



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

GB/T 39956.1-2021

**Pneumatic Electric-Pneumatic Pressure Control Valve - Part 1:
Main Features to be Included in Commercial Documents**

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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 1 of GB/T 39956 "Pneumatic Electric-Pneumatic Pressure Control Valve". GB/T 39956 has released the following parts.

---Part 1. The main characteristics that should be included in the business document;

---Part 2. Test methods to assess the main characteristics that should be included in the business documents.

The translation method used in this document is equivalent to ISO 10094-1.2010 "Pneumatic Electric-Pneumatic Pressure Control Valve Part 1. Commercial Documents"

The main features that should be included.

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

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

---GB/T 20081.1-2006 Pneumatic pressure reducing valve and filter pressure reducing valve Part 1. Main characteristics that should be included in business documents

And product identification requirements (ISO 6953-1.2000, IDT)

This document has made the following editorial changes.

---Corrected a few editorial errors in ISO 10094-1.2010, and changed the "deltaw" in 5.3.1.5

to "S"; the V list in Figure 7

The bit "kPa" is changed to "dm3".

Introduction

In a pneumatic system, power is transmitted and controlled by compressed air in the loop. When it needs to be precise according to the variable pressure setting

When adjusting the pressure accurately, an electro-pneumatic pressure control valve can be used. These control valves can continuously adjust the air supply pressure of the system in response to the

Continue the input electrical signal, and the input electrical signal value is proportional to the pressure value. Therefore, it is necessary to understand the characteristics of these electric-pneumatic pressure control valves.

Performance characteristics to determine its applicability.

GB/T 39956 consists of two parts.

---Part 1. The main features that should be included in the business documents. The purpose is to specify the electrical-pneumatic pressure control that should be included in business documents.

The main characteristics of the control valve.

---Part 2. Test methods to assess the main characteristics that should be included in the business documents. The purpose is to stipulate in accordance with GB/T 39956.1

The test method and parameter expression of the main characteristics of the electric-pneumatic pressure control valve required in the evaluation business document the way.

Pneumatic electro-pneumatic pressure control valve

Part 1. Main features that should be included in business documents

1 Scope

This document specifies the main characteristics of electro-pneumatic pressure control valves that should be included in commercial documents.

According to ISO 5598, the control valve includes.

---Electrically modulated pneumatic proportional pressure valve;

---Pressure proportional control valve;

---Pressure servo valve (closed loop).

Note 1.The characteristics of non-electrically modulated pneumatic pressure control valves are specified in ISO 6953-1.

Note 2.The characteristics of electric-pneumatic flow control valves are specified in ISO 10041-1.

Note 3.This document applies to components with a vent to the atmosphere.

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 39956.2-2021 Pneumatic electro-pneumatic pressure control valve Part 2.Evaluation of the main characteristics that should be included in the business document

Test method (ISO 10094-2.2010, IDT)

ISO 5598 Fluid power systems and components-Vocabulary
(Fluidpowersystemsandcomponents-Vocabulary)

ISO 6953-1 Pneumatic pressure reducing valve and filter pressure reducing valve Part 1.Main characteristics and product identification to be included in commercial documents

Requirements

(Pneumaticfluidpower-Compressedairpressureregulatorsandfilter-regulators-Part 1.Main characteristicstobeincludedinliteraturefromsuppliersandproduct-markingrequirements)

3 Terms and definitions

The following terms and definitions defined by ISO 5598 and ISO 6953-1 apply to this document.

3.1

Electro-pneumaticcontinuouspressurecontrolvalve

Continuously adjust the air source pressure of the system according to the input electrical signal, and make the output pressure value proportional to the input electrical signal

Control valve.

3.2

Inlet pressure

The pressure at the inlet of the component, piping or system.

3.3

Electrical control signal

The setting signal applied to the control mechanism.

3.4

Electrical signal-pressure characteristic curve control signal/pressure characteristic curve

Under a constant inlet pressure, the forward flow or overflow flow is zero, reflecting the curve of the relationship between the adjustment pressure and the electrical signal.