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

GB/T 22542.1-2008

**Instrument for dam monitoring - Pendulum coordinometer - Part
1: Step motor type pendulum coordinometer**

大坝监测仪器 垂线坐标仪 第1部分：步进电机式垂线坐标仪

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Foreword

GB/T 22542 "Instrument for dam monitoring instrument vertical coordinate" is divided into six parts.

- Part 1. vertical coordinates of the stepping motor type instrument;
- Part 2. capacitive vertical coordinate instrument;
- Part 3. Electromagnetic vertical coordinates of the instrument;
- Part 4. Inductive vertical coordinates of the instrument;
- Part 5. photoelectric vertical coordinate instrument;
- Part 6. Optical Instrument vertical coordinate. This is Part 1 GB/T 22542 of. This part of the People's Republic of China Ministry of Water Resources and focal points. This part mainly drafted by: MWR hydrological instruments and geotechnical engineering Instrument Quality Supervision and Testing Center, Nanjing Auto Hydrological The Institute. Participated in the drafting of this section. the country's industrial production permit office hydrological instruments and geotechnical engineering Instrument Examination Department. The main drafters of this section. Chang Yu-cheng, Xu Guolong. The drafters of some of the participants. Shi Minghua. Instrument for dam monitoring instrument vertical coordinate Part 1. stepping motor type meter vertical coordinate

1 Scope

GB/T 22542.1-2008 is the Chinese national standard on instrument for dam monitoring - pendulum coordinometer - part 1: step motor type pendulum coordinometer, in the field of natural and applied sciences. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 21 November 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2009. Classification: ICS 07.060, CCS N93. This page is

published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This section GB/T 22542 specifies the vertical coordinates of the stepping motor type instrument of terms and definitions, product composition and specifications, technical requirements, Test methods, inspection rules and signs, instructions, packaging, transportation, storage and so on. This section applies to water conservancy and hydropower engineering and other external deformation monitoring of the stepping motor type meter vertical coordinate.

2 Normative references

The following documents contain provisions which, through reference

GB/T 22542 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 5080.7 Equipment reliability testing efficiency constant failure rate assumption under the MTBF verification tests Program

GB 9969.1 Instructions General Industrial Products

GB/T 50279 Standard for fundamental terms of geotechnical engineering

3 Terms and Definitions

GB/T 50279 and established the following terms and definitions apply to this part of the GB/T 22542 of.

3.1 Vertical line coordinate measuring body position changes in the X, Y-axis direction, perpendicular to convert it to line displacement and power output of the instrument.

3.2 Stepping motor driver photoelectric sensor in a straight line, by transmission and scanning probe body perpendicular lines, perpendicular lines measuring body X, Y-axis direction of the position change, to convert it to the vertical displacement of the line and the digital output of the instrument.

4 Product composition and specification

4.1 Product Composition Stepping motor type meter vertical coordinate (hereinafter referred to as step-vertical meter) consists of two parts, transmission and measurement

organization, whose structure is shown in Figure 1. among them.

a) transmission mechanism. including base, screw, lead screw and stepper motors;

b) measuring mechanism. mainly includes a base, a probe, reference rod and cable sockets; the probe is mainly photocell.

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