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

GB/T 17213.8-2015

**Industrial-process control valves -- Part 8-1: Noise
considerations -- Laboratory measurement of noise generated
by aerodynamic flow through control valves**

工业过程控制阀 第8-1部分：噪声的考虑 实验室内测量空气动力流流经控制阀产生的噪声

(English Translation)

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1 Scope

This Part of GB/T 17213 defines equipment, methods, and procedures for obtaining laboratory measurements of sound pressure levels radiated by control valves and/or associated piping configurations, including fixed restrictions, through which compressible fluids are passing.

Control valves discharging to atmosphere are excluded from this Part.

Method A is a uniform method of measuring the radiated noise from the valve and associated test piping and allows a comparison of various measuring results which is beneficial for both user and manufacturer. The noise criteria are expressed by determining the sound pressure level of the valve under consideration.

Method B is a procedure for measuring the sound pressure levels within pipe systems upstream and downstream of the valve under fixed operating conditions. Since inaccuracies due to the pipe transmission are eliminated, this method is preferred for evaluation of the acoustical characteristic of valves.

The noise characteristics to be determined are useful for the following reasons.

- a) to compare the performance of different valves;
- b) to plan measures for noise abatement;
- c) to determine acoustical characteristics of valves and valve assemblies;
- d) to enable proper sizing of sound absorbers;
- e) to determine possible adverse effects on ultra-sonic flow meter measurements.

2 Normative references

The following referenced documents are indispensable for the application of this

15) Piping geometry factor, Fp 1

16) Any deviation from this standard

NOTE: Volumetric flow rates in m³/h refer to normal conditions, which are 0 °C and 101.325 kPa (1.01325 bar), or standard conditions, which are 15.6 °C and 101.325 kPa (1.01325 bar).

6.2.8 Accuracy

The overall accuracy of this method is limited to ± 3 dB.

6.3 Data evaluation

The data shall be evaluated in accordance with IEC 60534-8-3.