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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA



# GB/T 786.3-2021

## Fluid power systems and components - Graphical symbols and circuit diagrams - Part 3: Symbol modules and connected symbols in circuit diagrams

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## Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1.Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is the third part of GB/T 786 "Fluid Transmission Systems and Components Graphic Symbols and Circuit Diagrams". GB/T 786 has been issued

The following parts are distributed.

---Part 1.Graphical symbols;

---Part 2.Circuit diagram;

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

This document is equivalent to ISO 1219-3.2016 ``Graphic symbols and circuit diagrams of fluid transmission systems and components-Part 3.Circuit diagrams

Symbol modules and connection symbols in ".

The following editorial changes have been made to this document.

---Appendix A~Appendix D are rearranged in the order mentioned in the standard text.

## Introduction

In a fluid transmission system, power is transmitted and controlled through a pressurized fluid (liquid or gas) in a closed circuit. Through normative expressions

The circuit diagram is helpful to understand the design and description of functional modules, and can avoid confusion and confusion during planning, manufacturing, installation and maintenance.

error.

GB/T 786 has unified specifications and requirements for the graphic symbols and circuit diagrams of fluid transmission systems and components from the technical level.

Part of the composition.

---Part 1.Graphical symbols. The purpose is to determine the basic elements of various symbols and fluid transmission components and symbols in the circuit diagram.

Design rules.

---Part 2.Circuit diagram. The purpose is to determine the rules for drawing hydraulic and pneumatic circuit diagrams.

---Part 3.Symbol modules and connection symbols in the circuit diagram. The purpose is to determine the creation and creation of connectable component symbols in the circuit diagram.

The rules for combination and the rules for the creation and combination of symbols corresponding to the modules that constitute the function unit.

Unless other rules are defined in this document, all rules are in accordance with GB/T 786.1.The symbols and arrangement of connectable components in this document

The column relationship has been slightly modified based on the provisions of GB/T 786.2.

Graphical symbols and circuit diagrams of fluid transmission systems and components

Part 3.Symbolic modules and

Connection symbol

## 1 Scope

This document supplements GB/T 786.1 and GB/T 786.2, and specifies the creation and combination of connectable component symbols in circuit diagrams

The rules to reduce the design workload and the number of pipelines in the circuit diagram.

This document specifies the rules for the creation and combination of symbols

corresponding to the modules that constitute functional units, such as oil circuit block assemblies or superimposed valves

Valve group or gas source processing device (FRL device). The rules of this document are not only conducive to the design of circuit diagrams, but also conducive to understanding the use of symbolic models.

The block represents the circuit diagram of the combined component.

This document contains examples of the application of the corresponding rules.

Note. Typical application examples that comply with the rules of this document are given in the appendix. Table 1 summarizes the typical application of the rules of this document in each appendix example.



## 2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

ISO 1219-1 Graphical symbols and circuit diagrams of fluid power systems and components-Part 1.For general use and data processing applications

Graphical symbols used (Fluidpowersystemsandcomponents-Graphicalsymbolsandcircuitdiagrams-

Part 1.Graphicalsymbolsforconventionaluseanddata-processingapplications)

Note. GB/T 786.1-2021 Graphical symbols and circuit diagrams of fluid power transmission systems and components Part 1.Graphical symbols (ISO 1219-1.2012, IDT)

ISO 1219-2 Graphical symbols and circuit diagrams of fluid power systems and components-Part 2.Circuit diagrams (Fluidpowersystems

andcomponents-Graphicalsymbolsandcircuitdiagrams-Part 2.Circuitdiagrams)

Note. GB/T 786.2-2018 Graphical symbols and circuit diagrams of fluid transmission systems and components Part 2.Circuit diagrams (ISO 1219-2.2012, MOD)

ISO 5598 Fluidpower systems and components-Vocabulary (Fluidpowersystemsandcomponents-Vocabulary)

Note. GB/T 17446-2012 Fluid Power System and Components Vocabulary (ISO 5598.2008, IDT)

## 3 Terms and definitions

The following terms and definitions defined in ISO 5598 apply to this document.

3.1

Symbolmodules

Comply with the modules (such as backplane modules) constituted by the symbols, lines, frames and connection points specified by ISO 1219-1 (the symbol modules can be

The same interfaces are connected to each other, see Figure 1).