

SIEMENS

SIMATIC

Distributed IO

Product information for the ET 200S Operating Instructions (A5E00515771-06) 08/2008

Product Information

Introduction

This Product Information describes additions and corrections to the ET 200S operating instructions, Edition 08/2008 on the Internet (<http://support.automation.siemens.com/WW/view/en/1144348>).

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/industrialsecurity>).

Standards and approvals

Amendment of the IEC 61131-2 standard

The references to the IEC 61131-2 standard in the manual are replaced by the EN 61131-2:2007 standard.

Section 8.1 Standards and approvals

This section contains supplements to the ET 200S operating instructions (A5E00515770-06) 08/2008.

Safety information

WARNING

Risk of personal injury and damage to property.

In hazardous atmospheres, injury to persons and material damage may occur if you disconnect plug-in connections during operation of an ET 200S.

Always switch off the power to the ET 200S when disconnecting plug-in connections in hazardous atmospheres.

WARNING

Explosion hazard

If you replace components, compliance with Class I, DIV 2 can become invalid.

WARNING

Area of application

This device is only suitable for use in Class I, Div. 2, Group A, B, C, D, or in non-hazardous areas.

CE marking



The ET 200S distributed I/O system meets the general and safety-related requirements of the following EU directives and conforms to the harmonized standards (EN) for programmable controllers published in the official journals of the European Union:

- 2014/35/EU "Electrical equipment for use within specific voltage limits" (Low-Voltage Directive)
- 2014/30/EU "Electromagnetic Compatibility" (EMC Directive)
- 2014/34/EU "Equipment and protective systems intended for use in potentially explosive atmospheres" (Explosion Protection Directive)
- 2011/65/EU "Restriction of the use of certain hazardous substances in electrical and electronic equipment" (RoHS Directive)
- 2006/42/EC "Machinery Directive" for ET 200S safety components (fail-safe modules)

The EU Declarations of Conformity are available to the relevant authorities at the following address:

Siemens AG
Digital Industries
Factory Automation
DI FA TI COS TT
P.O. Box 1963
D-92209 Amberg

These files are also available for download on the Customer Support Internet pages, keyword "Declaration of Conformity".

UKCA marking



The ET 200S distributed I/O system complies with the designated British standards (BS) for programmable logic controllers published in the official consolidated list of the British Government. The ET 200S distributed I/O system meets the requirements and protection targets of the following regulations and related amendments:

- Electrical Equipment (Safety) Regulations 2016 (Low-Voltage)
- Electromagnetic Compatibility Regulations 2016 (EMC)
- Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016 (Explosion Protection)
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (RoHS)
- Supply of Machinery (Safety) Regulations 2008 for ET 200S safety components (fail-safe modules)

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 Declarations of Conformity are also available for download from the Siemens Industry Online Support website, under the keyword "Declaration of Conformity".

UL approval



Underwriters Laboratories Inc., complying with

- UL 508 (Industrial Control Equipment)

CSA approval



Canadian Standards Association in accordance with
C22.2 No. 142 (Industrial Control Equipment)

OR

cULus approval



Underwriters Laboratories Inc., complying with

- UL 508 (Industrial Control Equipment)
- CAN/CSA C22.2 No. 142 (Process Control Equipment)

OR

cULus HAZ. LOC. approval



HAZ. LOC.

Underwriters Laboratories Inc. according to

- UL 508 (Industrial Control Equipment)
- CAN/CSA C22.2 No. 142 (Process Control Equipment)
- ANSI/ISA 12.12.01 (Hazardous Location) or ANSI/ISA 12.12.01
- CAN/CSA-213 (Hazardous Location)

APPROVED for use in
Class I, Division 2, Group A, B, C, D Tx;
Class I, Zone 2, Group IIC Tx

Installation Instructions for cULus haz.loc.

- WARNING - Explosion Hazard - Do not disconnect while circuit is live unless area is known to be non-hazardous.
- WARNING - Explosion Hazard - Substitution of components may impair suitability for Class I, Division 2 or Zone 2.
- This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; or non-hazardous locations.

WARNING: EXPOSURE TO SOME CHEMICALS MAY DEGRADE THE SEALING PROPERTIES OF MATERIALS USED IN THE RELAYS.

The ET 200S motor starters do not have cULus for HAZ. LOC. approval.

FM approval



Factory Mutual Research (FM) conforming to

- Approval Standard Class Number 3611, 3600, 3810
- ANSI/UL 121201
- ANSI/UL 61010-1

APPROVED for use in Class I, Division 2, Group A, B, C, D Tx;
Class I, Zone 2, Group IIC Tx

The motor starters do not have FM approval. All other ET 200S modules have FM approval.

ATEX approval



According to EN 60079-15 (Electrical apparatus for potentially explosive atmospheres - Part 15: Type of protection "n") and EN IEC 60079-0 (Electrical apparatus for potentially explosive gas atmospheres - Part 0: General requirements).

II 3 G Ex nA IIC Tx Gc

DEKRA 12ATEX0113 X

OR

According to EN 60079-7 (Electrical apparatus for potentially explosive atmospheres - Part 7: Increased safety "e") and EN IEC 60079-0 (Electrical apparatus for potentially explosive gas atmospheres - Part 0: General requirements).

II 3 G Ex ec IIC Tx Gc

DEKRA 21ATEX0047 X

Special conditions in explosive atmospheres:

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1.
- The equipment shall be installed in a suitable enclosure providing a degree of protection not less than IP54 in accordance with EN IEC 60079-0. The ambient conditions must be taken into consideration for use.
- Provisions shall be made to prevent the nominal voltage from being exceeded by more than 119 V due to transient mains disturbances.

UKEX approval



According to EN IEC 60079-7 (Explosive atmospheres - Part 7: Equipment protection by increased safety "e") and EN IEC 60079-0 (Explosive atmospheres - Part 0: Equipment - General requirements).

II 3 G Ex ec IIC Tx Gc

DEKRA 21UKEX0010 X

Special conditions in explosive atmospheres:

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in EN 60664-1.
- The equipment shall be installed in a suitable enclosure providing a degree of protection not less than IP54 in accordance with EN IEC 60079-0. The ambient conditions must be taken into consideration for use.
- Provisions shall be made to prevent the nominal voltage from being exceeded by more than 119 V due to transient mains disturbances.

IECEx approval



According to IEC 60079-15 (Electrical apparatus for potentially explosive atmospheres - Part 15: Type of protection "n") and IEC 60079-0 (Electrical apparatus for potentially explosive gas atmospheres - Part 0: General requirements).

II 3 G Ex nA IIC Tx Gc

IECEx DEK 14.0041 X

OR

According to IEC 60079-7 (Explosive atmospheres - Part 7: Equipment protection by increase safety "e")

II 3 G Ex ec IIC Tx Gc

IECEx DEK 21.0029 X

Special conditions in hazardous areas:

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.
- The equipment shall be installed in a suitable enclosure providing a degree of protection not less than IP54 in accordance with IEC 60079-0. The ambient conditions must be taken into consideration for use.
- Provisions shall be made to prevent the nominal voltage from being exceeded by more than 119 V due to transient interference voltages.

CCCEX approval



In accordance with GB/T 3836.3 (Explosive atmospheres - Part 3: Equipment protection by type of protection "e"), GB/T 3836.1 (Explosive atmospheres - Part 1: Equipment - General requirements).

Ex ec IIC Tx Gc

Special conditions in hazardous areas:

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in GB/T 16935.1.
- The equipment shall be installed in a suitable enclosure providing a degree of protection not less than IP54 in accordance with GB/T 3836.1. The ambient conditions must be taken into consideration for use.
- Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 119 V.

RCM Declaration of Conformity for Australia/New Zealand



The ET 200S distributed I/O system fulfills the requirements of IEC 61000-6-4.

Use in industrial environments

SIMATIC products are designed for industrial applications.

Table 1 Use in industrial environments

Area of application	Interference emission requirements	Interference immunity requirements
Industry	EN IEC 61000-6-4:2019	EN IEC 61000-6-2:2019

Use in residential areas

Note

The ET 200S is intended for use in industrial areas; use in residential areas may have an impact on radio/TV reception.

If you want to use the ET 200S in residential areas, you must ensure that its radio frequency interference emission complies with limit class B in accordance with EN 55011.

Suitable measures for achieving RF interference level Class B include, for example:

- Installation of the ET 200S in grounded control cabinets/control boxes
- Use of filters in the supply lines

Reference

The certificates for the markings and approvals can be found on the Internet under Service&Support (<http://www.siemens.com/automation/service&support>).

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