



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS C 0617-1 : 2011

**Graphical symbols for diagrams—
Part 1: General information, general
index. Cross-reference tables**

ICS 01.080.40;29.020

Reference number : JIS C 0617-1 : 2011 (E)

PROTECTED BY COPYRIGHT

Date of Establishment: 1999-02-20

Date of Revision: 2011-01-20

Date of Public Notice in Official Gazette: 2011-01-20

Investigated by: Japanese Industrial Standards Committee
Standards Board

Technical Committee on Electricity Technology

JIS C 0617-1:2011, First English edition published in 2013-05

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

PROTECTED BY COPYRIGHT

Contents

	Page
1 Scope	1
2 Normative references	1
3 Structure	1
4 Concept of graphical symbols	2
4.1 General	2
4.2 Descriptions of item names used for provisions of graphical symbols	3
4.3 Numbering of graphical symbols	4
4.4 Application class	4
4.5 Function class	5
4.6 Selection of graphical symbol	6
4.7 Size of graphical symbol	6
4.8 Orientation of symbols	7
4.9 Representation of terminals	7
4.10 How to create a new symbol from existing elements	7
Annex A (informative) Index (order of the Japanese syllabary)	8
Annex B (informative) Index (Alphabetical order)	9
Annex C (informative) Number correspondence table (graphic symbol numerical order)	50
Annex D (informative) Number correspondence table (order of identification numbers)	91
Annex E (informative) Bibliography	132

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

Consequently **JIS C 0617-1:1999** is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public or utility model right. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public or the utility model right.

JIS C 0617 series consists of the following 13 parts under the general title “*Graphical symbols for diagrams*”:

Part 1: General information, general index. Cross-reference tables

Part 2: Symbol elements, qualifying symbols and other symbols having general application

Part 3: Conductors and connecting devices

Part 4: Passive components

Part 5: Semiconductors and electron tubes

Part 6: Production and conversion of electrical energy

Part 7: Switchgear, controlgear and protective devices

Part 8: Measuring instruments, lamps and signalling devices

Part 9: Telecommunications: Switching and peripheral equipment

Part 10: Telecommunications—Transmission

Part 11: Architectural and topographical installation plans and diagrams

Part 12: Binary logic elements

Part 13: Analogue elements

Graphical symbols for diagrams— Part 1: General information, general index. Cross-reference tables

1 Scope

This Japanese Industrial Standard specifies the general information of graphical symbols for diagrams specified in the standard series of **JIS C 0617**.

NOTE : The indices and cross-reference tables of graphical symbols of respective parts that constitute the standard series of **JIS C 0617** are given in Annex A to Annex D.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS C 0452-2 *Industrial systems, installations and equipment and industrial products—Structuring principles and reference designations—Part 2: Classification of objects and codes for classes*

JIS C 0617 (standard series) *Graphical symbols for diagrams*

JIS C 1082-1 *Preparation of documents used in electrotechnology—Part 1: General requirements*

JIS Z 8222-1 *Design of graphical symbols for use in the technical documentation of products—Part 1: Basic rules*

JIS Z 8222-2 *Design of graphical symbols for use in the technical documentation of products—Part 2: Specification for graphical symbols in a computer sensible form, including graphical symbols for a reference library, and requirements for their interchange*

IEC 60617 *Graphical symbols for diagrams—12-month subscription to online database comprising parts 2 to 13 of IEC 60617*

3 Structure

The standard series of **JIS C 0617** consists of several parts as set out below:

Part 1: *General information, general index. Cross-reference tables*

Part 2: *Symbol elements, qualifying symbols and other symbols having general application*

Example 1 Outlines and enclosures, qualifying symbols for the kind of current and voltage, variability, direction of force, motion and flow etc., mechanical controls, earth and frame connections, ideal circuit elements.

Part 3: *Conductors and connecting devices*

Example 2 Conductors; flexible, screened or twisted, coaxial conductor, terminals, junctions, plugs and sockets, cable sealing ends.

Part 4: *Passive components*

Example 3 Resistors, capacitors, inductors, piezoelectric crystals, electret, delay lines.

Part 5: *Semiconductors and electron tubes*

Example 4 Diodes, transistors, thyristors, electronic tubes, radiation detectors.

Part 6: *Production and conversion of electrical energy*

Example 5 Windings, generators, motors, transformers, power converters.

Part 7: *Switchgear, controlgear and protective devices*

Example 6 Contacts, switches, temperature-, proximity- and touch-sensitive switches, switchgear and controlgear, motorstarters, all-or nothing relays, measuring relays, fuses, gaps, arresters.

Part 8: *Measuring instruments, lamps and signalling devices*

Example 7 Indicating, integrating and recording instruments, thermocouples, clocks, position and pressure transducers, lamps, horn, bell.

Part 9: *Telecommunications: Switching and peripheral equipment*

Example 8 Switching systems, selectors, telephone sets, telegraph and data apparatus, transducers, recorders and reproducers.

Part 10: *Telecommunications—Transmission*

Example 9 Antennas, radio stations, waveguides, one-, two- or multi-port devices, masers, lasers, signal generators, changers, threshold devices, modulators, demodulators, discriminators, concentrators, multiplexers, frequency spectrum diagrams, fibre optics transmission lines and devices.

Part 11: *Architectural and topographical installation plans and diagrams*

Example 10 Generating stations and substations, networks, cabled distribution systems for sound and television, installation symbols for switches, socket outlets, lighting outlets, etc.

Part 12: *Binary logic elements*

Example 11 Qualifying symbols, dependency notation, combinative and sequential elements such as buffers, drivers, coders, arithmetic elements, delay elements, bitable, monostable and astable elements, shift registers and counters, memories.

Part 13: *Analogue elements*

Example 12 Amplifiers with qualifying symbols, function generators, coordinate converters, electronic switches.

4 Concept of graphical symbols

4.1 General

The names of the devices symbolized and concepts in the standard series of **JIS C 0617** are in conformance with those in **IEC 60617**.

4.2 Descriptions of item names used for provisions of graphical symbols

The descriptions of item names used for the standard series of **JIS C 0617** are given in table 1.

In addition, the English item names corresponding to **IEC 60617** are given as reference.

Table 1 Descriptions of item names used for provisions of graphical symbols

Item	Description
Classification number of graphical symbols	Classification number in the form of xx-yy-zz, where x, y and z are expressed with integers from 0 to 9 and A. xx: Number of part yy: Number of section zz: Graphical symbol number in the number of section NOTE: The graphical symbols with A attached to the section numbers, which were specified in the previous edition, are now deleted.
Symbol identity number	An identifier of a graphical symbol of the form “Snnnnn” where n is an integer from 0 to 9. This number corresponds to the symbol identity number specified in IEC 60617 , and carries no semantic meaning.
Name	Short description of the meaning of the symbol.
Alternative names	Synonymous, “almost synonymous” and possibly branch specific meanings, etc. under which the symbol might also be known.
Form	Designation of a particular form of the symbol. When there are graphical symbols having alternative forms, it is described as form 1, form 2
Alternative forms	Identity numbers of symbols having the same meaning but an alternative form.
Application notes	Links to common descriptive notes with additional relevant information. Application notes, which are normally shared among several symbols, are described in another page indicated with the application number. The application note number is indicated in the form of Annnnn, where n is an integer from 0 to 9. This number corresponds to application notes of IEC 60617 , and carries no semantic meaning.
Application class	Document kinds in which the symbol is intended to be applied. It is defined in JIS C 1082-1 .
Function class	One or more classes defined in JIS C 0452-2 , to which the present symbol belongs. Those given in parentheses are codes for classes.
Shape class	Primary shape that characterizes the symbol.
Symbol restrictions	Possible restrictions with regard to the application of the symbol.
Remarks	Additional information of the graphical symbol concerned.
Applies	Identity numbers of symbols (symbol element, qualifying symbol and general symbol) used in the construction of the present symbol.
Applied in	Identity numbers of symbols where the present one is being used as an element.
Keywords	Listing of key words to facilitate retrieval.

Table 1 (concluded)

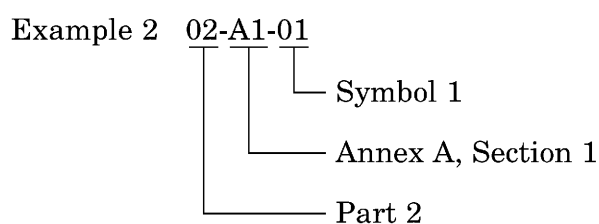
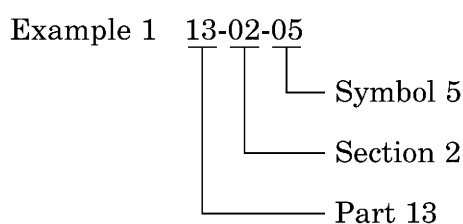
Item	Description	
NOTE	Reference information that supplements the matter related to graphical symbols etc. In addition, there are the following items as reference information of only IEC 60617 .	
	Status level	The status of the symbol in relation to IEC 60617 standard maintenance workflow. When the symbol is approved, the status is set to “Standard”. If the symbol is later replaced by another, or if it is deemed technically obsolete, its status becomes “Obsolete-for information only”. In the case of technical obsolescence the symbol may still be used, although it is no longer maintained.
	Released on	A date at which the symbol was released as Standard as part of IEC 60617 .
	Obsolete from	A date at which the status level of the symbol was set to “Obsolete-information only” in IEC 60617 .

4.3 Numbering of graphical symbols

Each graphical symbol is attached with a graphical symbol number. This number is composed of three groups:

- the first group (two digits) represents the number of the part of the **JIS C 0617** (standard series);
- the second group represents the number of the section of the **JIS C 0617** (standard series);
- the third group (two digits) represents the consecutive number of the section.

Each one of these groups is separated from the next one by hyphen.



4.4 Application class

The graphical symbols specified in the standard series of **JIS C 0617** are used for the purpose of indicating the required information in detailed or simplified manner in various electrical circuit diagrams. “Application class” for every graphical symbol in the attribute elements given in table 1 indicates what the application for the graphical symbol is. Graphical symbols for diagrams are classified as given in table 2 based on the definitions of **JIS C 1082-1**.

Table 2 Application classes of graphical symbols for diagrams

Application class	Description
Overview diagram	A comparatively simple diagram using a single line representation. It indicates the main correlation or connection among items such as a block diagram or a single line diagram, a system, a subsystem, equipment, a component, a device and software. It is used as a general drawing of different levels concerning a circuit diagram or a function diagram.
Function diagram	A diagram indicating the theoretical or ideal operation of a system, a subsystem, equipment, a component, a device, software, and so on. It is expressed by a logical or ideal circuit, and implementation tools are not always taken into consideration. It includes logical function diagrams or equivalent circuit diagrams.
Circuit diagram	A diagram indicating the circuit of a system, a subsystem, equipment, a component, a device, software, and so on. It indicates the interconnection of two or more graphical symbols in order to express function without always taking the physical dimension, shape or position of each item into consideration. It is not necessarily required to take the physical dimension, shape or position of each item into consideration. This includes terminal-function diagrams or schematic diagrams.
Connection diagram	A drawing indicating installation or connection of devices. This also includes unit connection diagrams, terminal-connection diagrams and cable diagrams.
Installation diagram	An installation diagram indicating connection of each of the related items.
Network map	It is used, for example, as a general drawing indicating the network of generating stations and substations, power lines, telecommunications equipment, communication lines and so on in the shape of a map (concerning the depiction of the surrounding area of installation in the graphic display of installation).
Qualifiers only	A graphical symbol added to other graphical symbols in order to indicate additional information.

4.5 Function class

The function class of graphical symbols shall be indicated by one character code as shown in the following based on the definitions of **JIS C 0452-2**.

- Functional attribute only (—)
- Converting variable to signal (B)
- Storing, preserving, accumulating electricity or storing memory (C)
- Supplying radiation energy or thermal energy (E)
- Protecting (F)
- Generating flow (G)
- Processing signal or information (K)
- Supplying mechanical energy (M)
- Presenting information (P)
- Switching or changing by control (Q)

- Restricting or stabilizing (R)
- Converting manual operation into signal (S)
- Converting but maintaining kind (T)
- Holding at a prescribed position (U)
- Treating material or product (V)

NOTE : The related graphic symbols are not standardized.

- Guiding or transporting (W)
- Connecting (X)

4.6 Selection of graphical symbol

In cases where there are alternative forms of graphical representation for one concept (indicated e.g. by “Form 1”, “Form 2”, “Simplified form”) the selected symbol shall be:

- a) the preferred form, if practical; or else
- b) the form of symbol appropriate for the particular application class.

Some symbols have “general symbol” as part of the name. These symbols are usually the source for a whole group of more specific symbols. The general symbols are to be used in cases where the more specific ones to suit the purpose of use are not standardized.

4.7 Size of graphical symbol

The meaning of a symbol is defined by its shape and by its content. The size and line thickness do not affect the meaning. The minimum size of a symbol shall be such that the rules for line thickness, spacing of lines, lettering, etc. can be applied. Within these constraints, the symbols intended for installation diagrams and network maps may be enlarged or reduced to suit the scale of the plan or map.

The symbols in **JIS C 0617** are shown on a grid pattern with a modulus *M* to specify symbol proportions. For readability the modulus shall be equal to or greater than the lettering height.

In some cases, it may be necessary or advantageous to use different sizes of symbols:

- to increase the number of inputs or outputs;
- to facilitate the inclusion of additional information;
- to emphasise certain aspects; and
- to facilitate the use of symbol as a qualifying symbol.

When enlarged or reduced the general shape of the symbol should be maintained and, if practical, also the relative proportions.

For detailed guidance of the design of symbols and their adaptation to the use in a CAD environment, please refer to the different parts of **JIS Z 8222-1** and **JIS Z 8222-2**.

4.8 Orientation of symbols

Most symbols of **JIS C 0617** are designed for a signal flow from left to right. This principle should also be maintained in all diagrams as a general rule and the symbols preferably shown as in the standard. In some cases it is necessary to deviate from the basic orientation of the symbols. Therefore the symbols may be turned or mirrored if the meaning will not thereby be changed. In other cases it may be necessary to redesign the symbol to suite different orientations.

Block symbols, binary logic element symbols, and analogue element symbols, containing letters, qualifying symbols, graphs, or input/output labels, shall be oriented so that they can be read when viewing the diagram from the bottom edge or from the right-hand edge.

4.9 Representation of terminals

Most symbols are shown without explicit symbols for any terminals. Generally, it is not necessary to add symbols for terminals, bushings, etc. to the symbols for components. In a few cases, the terminals are part of the symbol shown in **JIS C 0617** and shall be shown also when applied in a diagram.

4.10 How to create a new symbol from existing elements

When the graphical symbol required is not found in **JIS C 0617**, it may be possible to create one from the existing ones. Pick the symbol for the basic concept and then combine it with one or more appropriate supplementary symbol. Supplementary symbols are:

- primary symbols explicitly depicted as “Qualifying symbols” in their application class, or,
- principally, any other symbol registered, if necessary suitably modified in size.

The supplementary symbols can be placed inside, outside or across the basic symbol. No simple rule can be given, since the placement to a high degree depends on the shapes of the symbols, available space in or around the basic symbol, etc. Do not overload the symbol. Limit the number of supplementary symbols to what is required to emphasise the wanted concept.

JIS C 0617 contains numerous examples on how combinations are done. Look at a complex symbol and follow the links under the attribute “Applies” (see table 1) to see how the symbol is built from a set of more simple ones.

Annex A (informative)

Index (order of the Japanese syllabary)

NOTE : The index in the order of Japanese syllabary given in the Japanese version of this Standard is deleted in this English translated edition. If reference is required, see the Japanese version of this Standard.

Annex B (informative)

Index (Alphabetical order)

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
3-state output	12-09-08	S01498
AC power feeding on telecommunication lines	11-A3-11	S00417
Access chamber with a cable having anti-creepage device	11-A4-07	S00425
Acoustic detector, general symbol	11-19-12	S01439
Acoustic signalling device, general symbol	08-10-06	S01417
Action in steps	02-03-07	S00087
Actuating (approximately equal to zero)	02-06-05	S00112
Actuating (either higher than or lower than)	02-06-03	S00110
Actuating (equal to zero)	02-06-04	S00111
Actuating (higher than)	02-06-01	S00108
Actuating (lower than)	02-06-02	S00109
Actuating (when the absolute value of the quotient of two kinds of characteristic quantity deviates from 1)	02-A18-09	S01832
Actuator (actuated by a counter)	02-14-02	S00196
Actuator (actuated by electromagnetic device)	02-A13-24	S00190
Actuator (actuated by electromagnetic effect)	02-13-23	S00189
Actuator (actuated by fluid flow)	02-14-03	S00197
Actuator (actuated by gas flow)	02-14-04	S00198
Actuator (actuated by liquid level)	02-14-01	S00195
Actuator (actuated by pneumatic or hydraulic power/double acting)	02-13-22	S00188
Actuator (actuated by pneumatic or hydraulic power/single action)	02-13-21	S00187
Actuator (actuated by relative humidity)	02-14-05	S00199
Actuator (actuated by thermal device)	02-A13-25	S00191
Actuator (operated by cam)	02-13-16	S00182
Actuator (operated by cam and roller)	02-13-19	S00185
Actuator (operated by cam/cam profile)	02-13-17	S00183
Actuator (operated by cam/profile plate)	02-13-18	S00184
Actuator (operated by crank)	02-13-14	S00180
Actuator (operated by electric clock)	02-13-27	S00193
Actuator (operated by electric motor)	02-13-26	S00192
Actuator (operated by handwheel)	02-13-09	S00175
Actuator (operated by key)	02-13-13	S00179
Actuator (operated by lever)	02-13-11	S00177
Actuator (operated by pedal)	02-13-10	S00176
Actuator (operated by proximity effect)	02-13-06	S00172
Actuator (operated by pulling)	02-13-03	S00169
Actuator (operated by pushing)	02-13-05	S00171
Actuator (operated by removable handle)	02-13-12	S00178
Actuator (operated by roller)	02-13-15	S00181
Actuator (operated by stored mechanical energy)	02-13-20	S00186

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Actuator (operated by touching)	02-13-07	S00173
Actuator (operated by turning)	02-13-04	S00170
Actuator (semiconductor)	02-13-28	S00194
Actuator, emergency	02-13-08	S00174
Actuator, manual (protected)	02-13-02	S00168
Actuator, manual, general symbol	02-13-01	S00167
Adder, general symbol	12-38-01	S01636
Additional measuring frequency	10-21-07	S01297
Additional measuring frequency (on request)	10-21-08	S01298
Adjustability step by step	02-03-08	S00088
Adjustability, general symbol	02-03-01	S00081
Adjustability, non-linear	02-03-02	S00082
Adjustability, pre-set	02-03-05	S00085
Adjustment terminal	13-05-12	S01764
Aeronautical ground light, elevated, general symbol	11-18-01	S00533
Aeronautical ground light, surface, general symbol	11-18-02	S00534
Aeronautical ground light, white colour and omni-directional beam, elevated	11-18-07	S00539
Aeronautical ground light, white colour and omni-directional beam, surface	11-18-08	S00540
Aeronautical ground light, white colour and uni-directional beam, elevated	11-18-03	S00535
Aeronautical ground light, white colour and uni-directional beam, surface	11-18-04	S00536
Aeronautical ground light, white flashing omni-directional beam	11-18-19	S00551
Aeronautical ground light, white flashing uni-directional beam, elevated	11-18-13	S00545
Aeronautical ground light, white flashing uni-directional beam, surface	11-18-14	S00546
Aeronautical ground light, white omni-directional beam on top, and white uni-directional beam below, elevated	11-18-11	S00543
Aeronautical ground light, white omni-directional beam on top, and white/white bi-directional beam below, elevated	11-18-12	S00544
Aeronautical ground light, white/white colour and bi-directional beam, elevated	11-18-05	S00537
Aeronautical ground light, white/white colour and bi-directional beam, surface	11-18-06	S00538
Alphanumeric display, four 16-segment characters	12-53-06	S01729
Alphanumeric display, four 5×7-dot characters	12-53-07	S01730
Alternating current	02-A2-04	S00107
Alternating current (indication of frequency)	02-02-05	S00069
Alternating current (indication of frequency range)	02-A2-06	S00070
Alternating current (indication of frequency range: high)	02-02-11	S00075
Alternating current (indication of frequency range: low)	02-02-09	S00073
Alternating current (indication of frequency range: medium)	02-02-10	S00074
Alternating current (indication of system)	02-A2-08	S00072
Alternating current (indication of voltage)	02-A2-07	S00071
Alternating current /Form 2	02-02-19	S01404
Am-input	12-23-01	S01565
Ampere-hour meter	08-04-02	S00932
Amplification, general symbol	10-25-03	S01457

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Amplifier with automatic gain control	02-03-12	S00092
Amplifier with by-pass	10-A15-35	S01243
Amplifier with external adjustability	10-A15-33	S01241
Amplifier with return channel	11-06-04	S00433
Amplifier with selectable amplification	13-09-05	S01786
Amplifier, both ways, with negative impedance	10-A15-34	S01242
Amplifier, general symbol /Form 1	10-15-01	S01239
Amplifier, general symbol /Form 2	10-15-02	S01240
Amplifier, general symbol /Form 3	13-08-01	S01781
Amplifier, isolating	13-09-07	S01788
Amplifying point in a weather-proof enclosure	11-04-02	S00420
Amplitude limiter without distortion	10-16-18	S01261
Amplitude-modulated carrier	10-22-01	S01308
Amplitude-modulated carrier	10-22-03	S01310
Amplitude-modulated carrier	10-22-04	S01311
Amplitude-modulated carrier	10-22-08	S01315
Analog-to-digital converter, 10-bit	12-56-09	S01742
Analog-to-digital converter, 10-bit /Simplified form	12-56-10	S01743
Analogue	02-17-08	S00216
Analogue data selector (multiplexer/demultiplexer), 4-channel, dual	12-37-06	S01635
Analogue input	13-04-01	S01748
Analogue multiplexer/demultiplexer, triple	13-17-02	S01805
Analogue operand input	13-05-09	S01761
Analogue output	13-04-02	S01749
Analogue switch	13-17-01	S01804
AND element, general symbol	12-27-02	S01567
AND with negated output (NAND)	12-28-01	S01579
AND-OR-Invert	12-28-03	S01581
AND-OR-Invert, expandable	12-28-06	S01584
Anode	05-07-11	S00703
Anode with secondary emission	05-A8-07	S00718
Antenna with circular polarization	10-04-02	S01103
Antenna with direction of radiation variable in azimuth	10-04-03	S01104
Antenna with direction of radiation variable in elevation	10-04-05	S01106
Antenna with reflector, horn type	10-05-14	S01124
Antenna, general symbol	10-04-01	S01102
Antenna, horn type	10-05-11	S01121
Antenna, loop; Antenna, frame	10-05-01	S01111
Antenna, magnetic rod	10-05-04	S01114
Antenna, parabolic, with feeder	10-05-13	S01123
Antenna, rhombic	10-05-02	S01112
Antenna, slot type, with feeder	10-05-10	S01120
Antenna, turnstile	10-04-09	S01110
Anti-creepage device	11-A4-06	S00424
Arc or bank of single-motion selector	09-03-03	S00998

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Arc or bank of two-motion selector	09-03-04	S00999
Arithmetic logic unit with output latches, 4-bit	12-39-11	S01654
Arithmetic logic unit, 4-bit	12-39-10	S01653
Arithmetic logic unit, general symbol	12-38-06	S01641
Artificial line	10-16-12	S01255
Assembled straight section	11-17-02	S00499
Astable element stopping after completing the last pulse, general symbol	12-46-04	S01681
Astable element, general symbol	12-46-01	S01678
Astable element, synchronously starting, general symbol	12-46-03	S01680
Astable element, synchronously starting, stopping after completing the last pulse, general symbol	12-46-05	S01682
Asymmetric (skew) hybrid transformer	10-A18-40	S01276
Attenuation equalizer	10-16-15	S01258
Attenuator	11-09-03	S00442
Attenuator /Other form	10-A8-29	S01167
Attenuator /Other form	10-A8-30	S01168
Attenuator, fixed loss	10-16-01	S01244
Attenuator, variable loss	10-16-02	S01245
Audio intercommunication equipment	11-16-05	S00497
Automatic control	02-03-11	S00091
Automatic return	02-12-07	S00150
Automatic return function	07-A1-04	S00224
Automatic switching equipment	09-02-01	S00994
Automatic transmitter using perforated tape	09-A6-15	S01034
Automatic tripping function	07-01-05	S00222
Auto-transformer, general symbol /Form 1	06-09-06	S00846
Auto-transformer, general symbol /Form 2	06-09-07	S00847
Auto-transformer, single-phase /Form 1	06-11-01	S00870
Auto-transformer, single-phase /Form 2	06-11-02	S00871
Auto-transformer, single-phase with voltage regulation /Form 1	06-11-05	S00874
Auto-transformer, single-phase with voltage regulation /Form 2	06-11-06	S00875
Auto-transformer, three-phase, connection star /Form 1	06-11-03	S00872
Auto-transformer, three-phase, connection star /Form 2	06-11-04	S00873
Auxiliary apparatus for discharge lamp	11-A15-10	S00490
Backward diode (unitunnel diode)	05-03-08	S00648
Backward effect	05-02-05	S00640
Backward travelling wave oscillator tube	05-A13-16	S00767
Backward travelling wave oscillator tube /Simplified form	05-A13-17	S00768
Balancing network	10-A18-37	S01273
Balancing unit; Balun	10-25-02	S01418
Balancing unit; Balun	10-A5-18	S01118
Band of five channels	10-22-09	S01316
Band of frequencies	10-21-12	S01302
Band of mixed channels	10-21-17	S01307
Band-pass filter	10-16-06	S01249

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Band-pass filter switched by gas discharge	10-08-18	S01173
Band-stop filter	10-16-07	S01250
Base limiter with preset of the threshold adjustment; Threshold device with preset adjustment of the threshold	10-17-03	S01269
Base limiter; Threshold device	10-17-02	S01268
Battery of primary or secondary cells	06-15-01	S01342
Beam-splitting electrode	05-08-05	S00711
Bell	08-A10-02	S00970
Bidirectional breakdown effect	05-02-04	S00639
Bidirectional change-over switch with common enable, triple	12-29-11	S01606
Bidirectional diode	05-03-09	S00649
Bidirectional diode thyristor; Diac	05-04-03	S00652
Bidirectional multiplexer/demultiplexer (selector), general symbol	12-36-03	S01628
Bidirectional multiplexer/demultiplexer (selector), general symbol	12-36-04	S01629
Bidirectional signal flow	12-10-02	S01547
Bidirectional switch	12-29-09	S01604
Bidirectional triode thyristor; Triac	05-04-11	S00659
Binary counter, 14-stage /Form 2	12-49-10	S01697
Binary counter, 4-bit, synchronous up/down	12-49-15	S01702
Binary ripple counter, 14-stage /Form 1	12-49-09	S01696
Bit grouping for multibit input, general symbol	12-09-24	S01516
Bit grouping for multibit output, general symbol	12-09-25	S01517
Bi-threshold detector with inverted output	12-31-01	S01608
Bi-threshold input	12-09-02	S01492
Blocking device	02-12-14	S00157
Blocking device, engaged	02-12-15	S00158
Bolt switch, burglar alarm	11-19-16	S01443
Borrow-generate input of an arithmetic element	12-09-34	S01527
Borrow-generate output of an arithmetic element	12-09-35	S01528
Borrow-in input of an arithmetic element	12-09-33	S01526
Borrow-out output of an arithmetic element	12-09-36	S01529
Borrow-propagate input of an arithmetic element	12-09-37	S01530
Borrow-propagate output of an arithmetic element	12-09-38	S01531
Boundary	02-01-06	S00064
Box, general symbol	11-12-04	S00453
Brake	02-12-20	S00163
Brake, applied	02-12-21	S00164
Brake, released	02-12-22	S00165
Branching	03-02-09	S00023
Break contact	07-02-03	S00229
Break contact, automatic return	07-A6-03	S00251
Break contact, delayed closing	07-05-04	S00246
Break contact, delayed opening	07-05-03	S00245
Break contact, early opening	07-04-04	S00242
Break contact, late opening	07-04-03	S00241

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Breakdown diode, bidirectional	05-03-07	S00647
Breakdown diode, unidirectional	05-03-06	S00646
Bridger amplifier	11-06-01	S00430
Brush (on slip-ring or commutator)	06-03-04	S00818
Buchholz protective device; Gas relay	07-18-01	S00352
Buffer without specially amplified output	12-27-10	S01575
Buffer, inverting, with 3-state outputs, hex	12-29-05	S01598
Buffer/driver with inverted open-circuit output of the L-type	12-29-01	S01594
Bus driver with bi-threshold inputs and 3-state outputs, quad	12-29-04	S01597
Bus driver, bidirectional, 8-bit parallel	12-29-08	S01603
Bus driver, bidirectional, quadruple	12-29-06	S01599
Bus indicator, bidirectional	12-55-02	S01733
Bus indicator, unidirectional	12-55-01	S01732
Bus transceiver, quadruple	12-29-03	S01596
Bushing type current transformer /Form 1	06-13-16	S01841
Bushing type current transformer /Form 2	06-13-17	S01842
Bushing type voltage transformer /Form 1	06-13-14	S01839
Bushing type voltage transformer /Form 2	06-13-15	S01840
Butt-connector	03-03-16	S00043
Buzzer	08-10-10	S00973
By-pass switch for alarm	11-19-19	S01446
Cable sealing end (multi-core cable)	03-04-01	S00050
Cable sealing end (one-core cables)	03-04-02	S00051
Capacitor with pre-set adjustment	04-02-09	S00575
Capacitor, adjustable	04-02-07	S00573
Capacitor, differential	04-02-11	S00577
Capacitor, general symbol	04-02-01	S00567
Capacitor, lead-through	04-A2-08	S00569
Capacitor, lead-through; Capacitor, feed-through	04-02-03	S01411
Capacitor, polarized	04-02-05	S00571
Capacitor, split and adjustable	04-02-13	S00579
Capacitor, temperature dependent and polarised	04-02-15	S00581
Capacitor, voltage dependent and polarised	04-02-16	S00582
Carbon-pile resistor	04-01-11	S00565
Carrier frequency	10-21-01	S01291
Carry-generate input of an arithmetic element	12-09-40	S01533
Carry-generate output of an arithmetic element	12-09-41	S01534
Carry-in input of an arithmetic element	12-09-39	S01532
Carry-out output of an arithmetic element	12-09-42	S01535
Carry-propagate input of an arithmetic element	12-09-43	S01536
Carry-propagate output of an arithmetic element	12-09-44	S01537
Cathode-ray tube with electromagnetic deviation	05-12-01	S00749
Cavity resonator	10-08-17	S01172
Cavity resonator forming an integral part of the tube	05-09-09	S00732
Cavity resonator, partly or wholly external to the tube	05-09-10	S00733

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Central feeder unit	11-17-21	S00518
Central feeder unit with equipment box	11-17-23	S00520
Cerenkov detector	05-A15-05	S00787
Change of phase sequence	03-02-12	S00025
Change-over break before make contact	07-02-04	S00230
Change-over contact in optical fibre circuit	10-A24-49	S01330
Change-over contact with off-position	07-02-05	S00231
Change-over contact with off-position, automatic return and stay put	07-A6-04	S00252
Change-over make before break contact, both ways /Form 1	07-02-06	S00232
Change-over make before break contact, both ways /Form 2	07-02-07	S00233
Character display tube, multi cold-cathode gas-filled	05-A14-04	S00773
Circuit breaker	07-13-05	S00287
Circuit breaker function	07-01-02	S00219
Circular motion (bidirectional)	02-04-04	S00096
Circular motion (bidirectional and limited)	02-04-05	S00097
Circular motion (unidirectional)	02-04-03	S00095
Circular polarization	10-03-02	S01095
Circulator, four-port	10-09-13	S01197
Circulator, four-port, with reversible direction of circulation	10-09-14	S01198
Circulator, three-port	10-09-12	S01196
Cladding mode stripper	10-24-08	S01333
Clipper	10-17-01	S01267
Clock generator/driver, four-phase	12-47-01	S01683
Clock generator/driver, four-phase	12-56-04	S01737
Clock with contact	08-08-03	S00961
Clock, general symbol	08-08-01	S00959
Closed slow-wave structure	05-09-08	S00731
Closed-loop controller	06-19-01	S00909
Clutch; Mechanical coupling	02-12-16	S00159
Cm-input	12-18-01	S01558
CMOS transmission gate	12-29-10	S01605
Cm-output	12-18-02	S01559
Coaxial choke with magnetic core	04-03-09	S00591
Coaxial pair	03-01-11	S00011
Coaxial pair connected to terminals	03-01-12	S00012
Coaxial pair with screen	03-01-13	S00013
Code converter of binary code	10-14-06	S01236
Code converter, BCD-to-binary	12-33-07	S01619
Code converter, BCD-to-binary /simplified form	12-33-08	S01620
Code converter, BCD-to-decimal	12-33-02	S01614
Code converter, binary-to-BCD	12-33-10	S01622
Code converter, excess-3-to-decimal /form 1	12-33-01A	S01612
Code converter, excess-3-to-decimal /form 2	12-33-01B	S01613
Code converter, Gray-to-decimal	12-33-01	S01611
Code converter, three-to-eight-line	12-33-03	S01615

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Coder for arbitrary code	12-33-09	S01621
Coder, general symbol	12-32-01	S01610
Coil, general symbol; Winding, general symbol	04-03-01	S00583
Coil-loaded transmission line; Inductively loaded line	10-A1-08	S01086
Cold cathode	05-07-09	S00701
Cold-cathode gas-filled tube, symmetrical	05-A14-03	S00772
Cold-cathode tube, gas-filled	05-14-01	S00769
Collector on a region of dissimilar conductivity type	05-01-18	S00629
Collectors on a region of dissimilar conductivity type	05-01-19	S00630
Combined disconnect and earthing switch	07-13-16	S01848
Combined electric and heat generated station, planned	11-19-01	S01419
Combined electric and heat generating station, in service or unspecified	11-19-02	S01420
Combined protective and neutral conductor	11-11-03	S00448
Combined recording wattmeter and varmeter	08-03-02	S00929
Combined reperforator and automatic transmitter	09-A6-18	S01037
Combiner, general symbol	10-24-10	S01335
Combustion heat source	06-17-03	S00902
Common control block outline	12-05-02	S01464
Common output element outline	12-05-03	S01465
Comparator, general symbol	13-14-01	S01800
Compare output of an associative memory	12-09-23	S01515
Compensation terminal	13-05-13	S01765
Complex function	02-12-25	S01808
Complex switch, general symbol	07-12-04	S01454
Complex switch, general symbol	07-A12-01	S00280
Complex switch, rotary drum type	07-A12-03	S00282
Complex switch, wafer type	07-A12-02	S00281
Complex-function element ("gray box"), general symbol	12-54-01	S01731
Composite cable	10-A23-46	S01324
Composite electrode	05-A7-03	S00702
Compressor	10-16-10	S01253
Concentrating function	10-20-01	S01282
Concentrator /Form 1	10-20-03	S01284
Concentrator /Form 2	10-20-04	S01285
Concentric conductor	03-01-18	S01807
Conduction channel for depletion devices	05-01-05	S00617
Conduction channel for enhancement devices	05-01-06	S00618
Conductivity cell	05-A16-04	S00795
Conductivity type of the channel, N-type channel on a P-type substrate	05-01-11	S00622
Conductivity type of the channel, P-type channel on an N-type substrate	05-01-12	S00623
Conductor support insulator without gas boundary	03-05-07	S01399
Conductors in a cable	03-01-09	S00009
Conductors in a cable	03-01-10	S00010
Connecting link, closed /Form 1	03-03-17	S00044
Connecting link, closed /Form 2	03-03-18	S00045

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Connecting link, open	03-03-19	S00046
Connecting stage composed of z grading groups	09-01-03	S00983
Connecting stage interconnecting one group of bothway trunks with two groups of unidirectional trunks of opposite sense	09-01-05	S00985
Connecting stage with one group of inlets and two groups of outlets	09-01-04	S00984
Connecting stage with x inlets and y outlets	09-01-02	S00982
Connecting stage, general symbol	09-01-01	S00981
Connection box; Junction box	11-12-05	S00454
Connection on cable ladder	11-19-22	S01449
Connection point	03-02-01	S00016
Connection within cable tray	11-19-23	S01450
Connection within wall mounted cable channel	11-19-24	S01451
Connection, general symbol	03-01-01	S00001
Connection, surface mounted	11-19-21	S01448
Connector assembly	03-03-11	S00038
Connector, fixed portion of an assembly	03-03-09	S00036
Connector, movable portion of an assembly	03-03-10	S00037
Consumers terminal, Service entrance equipment	11-12-06	S00455
Contact assembly	07-05-06	S00248
Contact with two breaks	07-02-09	S00235
Contact with two makes	07-02-08	S00234
Contact, female (of a socket or plug)	03-03-01	S00031
Contact, male (of a socket or plug)	03-03-03	S00032
Contact function	07-01-01	S00218
Contact with automatic tripping	07-13-03	S00285
Contact; Main break contact of a contactor	07-13-04	S00286
Contact; Main make contact of a contactor	07-13-02	S00284
Content input	12-09-45	S01538
Content output	12-09-46	S01539
Content-addressable memory, general symbol	12-50-04	S01709
Continuous variability	02-03-09	S00089
Continuous variability, pre-set	02-03-10	S00090
Controlled astable element, general symbol	12-46-02	S01679
Conversion with electrical separation	02-03-13	S01407
Conversion, general symbol	02-17-06A	S00214
Converter giving clock-time indication in five-digit binary code	10-14-07	S01237
Converter, analogue to digital (ADC)	13-11-02	S01793
Converter, d.c.-to-d.c., isolating	13-11-04	S01795
Converter, digital to analogue (DAC), multiplying	13-11-01	S01792
Converter, general symbol	02-17-06	S00213
Converter, general symbol	06-A14-01	S00892
Converter, general symbol	10-A14-32	S01231
Converter, general symbol	13-10-01	S01791
Converter, voltage to frequency	13-11-03	S01794
Converting substation, in service or unspecified	11-02-16	S00406

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Converting substation, planned	11-02-15	S00405
Coulomb accumulator	05-A16-01	S00792
Counter tube	05-A15-08	S00790
Counter tube with guard ring	05-A15-09	S00791
Counter with cycle length 2 to the power m, general symbol	12-48-02	S01686
Counter with cycle length m, general symbol	12-48-03	S01687
Counter, decade	12-49-16	S01703
Counter, decade	12-49-17	S01704
Counter, decade, synchronous up/down	12-49-14	S01701
Counter, synchronous, decade, with parallel load	12-49-11	S01698
Counterpoise	10-A5-16	S01113
Counters, one dividing by 5 and 10 and the other by 6	12-49-12	S01699
Counting device, cam driven	08-05-06	S00951
Counting function of a number of events	08-05-01	S00946
Counting tube	05-A14-05	S00774
Counting tube /Simplified form	05-A14-06	S00775
Counting-down input	12-09-21	S01513
Counting-up input	12-09-20	S01512
Coupler (or feed) type unspecified, general symbol	10-10-01	S01203
Coupler to a cavity resonator	10-10-02	S01204
Coupler to a rectangular waveguide	10-10-03	S01205
Coupling device with electrical separation	07-27-01	S00383
Coupling device with electrical separation, optical	07-27-02	S00384
Coupling effect with electrical separation	02-08-07	S00126
Cross (four way connection)	11-17-06	S00503
Crossbar selector, four-wire switching	09-04-13	S01016
Crossbar selector, general symbol	09-04-11	S01014
Crossbar selector, single connecting unit	09-04-12	S01015
Cross-connection point	11-04-03	S00421
Crossing of two independent systems	11-17-08	S00505
Crossing of two systems without connection	11-17-07	S00504
Current between neutrals of two polyphase systems	07-16-09	S00335
Current in the neutral conductor	07-16-08	S00334
Current relay	07-17-08	S00345
Current transformer with five passages of a conductor acting as a primary winding /Form 1	06-13-08	S00886
Current transformer with five passages of a conductor acting as a primary winding /Form 2	06-13-09	S00887
Current transformer with one secondary winding with one tap /Form 1	06-13-06	S00884
Current transformer with one secondary winding with one tap /Form 2	06-13-07	S00885
Current transformer with two cores with one secondary winding on each core /Form 1	06-13-02	S00880
Current transformer with two cores with one secondary winding on each core /Form 2	06-13-03	S00881
Current transformer with two secondary windings on one core /Form 1	06-13-04	S00882

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Current transformer with two secondary windings on one core /Form 2	06-13-05	S00883
Current transformer, general symbol /Form 1	06-09-10	S00850
Current transformer, general symbol /Form 2	06-09-11	S00851
Curve light, green/green colour and bi-directional beam, surface	11-18-09	S00541
Curve light, white colour and uni-directional beam, surface	11-18-10	S00542
Cylindrical focusing electrode	05-08-06	S00712
Cylindrical focusing electrode with grid	05-A8-02	S00713
Data-lock-out JK-bistable	12-42-05	S01663
DC power feeding on telecommunication lines	11-A3-12	S00418
DC supply function, general symbol	06-16-02	S01423
DC/DC converter	06-14-02	S00893
Decade counter/divider with decoded 7-segment-display outputs	12-49-13	S01700
Decoder/driver, binary-to-seven-segment	12-33-06	S01618
Delay	02-08-05	S00124
Delay distortion corrector; Delay equalizer	10-16-17	S01260
Delay element (100 ns)	12-40-02	S01656
Delay element with specified delay times	12-40-01	S01655
Delay line, 5 taps	12-40-04	S01658
Delay line, artificial line type	04-09-05	S00612
Delay line, coaxial	04-08-03	S00606
Delay line, coaxial type	04-09-03	S00610
Delay line, general symbol; Delay element, general symbol	04-09-01	S00608
Delay line, magnetostrictive type	04-09-02	S00609
Delay line, magnetostrictive with windings /Assembled form	04-08-01	S00604
Delay line, magnetostrictive with windings /Detached form	04-08-02	S00605
Delay line, mercury type with piezoelectric transducers	04-09-04	S00611
Delay line, solid material type with piezoelectric transducers	04-08-04	S00607
Delayed action /Form 1	02-12-05	S00148
Delayed action /Form 2	02-12-06	S00149
Delayed overcurrent relay	07-17-04	S00341
Demodulator, single sideband	10-19-04	S01281
Demultiplexer (one-to-eight)	12-37-04	S01633
Demultiplexer, general symbol	12-36-02	S01627
Demultiplexer/decoder, universal, dual	12-37-05	S01634
Demultiplexing function	10-20-06	S01287
Detector, semiconductor type	05-15-05	S00785
Detent	02-12-08	S00151
Detent, disengaged	02-12-09	S00152
Detent, engaged	02-12-10	S00153
Device for auto-reclosing; Auto-reclose relay	07-18-02	S00353
Device for de-emphasis of higher frequencies	10-16-09	S01252
Device for pre-emphasis of higher frequencies	10-16-08	S01251
Differential current	07-16-05	S00331
Differential voltmeter	08-02-11	S00923
Digital	02-17-09	S00217

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Digital input	13-04-03	S01750
Digital output	13-04-04	S01751
Digital-to-analogue converter, 12-bit	12-56-07	S01740
Digital-to-analogue converter, 12-bit /Simplified form	12-56-08	S01741
Dimmer	11-14-08	S00473
D-input	12-09-12	S01504
Dipole	10-05-05	S01115
Dipole, folded	10-05-06	S01116
Dipole, folded with directors and reflectors	10-A5-17	S01117
Dipole, folded, with balun and feeder	10-05-09	S01119
Direct current	02-A2-03	S00067
Direct current	02-A2-03	S01347
Direct current /Form 1	02-02-17	S01401
Direct current /Form 2	02-02-18	S01402
Direct current circuit	03-01-04	S00004
Directed connection	03-01-16	S01414
Direction finder; Radio beacon	10-03-08	S01101
Direction finding antenna	10-04-06	S01107
Direction of radiation fixed in azimuth	10-03-03	S01096
Direction of radiation fixed in azimuth and elevation	10-03-07	S01100
Direction of radiation fixed in elevation	10-03-05	S01098
Direction of radiation variable in azimuth	10-03-04	S01097
Direction of radiation variable in elevation	10-03-06	S01099
Directional antenna	10-04-07	S01108
Directional antenna fixed in azimuth, horizontal polarization	10-04-04	S01105
Directional coupler	11-A7-03	S00436
Directional coupler, general symbol	10-24-15	S01340
Directional phase changer	10-08-21	S01176
Direct-on-line starter, reversing	07-14-05	S00301
Disc type indication	09-08-05	S01046
Disconnecter (isolator) function	07-01-03	S00220
Disconnecter; Isolator	07-13-06	S00288
Disconnecter; Isolator	07-13-10	S00292
Discontinuity, capacitive, in shunt with the transmission path	10-08-08	S01163
Discontinuity, in series with transmission path	10-08-07	S01162
Discontinuity, in shunt with transmission path	10-08-06	S01161
Discontinuity, parallel resonant, in series with the transmission path	10-08-10	S01165
Discontinuity, series resonant, in shunt with the transmission path	10-08-09	S01164
Discontinuity, terminal	10-08-11	S01166
Discontinuity, two-port, general symbol	10-08-01	S01156
Display element, dot matrix, alphanumeric, with two 40-character lines	12-56-12	S01745
Display element, general symbol	12-52-01	S01723
Distance warning sign	11-18-21	S00553
Distortion corrector, general symbol	10-16-14	S01257
Distributed connection, general symbol	12-27-13	S01578

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Distribution centre	11-12-07	S00456
Divided-conductor detection relay	07-17-11	S00348
D-latch, dual	12-42-02	S01660
Double junction of conductors /Form 1	03-02-06	S00021
Double junction of conductors /Form 2	03-02-07	S00022
Double-beam cathode-ray tube, split-beam type	05-12-02	S00750
Drum type indication	09-08-07	S01048
Dual-tone multi-frequency generator (generates 12 tone-pairs)	12-56-05	S01738
Dual-tone multi-frequency generator (generates 12 tone-pairs)	12-56-06	S01739
Dynamic input	12-07-07	S01472
Dynamic input with logic negation	12-07-08	S01473
Dynamic input with polarity indicator	12-07-09	S01474
Earphone, general symbol	09-09-04	S01056
Earth fault current	07-16-07	S00333
Earth station for communication with a space station	10-06-13	S01137
Earth station only for space station tracking	10-06-12	S01136
Earth, general symbol	02-15-01	S00200
Edge-triggered D-bistable	12-42-07	S01665
Edge-triggered D-bistable	12-42-10	S01668
Edge-triggered D-bistable, dual	12-42-09	S01667
Edge-triggered JK-bistable	12-42-03	S01661
Elbow	11-17-04	S00501
Electret with electrodes and connections	04-07-04	S00603
Electric lock	11-16-04	S00496
Electromagnet producing a transverse field	05-A9-09	S00735
Electromagnetic effect	02-08-02	S00121
Electromechanical position indicator	08-10-04	S00968
Electron gun assembly /Simplified form	05-A9-01	S00724
Electronic chopping device	10-16-20	S01263
Electrostatic microphone; Capacitor microphone	09-A9-22	S01054
Element outline	12-05-01	S01463
Element with hysteresis, general symbol	12-30-01	S01607
Emergency lighting luminaire on special circuit	11-15-11	S00491
Emitter on a region of dissimilar conductivity type, N emitter on a P region	05-01-16	S00627
Emitter on a region of dissimilar conductivity type, P emitter on an N region	05-01-14	S00625
Emitters on a region of dissimilar conductivity type, N emitters on a P region	05-01-17	S00628
Emitters on a region of dissimilar conductivity type, P emitters on an N region	05-01-15	S00626
Emitting sole	05-A9-05	S00728
Enable input	12-09-11	S01503
End cover	11-17-03	S00500
End feeder unit	11-17-20	S00517
End feeder unit with equipment box	11-17-22	S00519

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
End of a conductor or cable, not connected	03-01-14	S00014
End of a conductor or cable, not connected and specially insulated	03-01-15	S00015
End of amplifier (branch or spur feeder)	11-06-03	S00432
Energy flow from the busbars	02-05-06	S00104
Energy flow towards the busbars	02-05-07	S00105
Energy flow, bidirectional (towards and from the busbars)	02-05-08	S00106
ENm-input	12-20-01	S01562
ENm-input	13-05-23	S01775
Envelope /Form 1	02-01-04	S00062
Envelope /Form 2	02-01-05	S00063
Envelope with external screen (shield)	05-07-02	S00694
Envelope, conductive coating on internal surface	05-07-03	S00695
E-plane window (aperture) coupler	10-10-06	S01208
Equal input of a magnitude comparator	12-09-29	S01522
Equal output of a comparator	13-05-20	S01772
Equal output of a magnitude comparator	12-09-32	S01525
Equalizer	11-09-01	S00440
Equipment box	11-17-18	S00515
Erasing head	09-09-12	S01064
Erasing indication	09-08-10	S01051
Erect band of frequencies	10-21-13	S01303
Erect band of frequencies, a group of several channels	10-21-14	S01304
Erect band of frequencies, a group of several channels /Simplified Form	10-21-15	S01305
Error detection/correction element	12-28-13	S01591
EVEN element, general symbol	12-27-08	S01573
Excess watt-hour meter	08-04-09	S00939
Exclusive NOR, quadruple	12-37-03	S01632
Exclusive-OR element	12-27-09	S01574
Exclusive-OR, with complementary outputs and one common output, quintuple	12-28-09	S01587
Exclusive-OR/NOR, dual	12-28-10	S01588
Expander	10-16-11	S01254
Expander	12-28-07	S01585
Expanding function	10-20-02	S01283
Expansion unit for conductors	11-17-12	S00509
Expansion unit for enclosure	11-17-11	S00508
Expansion unit for enclosure and conductors	11-17-13	S00510
Extender output	12-09-10	S01502
Extension input	12-09-09	S01501
Facsimile	02-11-06	S00143
Fan	11-19-03	S01421
Faraday cup	05-A15-07	S00789
Fault	02-17-01	S00208
Ferrite bead	04-03-10	S00592
Ferrite core	04-A4-01	S00593

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Ferrite core matrix	04-A6-01	S00598
Ferrite core with five windings	04-A5-01	S00596
Ferrite core with one winding	04-A4-03	S00595
Ferrite core with one winding of n turns	04-A5-02	S00597
Field-polarization rotator	10-09-15	S01199
Filter, general symbol	10-16-03	S01246
First-in first-out memory, counter-controlled, 16×4-bit	12-51-08	S01719
First-in first-out memory, counter-controlled, 16×5-bit	12-51-09	S01720
First-in first-out memory, fall-through, 16×5-bit /Form 1	12-51-10	S01721
First-in first-out memory, fall-through, 16×5-bit /Form 2	12-56-11	S01744
First-in first-out memory, general symbol	12-50-05	S01710
Fixed 0-state output, shown at an internal connection	12-08-13	S01490
Fixed 1-state output, shown at an internal connection	12-08-12	S01489
Fixed-0-state output	12-09-51	S01544
Fixed-1-state output	12-09-50	S01543
Fixed-mode input	12-09-49	S01542
Flame (occurrence of), general symbol	11-19-29	S01853
Flame detector	11-19-10	S01437
Flashover	02-17-02	S00209
Flexible connection	03-01-06	S00006
Flexible unit	11-17-14	S00511
Flood light	11-15-09	S00489
Fluorescent target	05-A7-04	S00704
Flux/current direction indicator	04-A4-02	S00594
Focusing electrode with aperture	05-08-04	S00710
Four-phase winding with neutral brought out	06-02-03	S00804
Four-port junction (magic T hybrid junction) /(Form 1 simplified)	10-09-08	S01192
Four-port junction (magic T hybrid junction) /(Form 1)	10-09-07	S01191
Four-port junction /Form 1	10-09-05	S01189
Four-port junction /Form 2	10-09-06	S01190
Four-port junction; Directional coupler /(Form 2)	10-09-09	S01193
Four-port junction; Quadrature hybrid junction /(Form 2)	10-09-10	S01194
Four-position microwave switch (45° step)	10-09-18	S01202
Frame	02-A15-04	S00203
Frequency band, general symbol	10-21-10	S01300
Frequency band, mastergroup	10-21-11	S01301
Frequency converter, changing from f_1 to f_2	10-14-02	S01232
Frequency divider	10-14-04	S01234
Frequency meter	08-02-07	S00919
Frequency multiplier	10-14-03	S01233
Full adder, 4-bit	12-39-02	S01645
Full subtractor, 4-bit	12-39-03	S01646
Functional earthing; Functional grounding (US)	02-15-06	S01408
Functional equipotential bonding	02-15-07	S01409
Functional equipotential bonding /Simplified form	02-15-08	S01410

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Function-computing element, general symbol	13-06-01	S01778
Fuse	07-21-02	S00363
Fuse switch-disconnector; On-load isolating fuse switch	07-21-09	S00370
Fuse with alarm contact	07-21-04	S00365
Fuse with separate alarm	07-21-05	S00366
Fuse, general symbol	07-21-01	S00362
Fuse; Striker fuse	07-21-03	S00364
Fused star coupler, reflective type	10-24-14	S01339
Fused star coupler, transmissive type	10-24-13	S01338
Fused tap	10-24-12	S01337
Fuse-disconnector; Fuse isolator	07-21-08	S00369
Fuse-switch	07-21-07	S00368
Galvanometer	08-02-12	S00924
Gas discharge tube with thermal element	07-09-04	S00266
Gas insulated enclosure with internal conductor	03-05-01	S01391
Gas insulated conductor-boundary with air insulated bushing	03-05-04	S01396
Gas insulated conductor-boundary with cable sealing end	03-05-05	S01397
Gas insulated conductor-boundary with transformer or reactor bushing	03-05-06	S01398
Gas insulated enclosure-gas through spacer	03-05-11	S01458
Gas insulated enclosure-gas-sealing end of compartment	03-05-02	S01392
Gas insulated enclosure-partition between compartments	03-05-03	S01393
Gas insulated enclosure-partition between two compartments /Form 2	03-05-12	S01459
Gas insulated enclosure-support insulator, external module	03-05-14	S01461
Gas insulated enclosure-support insulator, inside module	03-05-13	S01460
Gas-filled envelope	05-07-01	S00693
Gearing	02-12-23	S00166
Generating station, in service or unspecified	11-01-02	S00386
Generating station, planned	11-01-01	S00385
Generator, DC, compound excited (short shunt)	06-05-03	S00825
Geothermic generating station, in service or unspecified	11-02-08	S00398
Geothermic generating station, planned	11-02-07	S00397
Glass break detector (window foil), burglar alarm	11-19-18	S01445
Gm-input	12-14-01	S01810
Gm-output	12-14-02	S01811
Goubau line	10-A7-25	S01145
Graphics system processor	12-56-14	S01747
Greater-than input of a magnitude comparator	12-09-27	S01520
Greater-than output of a comparator	13-05-18	S01770
Greater-than output of a magnitude comparator	12-09-30	S01523
Grid	05-07-13	S00705
Grid with secondary emission	05-A8-06	S00717
Group of connections	03-01-01	S00058
Group of connections (number of connections indicated) /Form 1	03-01-02	S00002
Group of connections (number of connections indicated) /Form 2	03-01-03	S00003
Guided light receiver	10-24-02	S01327

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Guided light transmitter	10-24-01	S01326
Guided light transmitter, coherent light	10-24-03	S01328
Gyrator	10-08-22	S01177
Gyro	08-A9-03	S00964
Half adder	12-38-07	S01642
Hall generator with four connections	05-06-05	S00688
Hand-generator (magneto caller)	06-A4-01	S00822
Handset	09-A9-24	S01058
Head end with local antenna	11-05-01	S00428
Head end without local antenna	11-05-02	S00429
Headset	09-A9-23	S01057
Heat (occurrence of), general symbol	11-19-27	S01851
Heat detector, differentiating	11-19-06	S01433
Heat detector, general symbol	11-19-05	S01432
Heat detector, maximum	11-19-07	S01434
Heat source, general symbol	06-17-01	S00900
Heating element	04-01-12	S00566
Helical coupler	05-A9-13	S00739
Hexadecimal display	12-53-04	S01727
Highest-priority encoder, encoding 8 data lines to 3-line binary (octal)	12-33-05	S01617
Highest-priority encoder, encoding 9 data lines to 4-line BCD	12-33-04	S01616
High-pass filter	10-16-04	S01247
Hold input	13-05-16	S01768
Horn	08-A10-01	S00969
Hot cathode, directly heated	05-07-06	S00698
Hot cathode, directly heated /Other form	05-A7-02	S00699
Hot cathode, indirectly heated	05-07-04	S00696
Hot cathode, indirectly heated /Other form	05-A7-01	S00697
Hot-connection terminal	03-02-19	S01836
Hour meter; Hour counter	08-04-01	S00931
Hybrid ring junction	10-09-11	S01195
Hybrid transformer	10-A18-39	S01275
Hydroelectric generating station, in service or unspecified	11-02-02	S00392
Hydroelectric generating station, planned	11-02-01	S00391
Ideal current source	02-16-01	S00205
Ideal gyrator	02-16-03	S00207
Ideal voltage source	02-16-02	S00206
Ignitron	05-A14-08	S00778
Indicating instrument, general symbol	08-01-01	S00910
Indicator, electromechanical; annunciator element	08-10-03	S00967
Induction motor, single-phase, squirrel-cage	06-08-02	S00837
Induction motor, three-phase, squirrel cage	06-08-01	S00836
Induction motor, three-phase, star-connected	06-08-04	S00839
Induction motor, three-phase, with wound rotor	06-08-03	S00838
Inductor with fixed tapplings	04-03-06	S00588

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Inductor with gap in magnetic core	04-03-04	S00586
Inductor with magnetic core	04-03-03	S00585
Inductor with moveable contact, variable in steps	04-03-07	S00589
Inductor, continuously variable	04-03-05	S00587
Input with internal pulldown	12-10-03	S01548
Input with internal pullup	12-10-04	S01549
Input with special amplification (sensitivity)	12-09-08B	S01500
Input/output port, 8-bit	12-42-12	S01670
Instrument multi-position selector switch for current circuit	07-12-07	S01856
Instrument multi-position selector switch for current circuit with shown terminals	07-12-08	S01857
Instrument multi-position selector switch for voltage circuit	07-12-05	S01855
Instrument multi-position selector switch for voltage circuit with shown terminals	07-12-06	S01858
Insulated gate	05-01-13	S00624
Insulated gate field effect transistor IGFET enhancement type, single gate, N-type channel with substrate internally connected to source	05-05-14	S00676
Insulated gate field effect transistor IGFET enhancement type, single gate, N-type channel without substrate connection	05-05-12	S00674
Insulated gate field effect transistor IGFET enhancement type, single gate, P-type channel with substrate connection brought out	05-05-13	S00675
Insulated gate field effect transistor IGFET enhancement type, single gate, P-type channel without substrate connection	05-05-11	S00673
Insulated gate field effect transistor IGFET, depletion type, single gate, N-type channel without substrate connection	05-05-15	S00677
Insulated gate field effect transistor IGFET, depletion type, single gate, P-type channel without substrate connection	05-05-16	S00678
Insulated gate field effect transistor IGFET, depletion type, two gates, P-type channel with substrate connection brought out	05-05-17	S00679
Insulated pool cathode	05-A10-03	S00743
Insulated-gate bipolar transistor (IGBT) depletion type, N channel	05-05-21	S00683
Insulated-gate bipolar transistor (IGBT) depletion type, P channel	05-05-20	S00682
Insulated-gate bipolar transistor (IGBT) enhancement type, N channel	05-05-19	S00681
Insulated-gate bipolar transistor (IGBT) enhancement type, P channel	05-05-18	S00680
Integrating instrument, general symbol	08-01-03	S00912
Intensity modulating electrode	05-08-03	S00709
Interchange	03-02-11	S00024
Intermediate switch	11-14-07	S00472
Internal connection	12-08-01	S01475
Internal connection /Simplified form	12-08-01A	S01476
Internal connection for signal flow from right to left	12-08-08	S01485
Internal connection with dynamic character	12-08-03	S01477
Internal connection with dynamic character for signal flow from right to left	12-08-10	S01487
Internal connection with logic negation and dynamic character for signal flow from right to left	12-08-11	S01488
Internal connection with logic negation for signal flow from right to left	12-08-09	S01486
Internal connection with negation	12-08-02	S01809

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Internal connection with negation and dynamic character	12-08-04	S01478
Internal input (left hand side)	12-08-05	S01479
Internal input (right-hand side)	12-08-05A	S01480
Internal input with dynamic character (left-hand side)	12-08-07	S01483
Internal input with dynamic character (right-hand side)	12-08-07A	S01484
Internal output (left-hand side)	12-08-06A	S01482
Internal output (right-hand side)	12-08-06	S01481
Intrinsic region between a collector and a region of dissimilar conductivity type	05-01-23	S00634
Intrinsic region between a collector and a region of similar conductivity type	05-01-24	S00635
Intrinsic region between regions of similar conductivity type	05-01-22	S00633
Intrinsic region separating regions of dissimilar conductivity type	05-01-21	S00632
Inverse time-lag characteristic	07-16-11	S00337
Inverted band of frequencies	10-21-16	S01306
Inverter	06-14-05	S00896
Inverter (in the case of device representation using the qualifying symbol for logic polarity)	12-27-12	S01577
Ion diffusion barrier	05-A7-05	S00706
Ionization chamber	05-15-01	S00781
Ionization chamber with grid	05-A15-01	S00782
Ionization chamber with guard ring	05-A15-02	S00783
Ionization chamber, compensated type	05-A15-03	S00784
Isolator for microwaves	10-08-20	S01175
J-input	12-09-13	S01505
Junction box (multi-line representation)	03-04-05	S00054
Junction box (single-line representation)	03-04-06	S00055
Junction field effect transistor with N-type channel	05-05-09	S00671
Junction field effect transistor with P-type channel	05-05-10	S00672
Junction not interrupting the conductor	03-02-16	S00029
Junction requiring a special tool	03-02-17	S00030
Junction which influences a semiconductor layer, N-region which influences a P-layer	05-01-10	S00621
Junction which influences a semiconductor layer, P-region which influences an N-layer	05-01-09	S00620
Keyboard	02-A11-05	S00142
Keyboard perforator	09-A6-16	S01035
Key-operated switch	11-14-15	S00480
K-input	12-09-14	S01506
Label grouping, general symbol	12-09-25A	S01518
Lamp, general symbol	08-10-01	S00965
Lamp, general symbol	11-A15-03	S00483
Landing direction indicator	11-18-17	S00549
Laser (optical maser), general symbol	10-11-03	S01214
Laser used as a generator	10-11-04	S01215
Latching device, disengaged	02-12-12	S00155

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Latching device, engaged	02-12-13	S00156
Lateral deflecting electrodes	05-08-01	S00707
Lateral deflecting electrodes /Other form	05-A8-01	S00708
LED light bars	12-53-01	S01724
Less-than input of a magnitude comparator	12-09-28	S01521
Less-than output of a comparator	13-05-19	S01771
Less-than output of a magnitude comparator	12-09-31	S01524
Level converter, ECL-to-TTL	12-35-02	S01625
Level converter, TTL-to-MOS, dual	12-35-01	S01624
Light dependent resistor (LDR); Photo resistor	05-06-01	S00684
Light emitting diode (LED), general symbol	05-03-02	S00642
Light sensitive reproducing head, monophonic	09-09-11	S01063
Lighting outlet on wall	11-15-02	S00482
Lighting outlet position	11-15-01	S00481
Line concentrator on a pole	11-04-05	S00423
Line concentrator, automatic line connector	11-04-04	S00422
Line grouping at the input side	12-09-47	S01540
Line grouping at the output side	12-09-48	S01541
Line power unit	11-10-01	S00443
Line receiver	12-29-07A	S01601
Line receiver, dual	12-29-07	S01600
Line receiver, dual	12-29-07B	S01602
Line with buried joint	11-03-07	S00413
Line with gas or oil block	11-03-08	S00414
Line with gas or oil block by-pass	11-03-10	S00416
Line with gas or oil stop valve	11-03-09	S00415
Line within a duct; Line within a pipe	11-03-04	S00410
Line within a six-way-duct	11-03-05	S00411
Linear induction motor, three-phase	06-08-05	S00840
Linear motor, general symbol	06-04-02	S00820
Link /Form 1	02-12-01	S00144
Link /Form 2	02-12-04	S00147
Live connectable, live disconnectable	03-02-18	S01849
Locked-rotor detection relay	07-17-13	S00350
LOGIC IDENTITY element, general symbol	12-27-06	S01571
Logic negation, input	12-07-01	S01466
Logic negation, output	12-07-02	S01467
Logic threshold element, general symbol	12-27-03	S01568
Look-ahead carry generator (carry, propagate and generate), general symbol	12-38-03	S01638
Look-ahead carry generator, 4-bit	12-39-04	S01647
Loop coupler	10-10-07	S01209
Looped system outlet; Serial wired outlet	11-08-03	S00439
Loudspeaker, general symbol	09-09-07	S01059
Loudspeaker-microphone	09-09-08	S01060
Low-pass filter	10-16-05	S01248

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Luminaire with many fluorescent tubes /Form 1	11-15-05	S00485
Luminaire with many fluorescent tubes /Form 2	11-15-06	S00486
Luminaire, general symbol; Fluorescent lamp, general symbol	11-15-04	S00484
m and only m element, general symbol	12-27-04	S01569
Machine, general symbol	06-04-01	S00819
Magnesium protective anode	11-04-09	S00427
Magnetic coupling device	05-06-07	S00690
Magnetic field effect or dependence	02-08-04	S00123
Magnetic head /Complete form	09-09-13	S01065
Magnetic head /Simplified form	09-09-14	S01066
Magnetic head for erasing /Complete form	09-09-17	S01069
Magnetic head for erasing /Simplified form	09-09-18	S01070
Magnetic head for writing, monophonic /Complete form	09-09-15	S01067
Magnetic head for writing, monophonic /Simplified form	09-09-16	S01068
Magnetic head for writing, reading and erasing, monophonic /Complete form	09-09-19	S01071
Magnetic head for writing, reading and erasing, monophonic /Simplified form	09-09-20	S01072
Magnetic type indication	09-08-01	S01042
Magnetoresistor	05-06-06	S00689
Magnetostrictive effect	02-08-03	S00122
Magnetron oscillator tube	05-A13-14	S00765
Magnetron oscillator tube /Simplified form	05-A13-15	S00766
Magnitude comparator with 3-state outputs, 4-bit	12-39-09	S01652
Magnitude comparator with cascading inputs, 4-bit	12-39-08	S01651
Magnitude comparator with open-circuit output of the L-type, 6-bit	12-39-07	S01650
Magnitude comparator, general symbol	12-38-05	S01640
MAJORITY element, general symbol	12-27-05	S01570
Make contact, automatic return	07-A6-01	S00249
Make contact, delayed	07-05-05	S00247
Make contact, delayed closing	07-05-01	S00243
Make contact, delayed opening	07-05-02	S00244
Make contact, early closing	07-04-01	S00239
Make contact, general symbol; Switch, general symbol	07-02-01	S00227
Make contact, general symbol; Switch, general symbol /Old form	07-A2-02	S00228
Make contact, late closing	07-04-02	S00240
Make contact, stay put	07-A6-02	S00250
Manhole for underground chamber	11-03-06	S00412
Manual switchboard	09-02-02	S00995
Marking stage	09-01-06	S00986
Marking stage-outgoing calls via several connecting stages	09-01-07	S00987
Maser used as an amplifier	10-11-02	S01213
Maser, general symbol	10-11-01	S01212
Master clock	08-08-02	S00960
Matching device, adjustable, E-H	10-08-04	S01159
Matching device, adjustable, multi-stub	10-08-05	S01160

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Matching device, adjustable, slide screw	10-08-03	S01158
Matching device, adjustable; Discontinuity, adjustable;	10-08-02	S01157
Material, electret	02-07-05	S00117
Material, gas	02-07-04	S00116
Material, insulating	02-07-07	S00119
Material, liquid	02-07-03	S00115
Material, semiconducting	02-07-06	S00118
Material, solid	02-07-02	S00114
Material, unspecified	02-07-01	S00113
Matrix arrangement of magnetic stores	04-A6-02	S00599
Maximum demand indicator	08-02-03	S00915
Measuring relay; Device related to a measuring relay	07-16-01	S00327
Mechanical coupling, disengaged	02-12-17	S00160
Mechanical coupling, engaged	02-12-18	S00161
Mechanical interlock	02-12-11	S00154
Mechanical link (force or motion)	02-12-02	S00145
Mechanical link (rotation)	02-12-03	S00146
Mechanical switching device, three-pole	07-13-13	S00295
Microphone, general symbol	09-09-01	S01053
Microphone, push-pull	09-09-03	S01055
Microprocessor, 8-bit	12-56-01	S01734
Mid-wire	02-02-16	S00080
Mirror contact	07-02-10	S01462
Mixed marking stage-outgoing calls via different connecting stages	09-01-08	S00988
Mixed switching state-outgoing calls via different connecting stages	09-01-11	S00991
Mixing network	10-16-19	S01262
Mm-input	12-21-01	S01563
Mm-input	13-05-21	S01773
Mm-output	12-21-02	S01564
Mm-output	13-05-22	S01774
Mode filter	10-08-19	S01174
Mode scrambler	10-24-07	S01332
Mode suppression	10-07-12	S01149
Modulator, double sideband output	10-19-02	S01279
Modulator, general symbol; Demodulator, general symbol; Discriminator, general symbol	10-19-01	S01278
Monostable, non-retriggerable	12-45-02	S01677
Monostable, non-retriggerable (during the output pulse), general symbol	12-44-02	S01675
Monostable, retriggerable	12-45-01	S01676
Monostable, retriggerable (during the output pulse), general symbol	12-44-01	S01674
Motion (occurrence of), general symbol	11-19-30	S01854
Motion detector, general symbol	11-19-11	S01438
Motor starter, general symbol	07-14-01	S00297
Mounting location in hidden space	11-19-13	S01440
Mounting location in hidden space-above ceiling	11-19-14	S01441

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Mounting location in hidden space-beneath floor	11-19-15	S01442
Movable contact	02-17-04	S00211
Moving coil indication; Ribbon type indication	09-08-02	S01043
Moving iron type indication	09-08-03	S01044
m-phase winding, phases not interconnected	06-01-05	S00800
M-type backward travelling wave amplifier tube	05-A13-10	S00761
M-type backward travelling wave amplifier tube /Simplified form	05-A13-11	S00762
M-type backward travelling wave oscillator tube	05-A13-12	S00763
M-type backward travelling wave oscillator tube /Simplified form	05-A13-13	S00764
M-type forward travelling wave amplifier tube	05-A13-08	S00759
M-type forward travelling wave amplifier tube /Simplified form	05-A13-09	S00760
Multi-aperture electrode	05-A8-03	S00714
Multiple socket outlet (power) /Form 1	11-13-02	S00458
Multiple socket outlet (power) /Form 2	11-13-03	S00459
Multiple-function switching device	07-13-15	S01413
Multiplexer (one-of-eight)	12-37-01	S01630
Multiplexer with analog/digital conversion	10-A20-42	S01289
Multiplexer with storage, quadruple 2-input	12-42-11	S01669
Multiplexer, general symbol	12-36-01	S01626
Multiplexer, quadruple	12-37-02	S01631
Multiplexer/demultiplexer with analog/digital conversion	10-A20-43	S01290
Multiplexing and demultiplexing function	10-20-07	S01288
Multiplexing function	10-20-05	S01286
Multiplier	13-07-01	S01779
Multiplier, 4-bit parallel, generating the four least significant bits of the product	12-39-05	S01648
Multiplier, 4-bit parallel, generating the four most significant bits of the product	12-39-06	S01649
Multiplier, general symbol	12-38-04	S01639
Multiposition single pole switch	11-14-05	S00470
Multi-position switch	07-11-04	S00270
Multi-position switch, early/late break/make indicated	07-A11-10	S00279
Multi-position switch, independent circuits	07-A11-04	S00273
Multi-position switch, maximum four positions	07-11-05	S00271
Multi-position switch, one position disabled	07-A11-05	S00274
Multi-position switch, wiper	07-A11-06	S00275
Multi-position switch, wiping cumulative contacts	07-A11-09	S00278
Multi-position switch, wiping multiple consecutive contacts	07-A11-07	S00276
Multi-position switch, wiping multiple contacts	07-A11-08	S00277
Multi-position switch, with position diagram	07-11-06	S00272
Multi-rate watt-hour meter	08-04-08	S00938
NAND buffer	12-29-02	S01595
NAND Schmitt-trigger	12-31-02	S01609
NAND with open-circuit output of the L-type	12-28-04	S01582
Negative peak clipper	10-17-05	S01271

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Negative polarity	02-02-14	S00078
Negator	12-27-11	S01576
Neutral	02-02-15	S00079
Neutral conductor	11-11-01	S00446
Neutral point	03-02-13	S00026
Neutral point of a generator (multi-line representation)	03-02-15	S00028
Neutral point of a generator (single-line representation)	03-02-14	S00027
Nm-input	12-16-01	S01552
Nm-output	12-16-02	S01553
No voltage relay	07-17-01	S00338
Noise generator	10-A13-31	S01230
Noiseless earth	02-A15-02	S00201
Non-automatic return function	07-A1-05	S00225
Non-emitting sole for closed slow-wave structure	05-A9-04	S00727
Non-emitting sole for open slow-wave structure	05-A9-03	S00726
Non-logic connection	12-10-01	S01546
Not-equal output of a comparator	13-05-17	S01769
NPN avalanche transistor	05-05-03	S00665
NPN transistor with collector connected to the envelope	05-05-02	S00664
NPN transistor with transverse biased base	05-05-06	S00668
Nuclear energy generating station, in service or unspecified	11-02-06	S00396
Nuclear energy generating station, planned	11-02-05	S00395
Numeric display, three 7-segment characters with decimal point	12-53-05	S01728
Object /Form 1	02-01-01	S00059
Object /Form 2	02-01-02	S00060
Object /Form 3	02-01-03	S00061
Obstacle light; Hazard light; Red flashing omni-directional beam	11-18-18	S00550
ODD element, general symbol	12-27-07	S01572
ODD element, with one common input, dual	12-28-11	S01589
One winding	06-01-01	S00796
Open slow-wave structure	05-A9-06	S00729
Open-circuit output	12-09-03	S01493
Open-circuit output (H-type)	12-09-04	S01494
Open-circuit output (L-type)	12-09-05	S01495
Operand input	12-09-26	S01519
Operating coil of a selector	09-A3-06	S01003
Operating device of a thermal relay	07-15-21	S00325
Operating device of an electronic relay	07-15-22	S00326
Operating device, general symbol; Relay coil, general symbol /Form 1	07-15-01	S00305
Operating device, general symbol; Relay coil; general symbol /Other form	07-A15-01	S00306
Operating device; Relay coil (attached representation) /Form 1	07-15-03	S00307
Operating device; Relay coil (attached representation) /Other form	07-A15-02	S00308
Operating device; Relay coil (detached representation) /Other form	07-A15-03	S00309
Operating device; Relay coil (detached representation) /Other form	07-A15-04	S00310
Operational amplifier	13-09-01	S01782

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Operational amplifier	13-09-02	S01783
Operational amplifier	13-09-03	S01784
Operational amplifier with multiplexed inputs (one of four)	13-09-09	S01790
Optical attenuator	10-A24-50	S01331
Optical connection female-male	10-A24-48	S01329
Optical coupling device with slot for light-barrier	05-06-09	S00692
Optical disc-type reproducer	09-10-05	S01079
Optical fibre cable with dimensional data	10-A23-44	S01322
Optical fibre cable with dimensional data (example)	10-A23-45	S01323
Optical fibre, general symbol; Optical fibre cable, general symbol	10-23-01	S01318
Optical fibre, graded index	10-23-04	S01321
Optical fibre, multimode stepped index	10-23-02	S01319
Optical fibre, single mode stepped index	10-23-03	S01320
Optical file-type recorder	09-10-04	S01078
Optocoupler	05-06-08	S00691
OR element, general symbol	12-27-01	S01566
OR with negated output (NOR)	12-28-02	S01580
OR, with one common input and with complementary outputs, quintuple	12-28-08	S01586
OR-AND with complementary open-circuit outputs of the H-type	12-28-05	S01583
Oscillating motion	02-04-06	S00098
Oscillograph	08-03-03	S00930
Oscilloscope	08-02-10	S00922
O-type forward travelling wave amplifier tube	05-A13-04	S00755
O-type forward travelling wave amplifier tube	05-A13-05	S00756
O-type forward travelling wave amplifier tube	05-A13-06	S00757
O-type forward travelling wave amplifier tube /Simplified form	05-A13-07	S00758
Output with special amplification (drive capability)	12-09-08A	S01499
Overcurrent relay	07-17-05	S00342
Overcurrent relay	07-17-14	S00351
Overflow display	12-53-03	S01726
Overhead line	11-03-03	S00409
Overhead line on pole with stay	11-19-26	S01453
Overhead line on pole with strut	11-19-25	S01452
Overpower relay for reactive power	07-17-06	S00343
Page-printing receiver	09-A6-14	S01032
Parity generator/checker with complementary outputs	12-28-12	S01590
Parity generator/checker, odd/even	12-28-14	S01592
Passing make contact	07-03-03	S00238
Passing make contact when actuated	07-03-01	S00236
Passing make contact when released	07-03-02	S00237
Passive relay station, general symbol	10-A6-22	S01132
Passive-pull-down output	12-09-06	S01496
Passive-pull-up output	12-09-07	S01497
Pentode	05-11-03	S00746
Percentage differential current	07-16-06	S00332

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Perforating tape	02-A11-02	S00139
Period limiting switch, single pole	11-14-03	S00468
Permanent joint	10-A23-47	S01325
Permanent magnet	02-17-03	S00210
Permanent magnet producing a transverse field	05-A9-08	S00734
Phase distortion corrector	10-16-16	S01259
Phase meter	08-02-06	S00918
Phase modulated carrier	10-22-02	S01309
Phase transposition unit	11-17-17	S00514
Phase-changing network	10-16-13	S01256
Phase-failure detection relay	07-17-12	S00349
Phase-shifting	02-04-07	S01846
Phase-shifting transformer, three-phase /Form 1	06-10-19	S01837
Phase-shifting transformer, three-phase /Form 2	06-10-20	S01838
Photo-conductive storage electrode	05-A8-12	S00723
Photodiode	05-06-02	S00685
Photoelectric cathode	05-07-08	S00700
Photo-emissive electrode	05-A8-08	S00719
Photo-emissive storage electrode	05-A8-10	S00721
Phototransistor	05-06-04	S00687
Phototube; Photoemissive diode	05-A14-07	S00777
Photovoltaic cell	05-06-03	S00686
Photovoltaic generator	06-18-06	S00908
Piezoelectric crystal with three electrodes	04-07-02	S00601
Piezoelectric crystal with two electrodes	04-07-01	S00600
Piezoelectric crystal with two pairs of electrodes	04-07-03	S00602
Piezo-electric effect	04-07-05	S01405
Pilot frequency	10-21-04	S01294
Pilot frequency; Supergroup pilot frequency	10-21-05	S01295
Plane polarization	10-03-01	S01094
Plasma generating station, in service or unspecified; Magneto-hydrodynamic (MHD), in service or unspecified	11-02-14	S00404
Plasma generating station, planned; Magneto-hydrodynamic (MHD), planned	11-02-13	S00403
Plug and socket	03-03-05	S00033
Plug and socket, coaxial	03-03-15	S00042
Plug and socket, multipole (multi-line representation)	03-03-07	S00034
Plug and socket, multipole (single-line representation)	03-03-08	S00035
Plug and socket-type connector, male-female	03-03-21	S00048
Plug and socket-type connector, male-male	03-03-20	S00047
Plug and socket-type connector, male-male with socket access	03-03-22	S00049
PNIN transistor with connection to the intrinsic region	05-05-08	S00670
PNIP transistor with connection to the intrinsic region	05-05-07	S00669
PNP transistor	05-05-01	S00663
Point of access to a bundle	03-01-17	S01415
Polarity indicator, input	12-07-03	S01468

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Polarity indicator, input, right to the left	12-07-05	S01470
Polarity indicator, output	12-07-04	S01469
Polarity indicator, output, right to the left	12-07-06	S01471
Polarized relay with neutral position	07-15-17	S00321
Polarized relay, self restoring	07-15-16	S00320
Polarized relay, stable positions	07-15-23	S01416
Polarized relay, stable positions	07-A15-05	S00322
Pool cathode	05-A10-02	S00742
Position switch assembly	07-08-03	S00261
Position switch function	07-01-06	S00223
Position switch, break contact	07-08-02	S00260
Position switch, break contact, positive operation	07-08-04	S00262
Position switch, make contact	07-08-01	S00259
Positive operation of a switch	07-01-09	S00226
Positive peak clipper	10-17-04	S01270
Positive polarity	02-02-13	S00077
Postponed output	12-09-01	S01491
Potentiometer with movable contact	04-01-07	S00561
Potentiometer with movable contact and pre-set adjustment	04-01-08	S00562
Power at phase angle "alpha"	07-16-10	S00336
Power block	11-10-02	S00444
Power feeding injection point	11-10-03	S00445
Power-factor meter	08-02-05	S00917
Precision approach path indicator white/red uni-directional beam	11-18-15	S00547
Prescaler with four scaling factors	12-49-18	S01705
Pre-set adjustability	02-03-06	S00086
Pressure-tight bulkhead cable gland	03-04-07	S00056
Primary cell	06-15-01	S00898
Printing and perforating, of one tape, simultaneous	02-A11-03	S00140
Printing, page	02-A11-04	S00141
Printing, tape	02-11-01	S00138
Probe coupler	10-10-08	S01210
Programmable DMA controller	12-56-03	S01736
Programmable logic device (PLD)	12-56-13	S01746
Programmable peripheral interface	12-56-02	S01735
Programmable read-only memory (PROM), 512k×8-bit	12-51-03	S01713
Programmable read-only memory (PROM), 512k×8-bit /Simplified form	12-51-04	S01714
Programmable read-only memory, electrically alterable, 128k×8-bit	12-51-04A	S01715
Programmable read-only memory, general symbol	12-50-02	S01707
Projector, general symbol	11-15-07	S00487
Propagation (one way)	02-05-01	S00099
Propagation, both ways, not simultaneously	02-05-03	S00101
Propagation, both ways, simultaneously	02-05-02	S00100
Protection against unintentional direct contact, general symbol	02-01-08	S00066
Protective anode	11-04-08	S00426

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Protective conductor	11-11-02	S00447
Protective earthing	02-15-03	S00202
Protective equipotential bonding	02-15-05	S00204
Protective gas discharge tube	07-22-04	S00374
Protective gas discharge tube, symmetric	07-22-05	S00375
Proximity sensing device	07-19-02	S00355
Proximity sensing device, capacitive	07-19-03	S00356
Proximity sensor	07-19-01	S00354
Proximity switch	07-20-02	S00359
Proximity switch, controlled by iron	07-20-04	S00361
Proximity switch, magnetically controlled	07-20-03	S00360
Pull-cord single pole switch	11-14-09	S00474
Pulse-code modulation in 3-out-of-7 code	10-12-07	S01224
Pulse code modulator	10-19-03	S01280
Pulse counting device	08-05-02	S00947
Pulse counting device with multiple contacts	08-05-05	S00950
Pulse counting device, electrically reset to 0	08-05-04	S00949
Pulse counting device, manually pre-set to <i>n</i>	08-05-03	S00948
Pulse generator	10-13-04	S01228
Pulse inverter	10-14-05	S01235
Pulse or current transformer with three threaded primary conductors /Form 1	06-13-10	S00888
Pulse or current transformer with three threaded primary conductors /Form 2	06-13-11	S00889
Pulse or current transformer with two secondary windings on the same core /Form 1	06-13-12	S00890
Pulse or current transformer with two secondary windings on the same core /Form 2	06-13-13	S00891
Pulse regenerator	10-14-08	S01238
Pulse transformer /Form 1	06-09-12	S01343
Pulse transformer /Form 2	06-09-13	S01344
Pulse, alternating current	02-10-03	S00134
Pulse, negative-going	02-10-02	S00133
Pulse, positive-going	02-10-01	S00132
Pulse-amplitude modulation	10-12-03	S01220
Pulse-code modulation	10-12-06	S01223
Pulse-duration modulation	10-12-05	S01222
Pulse-frequency modulation	10-12-02	S01219
Pulse-interval modulation	10-12-04	S01221
Pulse-position or pulse-phase modulation	10-12-01	S01218
Pulse-triggered JK-bistable	12-42-04	S01662
Pulse-triggered RS-bistable	12-42-08	S01666
Pulse-width modulator	13-16-01	S01803
Pump	11-19-04	S01422
Push-button	11-14-10	S00475

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Push-button protected against unintentional operation	11-14-12	S00477
Push-button with indicator lamp	11-14-11	S00476
Quantity output	13-05-08	S01760
Quantity-sensing input	13-05-07	S01759
Quantizing electrode	05-A8-04	S00715
Query input of an associative memory	12-09-22	S01514
Radar antenna	10-04-08	S01109
Radial deflecting electrodes	05-A8-05	S00716
Radiation, coherent, non-ionizing	02-09-02	S00128
Radiation, coherent, non-ionizing, bidirectional	02-09-05	S00131
Radiation, electromagnetic, non-ionizing	02-09-01	S00127
Radiation, electromagnetic, non-ionizing, bidirectional	02-09-04	S00130
Radiation, ionizing	02-09-03	S00129
Radio link	10-A1-07	S01085
Radio station, beacon transmitting	10-06-04	S01128
Radio station, controlling	10-A6-20	S01130
Radio station, direction finding receiving	10-06-03	S01127
Radio station, general symbol	10-06-01	S01125
Radio station, mobile	10-A6-21	S01131
Radio station, portable	10-A6-19	S01129
Radio station, transmitting and receiving	10-06-02	S01126
Radio-isotope heat source	06-17-02	S00901
Random-access memory (RAM), 32k×9-bit	12-51-05	S01716
Random-access memory, 4×4-bit, with separate write and read addresses	12-51-06	S01717
Random-access memory, dynamic, 1048576×1-bit	12-51-11	S01722
Random-access memory, dynamic, 16384×1-bit	12-51-07	S01718
Random-access memory, general symbol	12-50-03	S01708
Reactive current ammeter	08-02-02	S00914
Reactor, general symbol /Form 1	06-09-08	S00848
Reactor, general symbol /Form 2	06-09-09	S00849
Read-only memory (ROM) 1024×4-bit	12-51-01	S01711
Read-only memory (ROM) 1024×4-bit /Simplified form	12-51-02	S01712
Read-only memory, general symbol	12-50-01	S01706
Reception	02-05-05	S00103
Recorder and reproducer, magnetic drum type	09-10-02	S01076
Recorder, general symbol; reproducer; general symbol	09-10-01	S01075
Recording and reproducing indication	09-08-09	S01050
Recording indication; Reproducing indication	09-08-08	S01049
Recording instrument, general symbol	08-01-02	S00911
Recording wattmeter	08-03-01	S00928
Rectified current with alternating component	02-02-12	S00076
Rectifier	06-14-03	S00894
Rectifier in full wave (bridge) connection	06-14-04	S00895
Rectifier with several main anodes	05-A14-09	S00779
Rectifier/inverter	06-14-06	S00897

Name (IEC 60617)	Number of graphical symbol	Symbol identity number
Rectifying junction	05-01-07	S00619
Rectilinear motion (bidirectional)	02-04-02	S00094
Rectilinear motion (unidirectional)	02-04-01	S00093
Reduced-carrier frequency	10-21-03	S01293
Reduced-carrier wave, single erect sideband	10-22-06	S01313
Reduction unit	11-17-15	S00512
Reference input	13-05-05	S01757
Reference output	13-05-06	S01758
Reflector	05-A9-02	S00725
Reflector, cheese type, with horn feeder	10-05-12	S01122
Reflector, reflecting partially	10-07-18	S01155
Reflector, reflecting totally	10-07-17	S01154
Reflex klystron	05-13-03	S00753
Reflex klystron	05-A13-01	S00751
Reflex klystron /Simplified form	05-A13-02	S00752
Reflex klystron /Simplified form	05-A13-03	S00754
Register, universal shift/storage, 8-bit /Form 1	12-49-07	S01694
Register, universal shift/storage, 8-bit /Form 2	12-49-08	S01695
Relay coil of a high speed relay	07-15-10	S00314
Relay coil of a mechanically latched relay	07-15-14	S00318
Relay coil of a mechanically resonant relay	07-15-13	S00317
Relay coil of a polarized relay	07-15-15	S00319
Relay coil of a relay unaffected by alternating current	07-15-11	S00315
Relay coil of a remanent relay /Form 1	07-15-19	S00323
Relay coil of a remanent relay /Form 2	07-15-20	S00324
Relay coil of a slow-operating and slow-releasing relay	07-15-09	S00313
Relay coil of a slow-operating relay	07-15-08	S00312
Relay coil of a slow-releasing relay	07-15-07	S00311
Relay coil of an alternating current relay	07-15-12	S00316
Relay detecting short-circuits between windings	07-17-10	S00347
Reproducing head, stereophonic, stylus operated	09-09-10	S01062
Repulsion motor, single-phase	06-06-02	S00829
Required connection	12-09-52	S01545
Residual voltage	07-16-03	S00329
Resistor with fixed tapplings	04-01-09	S00563
Resistor with movable contact	04-01-05	S00559
Resistor with movable contact and off position	04-01-06	S00560
Resistor with separate current and voltage terminals	04-01-10	S00564
Resistor, adjustable	04-01-03	S00557
Resistor, general symbol	04-01-01	S00555
Resistor, voltage dependent	04-01-04	S00558
Resonator	10-07-16	S01153
Reverse blocking diode thyristor	05-04-01	S00650
Reverse blocking thyristor, tetrode type	05-04-10	S00658
Reverse blocking triode thyristor, N-gate (anode-side controlled)	05-04-05	S00653