SIEMENS

SIMATIC

SIMATIC IOT
IOT2000 Extension Modules

Operating Instructions

Preface

Overview 1

Safety notes 2

Installing and connecting the device 3

Technical specifications 4

Technical support 5

07/2022
A5E39456816-AC

Legal information

Warning notice system

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.

⚠ DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

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 product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

⚠ WARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

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.

Siemens AG
Digital Industries
Postfach 48 48
90026 NÜRNBERG
GERMANY

A5E39456816-AC
Ⓟ 10/2022 Subject to change

Copyright © Siemens AG 2022.
All rights reserved

Preface

These operating instructions contain all the information you need for commissioning and operation of the IOT2000 Extension Modules. It is intended both for programming and testing personnel who commission the device and connect it with other units (automation systems, programming devices), as well as for service and maintenance personnel who install add-ons or carry out fault/error analyses.

Basic knowledge requirements

Knowledge of personal computers, operating systems and programming is required to understand this manual. General knowledge in the field automation control engineering is recommended.

Introduction

This operating instruction applies to the following devices:

- IOT2000 Input/Output Module
- IOT2000 Input Module Sink/Source

Scope of this documentation

The device documentation comprises:

- SIMATIC IOT2000 Extension Modules Operating Instructions in English, Chinese and German

Conventions

The following generic terms are used in this documentation:

Generic term	Specific name
Device	IOT2000 Extension Modules

Figures

This manual contains figures of the described devices. The supplied device may differ in some details from the figures. Within some of the figures, one device is used to represent all devices.

History

The following editions of these operating instructions have been published:

Edition	Comment
02/2017	First edition
05/2018	Second version
07/2022	Description of approvals UKCA added

Table of contents

Preface **3**

1 Overview **6**

1.1 Product description 6

1.2 Structure of the devices 7
1.2.1 Structure of SIMATIC IOT2000 Input/Output Module 7
1.2.2 Structure of SIMATIC IOT2000 Input Module Sink/Source 8

2 Safety notes **9**

2.1 Security information 9

2.2 Data protection 9

2.3 General safety instructions 10

2.4 Notes on connecting 10

3 Installing and connecting the device **12**

3.1 Preparing for installation 12
3.1.1 Checking the delivery 12
3.1.2 Identification data of the device 14
3.1.3 Recycling and disposal 14

3.2 Installing the IOT2000 Extension Modules 14

3.3 Connecting the IOT2000 Extension Modules 18
3.3.1 Notes on connecting 18
3.3.2 Connecting the power supply for digital output 18
3.3.3 Connecting the devices 19
3.3.3.1 Connecting the IOT2000 Input/Output Module 19
3.3.3.2 Connecting the IOT2000 Input Module Sink/Source 21

4 Technical specifications **23**

4.1 Certificates and approvals 23

4.2 Technical data 25
4.2.1 IOT2000 Input/Output Module 25
4.2.2 IOT2000 Input Module Sink/Source 27
4.2.3 Hardware Interface 28
4.2.3.1 Hardware Interface for IOT2000 Input/Out Module 28
4.2.3.2 Hardware Interface for IOT2000 Input Module Sink/Source 29

5 Technical support **30**

5.1 Service and support 30

Index **31**

Overview

1

1.1 Product description

IOT2000 Extension Modules provide IOT2000 system with a variety of standard industrial input/output interface, which can provide customers with more applications.

Although the IOT2000 Extension Modules have an ARDUINO UNO R3 compatible interface, we designed and tested for use with IOT2020 and IOT2040.

Features for devices

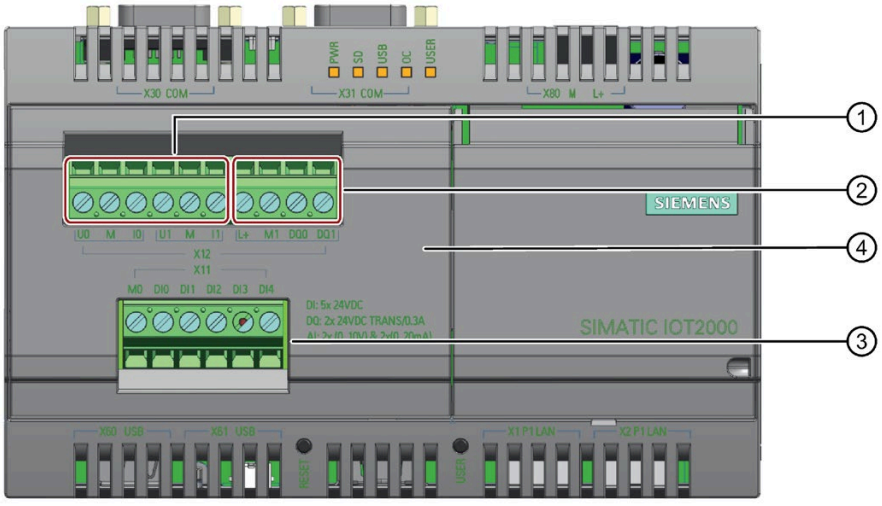
- Work both for IOT2020 and IOT2040
- Depending on the industrial area of application.
  - IOT2000 Input/Output Module: has five digital inputs, two analog inputs and two digital outputs.
  - IOT2000 Input Module Sink/Source: only has ten digital inputs.

1.2 Structure of the devices

1.2.1 Structure of SIMATIC IOT2000 Input/Output Module

IOT2000 Input/Output Module

The following figure shows the configuration and interfaces of the IOT2000 Input/Output Module.



		Interface	Interface description
①	Analog interface	M [1]	Ground of analog input
		U0, U1	Analog voltage input
		I0, I1	Analog current input
②	Digital output interface	M1 [2]	Ground of digital output
		L+	Power supply of digital output
		DQ0, DQ1	Digital output
③	Digital input interface	M0 [2]	Ground of digital input
		DI1 DI2, DI3, DI4, DI5	Digital input
④	IOT2000 Input/Output Module cover		

1) M is directly connected with the M of Arduino interface and it is not isolated.

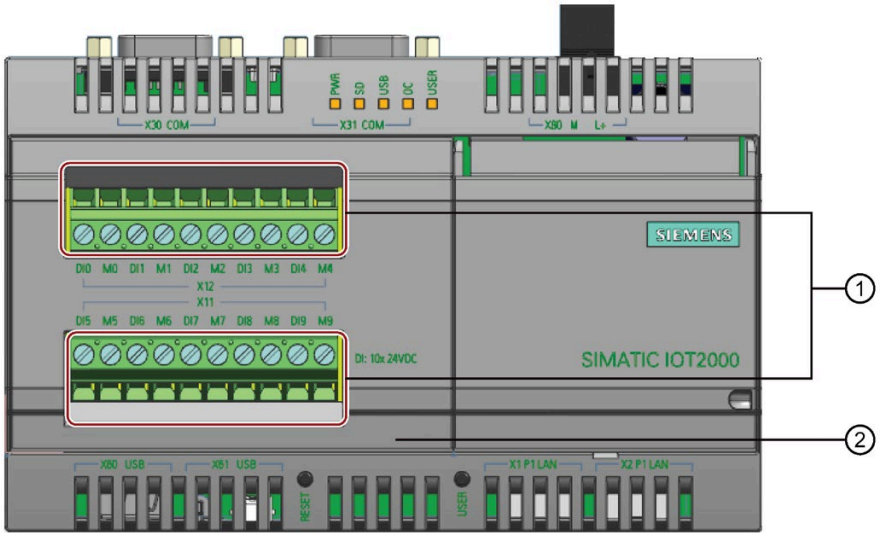
2) M0 and M1 are isolated by optical coupling.

For more information on configuration and interfaces of the SIMATIC IOT2000, see *SIMATIC IOT2020, SIMATIC IOT2040 Operating Instructions*.

1.2.2 Structure of SIMATIC IOT2000 Input Module Sink/Source

IOT2000 Input Module Sink/Source

The following figure shows the configuration and interfaces of the IOT2000 Input Module Sink/Source.



		Interface	Interface description
①	Digital input interface	M0-M9 [1]	Ground of digital input
		DI0-DI9	Digital input
②	IOT2000 Input Module Sink/Source cover		

[1] M0, M1 to M9 are all isolated by optical coupling.

For more information on configuration and interfaces of the SIMATIC IOT2000, see *SIMATIC IOT2020, SIMATIC IOT2040 Operating Instructions*.

Safety notes

2

2.1 Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit (https://www.siemens.com/industrialsecurity).

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customers' exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed visit (https://www.siemens.com/cert).

2.2 Data protection

Siemens observes the data protection guidelines, especially the requirements regarding data minimization (privacy by design). This means the following for this SIMATIC product: The product does not process / save any personal information, but only technical functional data (e.g. time stamps). If the user links this data to other data (e.g. shift plans) or if the user saves personal information on the same medium (e.g. hard disk) and therefore creates a personal reference in the process, the user has to ensure meeting the guidelines regarding data protection.

2.3 General safety instructions

Strong high-frequency radiation

NOTICE

Observe immunity to RF radiation

The device has an increased immunity to RF radiation according to the specifications on electromagnetic compatibility in the technical specifications.

Radiation exposure in excess of the specified immunity limits can impair device functions, result in malfunctions and therefore injuries or damages.

Read the information on immunity to RF radiation in the technical specifications.

ESD Guideline

Electrostatic sensitive devices can be labeled with an appropriate symbol.



NOTICE

Electrostatic sensitive devices (ESD)

When you touch electrostatic sensitive components, you can destroy them through voltages that are far below the human perception threshold.

If you work with components that can be destroyed by electrostatic discharge, observe the ESD Guideline.

2.4 Notes on connecting

WARNING

Risk of fire and electric shock

The on/off switch does not isolate the device from the power supply. Risk of electric shock if the device is opened incorrectly or defective. There is also a risk of fire if the device or connecting lines are damaged. Death or serious bodily injury can result.

You should therefore protect the device as follows:

- Always pull out the power plug when you are not using the device or if the device is defective. The power plug must be freely accessible.
- Use a central power isolating switch for cabinet installation.

⚠ WARNING

Risk of lightning strikes

A lightning flash may enter the mains cables and data transmission cables and jump to a person.

Death, serious injury and burns can be caused by lightning.

Take the following precautions:

- Disconnect the device from the power supply in good time when a thunderstorm is approaching.
- Do not touch mains cables and data transmission cables during a thunderstorm.
- Keep a sufficient distance from electric cables, distributors, systems, etc.

Installing and connecting the device

3

3.1 Preparing for installation

3.1.1 Checking the delivery

Procedure

1. When accepting a delivery, please check the packaging for visible transport damage.
2. If any transport damage is present at the time of delivery, lodge a complaint at the shipping company in charge. Have the shipper confirm the transport damage immediately.
3. Unpack the device at its installation location.
4. Keep the original packaging in case you have to transport the unit again.

Note

Damage to the device during transport and storage

If a device is transported or stored without packaging, shocks, vibrations, pressure and moisture may impact the unprotected unit. A damaged packaging indicates that ambient conditions have already had a massive impact on the device.

The device may be damaged.

Do not dispose of the original packaging. Pack the device during transportation and storage.

---

5. Check the contents of the packaging and any accessories you may have ordered for completeness and damage.

6. If the contents of the packaging are incomplete, damaged or do not match your order, inform the responsible delivery service immediately.

⚠ WARNING

Electric shock and fire hazard due to damaged device

A damaged device can be under hazardous voltage and trigger a fire in the machine or plant. A damaged device has unpredictable properties and states.

Death or serious injury could occur.

Make sure that the damaged device is not inadvertently installed and put into operation. Label the damaged device and keep it locked away. Send off the device for immediate repair.

NOTICE

Damage from condensation

If the device is subjected to low temperatures or extreme fluctuations in temperature during transportation, for example in cold weather, moisture could build up on or inside the device.

Moisture causes a short circuit in electrical circuits and damages the device.

In order to prevent damage to the device, proceed as follows:

- Store the device in a dry place.
- Bring the device to room temperature before starting it up.
- Do not expose the device to direct heat radiation from a heating device.
- If condensation develops, wait approximately 12 hours or until the device is completely dry before switching it on.

7. Please keep the enclosed documentation in a safe place. It belongs to the device. You need the documentation when you commission the device for the first time.
8. Write down the identification data of the device.

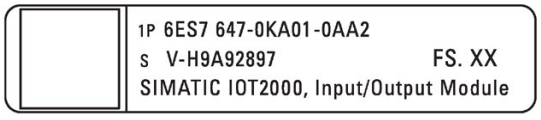
3.1.2 Identification data of the device

The device can be clearly identified with the help of this identification data in case of repairs or theft.

Enter the identification data in the following table:

Order number	6ES ...
Serial number	S V-
Production version	FS

You can find the order number, serial number and production version (FS) from the rating plate. Below is just an example.



3.1.3 Recycling and disposal

Marking according to WEEE guideline. Do not discard the device with your household waste. Observe the local legal guidelines for disposal. Alternatively, you can use a certified disposal service company.

3.2 Installing the IOT2000 Extension Modules

Note

If the equipment is used in manner not specified by the manufacture, the protection provided by the equipment may be impaired.

Requirements

- IOT2000 is disconnected from the power supply.

⚠ WARNING

Risk of fire and electric shock

The on/off switch does not isolate the device from the power supply. Risk of electric shock if the device is opened incorrectly or defective. There is also a risk of fire if the device or connecting lines are damaged. Death or serious bodily injury can result.

You should therefore protect the device as follows:

- Always pull out the power plug when you are not using the device or if the device is defective. The power plug must be freely accessible.
- Use a central power isolating switch for cabinet installation.

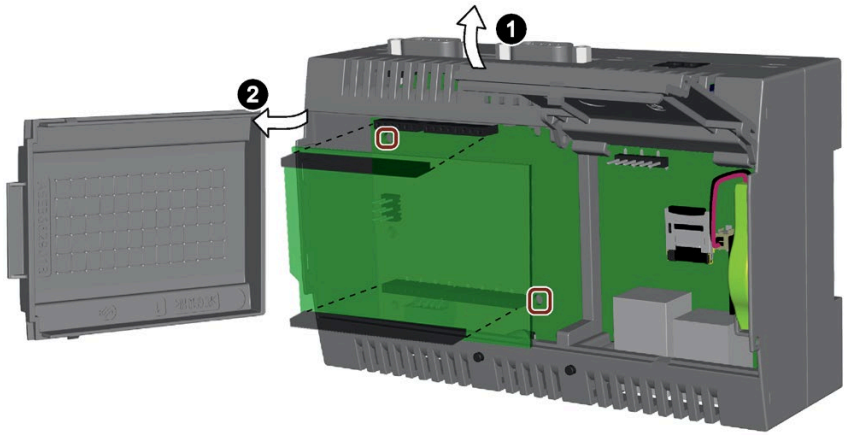
Procedure

NOTICE

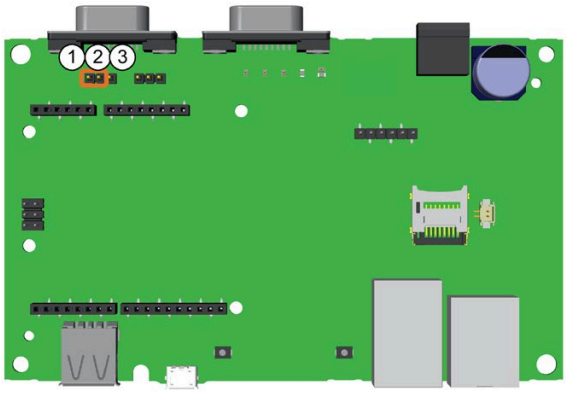
Install IOT2000 Extension Modules

Do not under any circumstances insert the module incorrectly. Ensure that the contact pins of the module connect correctly with the terminal strips of the motherboard.

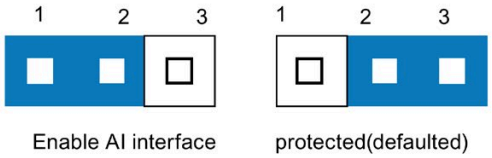
1. Open the right cover of IOT2000 and lift up the cover.
2. Slightly raise the left cover of IOT2000 and lift it to the left.



3. Configure the pin connector via the jumper as shown below to enable the AI interface.



Jumpers position function	
1-2	Enable AI interface
2-3	protected(default)

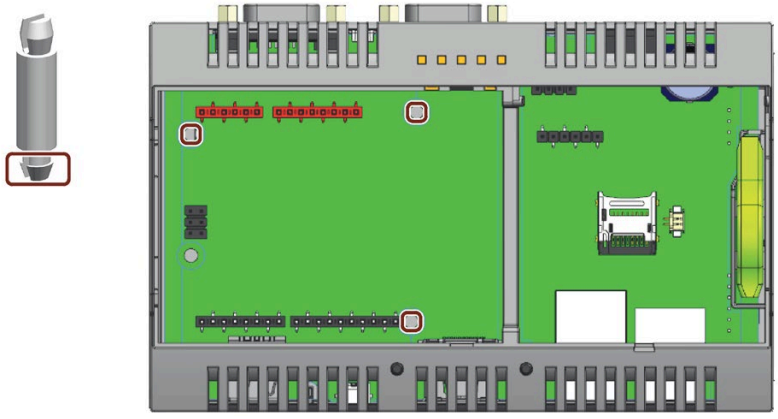


Note

When you install the IOT2000 Input Module Sink/Source, skip this step.

4. Insert the mounting clamp into the marked boreholes on the motherboard shown below.

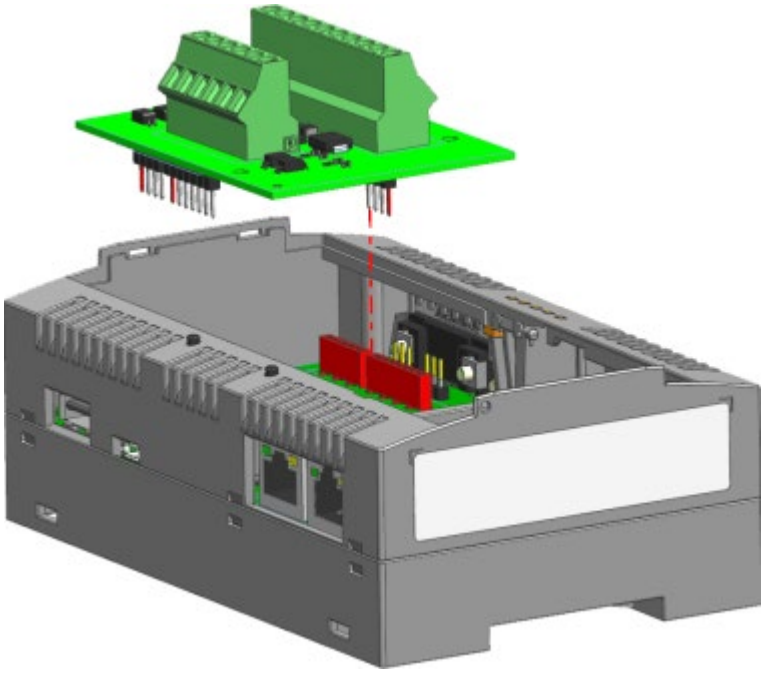
   Note: Insert the marked side of the mounting clamp into the motherboard.



NOTICE
Only use fixing elements designed for IOT2000 Extension Modules Use only fixing elements shipped together with the module. If you use other fixing elements, the motherboard may be damaged.

5. Fit the contact pins of the module on the contact sockets of the motherboard. Then insert the IO Module into the motherboard. Below is an example for inserting the IOT2000 Input/Output Module into the motherboard.

NOTICE
Risk of contact pin damage Ensure that the contact pins of the module fit perfectly on the contact sockets of the motherboard before your push the IOT2000 Extension Modules into the mounting clamp. Otherwise the pin maybe deformed.



6. Install the module cover to the IOT2000. Snap the left side of the cover first, then press the right of the cover until it clips in the housing.
7. Install the right cover.

3.3 Connecting the IOT2000 Extension Modules

3.3.1 Notes on connecting

⚠ WARNING

Risk of lightning strikes

A lightning flash may enter the mains cables and data transmission cables and jump to a person.

Death, serious injury and burns can be caused by lightning.

Take the following precautions:

- Disconnect the device from the power supply in good time when a thunderstorm is approaching.
- Do not touch mains cables and data transmission cables during a thunderstorm.
- Keep a sufficient distance from electric cables, distributors, systems, etc.

NOTICE

Damage through regenerative feedback

Regenerative feedback of voltage to ground by a connected or installed component can damage the device.

Connected or built-in I/Os, for example, a USB drive, are not permitted to supply any voltage to the device. Regenerative feedback is generally not permitted.

3.3.2 Connecting the power supply for digital output

Note

The device should only be connected to a 9...36 V DC power supply which meets the requirements of safe extra low voltage (SELV) according to IEC/EN/DIN EN/UL 60950-1.

The power supply must meet the requirement NEC Class 2 or LPS according to IEC/EN/DIN EN/UL 60950-1.

Note

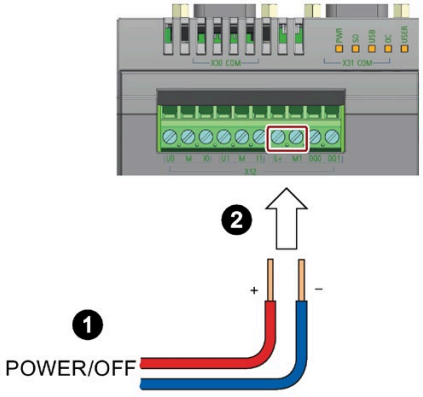
The power supply must be adapted to the input data of the device, see chapter "IOT2000 Input/Output Module (Page 25)". If there are voltage peaks on power supply lines, use a protective device in the form of a varistor (MOV) UMOV = U-rated x 1.2 (BLITZDUCTOR BVT AVD 24 (918 422) or compatible).

Requirement

- A two-core cable with a cable cross-section of 0.75 mm^2 to 2.5 mm^2.
- A slotted screwdriver with a 3mm blade.

Procedure

1. Switch off the power supply.
2. Connect the lines to the connecting terminal as shown.



3.3.3 Connecting the devices

3.3.3.1 Connecting the IOT2000 Input/Output Module

Requirements

- IOT2000 is disconnected from the power supply.

⚠ WARNING

Risk of fire and electric shock

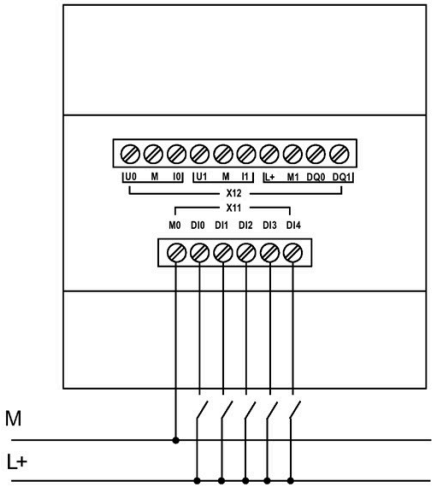
The on/off switch does not isolate the device from the power supply. Risk of electric shock if the device is opened incorrectly or defective. There is also a risk of fire if the device or connecting lines are damaged. Death or serious bodily injury can result.

You should therefore protect the device as follows:

- Always pull out the power plug when you are not using the device or if the device is defective. The power plug must be freely accessible.
- Use a central power isolating switch for cabinet installation.

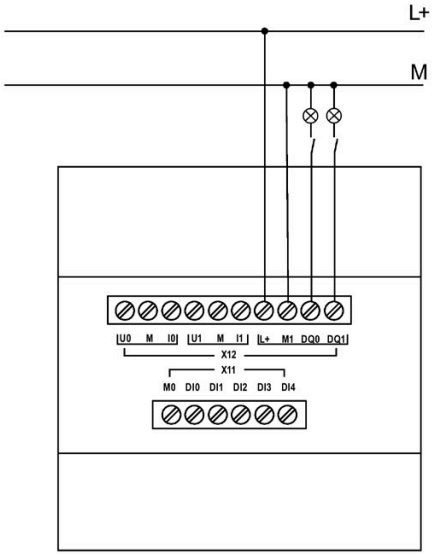
Connecting digital inputs

The figure below shows how to connect the digital inputs of IOT2000 Input/Output Module.



Connecting digital outputs

The figure below shows how to connect the digital outputs of IOT2000 Input/Output Module.

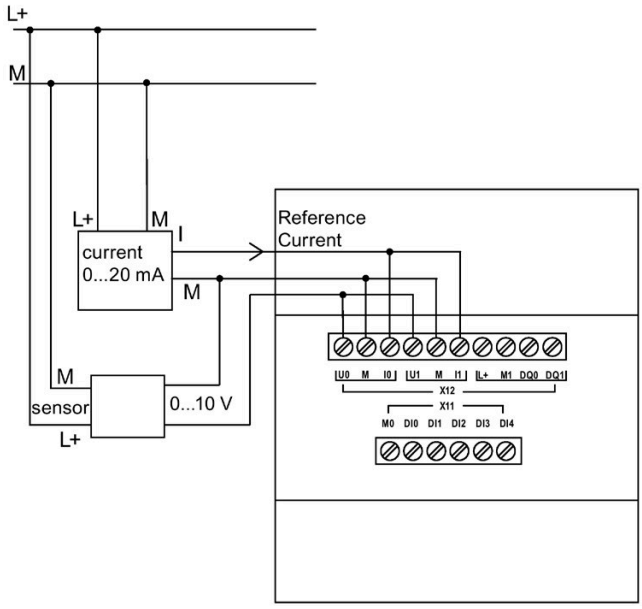


Connecting analog inputs

The figure below shows how to connect the analog inputs of IOT2000 Input/Output Module.

Note

Do use shield cables to connect the analog inputs.



3.3.3.2 Connecting the IOT2000 Input Module Sink/Source

Requirements

- IOT2000 is disconnected from the power supply.

WARNING

Risk of fire and electric shock

The on/off switch does not isolate the device from the power supply. Risk of electric shock if the device is opened incorrectly or defective. There is also a risk of fire if the device or connecting lines are damaged. Death or serious bodily injury can result.

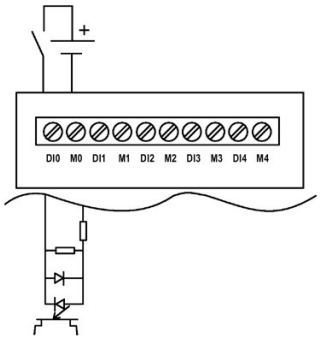
You should therefore protect the device as follows:

- Always pull out the power plug when you are not using the device or if the device is defective. The power plug must be freely accessible.
- Use a central power isolating switch for cabinet installation.

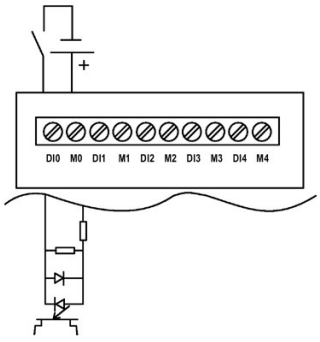
Connecting digital inputs

The figure below shows how to connect the digital inputs of IOT2000 Input Module Sink/Source.

24 VDC Input
Used as Sinking Inputs



24 VDC Input
Used as Sourcing Inputs



Technical specifications

4

4.1 Certificates and approvals

Note

Applicability

The following shows the approvals that may be available. For the device itself, it is certificated as shown on the product label and package label.

ISO 9001 certificate

The SEWC quality management system for all production processes (development, production and sales) meets the requirements of GB/T 19001-2008/ISO 9001:2008, ISO 14001:2004 + Cor. 1:2009 and BS OHSAS 18001:2007.

This has been certified by TÜV.

Certificate registration no. 01 100 1430201, 01 104 1430201 and 01 113 1430201.

Software license agreements

If the device is supplied with preinstalled software, you must observe the corresponding license agreements.

CE

The device meets the guidelines listed in the following sections.

EC Declaration of Conformity

The associated declaration of conformity is available on the Internet at the following address: EU Declaration of Conformity (https://support.industry.siemens.com/cs/ww/en/ps/16739/cert).

UKCA

The device complies with the designated British standards (BS) for IPC published in the official consolidated list of the British Government. The device meets the requirements and protection targets of the following regulations and related amendments:

- Electromagnetic Compatibility Regulations 2016 (EMC)
- Regulations on the restriction of the use of certain hazardous substances in electrical and electronic equipment 2012 (RoHS).

UK Declarations of Conformity for the respective authorities are available from:

Siemens AG
Digital Industries
Factory Automation

DI FA TI COS TT
P.O. Box 1963
D-92209 Amberg

The UK Declaration of Conformity is also available for download from the Siemens Industry Online Support website under the keyword "Declaration of Conformity".

UL approval

The following approvals are available for the device:

- Underwriters Laboratories (UL) in accordance with standard UL61010-2-201 (IND.CONT.EQ), File E472609
- Canadian National Standard CAN/CSA-C22.2 No. 61010-2-201

Australia and New Zealand

This product meets requirements of EN IEC 61000-6-4:2011 Generic standard.

Identification for Eurasion Customs Union

- EAC (Eurasian Conformity)
- Customs union of Russia, Belarus and Kazakhstan
- Declaration of conformity according to Technical Regulations of the Customs Union (TR CU)

FCC and Canada

USA	
Federal Communications Commission Radio Frequency Interference Statement	This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
Shielded Cables	Shielded cables must be used with this equipment to maintain compliance with FCC regulations.
Modifications	Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.
Conditions of Operations	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canada	
Canadian Notice	This Class A digital apparatus complies with Canadian ICES-003 (A).
Avis Canadian	Cet appareil numérique de la classe A est conforme à la norme NMB-003 (A) du Canada.

Responsible party for Supplier's Declaration of Conformity

Siemens Industry, Inc.

Digital Factory ¨C Factory Automation

5300 Triangle Parkway, Suite 100

Norcross, GA 30092

USA

Mail to: (amps.automation@siemens.com)

WEEE label (European Union)



Disposal instructions, observe the local regulations and the section "Recycling and disposal (Page 14) ".

4.2 Technical data

The IOT2000 Extension Modules are designed for IOT2000. When IOT2000 Extension Modules work with IOT2000, the following technical specifications of the whole device are the same with IOT2000:

- Degree of protection: IP20 according to IEC 60529;
- Electromagnetic compatibility;
- Ambient conditions.

For the detail technical specification, refer to the chapter *"Technical data"* in *SIMATIC IOT2020, SIMATIC IOT2040 Operating Instructions*.

4.2.1 IOT2000 Input/Output Module

IOT2000 Input/Output Module	
MLFB	6ES7647-0KA01-0AA2
Digital inputs	
Number	5

IOT2000 Input/Output Module	
Electrical isolation	Yes
Number of high speed inputs	0
Input frequency	
• Normal input • High speed input	• Max. 20 Hz • --
Max. continuous permissible voltage	28.8 VDC
Input voltage	
Signal 0 Signal 1	< 5 VDC > 12 VDC
Input current at	
Signal 0 Signal 1	< 1.0 mA > 2.1 mA
Delay time at	
0 to 1 1 to 0	• Typ. 1.5 ms • Typ. 15 ms
Line length (unshielded)	Max. 100 m
Analog inputs	
Number	2 voltage channel & 2 current channel
Type	Unipolar
Input range	0 VDC to 10 VDC (input impedance 38 kΩ) 0 mA to 20 mA (input impedance <380 Ω)
Resolution	9 bit
Line length (shielded and twisted)	Max. 10 m
Electrical isolation	NO
Error limit	± 3% [1)]
Digital outputs	
Number	2
Output type	Transistor, current-sourcing
Electrical isolation	Yes
In groups of	- -
Output supply voltage permissible range (L+)	20.4VDC to 28.8 VDC
Output voltage	≤ Supply voltage
Output current	Max. 0.3 A per channel
Short circuit-proof and overload-proof	Yes
Short circuit current limitation	Approx. 1 A per channel
Derating	None; across the entire temperature range
Parallel output circuit for power increase	Not permitted
Protection of output relay (if desired)	- -
Switching rate	
Mechanical	- -
Electrical	10 Hz
Resistive load/lamp load	10 Hz
Inductive load	0.5 Hz

[1)] Under poor EMC environment, the accuracy of analog input might get worse. You may need to include software filter in your image when use the analog input.

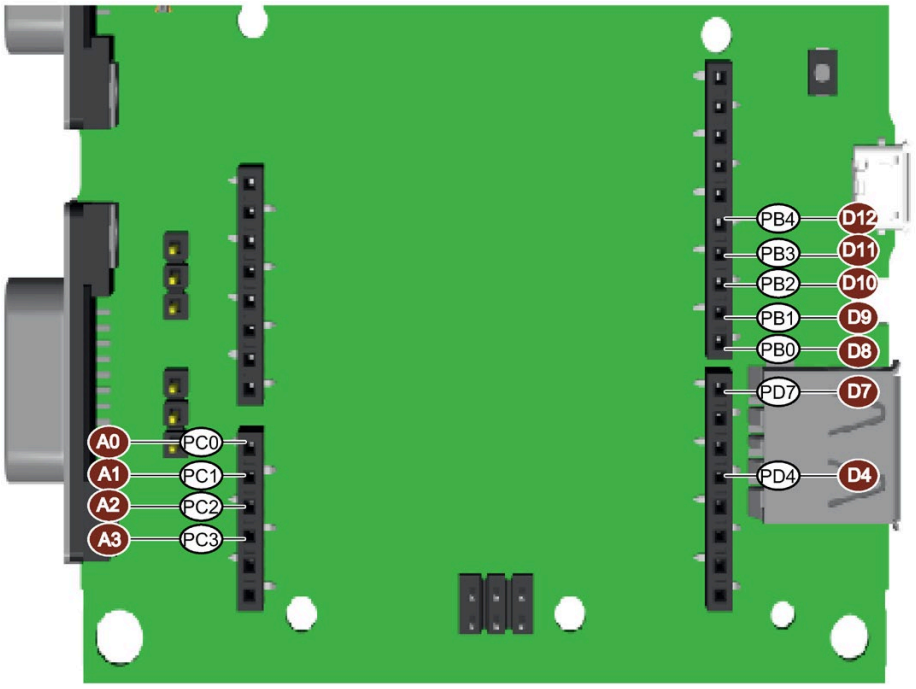
4.2.2 IOT2000 Input Module Sink/Source

IOT2000 Input Module Sink/Source	
MLFB	6ES7647-0KA02-0AA2
Digital inputs	
Number	10
Electrical isolation	Yes
Number of high speed inputs	0
Input frequency	
• Normal input • High speed input	• Max. 20 Hz • --
Max. continuous permissible voltage	28.8 VDC
Input voltage	
Signal 0 Signal 1	< 5 VDC > 12 VDC
Input current at	
Signal 0 Signal 1	< 1.0 mA > 2.1 mA
Delay time at	
0 to 1 1 to 0	• Typ. 1.5 ms • Typ. 15 ms
Line length (unshielded)	Max. 100 m

4.2.3 Hardware Interface

4.2.3.1 Hardware Interface for IOT2000 Input/Out Module

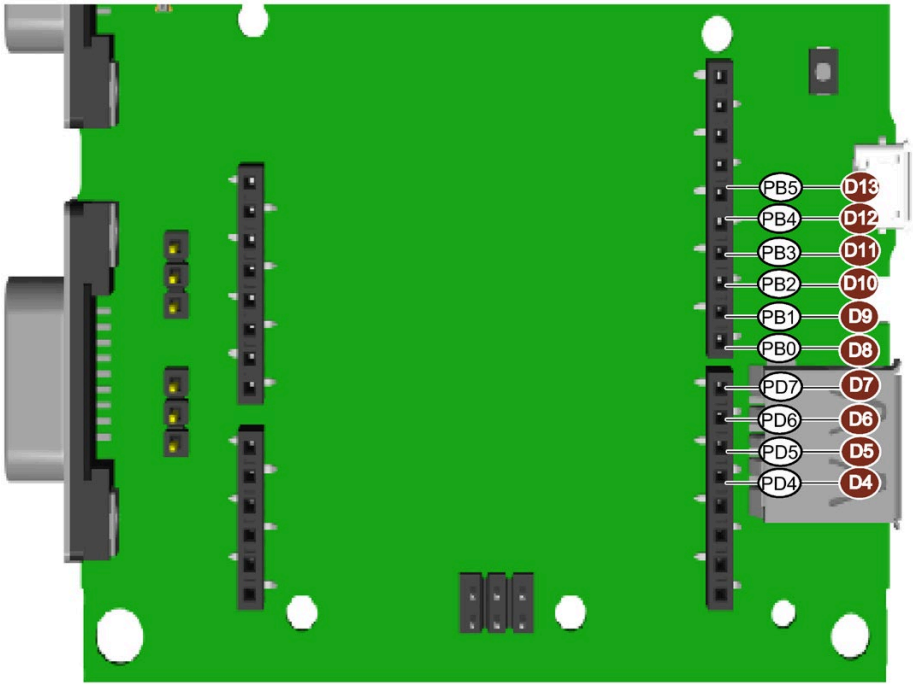
You can control the I/O state by the user application port as shown below.



Description	Function	User application port	Inter-Connection
DI0	Digital Input	D12	PB4
DI1		D11	PB3
DI2		D10	PB2
DI3		D9	PB1
DI4		D4	PD4
DQ0	Digital Output	D8	PB0
DQ1		D7	PD7
U0	Analog Input	A0	PC0
I0		A1	PC1
U1		A2	PC2
I1		A3	PC3
M	M		
P5V	P5V		
P24V	P24V		

4.2.3.2 Hardware Interface for IOT2000 Input Module Sink/Source

You can control the I/O state by the user application port as shown below.



Description	Function	User application port	Inter-Connection
DI0	Digital Input	D4	PD4
DI1		D5	PD5
DI2		D6	PD6
DI3		D7	PD7
DI4		D8	PB0
DI5		D9	PB1
DI6		D10	PB2
DI7		D11	PB3
DI8		D12	PB4
DI9		D13	PB5
M0, M1, M2, M3, M4, M5, M6, M7, M8, M9	Mx pin of respective channels		

Technical support

5

5.1 Service and support

You can find additional information and support for the products described on the Internet at the following addresses:

- Technical support (https://support.industry.siemens.com/cs/start?lc=en-WW)
- Support request form (https://support.industry.siemens.com/My/ww/en/requests)
- After Sales Information System SIMATIC IPC/PG (http://www.siemens.com/asis)
- SIMATIC Documentation Collection (https://support.industry.siemens.com/cs/us/en/view/109744171)
- Your local representative (https://www.automation.siemens.com/aspa_app)
- Training center (https://www.sitrain-learning.siemens.com/PLG/?AppLang=en)
- Industry Mall (https://mall.industry.siemens.com)

When contacting your local representative or Technical Support, please have the following information at hand:

- MLFB of the device
- BIOS version for industrial PC or image version of the device
- Other installed hardware
- Other installed software

Tools & downloads

Please check regularly if updates and hotfixes are available for download to your device. The download area is available on the Internet at the following link:

After Sales Information System SIMATIC IPC/PG (http://www.siemens.com/asis)

Index

A

Australia and New Zealand, 24

C

CE marking, 23
Certificates, 23
    Certifications and approvals, 23
Condensation, 13

D

Disposal, 14

E

EAC, 24
EC Declaration of Conformity, 23

F

FCC, 24

I

Identification data, 14

M

Marking
    EC Declaration of Conformity, 23

P

Package contents, 12
    Checking, 12
Packaging, 12
    Checking, 12
    Removing, 12

R

Radiation, 10
    High frequency radiation, 10

S

Safety information
    Storage, 13
    Transportation, 13

U

UKCA, 23