



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 786.1-2021

**Fluid power systems and components - Graphical symbols and
circuit diagrams - Part 1: Graphical symbols**

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Foreword

GB/T 786 "Fluid Transmission System and Components Graphic Symbols and Circuit Diagrams" is divided into three parts.

---Part 1. Graphical symbols;

---Part 2. Circuit diagram;

---Part 3. Symbol modules and connection symbols in the circuit diagram.

This part is Part 1 of GB/T 786.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 786.1-2009 "Fluid transmission systems and components graphical symbols and circuit diagrams-Part 1. For general use

Compared with GB/T 786.1-2009, the main technical changes except for editorial changes are as follows.

--- Modified "non-working state" to "initial state" (see 5.4, 5.4 of the 2009 edition);

--- Deleted the "electrically operated pneumatic pilot control mechanism" example (see 6.1.1.14 in the 2009 edition);

--- Modified the two forward arrows in the non-initial function position of the two-position four-way directional control valve to two cross arrows (see 6.1.2.13, 2009

6.1.2.13 of the year version);

--- Modified the two-way arrow in the two-position three-way directional control valve to a one-way arrow, and the direction of the one-way valve was changed

(See 6.1.2.17, 6.1.2.17 of the 2009 edition);

--- Deleted one example of "Proportional directional control valve, direct control" (see 6.1.6.2 of the 2009 edition);

--- Deleted the leaking fuel tank in the control element of the servo valve example (see 6.1.6.4 of the 2009 edition);

--- Modified the stepper motor drive symbol (see 6.1.6.6, 6.1.6.6 of the 2009 edition);

--- The leaking fuel tank with the graphic symbol of the three-way proportional pressure reducing valve has been added (see 6.1.7.5);

--- Modified the two control elements of the proportional relief valve, arranged them separately, and placed the additional pilot stage in the upper right corner of the function position, with electronic

The pilot stage of the magic weapon is placed below the right side of the function position (see 6.1.7.6, 6.1.7.6 in the.2009 version);

---Deleted the import and export extension line of the non-initial function position of the graphic symbol (see 6.1.8.1 and 7.1.8.1 of the.2009 edition);

---Modified the pressure reducing cartridge valve plug-in (spool valve structure, normally closed, with integrated check valve) The dotted line of port A is a solid line (see 6.1.9.11,

6.1.9.11 of the.2009 version);

---Added the X port extension line (dotted line) of the control cover with pilot port (see 6.1.9.14 and 6.1.9.15);

---The dashed line in the shuttle valve is modified as a solid line (see 6.1.9.17, 6.1.9.18 and 6.1.9.19, the.2009 version of 6.1.9.17, 6.1.9.18

And 6.1.9.19);

---The solid line of the reversing valve port is modified as a dashed line (see 6.1.9.24, 6.1.9.25 and 6.1.9.27, the.2009 version of 6.1.9.24,

6.1.9.25 and 6.1.9.27);

---Modified the two-way cartridge valve (with pressure reducing function, low pressure control) in the solid line connection of A and B ports to be disconnected (see 6.1.9.30,.2009

6.1.9.30 of the year version);

---The solid line of the pilot control pipeline of the graphic symbol in the application example is modified as a dashed line (see 7.1.2.19, 7.1.2.20, 7.1.2.22

7.1.2.23, 7.1.3.4, 7.1.2.19, 7.1.2.20, 7.1.2.22, 7.1.2.23, 7.1.3.4 of the.2009 version);

---The dotted line of the pilot control port of the air pressure reset is modified as a dotted line (see 7.1.1.9, 7.1.1.9 of the.2009 edition);

---The solid line of the external pressure source of the air pressure reset is modified as a dashed line (see 7.1.1.10, 7.1.1.10 of the.2009 edition);

---The solid line of the internal control line is modified as a dashed line (see 7.1.2.5, 7.1.2.10 and 7.1.2.11, 7.1.2.5, 7.1.2.10 of the.2009 edition

And 7.1.2.11);

---The example of median function is deleted (see 7.1.2.15 and 7.1.2.21 of the.2009 edition);

---Added a solid hollow triangle sign indicating the source of air pressure at the entrance

and exit (see 7.2.1 and 7.2.2);

--- Deleted the "anti-cavitation relief valve used to protect the two supply pipelines" example (see 7.1.3.5 of the.2009 edition);

--- Added two new application examples (see 7.3.21 and 7.3.22);

---Modified the drawing method of the entry and exit lines of the graphical symbol of the "differential pressure gauge".

7.4.3.5, 7.4.3.5 of the.2009 version);

---Modified the graphical symbol drainage line of "manual drainage separator", and changed the solid line to a dashed line (see 7.4.4.19,.2009 edition

7.4.4.19);

---The angle and size of the arrow indicating the "flow path" in the "indication of flow path and direction" have been added (see 8.3);

---Modified the size of "diaphragm, capsule" from 5M to 2.5M (see 8.4.29, 8.4.29 in the.2009 edition);

--- Added two new basic element symbols (see 8.4.63 and 8.4.64);

---Modified the graphic symbol of "air pressure boost brake mechanism", which indicates that the solid line of the pilot control air source is a dashed line (see 8.5.29,.2009)

Version 8.5.29);

---Added an example of indicating application instructions (see 8.5.30, 8.5.31 and 8.5.32);

---The angle and size of the arrow indicating "adjustable" in the "adjustment element" have been added (see 8.6);

---Added the "Electrical Digital Output Signal" to represent the digital signal

Points. Graphical Symbols for General Purposes and Data Processing Applications.

The Chinese documents that have a consistent correspondence with the international documents cited in this section are as follows.

---GB/T 4457.2-2003 Technical drawing, the basic provisions of the drawing method guideline and datum line (ISO 128-22.1999,

IDT)

---GB/T 4457.4-2002 Mechanical drawing drawing method drawing line (ISO 128-24.1999, MOD)

---GB/T 4458.1-2002 mechanical drawing drawing method view (ISO 128-34.2001, MOD)

---GB/T 4458.6-2002 Mechanical Drawing Drawing Method Sectional View and Sectional