BS ISO 14617-2:2025



BSI Standards Publication

Graphical symbols for diagrams

Part 2: Graphical symbols

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

National foreword

This British Standard is the UK implementation of ISO 14617-2:2025. It supersedes BS ISO 14617-2:2002, BS ISO 14617-3:2002, BS ISO 14617-4:2002, BS ISO 14617-5:2002, BS ISO 14617-6:2002, BS ISO 14617-7:2002, BS ISO 14617-8:2002, BS ISO 14617-9:2002, BS ISO 14617-10:2002, BS ISO 14617-11:2002, and BS ISO 14617-12:2002, which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee TPR/1, Technical Product Realization.

A list of organizations represented on this committee can be obtained on request to its committee manager.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2025
Published by BSI Standards Limited 2025

ISBN 978 0 539 22470 2

ICS 01.080.30

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2025.

Amendments/corrigenda issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

International Standard

ISO 14617-2

Graphical symbols for diagrams —

Part 2: Graphical symbols

Symboles graphiques pour schémas —

Partie 2: Symboles graphiques

Second edition
2025-04

Reference number
ISO 14617-2:2025(en)

© ISO 2025

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025
All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Documents
Document Sharing Hub
Full document details: BS ISO 14617-2:2025

Contents

Foreword ix
Introduction xi
1 Scope 1
2 Normative references 1
3 Terms and definitions 1
4 General application symbols 2
4.1 Components, devices, functional units, equipment, plants and functions 2
4.1.1 Basic symbols 2
4.1.2 Supplementary symbols 2
4.1.3 Symbol examples 4
4.2 Variability 5
4.2.1 Basic symbols 5
4.2.2 Supplementary symbols 5
4.2.3 Symbol examples 5
4.3 Characteristics for force, motion, mass flow, magnetic flow and signals 6
4.3.1 Basic symbols 6
4.3.2 Supplementary symbols 7
4.3.3 Symbol examples 7
4.4 Directions 7
4.4.1 Basic symbols 7
4.4.2 Supplementary symbols 9
4.4.3 Symbol examples 10
4.5 Materials 12
4.5.1 Basic symbols 12
4.5.2 Supplementary symbols 12
4.5.3 Symbol examples 12
4.6 Simplifications 13
4.6.1 Basic symbols 13
4.6.2 Supplementary symbols 13
4.6.3 Symbol examples 13
4.7 General electrotechnical symbols 14
4.7.1 Basic symbols 14
4.7.2 Supplementary symbols 15
4.7.3 Symbol examples 15
5 Connections and related devices (fluids) 15
5.1 Connections, general 15
5.1.1 Basic symbols 15
5.1.2 Supplementary symbols 16
5.1.3 Symbol examples 18
5.2 Connection functional joints 19
5.2.1 Basic symbols 19
5.2.2 Supplementary symbols 19
5.2.3 Symbol examples 19
5.3 Connection devices 20
5.3.1 Basic symbols 20
5.3.2 Supplementary symbols 22
5.3.3 Symbol examples 22
5.4 Connection, simplifications 22

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

5.4.1 Basic symbols 22
5.4.2 Supplementary symbols 23
5.4.3 Symbol examples 23
5.5 Couplings, quick release couplings 23
5.5.1 Basic symbols 23
5.5.2 Supplementary symbols 23
5.5.3 Symbol examples 23
5.6 Pipeline and duct elements 24
5.6.1 Basic symbols 24
5.6.2 Supplementary symbols 27
5.6.3 Symbol examples 27
5.7 Access chambers, inspection wells 28
5.7.1 Basic symbols 28
5.7.2 Supplementary symbols 29
5.7.3 Symbol examples 29

6 Fluid flow control 29
6.1 General purpose valves 29
6.1.1 Basic symbols 29
6.1.2 Supplementary symbols 30
6.1.3 Symbol examples 32
6.2 Dampers 37
6.2.1 Basic symbols 37
6.2.2 Supplementary symbols 37
6.2.3 Symbol examples 37
6.3 Valves with special functions 38
6.3.1 Basic symbols 38
6.3.2 Supplementary symbols 38
6.3.3 Symbol examples 38
6.4 Taps, showers, etc. 39
6.4.1 Basic symbols 39
6.4.2 Supplementary symbols 40
6.4.3 Symbol examples 40
6.5 Hydrants 40
6.5.1 Basic symbols 40
6.5.2 Supplementary symbols 40
6.5.3 Symbol examples 40
6.6 Safety devices other than valves 41
6.6.1 Basic symbols 41
6.6.2 Supplementary symbols 41
6.6.3 Symbol examples 41

7 Actuators 42
7.1 Basic elements 42
7.1.1 Basic symbols 42
7.1.2 Supplementary symbols 43
7.1.3 Symbol examples 43
7.2 Manually operated actuators 44
7.2.1 Basic symbols 44
7.2.2 Supplementary symbols 46
7.2.3 Symbol examples 46
7.3 Automatic actuators 46
7.3.1 Basic symbols 46
7.3.2 Supplementary symbols 48
7.3.3 Symbol examples 48

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

7.4 Complex actuators 48
7.4.1 Basic symbols 48
7.4.2 Supplementary symbols 49
7.4.3 Symbol examples 49

8 Fluid transport 50
8.1 Pumps, compressors and fans 50
8.1.1 Basic symbols 50
8.1.2 Supplementary symbols 50
8.1.3 Symbol examples 53

9 Fluid energy transfer 54
9.1 Heat exchangers, condensers 54
9.1.1 Basic symbols 54
9.1.2 Supplementary symbols 55
9.1.3 Symbol examples 55
9.2 Heat exchanger of specific design 56
9.2.1 Basic symbols 56
9.2.2 Supplementary symbols 57
9.2.3 Symbol examples 57
9.3 Cooling towers 57
9.3.1 Basic symbols 57
9.3.2 Supplementary symbols 58
9.3.3 Symbol examples 58

10 Fluid separation and mixing 59
10.1 Separation 59
10.1.1 Basic symbols 59
10.1.2 Supplementary symbols 59
10.1.3 Symbol examples 60
10.2 Mixing 64
10.2.1 Basic symbols 64
10.2.2 Supplementary symbols 65
10.2.3 Symbol examples 66

11 Fluid processing 67
11.1 Processing of liquid fluids by absorption, catalysis, conversion, thermics, etc. 67
11.1.1 Basic symbols 67
11.1.2 Supplementary symbols 67
11.1.3 Symbol examples 69

12 Fluid power converters 69
12.1 Devices for conversion of mechanical energy to fluid energy and vice versa 69
12.1.1 Basic symbols 69
12.1.2 Supplementary symbols 70
12.1.3 Symbol examples 70
12.2 Devices for conversion of fluid mechanical energy by an intermediate fluid step 72
12.2.1 Basic symbols 72
12.2.2 Supplementary symbols 72
12.2.3 Symbol examples 72
12.3 Linear fluid motors, fluid cylinders 73
12.3.1 Basic symbols 73
12.3.2 Supplementary symbols 73
12.3.3 Symbol examples 73

13 Storage 74
13.1 Stationary storage devices 74

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

13.1.1 Basic symbols 74
13.1.2 Supplementary symbols 75
13.1.3 Symbol examples 76
13.2 Mobile storage devices 78
13.2.1 Basic symbols 78
13.2.2 Supplementary symbols 78
13.2.3 Symbol examples 78
13.3 Energy storage and expansion devices 78
13.3.1 Basic symbols 78
13.3.2 Supplementary symbols 79
13.3.3 Symbol examples 79

14 Material transport and flow control 79
14.1 Conveyors, feeders and associated devices 79
14.1.1 Basic symbols 79
14.1.2 Supplementary symbols 81
14.1.3 Symbol examples 82
14.2 Tracks and associated objects 84
14.2.1 Basic symbols 84
14.2.2 Supplementary symbols 84
14.2.3 Symbol examples 85
14.3 Handling objects, cranes, robots 85
14.3.1 Basic symbols 85
14.3.2 Supplementary symbols 85
14.3.3 Symbol examples 86
14.4 Mobile transport objects 86
14.4.1 Basic symbols 86
14.4.2 Supplementary symbols 88
14.4.3 Symbol examples 88

15 Material separation and mixing 88
15.1 Material separation and mixing 88
15.1.1 Basic symbols 88
15.1.2 Supplementary symbols 88
15.1.3 Symbol examples 89
15.2 Mixing 89
15.2.1 Basic symbols 89
15.2.2 Supplementary symbols 90
15.2.3 Symbol examples 90

16 Material processing 90
16.1 Solid material 90
16.1.1 Basic symbols 90
16.1.2 Supplementary symbols 93
16.1.3 Symbol examples 93
16.2 Bulk material, size reduction 93
16.2.1 Basic symbols 93
16.2.2 Supplementary symbols 93
16.2.3 Symbol examples 95
16.3 Forming, shaping, etc. 95
16.3.1 Basic symbols 95
16.3.2 Supplementary symbols 96
16.3.3 Symbol examples 96
16.4 Thermal 97
16.4.1 Basic symbols 97
16.4.2 Supplementary symbols 97

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

16.4.3 Symbol examples 97

17 Energy conversion, boilers, turbines, motors, etc. 98
17.1 Boilers, steam generators, furnaces and hot air generators 98
17.1.1 Basic symbols 98
17.1.2 Supplementary symbols 99
17.1.3 Symbol examples 99
17.2 Steam turbines 100
17.2.1 Basic symbols 100
17.2.2 Supplementary symbols 100
17.2.3 Symbol examples 101
17.3 Combustion engines, reciprocating and rotary pistons, gas turbines 101
17.3.1 Basic symbols 101
17.3.2 Supplementary symbols 102
17.3.3 Symbol examples 102
17.4 Heat pumps, refrigerators and freezers, water heaters, air conditioners 103
17.4.1 Basic symbols 103
17.4.2 Supplementary symbols 103
17.4.3 Symbol examples 103
17.5 Electrical motors and generators 103
17.5.1 Basic symbols 103
17.5.2 Supplementary symbols 104
17.5.3 Symbol examples 104
17.6 Thermal energy consumers 104
17.6.1 Basic symbols 104
17.6.2 Supplementary symbols 104
17.6.3 Symbol examples 105

18 Mechanical transmission 105
18.1 Shafts, bearings 105
18.1.1 Basic symbols 105
18.1.2 Supplementary symbols 105
18.1.3 Symbol examples 105
18.2 Couplings, fixed, detachable and variable 105
18.2.1 Basic symbols 105
18.2.2 Supplementary symbols 106
18.2.3 Symbol examples 106
18.3 Gears, fixed ratio and variable ratio 106
18.3.1 Basic symbols 106
18.3.2 Supplementary symbols 107
18.3.3 Symbol examples 107
18.4 Brakes 107
18.4.1 Basic symbols 107
18.4.2 Supplementary symbols 108
18.4.3 Symbol examples 108
18.5 Belt and chain devices 108
18.5.1 Basic symbols 108
18.5.2 Supplementary symbols 109
18.5.3 Symbol examples 109
18.6 Miscellaneous mechanical devices 109
18.6.1 Basic symbols 109
18.6.2 Supplementary symbols 110
18.6.3 Symbol examples 110

19 Measurement and control devices 110
19.1 Sensors, signal converters and measuring transducers 110

AVA Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

19.1.1 Basic symbols 110
19.1.2 Supplementary symbols 111
19.1.3 Symbol examples 114
19.2 Fittings for sensors and measuring transducers 115
19.2.1 Basic symbols 115
19.2.2 Supplementary symbols 115
19.2.3 Symbol examples 115
19.3 Measuring instruments, meters 116
19.3.1 Basic symbols 116
19.3.2 Supplementary symbols 116
19.3.3 Symbol examples 116
19.4 Counting devices and clocks 117
19.4.1 Basic symbols 117
19.4.2 Supplementary symbols 118
19.4.3 Symbol examples 118
19.5 Devices for analogue signal processing 118
19.5.1 Basic symbols 118
19.5.2 Supplementary symbols 119
19.5.3 Symbol examples 119
19.6 Displays and other signalling processing 120
19.6.1 Basic symbols 120
19.6.2 Supplementary symbols 120
19.6.3 Symbol examples 120

20 Measurement and control functions 120
20.1 Process functions 120
20.1.1 Basic symbols 120
20.1.2 Supplementary symbols 121
20.1.3 Symbol examples 122

21 Vacuum technology 122
21.1 Vacuum pumps 122
21.1.1 Basic symbols 123
21.1.2 Supplementary symbols 123
21.1.3 Symbol examples 124
21.2 Vacuum gauges 125
21.2.1 Basic symbols 125
21.2.2 Supplementary symbols 125
21.2.3 Symbol examples 126
21.3 Vacuum components 127
21.3.1 Basic symbols 127
21.3.2 Supplementary symbols 127
21.3.3 Symbol examples 127

Annex A (normative) Application rules for the symbols 129

Annex B (informative) Symbols deleted from the previous edition of the ISO 14617 series 136

Annex C (informative) Alphabetic index 219

Bibliography 236

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 14617-2:2025

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 10, *Process plant documentation*.

This second edition cancels and replaces the first edition (ISO 14617-2:2002) and ISO 3511-1:1977, ISO 3511-2:1984, ISO 3511-3:1984, ISO 3511-4:1985, ISO 14617-3:2002, ISO 14617-4:2002, ISO 14617-5:2002, ISO 14617-6:2002, ISO 14617-7:2002, ISO 14617-8:2002, ISO 14617-9:2002, ISO 14617-10:2002, ISO 14617-11:2002, ISO 14617-12:2002, ISO 14617-13:2004, ISO 14617-14:2004 and ISO 14617-15:2002.

The main changes are as follows:

— adding of new basis and supplementary symbols developed for ISO 10628-2 and ISO 14084-2;

— establishing a new clause for vacuum technology as referred to withdrawn ISO 3753:1977, DIN 28401:2022, and JIS Z 8207:1999. This is because vacuum technology utilizes many unique pumps, gauges, and so on;

— deletion of symbols, which were duplicated from previous parts or “electrotechnical like”. Technological outdated symbols, especially within instrumentation and control, were also deleted;

— the numbers of symbol examples were reduced for simplification;

— removal of terms and definitions from Clause 3, which can be found in ISO 14617-1;

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

— most graphical symbols for fluid power diagrams, e.g. fluid power valves, have been removed because they defined in ISO 1219-1;

— symbols of measurement and control functions were removed;

— ”GSD” was added in front of registration numbers defined in a previous version of the ISO 14617 series;

— annexes have reconstructed.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

Introduction

ISO/TC 10 prepares standards for diagrams including graphical symbols, which together with standards prepared by other ISO committees and the IEC constitute the basis for preparation of diagrams.

The interrelations between these standards are summarized in ISO 14617-1.

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

Graphical symbols for diagrams —

Part 2:
Graphical symbols

1 Scope

This document specifies graphical symbols for diagrams related to industrial components, products and processing.

This document constitutes a symbol library, from which users can use the symbols or created symbol examples for use in diagrams (see Tables 1 to 149).

General rules and guidance for the preparation and presentation of graphical symbols are given in ISO 14617-1. Application rules for the symbols are shown in normative Annex A.

This document does not apply to:

— graphical symbols for fluid power objects, see ISO 1219-1 (the collective application standard of the ISO 14617 series);

— symbols of measurement and control functions such as mathematical functions and process functions;

— graphical symbols for electrotechnical objects, see the IEC 60617 database.

Symbols deleted from the previous edition of the ISO 14617 series are summarized in informative Annex B as a reference. The alphabetic index of symbols defined in this document is shown in informative Annex C.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15519-2, *Specifications for diagrams for process industry — Specifications for diagrams for process industry — Part 2: Measurement and control*

ISO 80000 (all parts), *Quantities and units*

IEC 60027-2, *Letter symbols to be used in electrical technology — Part 2: Telecommunications and electronics*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

Documents
Document Sharing Hub

© ISO 2024 – All rights reserved

Full document details: BS ISO 14617-2:2025

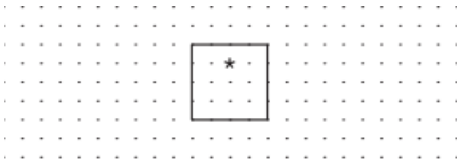
— IEC Electropedia: available at https://www.electropedia.org/

4 General application symbols

4.1 Components, devices, functional units, equipment, plants and functions

4.1.1 Basic symbols

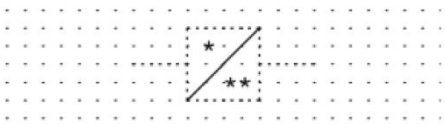
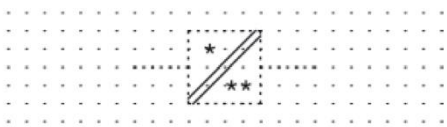
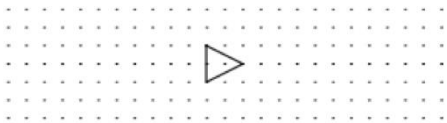
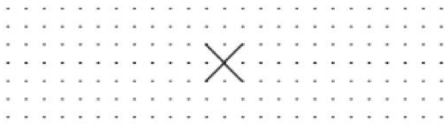
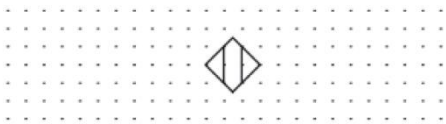
Table 1 — Components, devices, functional units, equipment, plants and functions — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.1.1.1	GSD 101		Envelope, functional unit, equipment, plant, function
			Envelop is defined in IEC 60050-531-23-01.
			R101 (see Annex A)

4.1.2 Supplementary symbols

4.1.2.1 General functions

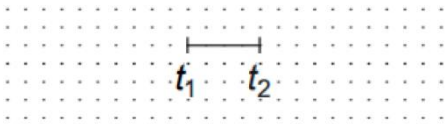
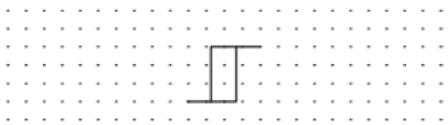
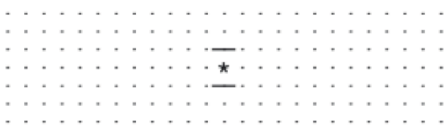
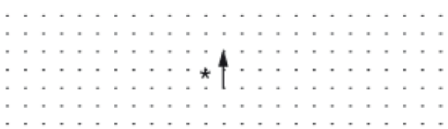
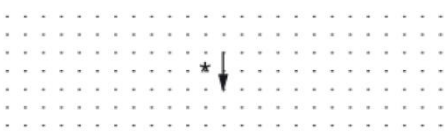
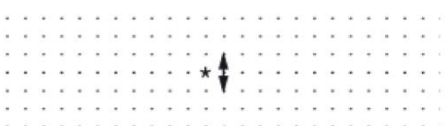
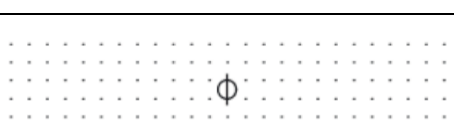
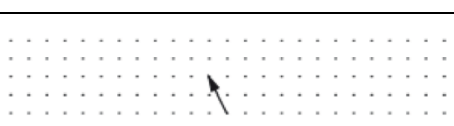
Table 2 — Components, devices, functional units, equipment, plants and functions — Supplementary symbols — General functions

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.1.2.1.1	GSD 111		Conversion
			The definition is in IEC 60050-551-11-02 and IEC 60050-601-01-07.
			R111 (see Annex A)
4.1.2.1.2	GSD 113		Conversion without connection
			R111 (see Annex A)
4.1.2.1.3	GSD 115		Amplification
4.1.2.1.4	GSD 119		Magnetic field effect
4.1.2.1.5	GSD 121		Proximity effect
4.1.2.1.6	GSD		Touch effect

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
	122		
4.1.2.1.7	GSD 123		Delay R112 (see Annex A)
4.1.2.1.8	GSD 124		Hysteresis The definition is in IEC 60050-351-45-16.
4.1.2.1.9	GSD 125		Stabilizing Stabilization is defined in IEC 60050-151-16-32. R113 (see Annex A)
4.1.2.1.10	GSD 130		Transition to a higher quantity level R115 (see Annex A)
4.1.2.1.11	GSD 131		Transition to a lower quantity level R115 (see Annex A)
4.1.2.1.12	GSD 132		Transition to a higher or lower quantity level R115 (see Annex A)
4.1.2.1.13	GSD 144		Automatic operation The definition is in IEC 60050-351-55-03.
4.1.2.1.14	GSD 145		Complex function The definition is in IEC 60617-S01808. R116 (see Annex A)
4.1.2.1.15	GSD 148		Indicating

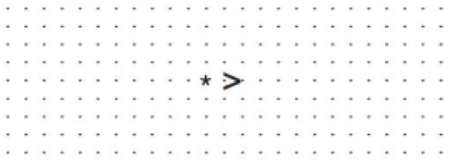
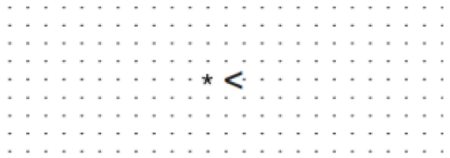
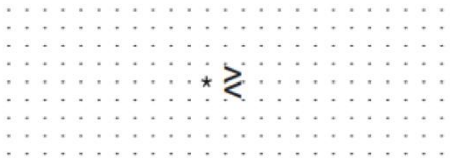
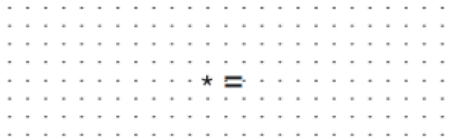
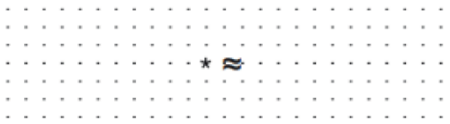
© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

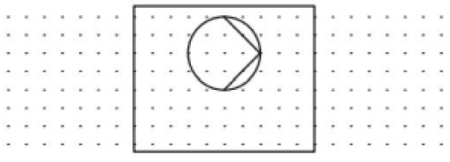
4.1.2.2 Change of discrete state at specified values of a characteristic quantity

Table 3 — Components, devices, functional units, equipment, plants and functions — Supplementary symbols — Change of discrete state at specified values of a characteristic quantity

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.1.2.2.1	GSD 171		Change of state when the characteristic quantity passes a set value from below, for example, in a safety valve or an overpressure pilot switch. R121 (see Annex A)
4.1.2.2.2	GSD 172		Change of state when the characteristic quantity passes a set value from above, for example, in a vacuum valve or an under-temperature pilot switch. R122 (see Annex A)
4.1.2.2.3	GSD 173		Change of state when the characteristic quantity passes an upper set value from below or a lower set value from above, for example, in a pilot switch for over- and under-temperature.
4.1.2.2.4	GSD 174		Change of state when the characteristic quantity is equal to a set value.
4.1.2.2.5	GSD 175		Change of state when the characteristic quantity is approximately equal to a set value.

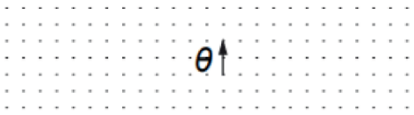
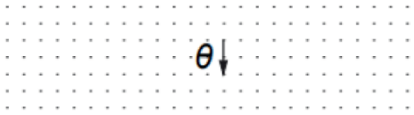
4.1.3 Symbol examples

Table 4 — Components, devices, functional units, equipment, plants and functions — Symbols examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.1.3.1	GSD X101		Pumping system containing one or more pumps GSD 101, GSD 2301

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.1.3.2	GSD X107		Hydraulic controlling unit GSD 101
4.1.3.3	GSD X3523		Heat pump type — temperature increase GSD 130
4.1.3.4	GSD X3524		Heat pump type — temperature decrease GSD 131

4.2 Variability

4.2.1 Basic symbols

Table 5 — Variability — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.2.1.1	GSD 201		Adjustability R201 (see Annex A)
4.2.1.2	GSD 203		Pre-set adjustability R201 (see Annex A)

4.2.2 Supplementary symbols

No supplementary symbols.

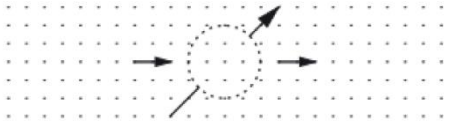
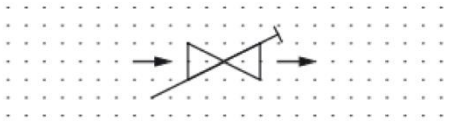
4.2.3 Symbol examples

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

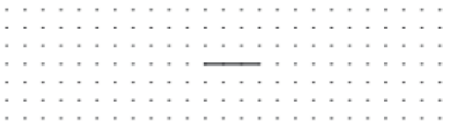
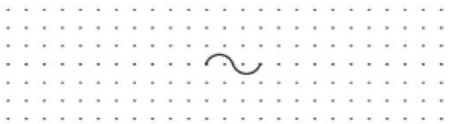
Table 6 — Variability — Symbols examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.2.3.1	GSD X3501		Adjustable motor, pump, fan, compressor, etc. GSD 201
4.2.3.2	GSD X6119		Pre-set control valve For example, flow balancing valve GSD 203, GSD 2101

4.3 Characteristics for force, motion, mass flow, magnetic flow and signals

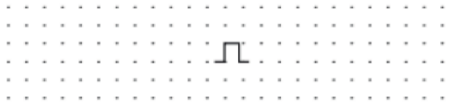
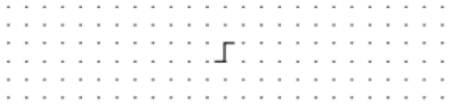
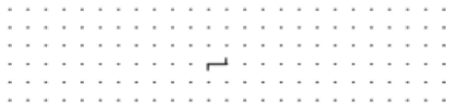
4.3.1 Basic symbols

Table 7 — Characteristics for force, motion, mass flow, magnetic flow and signals — Basic symbols

Entry No.	Reg.No.	Symbol graphics	Symbol names and references
4.3.1.1	GSD 221		Constant force, motion or flow Form 1 R221 (see Annex A)
4.3.1.2	GSD 222		Constant force, motion or flow Form 2 R221 (see Annex A)
4.3.1.3	GSD 223		Approximately constant force, motion or flow
4.3.1.4	GSD 224		Sinusoidal force, motion or flow R222 (see Annex A)
4.3.1.5	GSD 225		Pulse-shaped force, motion or flow
4.3.1.6	GSD 226		Burst of sinusoidal flow

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg.No.	Symbol graphics	Symbol names and references
4.3.1.7	GSD 227		Saw-tooth shaped force, motion or flow
4.3.1.8	GSD 228		Oscillating motion
4.3.1.9	GSD 229		Positive-going pulse
4.3.1.10	GSD 230		Negative-going pulse
4.3.1.11	GSD 231		Positive-going step
4.3.1.12	GSD 232		Negative-going step
4.3.1.13	GSD 233		Stepping function

4.3.2 Supplementary symbols

No supplementary symbols.

4.3.3 Symbol examples

No symbol examples.

4.4 Directions

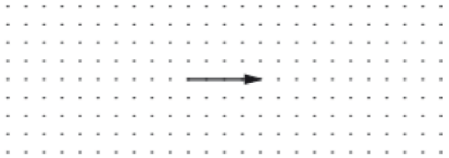
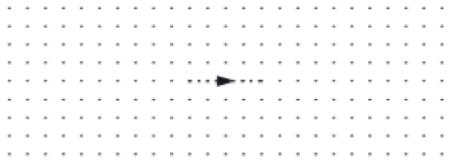
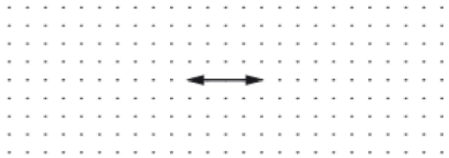
4.4.1 Basic symbols

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

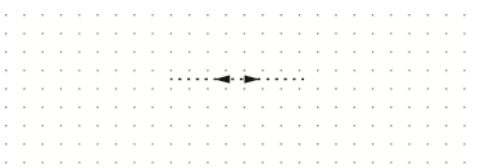
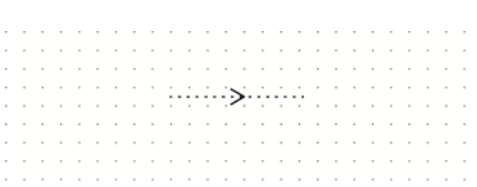
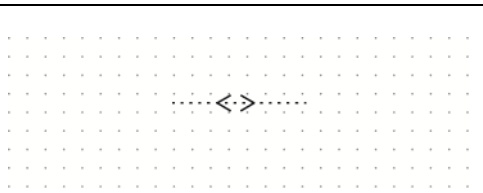
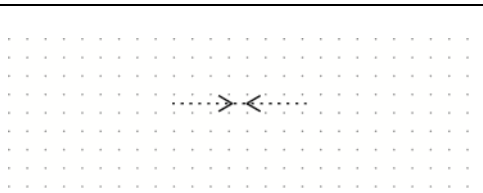
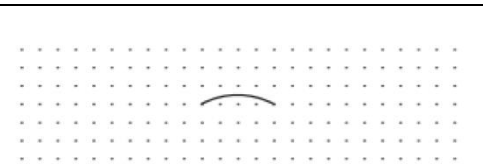
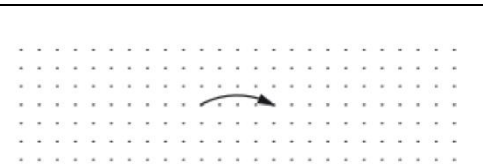
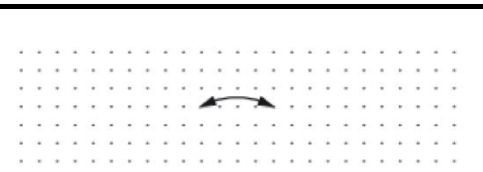
Full document details: BS ISO 14617-2:2025

Table 8 — Directions — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.4.1.1	GSD 241		Direction in general, except for energy and signal flow
			Form 1 For example: — force; — rectilinear motion; — mass flow (solid material or fluid); — magnetic flow; — sound.
			R221, R241, R242, R244 (see Annex A)
4.4.1.2	GSD 242		Direction in general, except for energy and signal flow
			Form 2 For example: — force; — rectilinear motion; — mass flow (solid material or fluid); — magnetic flow; — sound.
			R221, R243, R244 (see Annex A)
4.4.1.3	GSD 243		Working direction of hydraulic power
			R245 (see Annex A)
4.4.1.4	GSD 244		Working direction of pneumatic power
			R245 (see Annex A)
4.4.1.5	GSD 245		Alternative direction in general, except for energy and signal flow
			Form 1 For example: — force; — rectilinear motion; — mass flow (solid material or fluid).
			R221, R241 (see Annex A)
4.4.1.6	GSD		Alternative direction in general, except for energy and signal flow

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
	246		Form 2 For example: — force; — rectilinear motion; — mass flow (solid material or fluid). R221, R243 (see Annex A)
4.4.1.7	GSD 249		Propagation, energy, or signal flow (simplex) R247 (see Annex A)
4.4.1.8	GSD 250		Propagation, energy, or signal flow, alternative directions (half-duplex) R247 (see Annex A)
4.4.1.9	GSD 251		Propagation, energy, or signal flow simultaneously in both directions possible (full-duplex) R247 (see Annex A)
4.4.1.10	GSD 254		Circular motion, unspecified direction R248 (see Annex A)
4.4.1.11	GSD 255		Circular motion R248, R249 (see Annex A)
4.4.1.12	GSD 256		Circular motion, alternative directions R248, R249 (see Annex A)

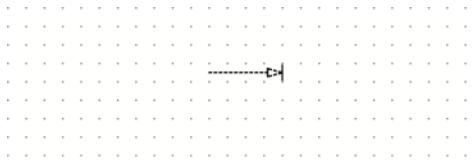
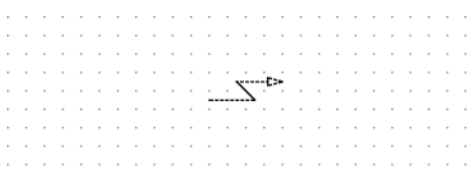
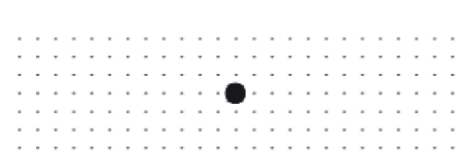
4.4.2 Supplementary symbols

Table 9 — Directions — Supplementary symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.4.2.1	GSD		Limit

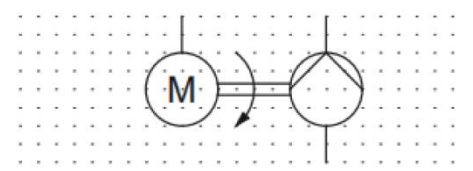
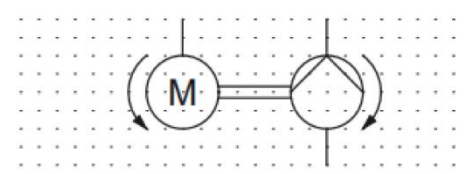
© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
	261		R251 (see Annex A)
4.4.2.2	GSD 262		Momentary and partial reversal of motion
4.4.2.3	GSD 263		Correlation indication R252 (see Annex A)

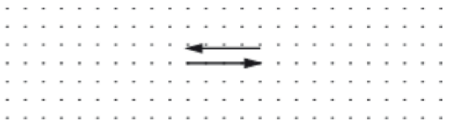
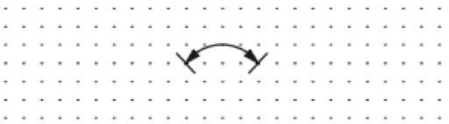
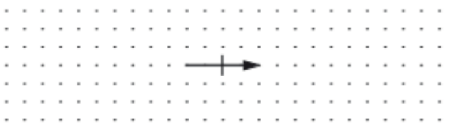
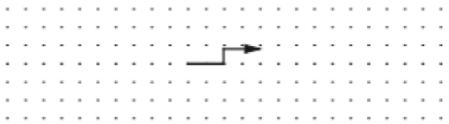
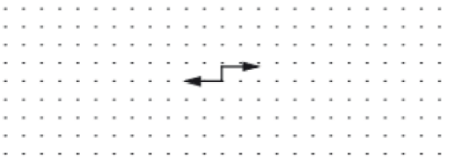
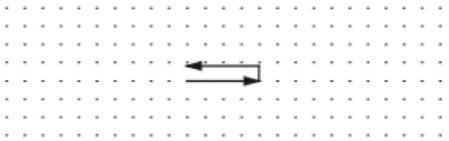
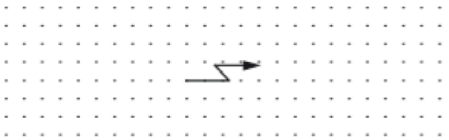
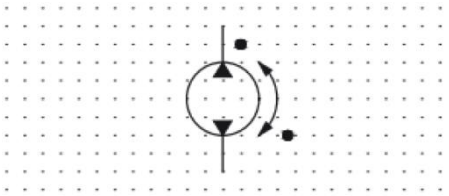
4.4.3 Symbol examples

Table 10 — Directions — Symbols examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.4.3.1	GSD X242		Direction of mass flow in a pipeline GSD 242
4.4.3.2	GSD X246		Hydraulic power source, simplified representation GSD 243, GSD 405, R245 (see Annex A)
4.4.3.3	GSD X250		Electric motor and pump, the motor rotating Form 1 GSD 255, GSD 402, GSD 2301, GSD 4150
4.4.3.4	GSD X251		Electric motor and pump, the motor rotating Form 2 GSD 255, GSD 402, GSD 2301, GSD 4150
4.4.3.5	GSD X252		Reciprocating motion

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			GSD 241
4.4.3.6	GSD X253		Limited circular motion in alternative directions GSD 256, GSD 261
4.4.3.7	GSD X254		Rectilinear motion with intermediate stop, manual re-start from the stop GSD 241, GSD 261
4.4.3.8	GSD X255		Rectilinear motion with intermediate dwell, automatic re-start after a specified time GSD 241, GSD 261
4.4.3.9	GSD X256		Rectilinear motion in alternative directions with intermediate dwell; automatic re-start after a specified time in each direction GSD 241, GSD 261
4.4.3.10	GSD X257		Rectilinear motion in the direction of the arrow pointing to the right and back in the opposite direction with dwell at the return point GSD 241, GSD 261
4.4.3.11	GSD X258		Rectilinear motion in the direction of the arrow with partial reversal in an intermediate position GSD 241, GSD 262
4.4.3.12	GSD X261		Correlation between the rotational direction of a hydraulic pump with alternative directions of flow and the directions of flow GSD 256, GSD 263, GSD 2401

© ISO 2025 – All rights reserved

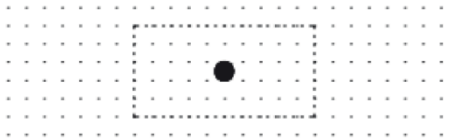
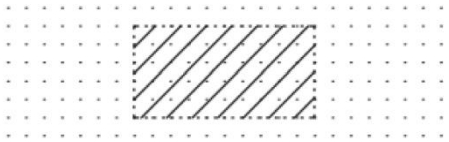
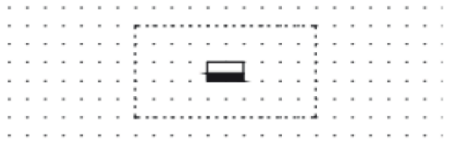
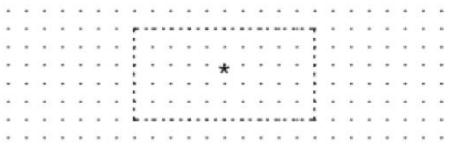
Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

4.5 Materials

4.5.1 Basic symbols

Table 11 — Materials — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.5.1.1	GSD 321		Liquid
4.5.1.2	GSD 322		Gas
4.5.1.3	GSD 325		Insulating material R321 (see Annex A)
4.5.1.4	GSD 326		Permanent magnet
4.5.1.5	GSD 327		Bimetal
4.5.1.6	GSD 328		Material of other type R322 (see Annex A)

4.5.2 Supplementary symbols

No supplementary symbols.

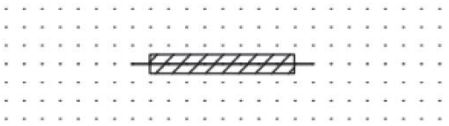
4.5.3 Symbol examples

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

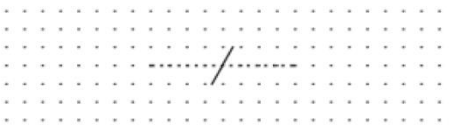
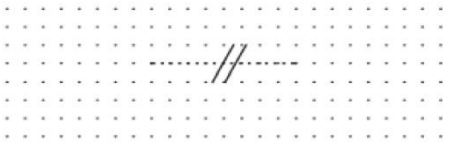
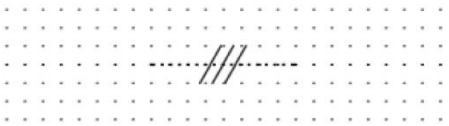
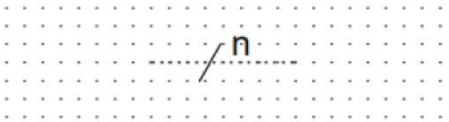
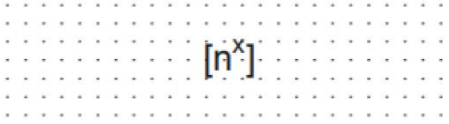
Table 12 — Materials —Symbols examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.5.3.1	GSD X322		Pipeline or duct with thermal insulation GSD 325, GSD 405

4.6 Simplifications

4.6.1 Basic symbols

Table 13 — Simplifications —Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.6.1.1	GSD 341		One item only R341, R342 (see Annex A)
4.6.1.2	GSD 342		Two identical items R341 (see Annex A)
4.6.1.3	GSD 343		Three identical items R341 (see Annex A)
4.6.1.4	GSD 344		Two or more identical items Form 1 R221, R341, R343 (see Annex A)
4.6.1.5	GSD 345		Two or more identical items Form 2 R221, R344 (see Annex A)

4.6.2 Supplementary symbols

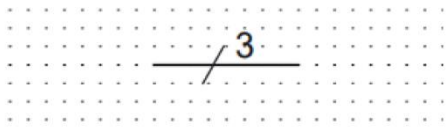
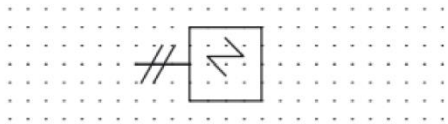
No supplementary symbols.

4.6.3 Symbol examples

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

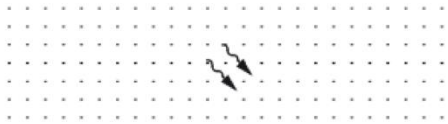
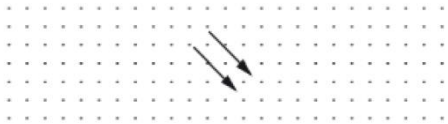
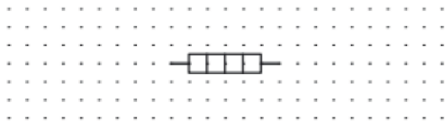
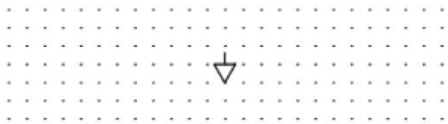
Table 14 — Simplifications —Symbols examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.6.3.1	GSD X341		Three connections in single-line representation Form 1 Single-line representation is defined in IEC 61082-1. GSD 343, GSD 406, R221 (see Annex A)
4.6.3.2	GSD X342		Three connections in single-line representation Form 2 GSD 344, GSD 406, R221 (see Annex A)
4.6.3.3	GSD X349		Two pipelines (inlet and outlet) connected to a heat exchanger or heating radiator GSD 101, GSD 342, GSD 406, GSD 2501

4.7 General electrotechnical symbols

4.7.1 Basic symbols

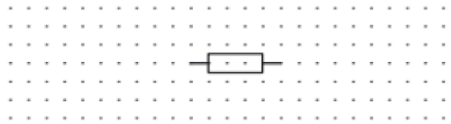
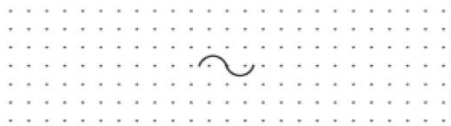
Table 15 — General electrotechnical symbols —Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
4.7.1.1	GSD 4200		Radiation type Ionizing
4.7.1.2	GSD 4201		Optical type Non-ionizing
4.7.1.3	GSD 4202		Electric thermal, resistant
4.7.1.4	GSD 4203		Electric electrode type
4.7.1.5	GSD		Electromagnetic, induction

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
	4204		
4.7.1.6	GSD 4205		Electrostatic type
4.7.1.7	GSD 4206		Strain gauge type
4.7.1.8	GSD 5031		Direct current The definition is in IEC 60617–S01401 and ISO 7000/IEC 60417-5031.
4.7.1.9	GSD 5032		Alternating current The definition is in IEC 60617–S01403 and ISO 7000/IEC 60417-5032.

4.7.2 Supplementary symbols

No supplementary symbols.

4.7.3 Symbol examples

No symbol examples.

5 Connections and related devices (fluids)

5.1 Connections, general

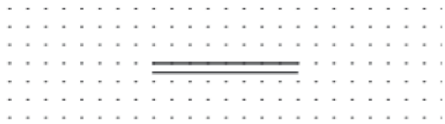
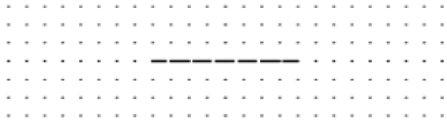
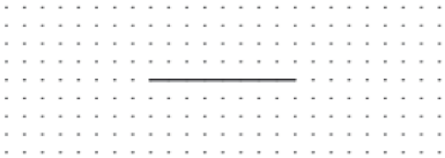
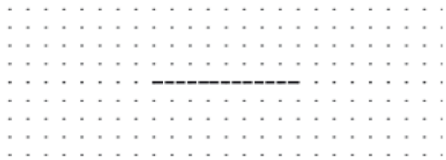
5.1.1 Basic symbols

Table 16 — Connections, general —Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.1.1.1	GSD 401		Functional connection R401, R402 (see Annex A)

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.1.1.2	GSD 402		Mechanical link, shaft Form 1 R221, R401, R402 (see Annex A)
5.1.1.3	GSD 403		Mechanical link, shaft, wire Form 2 R221, R401, R402 (see Annex A)
5.1.1.4	GSD 404		Electrically insulating mechanical link, shaft, wire R401, R402, R403 (see Annex A)
5.1.1.5	GSD 405		Pipeline, duct R401, R402 (see Annex A)
5.1.1.6	GSD 406		Group of pipelines, ducts in single-line representation R401, R402 (see Annex A)
5.1.1.7	GSD 411		Non-guided electromagnetic beam R401, R402 (see Annex A)
5.1.1.8	GSD 412		Planned pipeline, duct R401, R402 (see Annex A)
5.1.1.9	GSD 413		Group of planned pipelines, ducts in single-line representation R401, R402 (see Annex A)
5.1.1.10	GSD 422		Pilot, drain, purge, or bleed line R401, R402 (see Annex A)

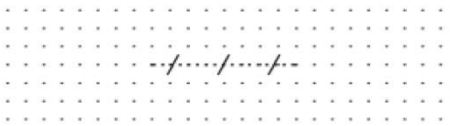
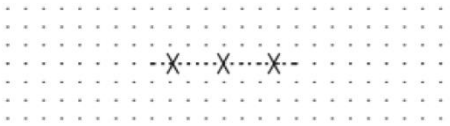
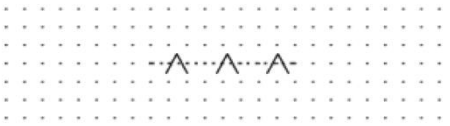
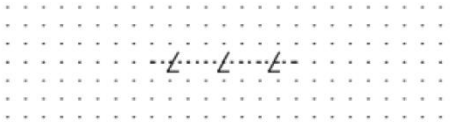
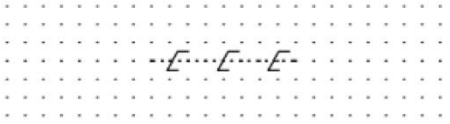
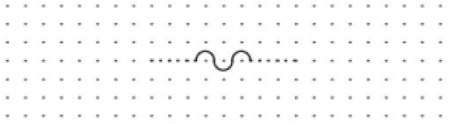
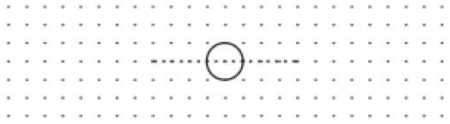
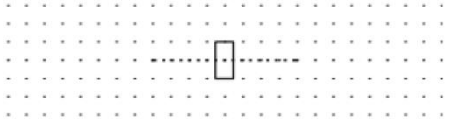
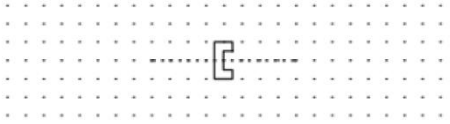
5.1.2 Supplementary symbols

Table 17 — Connections, general —Supplementary symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.1.2.1	GSD		Connection, pure functional type

© ISO 2025 – All rights reserved

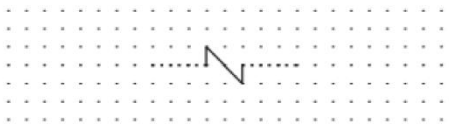
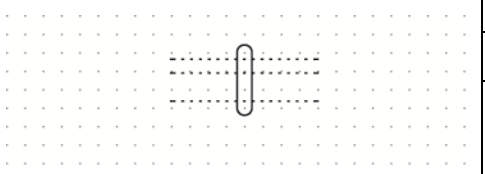
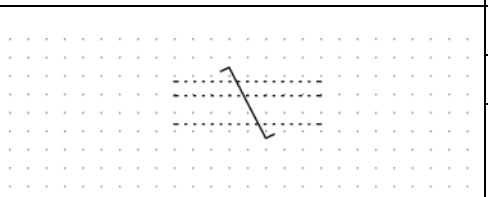
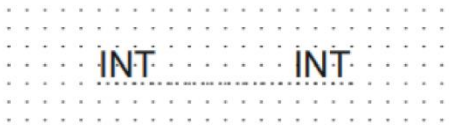
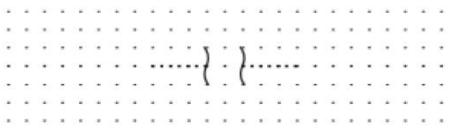
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
	431		
5.1.2.2	GSD 432		Connection, capillary type
5.1.2.3	GSD 433		Connection, pneumatic type
5.1.2.4	GSD 434		Connection, hydraulic type
5.1.2.5	GSD 435		Connection, electric type
5.1.2.6	GSD 444		Flexible type R412 (see Annex A)
5.1.2.7	GSD 445		Circular shape
5.1.2.8	GSD 446		Rectangular shape
5.1.2.9	GSD 447		Ridged shape
5.1.2.10	GSD 448		Twisted pipeline or duct

© ISO 2025 – All rights reserved

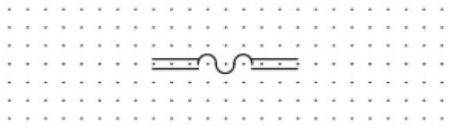
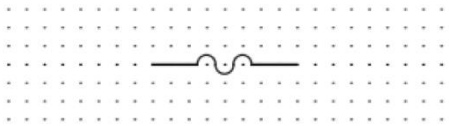
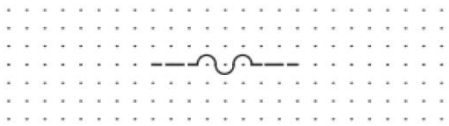
Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			
5.1.2.11	GSD 449		Cable, pipe unit Cable is defined in IEC 60050-151-12-38. R412 (see Annex A)
5.1.2.12	GSD 450		Twisting of pipelines R412 (see Annex A)
5.1.2.13	GSD 451		Internal connection Connection in the form of one or more pipelines or conductors that is an integral part of a component. R413 (see Annex A)
5.1.2.14	GSD 4100		Interruption of connection line

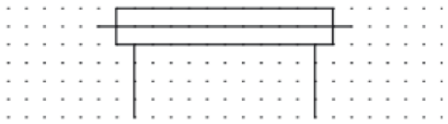
5.1.3 Symbol examples

Table 18 — Connections, general —Symbol examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.1.3.1	GSD X402		Flexible mechanical link Form 1 GSD 402, GSD 444, R221 (see Annex A)
5.1.3.2	GSD X403		Flexible mechanical link Form 2 GSD 403, GSD 444, R221 (see Annex A)
5.1.3.3	GSD X404		Flexible, electrically insulating mechanical link, shaft GSD 404, GSD 444
5.1.3.4	GSD		Jacketed (sleeved) pipeline

© ISO 2025 – All rights reserved

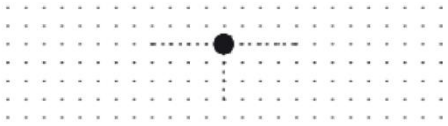
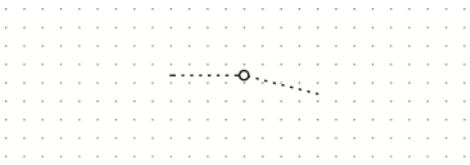
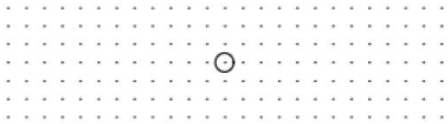
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
	X409		GSD 101, GSD 405

5.2 Connection functional joints

5.2.1 Basic symbols

Table 19 — Connections functional joints — Basic symbols

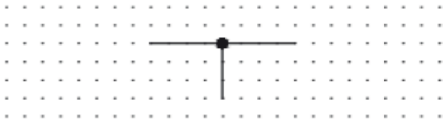
Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.2.1.1	GSD 501		Joint of connections R501 (see Annex A)
5.2.1.2	GSD 2005		Joint of two mechanical parts permitting motion of the parts
5.2.1.3	GSD 561		Port The definition is in ISO 5598. R561 (see Annex A)

5.2.2 Supplementary symbols

No supplementary symbols.

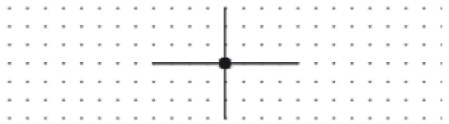
5.2.3 Symbol examples

Table 20 — Connections functional joints — Symbol examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.2.3.1	GSD X504		T-joint of functional connections, mechanical links, or pipelines Form 1 GSD 401, GSD 403 or GSD 405, GSD 501, R221 (see Annex A)
5.2.3.2	GSD X505		T-joint of functional connections, mechanical links, or pipelines Form 2

© ISO 2025 – All rights reserved

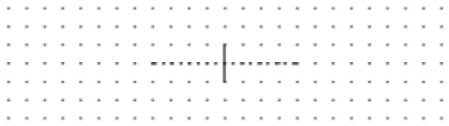
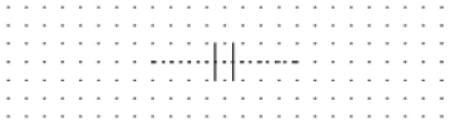
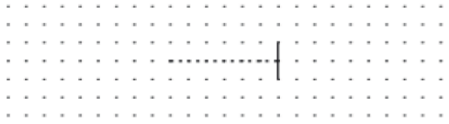
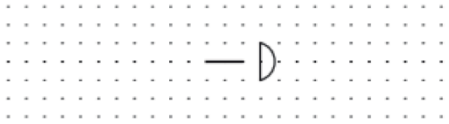
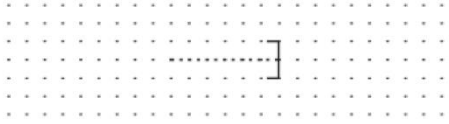
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			GSD 401, GSD 403 or GSD 405, R221 (see Annex A)
5.2.3.3	GSD X506		Joint of multiple functional connections, mechanical links, or pipelines GSD 401, GSD 403 or GSD 405, GSD 501

5.3 Connection devices

5.3.1 Basic symbols

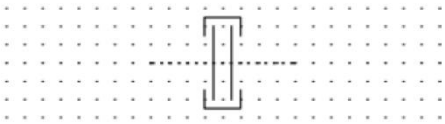
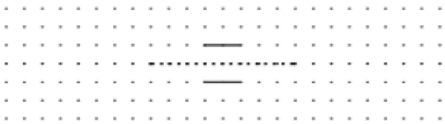
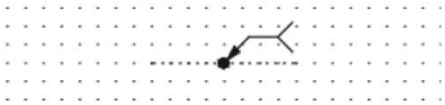
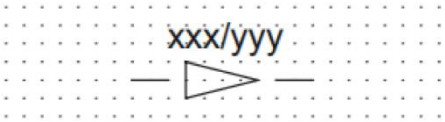
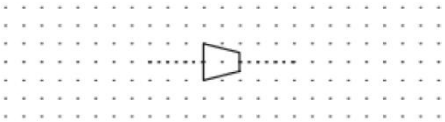
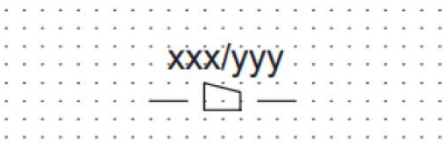
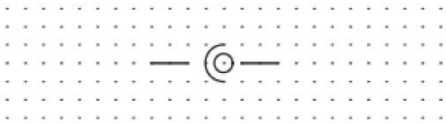
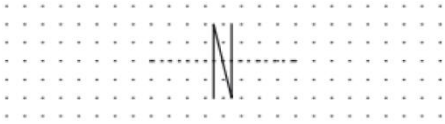
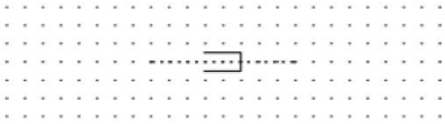
Table 21 — Connection devices — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.3.1.1	GSD 4101		Flange single R521 (see Annex A)
5.3.1.2	GSD 511		Flange coupling, flange pair R521 (see Annex A)
5.3.1.3	GSD 4102		Blind flange R521 (see Annex A)
5.3.1.4	GSD 503		Closed end of pipeline or duct, general R521 (see Annex A)
5.3.1.5	GSD 4103		End cap R521 (see Annex A)
5.3.1.6	GSD 518		End cap, screwed R521 (see Annex A)

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

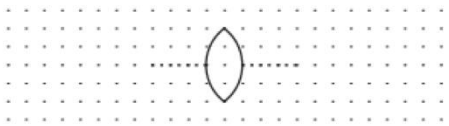
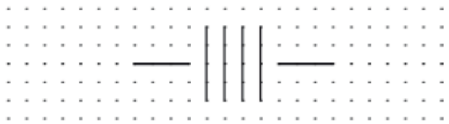
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.3.1.7	GSD 513		Clamped flange coupling R521 (see Annex A)
5.3.1.8	GSD 514		Screwed joint R521 (see Annex A)
5.3.1.9	GSD 515		Joint, welded, brazed, or soldered R521 (see Annex A)
5.3.1.10	GSD 4104		Pipe reducer, general R521 (see Annex A)
5.3.1.11	GSD 516		Pipe reducer, concentric R521 (see Annex A)
5.3.1.12	GSD 4207		Pipe reducer, eccentric R521 (see Annex A)
5.3.1.13	GSD 4208		Swivel joint R521 (see Annex A)
5.3.1.14	GSD 512		Flexible coupling R521 (see Annex A)
5.3.1.15	GSD 532		Expansion sleeve R521 (see Annex A)
5.3.1.16	GSD 533		Expansion bellows Form 1

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

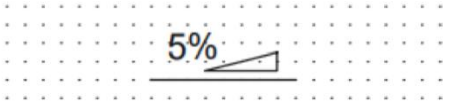
Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			R221, R521 (see Annex A)
5.3.1.17	GSD 4209		Expansion bellows Form 2 R221, R521 (see Annex A)
5.3.1.18	GSD 3061		Slope R3054 (see Annex A)

5.3.2 Supplementary symbols

No supplementary symbols.

5.3.3 Symbol examples

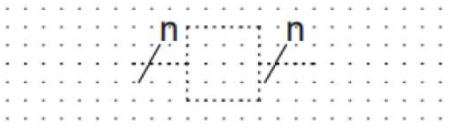
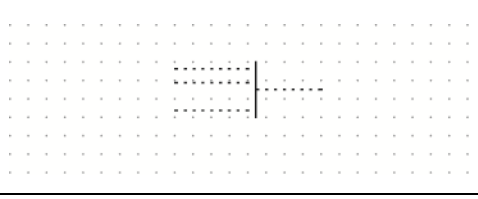
Table 22 — Connection devices— Symbol examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.3.3.1	GSD X3010		Pipeline with 5 % slope to the left GSD 3061

5.4 Connection, simplifications

5.4.1 Basic symbols

Table 23 — Connection, simplifications — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.4.1.1	GSD 601		Connection with n parallel identical branches R601 (see Annex A)
5.4.1.2	GSD 602		Transition between multi-line and single-line representation R602 (see Annex A)

Documents
Document Sharing Hub

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

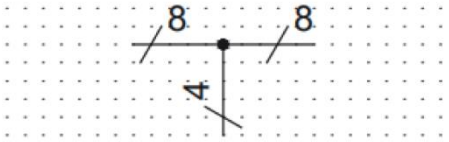
Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.4.1.3	GSD 603		Exit from, or entrance into, a bundle Bundle is defined as a group of conductors or pipelines that mainly follow the same path. R603 (see Annex A)

5.4.2 Supplementary symbols

No supplementary symbols.

5.4.3 Symbol examples

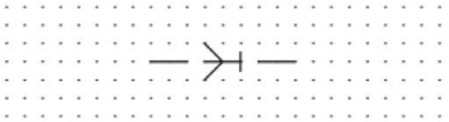
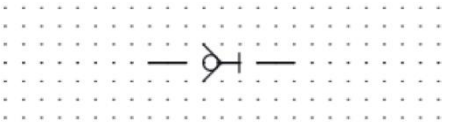
Table 24 — Connection, simplifications — Symbol examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.4.3.1	GSD X602		Eight connections, four of them branching GSD 344, GSD 401, GSD 501, GSD 601

5.5 Couplings, quick release couplings

5.5.1 Basic symbols

Table 25 — Couplings, quick release couplings — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.5.1.1	GSD 4182		Quick release coupling half
5.5.1.2	GSD 4183		Quick release coupling half with auto closing

5.5.2 Supplementary symbols

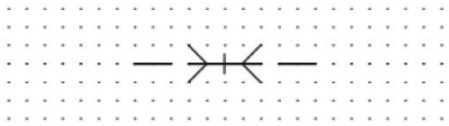
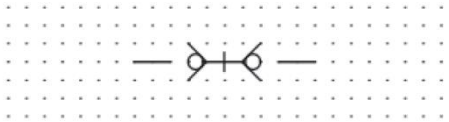
No supplementary symbols.

5.5.3 Symbol examples

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

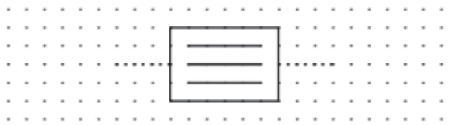
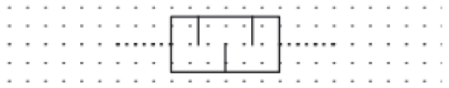
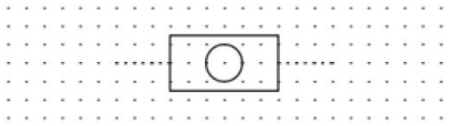
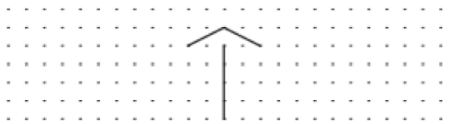
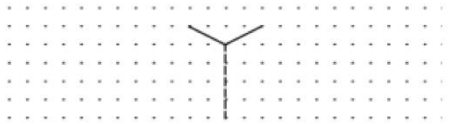
Table 26 — Couplings, quick release couplings — Symbol examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.5.3.1	GSD X3503		Quick release coupling, coupled GSD 4182
5.5.3.2	GSD X3504		Quick release coupling with auto closing, coupled GSD 4183

5.6 Pipeline and duct elements

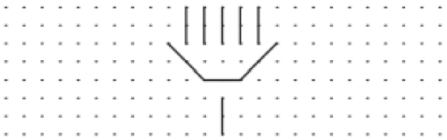
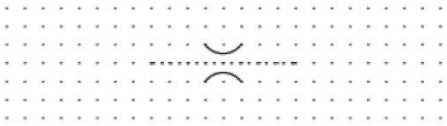
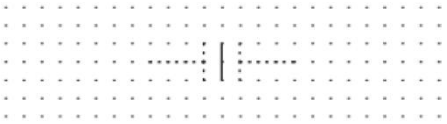
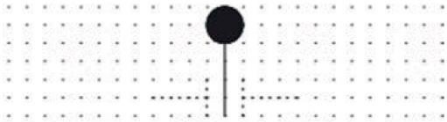
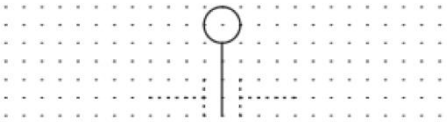
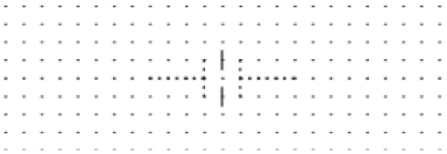
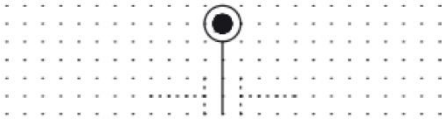
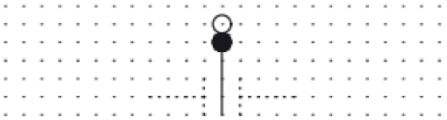
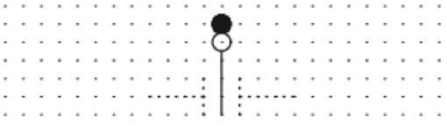
5.6.1 Basic symbols

Table 27 — Pipeline and duct elements — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.6.1.1	GSD 2032		Flow straightener
5.6.1.2	GSD 2033		Silencer
5.6.1.3	GSD 2034		Viewing glass
5.6.1.4	GSD 2038		Siphon, anti-siphon trap
5.6.1.5	GSD 2039		Vent
5.6.1.6	GSD 2040		Drain funnel Form 1 R221 (see Annex A)

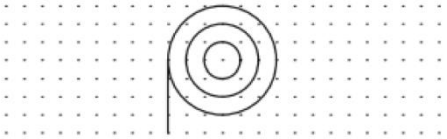
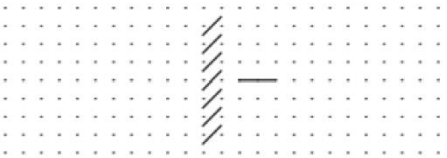
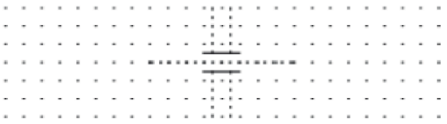
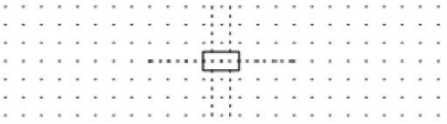
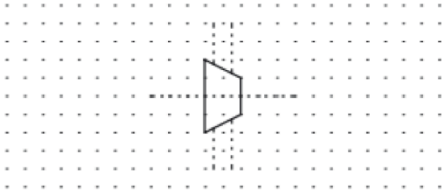
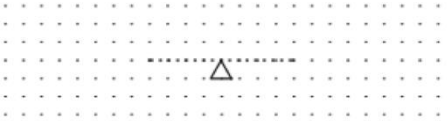
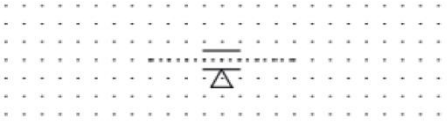
© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.6.1.7	GSD 4105		Drain funnel Form 2 R221 (see Annex A)
5.6.1.8	GSD 2031		Restrictor
5.6.1.9	GSD 2043		Blind disc Form 1 R221 (see Annex A)
5.6.1.10	GSD 4000		Blind disc Form 2 R221 (see Annex A)
5.6.1.11	GSD 4001		Open disc
5.6.1.12	GSD 772		Orifice plate The definition is in ISO 4006. Form 1 The same symbol is appeared in 19.1.2.3. R221 (see Annex A)
5.6.1.13	GSD 4002		Orifice plate Form 2 R221 (see Annex A)
5.6.1.14	GSD 2044		Spectacle blind, shown in closed position
5.6.1.15	GSD 2045		Spectacle blind, shown in open position

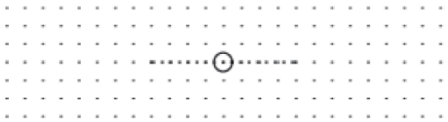
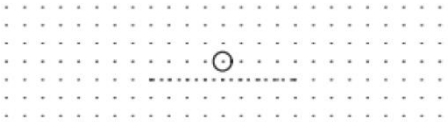
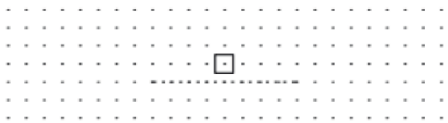
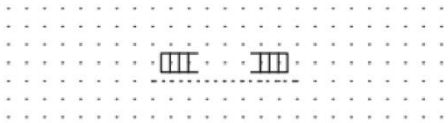
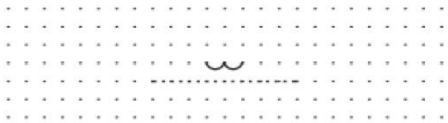
© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.6.1.16	GSD 2042		Pig receiver; launcher
5.6.1.17	GSD 2037		Spray nozzle
5.6.1.18	GSD 4106		Hose reel
5.6.1.19	GSD 4107		Air inlet or outlet grill
5.6.1.20	GSD 3001		Sleeve for penetration of construction such as a wall; wall duct
5.6.1.21	GSD 3002		Seal for penetration of construction such as wall; sealed wall duct R3001 (see Annex A)
5.6.1.22	GSD 3003		Seal for penetration of construction partitioning a space with different air pressure
5.6.1.23	GSD 3004		Anchor point
5.6.1.24	GSD 3005		Guide bracket, for example, for pipelines

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.6.1.25	GSD 3053		Located on poles
5.6.1.26	GSD 3054		Located in a circular duct or pipe
5.6.1.27	GSD 3055		Located in a rectangular duct
5.6.1.28	GSD 3056		Located on a tray – endpoints indicated
5.6.1.29	GSD 3057		Located on a tray – continuous
5.6.1.30	GSD 3051		Located underground
5.6.1.31	GSD 3052		Located underwater

5.6.2 Supplementary symbols

No supplementary symbols.

5.6.3 Symbol examples

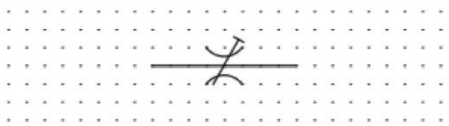
Table 28 — Pipeline and duct elements — Symbol examples

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.6.3.1	GSD X2031		Restriction with pre-set adjustability

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

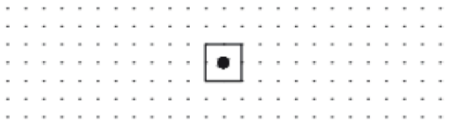
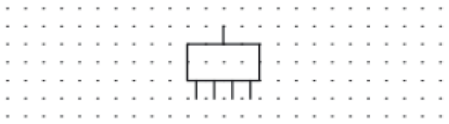
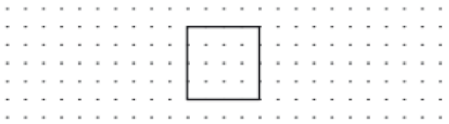
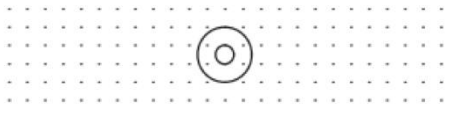
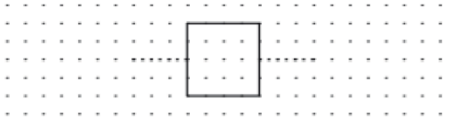
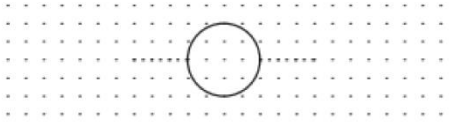
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			GSD 203, GSD 405, GSD 2031

5.7 Access chambers, inspection wells

5.7.1 Basic symbols

Table 29 — Access chambers, inspection wells — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.7.1.1	GSD 3081		Connection box, junction box
5.7.1.2	GSD 3082		Consumer's terminal, service entrance equipment
5.7.1.3	GSD 3083		Distribution centre
5.7.1.4	GSD 3084		Enclosure R3081 (see Annex A)
5.7.1.5	GSD 3085		Cross-connection device
5.7.1.6	GSD 3086		Access chamber, inspection well, square-shaped
5.7.1.7	GSD 3087		Access chamber, inspection well, circular-shaped

© ISO 2025 – All rights reserved

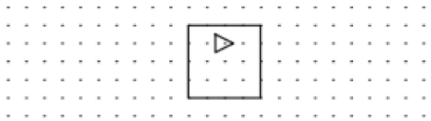
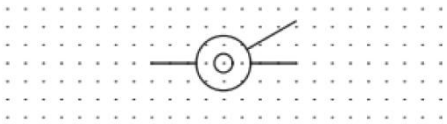
Full document details: BS ISO 14617-2:2025

5.7.2 Supplementary symbols

No supplementary symbols.

5.7.3 Symbol examples

Table 30 — Access chambers, inspection wells — Symbol examples

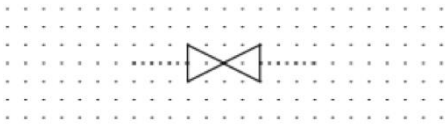
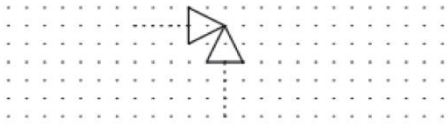
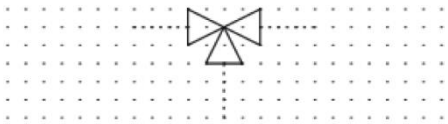
Entry No.	Reg. No.	Symbol graphics	Symbol names and references
5.7.3.1	GSD X3081		Enclosure with amplifying equipment GSD 101, GSD 891, GSD 3084
5.7.3.2	GSD X3082		Cross-connection point with three pipelines, power or telecommunication lines GSD 401, GSD 403, GSD 405, GSD 3085

6 Fluid flow control

6.1 General purpose valves

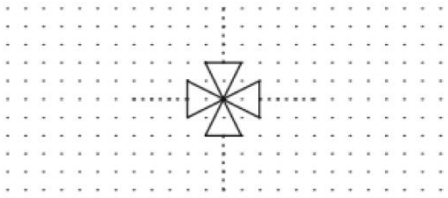
6.1.1 Basic symbols

Table 31 — General purpose valves — Basic symbols

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
6.1.1.1	GSD 2101		Two-way valve R2101 (see Annex A)
6.1.1.2	GSD 2102		Two-way angled valve R2102 (see Annex A)
6.1.1.3	GSD 2103		Three-way valve
6.1.1.4	GSD 2104		Four-way valve

© ISO 2025 – All rights reserved

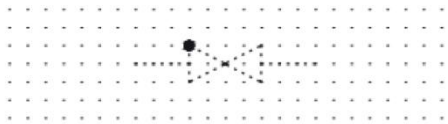
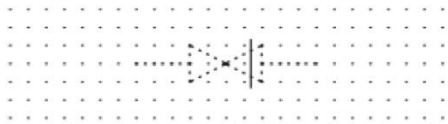
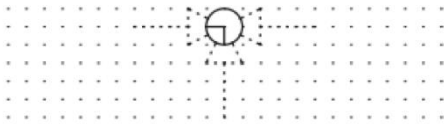
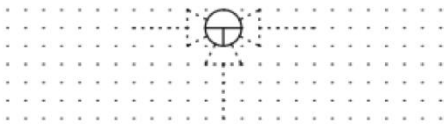
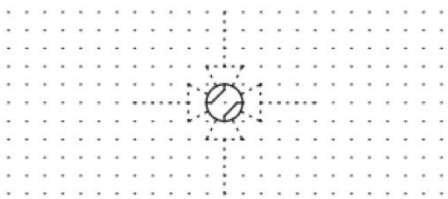
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			

6.1.2 Supplementary symbols

6.1.2.1 Functions

Table 32 — General purpose valves — Supplementary symbols — Functions

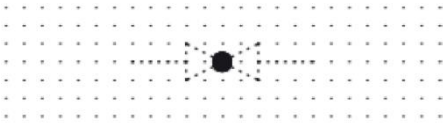
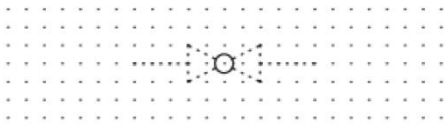
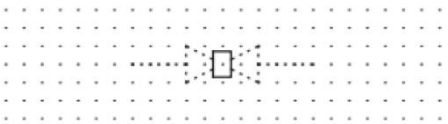
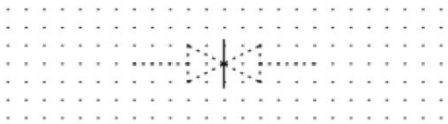
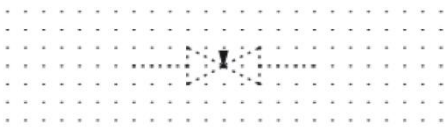
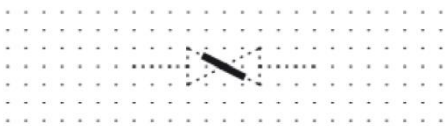
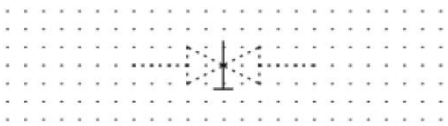
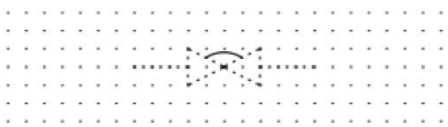
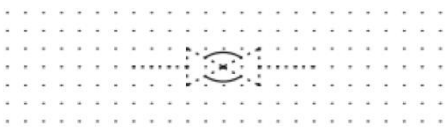
Entry No.	Reg. No.	Symbol graphics	Symbol names and references
6.1.2.1.1	GSD 2111		Non-return function or check function
6.1.2.1.2	GSD 2112		Safety function
6.1.2.1.3	GSD 2113		Three- or four-way L-bore ball valve
6.1.2.1.4	GSD 2114		Three- or four-way T-bore ball valve
6.1.2.1.5	GSD 2115		Four-way double L-bore ball valve

6.1.2.2 Construction

© ISO 2025 – All rights reserved

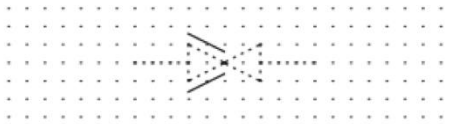
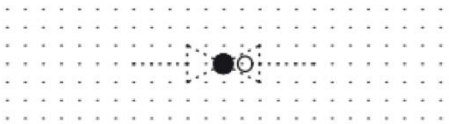
Full document details: BS ISO 14617-2:2025

Table 33 — General purpose valves — Supplementary symbols — Construction

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
6.1.2.2.1	GSD 2121		Globe type valve
6.1.2.2.2	GSD 2122		Ball type valve
6.1.2.2.3	GSD 2123		Plug type valve
6.1.2.2.4	GSD 2124		Gate type valve
6.1.2.2.5	GSD 2125		Needle type valve
6.1.2.2.6	GSD 2126		Disc or butterfly type valve
6.1.2.2.7	GSD 2127		Piston or plunger type valve
6.1.2.2.8	GSD 2128		Diaphragm type valve
6.1.2.2.9	GSD 2129		Hose type valve
6.1.2.2.10	GSD 2130		Reduce bore type valve

© ISO 2025 – All rights reserved

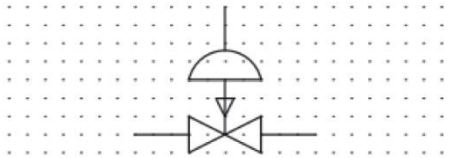
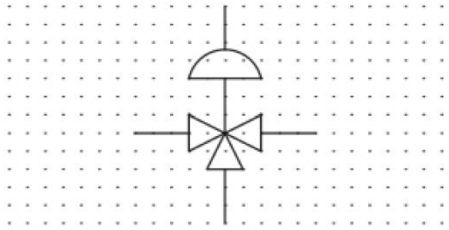
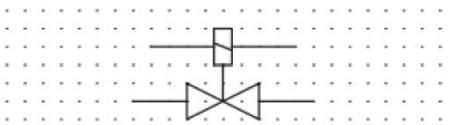
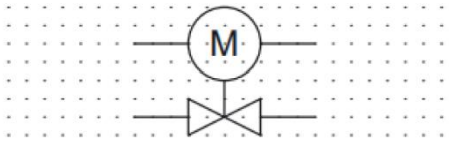
Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			
6.1.2.2.11	GSD 4212		Start-up and continuous venting valve

6.1.3 Symbol examples

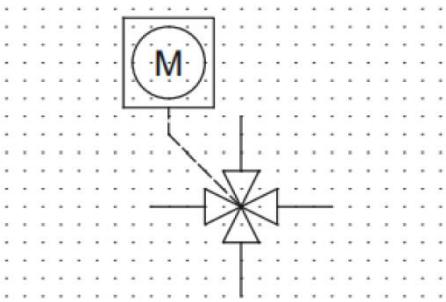
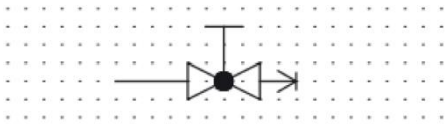
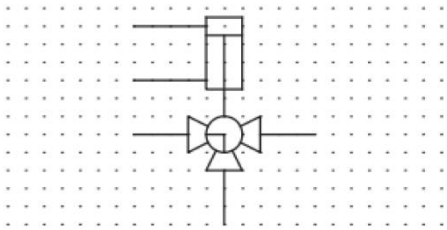
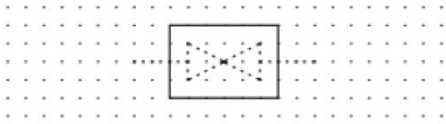
6.1.3.1 Shut-off valves

Table 34 — General purpose valves — Symbol examples — Shut off valves

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
6.1.3.1.1	GSD X2101		Two-way valve – diaphragm actuator GSD 403, GSD 405, GSD 654, GSD 725, GSD 2101
6.1.3.1.2	GSD X2102		Three-way valve – diaphragm actuator GSD 403, GSD 405, GSD 725, GSD 2103
6.1.3.1.3	GSD X2103		Two-way valve – solenoid actuator GSD 403, GSD 405, GSD 2101, GSD 4214
6.1.3.1.4	GSD X2104		Two-way valve with electric motor actuator GSD 403, GSD 405, GSD 2101, GSD 4150
6.1.3.1.5	GSD X2105		Four-way valve with actuating device of electric-motor type

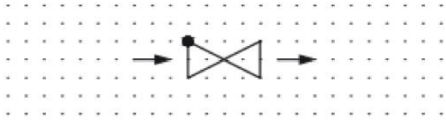
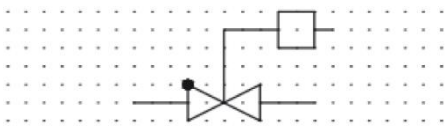
© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			GSD 404, GSD 405, GSD 741, GSD 2104, GSD 4150
6.1.3.1.6	GSD X2106		Globe-type two-way valve with quick-release coupling, for example, for fire hydrant GSD 403, GSD 405, GSD 681, GSD 2101, GSD 2121, GSD 4182
6.1.3.1.7	GSD X2107		Ball-type three-way valve with double-action fluid cylinder actuator GSD 403, GSD 405, GSD 2103, GSD 2113, GSD 2442
6.1.3.1.8	GSD X2108		Jacketed type valve GSD 101, GSD 2101

6.1.3.2 Non-return and check valves

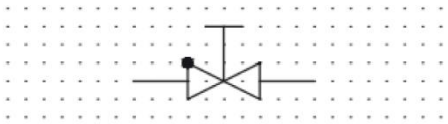
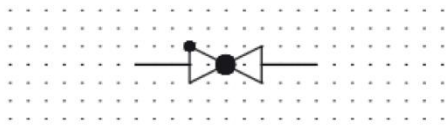
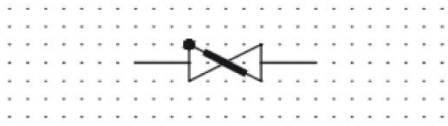
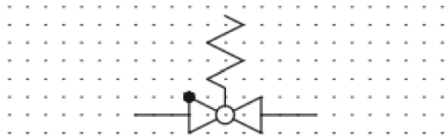
Table 35 — General purpose valves — Symbol examples — Non-return and check valves

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
6.1.3.2.1	GSD X6105		Non-return valve, check valve, general GSD 2101, GSD 2111
6.1.3.2.2	GSD X2111		Weight-load non-return valve GSD 403, GSD 405, GSD 2001, GSD 2101, GSD 2111
6.1.3.2.3	GSD X2112		Closable non-return valve

Documents
Document Sharing Hub

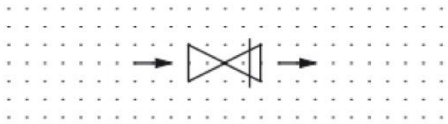
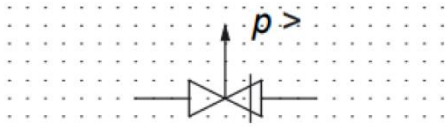
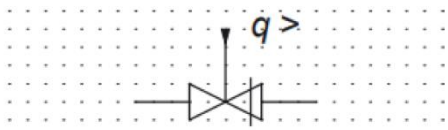
© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			GSD 403, GSD 405, GSD 681, GSD 2101, GSD 2111
6.1.3.2.4	GSD X2113		Globe or lift-type non-return valve GSD 405, GSD 2101, GSD 2111, GSD 2121
6.1.3.2.5	GSD X2114		Swing-type non-return valve GSD 405, GSD 2101, GSD 2111, GSD 2126
6.1.3.2.6	GSD X2115		Ball-type spring-load non-return valve GSD 403, GSD 405, GSD 2002, GSD 2101, GSD 2111, GSD 2122

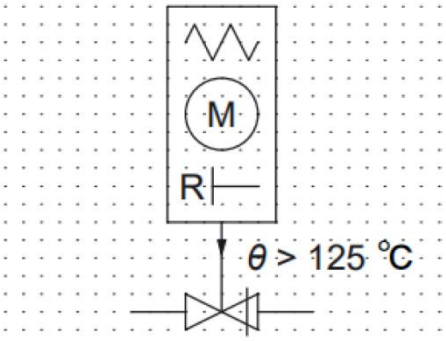
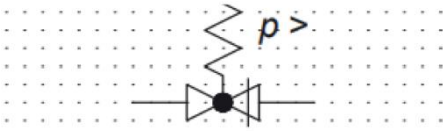
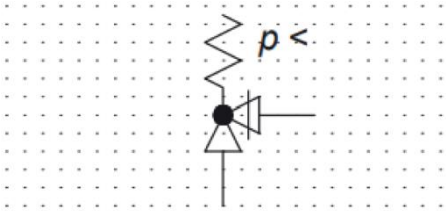
6.1.3.3 Valves with safety function

Table 36 — General purpose valves — Symbol examples — Valves with safety function

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
6.1.3.3.1	GSD X6120		Safety valve, general The definition is in ISO 4126-1. GSD 2101, GSD 2112
6.1.3.3.2	GSD X2121		Safety valve Open when pressure p is higher than set value. GSD 171, GSD 242, GSD 403, GSD 405, GSD 2101, GSD 2112
6.1.3.3.3	GSD X2122		Safety valve Close when flow rate q is higher than set value. GSD 171, GSD 242, GSD 403, GSD 405, GSD 2101, GSD 2112
6.1.3.3.4	GSD X2123		Quick-acting valve Close by spring actuator, when temperature θ is higher than 125 °C, with manual reset.

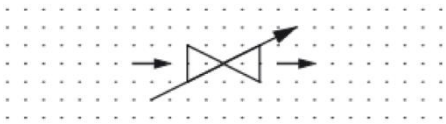
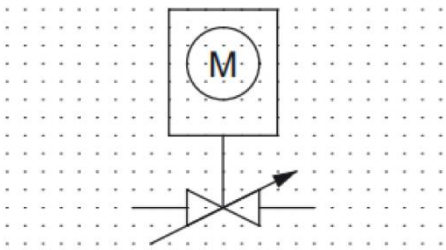
© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			GSD 171, GSD 242, GSD 403, GSD 405, GSD 681, GSD 741, GSD 2002, GSD 2101, GSD 2112, GSD 4150
6.1.3.3.5	GSD X2124		Safety valve globe type, spring-loaded Open when pressure *p* is higher than set value. GSD 171, GSD 403, GSD 2002, GSD 2101, GSD 2112, GSD 2121
6.1.3.3.6	GSD X2125		Safety valve angle globe type, spring-loaded. Open when pressure *p* is lower than set value. GSD 172, GSD 403, GSD 2002, GSD 2102, GSD 2112, GSD 2121

6.1.3.4 Control valves

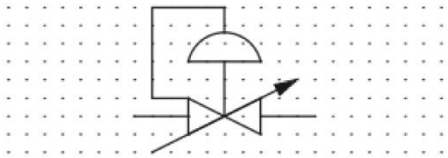
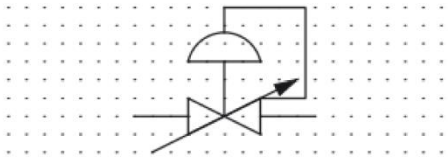
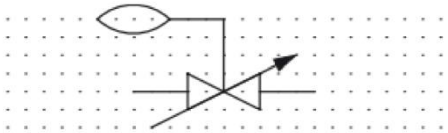
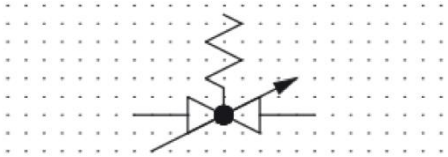
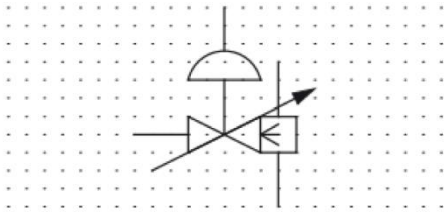
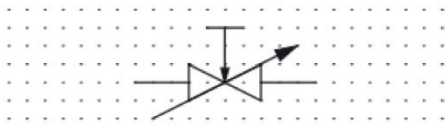
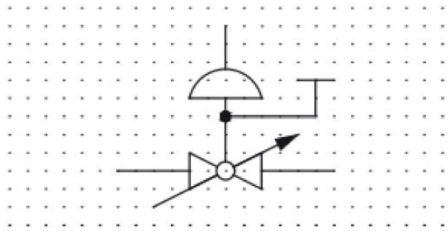
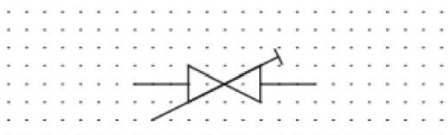
Table 37 — General purpose valves — Symbol examples — Control valves

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
6.1.3.4.1	GSD X6110		Control valve, general GSD 201, GSD 2101
6.1.3.4.2	GSD X2131		Control valve with electric motor GSD 201, GSD 403, GSD 405, GSD 741, GSD 2101, GSD 4150
6.1.3.4.3	GSD X2132		Back pressure control valve, self-operated

© ISO 2025 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 14617-2:2025

Entry No.	Reg. No.	Symbol graphics	Symbol names and references
			GSD 201, GSD 403, GSD 405, GSD 725, GSD 2101
6.1.3.4.4	GSD X2133		Pressure reducing control valve, self-operated GSD 201, GSD 403, GSD 405, GSD 725, GSD 2101
6.1.3.4.5	GSD X2134		Control valve float-operation GSD 201, GSD 403, GSD 405, GSD 715, GSD 2101
6.1.3.4.6	GSD X2135		Spring-load globe type relief valve GSD 201, GSD 403, GSD 405, GSD 2002, GSD 2101, GSD 2121
6.1.3.4.7	GSD X2136		Control valve, diaphragm operated with desuperheater GSD 101, GSD 201, GSD 403, GSD 405, GSD 725, GSD 2037, GSD 2101
6.1.3.4.8	GSD X2137		Control valve, manual operated, needle type GSD 201, GSD 403, GSD 405, GSD 681, GSD 2101, GSD 2125
6.1.3.4.9	GSD X2138		Control valve, diaphragm or manual operated GSD 201, GSD 403, GSD 405, GSD 501, GSD 681, GSD 725, GSD 2101, GSD 2122
6.1.3.4.10	GSD X2141		Restrictor valve GSD 203, GSD 2101

© ISO 2025 – All rights reserved

Full document details: BS ISO 14617-2:2025