

ICS 23.060.40; 25.040.40
CCS N 16



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

GB/T 17213.1-2015

Replacing GB/T 17213.1-1998

**Industrial-process control valves -- Part 1: Control valve
terminology and general considerations**

工业过程控制阀 第1部分：控制阀术语和总则

(English Translation)

Issued on: December 10, 2015

Implemented on: July 1, 2016

Issued by: Standardization Administration of China

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Foreword

GB/T 17213 "Industrial process control valves" is divided into the following sections.

- Part 1. Control valve terminology and general provisions (GB/T 17213.1);
- Part 2-1. Flow capacity installed computing equations for fluid flow under conditions (GB/T 17213.2);
- Part 2-3. Flow capacity - Test procedures (GB/T 17213.9);
- Part 2-4. Flow capacity - Inherent flow characteristics and rangeability (GB/T 17213.10);
- Part 2-5. Flow capacity between the fluid flowing through the recovery stage formula multi-level control valve (GB/T 17213.17);
- Part 3-1. Dimensions two straight ball through the control valve from the flange face and two-way ball valve angle control center of the flange to the flange End face of the spacing (GB/T 17213.3);
- Part 3-2. Dimensions rotary control valve end face (except butterfly) distance (GB/T 17213.11);
- Part 3-3. Dimensions butt-type two-pass straight ball valve from the control terminal (GB/T 17213.12);
- Part 4. Inspection and routine testing (GB/T 17213.4);
- Part 5. Flag (GB/T 17213.5);
- Part 6-1. positioners and control valve actuator connected to the installation details of the positioner mounted on linear actuators of (GB/T 17213.6);
- Part 6-2. positioners and control valve actuator connected to the installation details of the positioner mounted on rotary actuators (GB/T 17213.13);
- Part 7. Control valve data sheets (GB/T 17213.7);
- Part 8-1. Noise considerations - Laboratory measurement within the aerodynamic flow

through control valve noise generated (GB/T 17213.8);

--- Part 8-2. Noise considerations - Laboratory measurement within the hydrodynamic flow through control valve noise generated (GB/T 17213.14);

--- Part 8-3. Noise prediction method (GB/T 17213.15) aerodynamic flow through control valve generated noise considerations;

--- Part 8-4. Noise considerations hydrodynamic flow through control valve generated noise prediction method (GB/T 17213.16);

--- Part 9. Test procedure step input response measurement (GB/T 17213.18).

This section GB/T 17213 Part 1.

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

This Part replaces GB/T 17213.1-1998 "Industrial process control valves - Part 1. Control valve terminology and general principles." versus GB/T 17213.1-1998 compared to the main technical changes are as follows.

--- 3.1.1 deletes from the original standard definition of the control valve straight trip (see GB/T 17213.1-1998 3.1.1);

--- The term "ball valve" to "spherical (angle) valve" and modify the definition (see 3.1.1.3, GB/T 17213.1-1998 the 3.1.1.3);

--- Deleted the definition of the original standard 3.1.2 rotary control valves (see GB/T 17213.1-1998 3.1.2);

--- Modify the term "ball" is defined, the original standard "spherical segments valve" as a new term "cut the ball valve" (see 3.1.2.1, 3.1.2.2, GB/T 17213.1-1998 of 3.1.2.1);

--- Modify the term "butterfly" is defined (see 3.1.2.3, GB/T 17213.1-1998 of 3.1.2.2);

--- Modify the term "plug" is defined, the original standard "closure member for the eccentric portion of the ball valve" as a new term "Eccentric plug" (see 3.1.2.4, 3.1.2.5, GB/T 17213.1-1998 of 3.1.2.3);

--- Modify the term "bonnet" is defined (see 3.2.2, GB/T 17213.1-1998 3.2.2);

--- Modify the definition of the term "trim" (see 3.2.4, GB/T 17213.1-1998 3.2.4);

--- Modify the definition of the term "holder" (see 3.3.2, GB/T 17213.1-1998 3.3.2);

--- Modify the term "nominal diameter" (see 4.1, GB/T 17213.1-1998 of 3.2.1.1);

--- Increasing the term "nominal pipe diameter" (see 4.3);

--- Increasing the term "rank" (see 4.4);

--- Modify the term "over-travel" (see 4.5.5, GB/T 17213.1-1998 4.1.5);

- Delete the contents on A_v flow coefficient (see 4.6, GB/T 17213.1-1998 4.2);
- Remove the "basic equation to determine the flow coefficient" (see GB/T 17213.1-1998 4.2.1);
- Remove the "flow coefficient A_v " method of seeking (see GB/T 17213.1-1998 4.2.2);
- Added "valve nominal diameter and nominal pipe diameter identical" requirement (see 4.6.1, GB/T 17213.1-1998 4.2.3);
- Increasing the terms "mounted Flow Characteristics" (see 4.10);
- Increasing the terms "mounted, adjustable ratio" (see 4.12);
- Modify the term "critical pressure ratio" (see 4.14, GB/T 17213.1-1998 4.8);
- Deleted the original standard Chapter 5, "Design requirements" (see GB/T 17213.1-1998 Chapter 5).

This section uses the translation method is equivalent to using IEC 60534-1:2005 "Industrial process control valves - Part 1. Control valve terminology and general principles." Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 17213 (all parts) industrial process control valves [IEC 60534 (all parts)] this part is proposed by China Machinery Industry Federation.

This part of the country's industrial process control and automation Standardization Technical Committee (SAC/TC124) centralized measurement.

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1 Scope

GB/T 17213 in this section gives some of the basic terminology and the use of GB/T 17213 other portions of the guide.

This section applies to all types of industrial process control valve (hereinafter referred to as the control valve).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

IEC 60534 (all parts) industrial process control valves (Industrial-processcontrolvalves)

3 Component Terminology

Control valve Process control system operated by the power adjusting means of the fluid flow. It consists of actuator and valve. Implementing agencies in accordance with control the system sends a signal system, changing the position of the valve closure member.

3.1.1

Straight stroke control valve controlvalvewithalinearmotionclosuremember 3.1.1.1

Diaphragm diaphragmvalve A flexible closure member and the fluid actuator isolation, and the atmosphere valve for sealing purposes.

3.1.1.2

Valve gatevalve

Closure member along the linear motion of the valve seat surface of the valve plate.

3.1.1.3

Spherical (angle) valve globe (angle) valve Direction of movement of the closure member is perpendicular to the plane of the valve seat.

3.1.2

Rotary control valves controlvalvewitharotarymotionclosuremember 3.1.2.1 Ball balvalve

Closure member for the ball in the middle of the channel with a valve. Axis spherical Globe valve shaft coincide.

3.1.2.2

Truncated sphere ball segmentedbalvalve Closure member is part of the ball valve. Axis spherical Globe valve shaft coincide.