



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

GB/T 20081.2-2021

**Pneumatic fluid power - Compressed air pressure regulators
and filter-regulators - Part 2: Test methods to determine the
main characteristics to be included in literature from suppliers**

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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 Part 2 of GB/T 20081 "Pneumatic Pressure Reducing Valves and Filter Pressure Reducing Valves". GB/T 20081 has released the following

part.

---Part 1. The main characteristics and product identification requirements that should be included in the business documents;

---Part 2. Test methods for evaluating the main characteristics that should be included in the business documents;

---Part 3. Alternative methods for testing the flow characteristics of the pressure reducing valve.

This document replaces GB/T 20081.2-2006 "Pneumatic Pressure Reducing Valves and Filter Pressure Reducing Valves Part 2. Evaluation Business Documents should include

In addition to editorial changes, the main technical changes are as follows.

- a) Modified the "scope" (see Chapter 1, Chapter 1 of the.2006 edition);
- b) Modified "Normative Reference Documents" (see Chapter 2, Chapter 2 of the.2006 edition);
- c) Modified "Terms and Definitions" (see Chapter 3, Chapter 3 of the.2006 edition);
- d) Modified "Symbols and Units" (see Chapter 4, Chapter 4 of the.2006 edition);
- e) Modified the "test conditions" (see Chapter 5, Chapter 5 of the.2006 edition);
- f) Modified "Test Procedure for Verification of Rated Pressure" (see 6.1 and 6.3, Chapter 6 of the.2006 edition);
- g) Modified "Flow Characteristics Test" (see Chapter 7, Chapter 7 of the.2006 edition);
- h) Modified "Figure 1" (see Figure 1);
- i) Modified "Pressure Regulation Test" (see Chapter 8);
- j) Added "the maximum air consumption of a pilot-operated pressure reducing valve with exhaust function when the forward flow or overflow flow is zero" (see page 9 chapter);
- k) Added "Specific Test Procedures" (see Chapter 10);
- l) Added "Expression of Test Results" (see Chapter 11);
- m) Appendix A has been added.

This document uses the translation method to be equivalent to ISO 6953-2.2015 "Pneumatic Pressure Reducing Valves and Filter Pressure Reducing Valves Part 2.Evaluation of Business

Test methods for the main characteristics that should be included in the document".

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

---GB/T 786.1-2021 Graphical symbols and circuit diagrams of fluid transmission systems and components-Part 1.Graphical symbols

(ISO 1219-1.2012, IDT);

---GB/T 3141-1994 ISO viscosity classification of industrial liquid lubricants (idtISO 3448.1992);

---GB/T 14513.1-2017 Determination of flow characteristics of compressible fluid components used in pneumatics Part 1.Steady-state flow

General rules and test methods (ISO 6358-1.2013, IDT);

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

---GB/T 39956.1-2021 Pneumatic electro-pneumatic pressure control valve Part 1.Main characteristics that should be included in commercial documents (ISO 10094-1.2010, IDT);

---GB/T 39956.2-2021 Pneumatic electro-pneumatic pressure control valve Part 2.Evaluation of the main characteristics that should be included in the business document The test method (ISO 10094-2.2010, IDT).

Introduction

In a pneumatic system, power is transmitted and controlled by compressed air in a closed loop. Need to reduce or adjust the pressure in the circuit,

Various pressure reducing valves and filter pressure reducing valves are components designed to maintain stable air pressure. Therefore, some characteristics of these components need to be understood

To determine the suitability of their application. GB/T 20081 consists of three parts.

---Part 1.The main characteristics and product identification requirements that should be included in the business documents. The purpose is to stipulate that the business documents should include

The main characteristics and product identification requirements of the included pressure reducing valve and filter pressure reducing valve.

---Part 2.Test methods to assess the main characteristics that should be included in the business documents. The purpose is to stipulate according to GB/T 20081.1

The main characteristics of the pneumatic pressure reducing valve and filter pressure reducing valve should be included in the business documents to be tested, the test items, test procedures and

The presentation method of test results.

---Part 3.Alternative methods for testing the flow characteristics of the pressure reducing valve. The purpose is to specify optional tests for testing the flow characteristics of pneumatic components.

Pneumatic pressure reducing valve and filter pressure reducing valve

Part 2.Assess what should be included in the business document

Test methods for main characteristics

1 Scope

This document stipulates that the main characteristics of GB/T 20081.1 pneumatic pressure reducing valve and filter pressure reducing valve shall be included in the commercial documents to be tested.

The test items, test procedures and the presentation method of test results.

The purpose of this document is.

---Standardize the test procedures and test results presentation method, so as to simplify the performance comparison between different pressure reducing valves and filter pressure reducing valves

Simple and clear;

---Contribute to the reasonable application of pressure reducing valves and filter pressure reducing valves in pneumatic systems.

The test items specified in this document are for comparison between different pneumatic pressure reducing valves and filter pressure reducing valves, not for each piece of manufacturing

Both the pneumatic pressure reducing valve and the filtering pressure reducing valve have been inspected for production.

Note 1.The electrical-pneumatic pressure control valve related tests are specified in ISO 10094-2.

Note 2.Another dynamic test method for testing the flow rate is specified in ISO 6953-3.This method uses isothermal gas tanks instead of flow meters. This method is only applicable to normal

To test the decreasing part of the hysteresis curve of the flow and overflow flow characteristics.

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.

GB/T 20081.1-2021 Pneumatic pressure reducing valve and filter pressure reducing valve