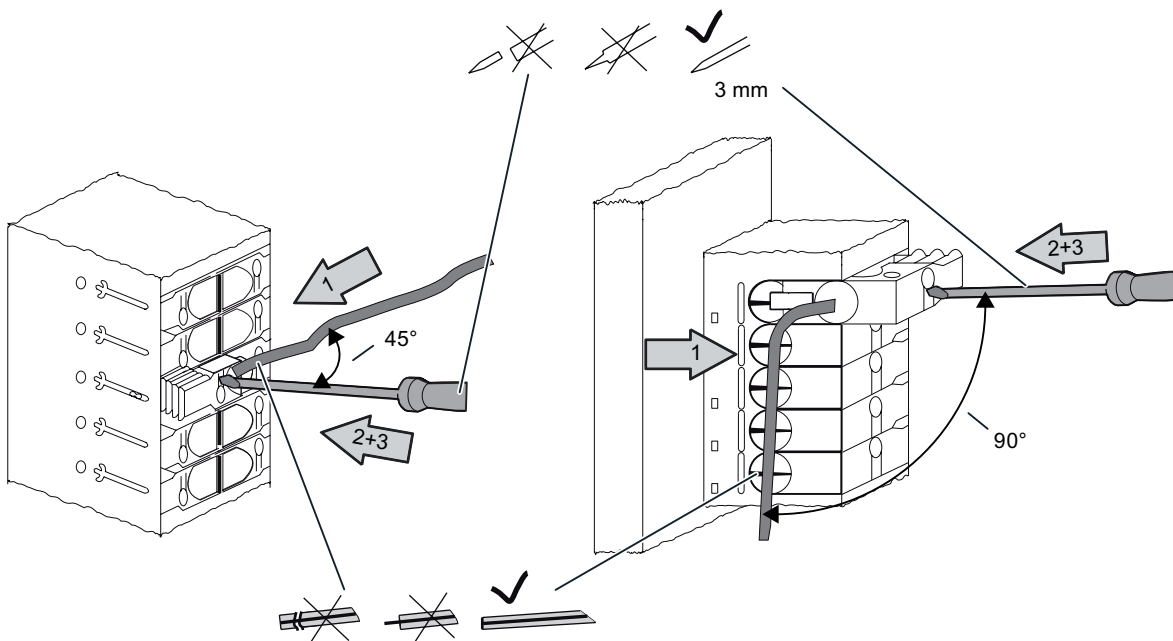
### UL-compliant cables and connections

Wiring range for insulating piercing connection 22 -16 AWG solid/stranded PVC insulated conductors, UL style no. 1015 only.



### Procedure for wiring with Fast Connect

1. Insert the unstripped wire into the round opening until it stops (**the insulation and conductor must form a flat surface**) and secure the conductor in this position.
  - For 20-pin connector: at a 90° angle
  - For 40-pin connector: at a 45° angle
2. Insert the screwdriver into the indentation on the topside of the guide clip.
3. Press the screw driver downwards until the guide clip is engaged in the end position. The wire is connected.



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#### Note

If you would like to reuse a conductor after it was already connected once then it must be trimmed beforehand.

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**Procedure for disconnecting the wiring with Fast Connect**

1. Insert the screwdriver into the opening next to the guide clip until it stops.
2. Using the screwdriver, apply upward leverage to the guide clip by means of the appropriate toothing.  
Repeat this action until the guide clip is engaged in the top position.
3. The wiring is disconnected. Remove the wire.

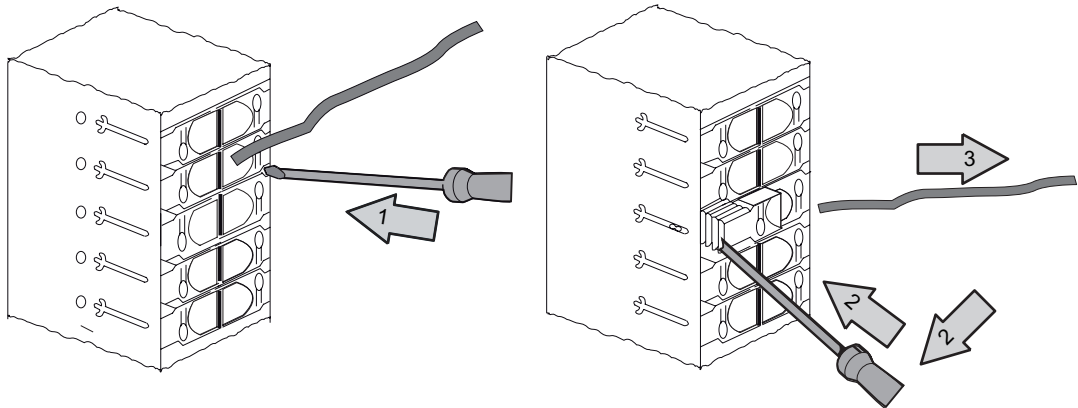


Figure 2-1 Disconnecting the wiring of a 40-pin Fast Connect connector

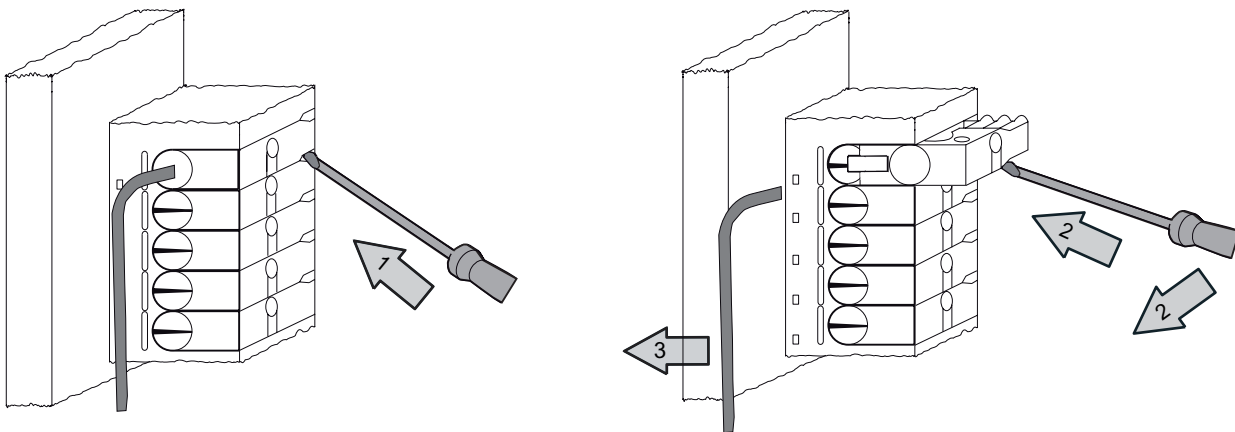


Figure 2-2 Disconnecting the wiring of a 20-pin Fast Connect connector