

ICS 07.060

CCS N93



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

**GB/T 13606-2007**

Replacing GB/T 13606-1992

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**Instrument for geotechnical engineering - General  
specifications of vibrating wire sensor**

土工试验仪器 岩土工程仪器 振弦式传感器通用技术条件

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Quarantine of the People's Republic of China;  
Standardization Administration of China**

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### Foreword

This standard is GB/T 13606-1992 "geotechnical engineering steel wire pressure sensor" be revised. This standard and GB/T 13606-1992 compared to major differences are.

--- According to a recent geotechnical engineering instrument sensor technology level, production technology, device applications continue to mature and develop, the original Name of the standard, the subject matter has been properly adjusted and expanded;

--- In Chapter 4, product category, an increase of about vibrating wire displacement sensors, vibrating wire force sensors and other products specific classification;

--- In Chapter 6 and 7 chapters, an increase of about vibrating wire sensors and mechanical requirements of the environmental sensitivity tests;

--- In Chapter 6 and 7 chapters, increasing the reliability requirements for vibrating wire sensors and tests;

--- Added Appendix A, supplementary provisions regarding the calculation formula. Appendix A of this standard is a normative appendix. This standard is proposed and administered by the People's Republic of China Ministry of Water Resources. This standard is mainly drafted by: MWR hydrological instruments and geotechnical engineering Instrument Quality Supervision, Inspection and Testing Center, Nanjing Hydraulic Research Institute, State Grid Nanjing Automation Research Institute, the National Electric Power Automation Equipment Factory Nanjing Changjiang Survey, Planning, Design and Research Institute, Ministry of Water Resources Nanjing Hydraulic Hydrological Institute of Automation. Participated in the drafting of this standard. Geokon instrument (Beijing) Co., Ltd., Nanjing Ge-Nan Industrial Co., Ltd., Changzhou civil engineering equipment have Limited, the country's industrial production permit office hydrological instruments and geotechnical engineering Instrument Examination Department. The main drafters of this standard. Li Zechong, Zhao Yue, a new chapter, Luyou Qing, Yang Dinghua, Shi Minghua Lu Xu. Participate drafters of this standard. Shen Shozo, Xu Gang, Yu Yang, Yuanpu Sheng. This standard replaces the standards previously issued as follows:

--- GB/T 13606-1992. Soil test equipment geotechnical engineering Instrument Vibrating wire sensors General technical requirements

## 1 Scope

GB/T 13606-2007 is the Chinese national standard on instrument for geotechnical engineering - general specifications of vibrating wire sensor, 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 11 June 2007 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 September 2007. 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 standard specifies the terms and definitions used in geotechnical engineering vibrating wire sensors, classification and general technical requirements, test methods, inspection rules And signs, instructions, packaging, transportation, storage and so on. This standard applies to all kinds of geotechnical engineering with vibrating wire sensors.

## 2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 191 Packaging - Pictorial signs (eqv ISO 780.1997)

GB/T 321-2005 priority number and priority number system (idt ISO 3. 1973)

GB/T 5080.7-1986 Equipment reliability testing efficiency constant failure rate assumption under the MTBF of the verification test Inspection program (idt IEC 60605-7. 1978)

GB/T 6388 transport package shipping mark

GB/T 7665-2005 sensor generic term

GB 9969.1 Instructions General Industrial Products

GB/T 15406-2007 geotechnical engineering instrument basic parameters and general technical conditions

GB/T 15464 instrumentation packaging technology

GB/T 50279 Standard for fundamental terms of geotechnical engineering

### 3 Terms and definitions

GB/T 50279, GB/T 7665-2005 and established the following terms and definitions apply to this standard.

3.1 Use natural frequency vibrating wire sensing a change in the parameters of the sensor.

3.2 Vibrating wire sensor is used as a reference and the straight line or curve alignment.

3.3 Vibrating wire sensors positive stroke curve connecting points on the arithmetic mean of each calibration point a set of measured values.

3.4 Each point on the calibration curve connecting points of the arithmetic mean of a set of measurements of vibrating wire sensors anti-stroke.

3.5 Positive connection curve stroke and anti-stroke point arithmetic mean average of vibrating wire sensors of each calibration point, also known as the actual characteristic (curve).