



SWEDISH  
STANDARDS  
INSTITUTE

**SVENSK STANDARD**  
**SS-ISO 14617-3**

Fastställd 2002-10-11

Utgåva 1

**Grafiska symboler för scheman –**  
Del 3: Förbindningar och besläktade don

**Graphical symbols for diagrams –**  
Part 3: Connections and related devices

ICS 01.080.30

Språk: engelska

Tryckt i november 2002

Den internationella standarden ISO 14617-3:2002 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 14617-3:2002.

The International Standard ISO 14617-3:2002 has the status of a Swedish Standard. This document contains the official English version of ISO 14617-3:2002.

Dokumentet består av 20 sidor.

Upplysningar om **sakinnehållet** i standarden lämnas av SIS, Swedish Standards Institute, tel 08 - 555 520 00.

Standarder kan beställas hos SIS Förlag AB som även lämnar **allmänna upplysningar** om svensk och utländsk standard.

*Postadress:* SIS Förlag AB, 118 80 STOCKHOLM  
*Telefon:* 08 - 555 523 10. *Telefax:* 08 - 555 523 11  
*E-post:* [sis.sales@sis.se](mailto:sis.sales@sis.se). *Internet:* [www.sis.se](http://www.sis.se)

## Contents

Page

Foreword .....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions .....	1
4 Connections.....	4
5 Connection joints and pipeline ends .....	7
6 Connection joints, junctions, and related devices of specified design .....	9
7 Fittings.....	10
8 Ports <sup>ISO</sup> , quick-release couplings, and connectors.....	11
9 Additional simplifications.....	12
Bibliography.....	15

## ISO 14617-3:2002(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 14617 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14617-3 was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 10, *Process plant documentation and tpd-symbols*.

ISO 14617 consists of the following parts, under the general title *Graphical symbols for diagrams*:

- *Part 1: General information and indexes*
- *Part 2: Symbols having general application*
- *Part 3: Connections and related devices*
- *Part 4: Actuators and related devices*
- *Part 5: Measurement and control devices*
- *Part 6: Measurement and control functions*
- *Part 7: Basic mechanical components*
- *Part 8: Valves and dampers*
- *Part 9: Pumps, compressors and fans*
- *Part 10: Fluid power converters*
- *Part 11: Devices for heat transfer and heat engines*
- *Part 12: Devices for separating, purification and mixing*
- *Part 15: Installation diagrams and network maps*

Other parts are under preparation.

## **Introduction**

The purpose of ISO 14617 in its final form is the creation of a library of harmonized graphical symbols for diagrams used in technical applications. This work has been, and will be, performed in close cooperation between ISO and IEC. The ultimate result is intended to be published as a standard common to ISO and IEC, which their technical committees responsible for specific application fields can use in preparing International Standards and manuals.



# Graphical symbols for diagrams —

## Part 3: Connections and related devices

### 1 Scope

This part of ISO 14617 specifies graphical symbols for functional connections, mechanical links, pipelines and related devices such as connection joints, ISO ports, terminals, quick-release couplings and connectors, in diagrams.

For the fundamental rules of creation and application of graphical symbols in diagrams, see ISO 81714-1.

For an overview of ISO 14617, information on the creation and use of registration numbers for identifying graphical symbols used in diagrams, rules for the presentation and application of these symbols, and examples of their use and application, see ISO 14617-1.

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 14617. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 14617 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 2553, *Welded, brazed and soldered joints — Symbolic representation on drawings*

ISO 4063, *Welding and allied processes — Nomenclature of processes and reference numbers*

ISO 14617-1:2002, *Graphical symbols for diagrams — Part 1: General information and indexes*

ISO 81714-1:1999, *Design of graphical symbols for use in the technical documentation of products — Part 1: Basic rules*

### 3 Terms and definitions

For the purposes of this part of ISO 14617, the following terms and definitions apply.

NOTE 1 The list has been restricted to terms whose meaning is not obvious and which have not been defined elsewhere in an International Standard, or which have been defined in various ways in different standards. In preparing these definitions, ISO and IEC standards on terminology have been consulted; see the references in parentheses. However, most of the definitions in those standards were prepared by different technical committees within a restricted scope. This means that many terms so defined have to be given more general or neutral definitions when applied in the context of graphical symbols.

NOTE 2 In those cases where the same term has substantially different meanings in ISO and IEC, this is indicated beside the term by [ISO] or [IEC] and elsewhere in this part of ISO 14617 by a superscript, for example “port<sup>ISO</sup>”.

## ISO 14617-3:2002(E)

### 3.1 connection

general term for functional connection, mechanical link, pipeline, electric conductor, etc.

### 3.2 functional connection

connection between functions

NOTE A functional connection is used to represent the interrelations between functions represented, for example, by symbols according to ISO 14617-6.

### 3.3 electric connection

conductor or circuit for joining terminals or other conductors

[IEC 60050-151, IEC 60050-531, IEC 60050-581]

### 3.4 connection [ISO]

threaded port, flange, or similar means for connecting a pipeline to a component

[ISO 5598]

c.f. port (3.13) and terminal.

### 3.5 internal connection

connection in the form of one or more pipelines or conductors that is an integral part of a component

NOTE An internal connection need not be located inside a component.

### 3.6 line [ISO]

abbreviation of the term "pipeline"

### 3.7 line [IEC]

multi-pole or multi-phase electric connection

EXAMPLE Power line, telecommunication line, transmission line.

### 3.8 cable

insulated conductor or several insulated conductors with a common covering

### 3.9 pipe unit

pipeline or, more often, several pipelines in a common covering pipe with insulation

### 3.10 information bus

bus with conductors conveying information

### 3.11 unidirectional

having the property to move, transmit, etc. in one direction only