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

GB/T 3410-1994

Replacing GB/T 3410-1994

**Instrument for dam monitoring -- Joint meter -- Part 1:
Unbonded elastic wire resistance joint meter
(English Translation)**

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Table of Contents

Introduction

1 Scope

2 Normative references

3 Terms, definitions, symbols and units

4 Product structure, the main parameters

5 Technical requirements

6 Test Method

7 7 inspection rules

8 Marking and instructions

9 Packaging, transportation and storage

Appendix A (normative) parameter differential resistance joint meter to measure the temperature of

A. 1 differential resistance joint meter (hereinafter referred to as sensors) calibration curve between the resistance and temperature

A. 2 calibration curve fitting polyline

A. 3 differential resistance joint meter temperature calculation

Foreword

GB/T 3410 "joint meter dam monitoring instrument" is divided into five parts.

--- Part 1. Differential resistance joint meter;

--- Part 2. Vibrating wire joint meter;

--- Part 3. capacitive joint meter;

--- Part 4. potentiometer type joint meter;

--- Part 5. differential transformer joint meter.

This section GB/T 3410 Part 1, is GB/T 3410-1994 "differential resistance joint meter" amendments. versus GB/T 3410-1994 compared to the main changes are as follows.

--- Increase in the foreword, the terms, definitions, symbols and units, reliability requirements and other relevant content;

--- Revised the scope of application;

--- Revised the "insulation resistance", "stability requirements", "resistance to transport

chatter performance" and so on;

--- In the "main argument", the addition of new specifications, dimensions and measuring range;

--- Removed in GB/T 3410-1994 longitudinal stiffness K, shear capacity, deformation over the range limit;

--- In the "test", modify the "reference test conditions," "normal test atmospheric conditions" and other environmental test conditions defined content;

--- On the "inspection rules", the "factory inspection" and "type test" under the relevant eligibility determination content has been adjusted;

--- Modify and supplement the "logo", "Manual", "Packaging", "transport" and "storage" and other related content.

This part of GB/T 15406 "geotechnical engineering instrument basic parameters and general technical conditions" and other standards coordinated the technical content Consistent.

This section of Appendix A normative appendix.

This section proposed by the People's Republic of China Ministry of Water Resources.

This part of the jurisdiction of the People's Republic of China Ministry of Water Resources.

This part mainly drafted by. MWR hydrological instruments and geotechnical engineering Instrument Quality Supervision and Testing Center, the State Power Company Nanjing Electric Power Automation Equipment Factory, Nanjing Automation Research Institute of State Grid, Hydrology and Water Nanjing Hydraulic Research Institute of Automation.

Participated in the drafting of this section. the country's industrial production permit office hydrological instruments and geotechnical engineering Instrument Examination Department.

1 Scope

GB/T 3410 provisions of this part of the differential resistance joint meter product mix, specifications and main parameters, technical requirements, test side Method, inspection rules, marking and instructions for use, as well as packaging, transportation, storage and so on.

Differential resistance measurement This section applies to embedded monitoring structure displacement or expansion joints in the open in various geotechnical engineering degree (deformation) Joint meter.

2 Normative references

The following documents contain provisions which, through reference to GB/T 3410 to the present, 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 191 Packaging - Pictorial signs GB/T 5080.7 Equipment reliability testing efficiency constant failure rate assumption under the MTBF of test plans GB/T 6388 transport package shipping mark GB 9969.1 Instructions General Industrial Products GB/T 15406 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, definitions, symbols and units

GB/T 50279 and established the following terms, definitions, symbols and units applicable to GB/T 3410 of this part.

Long-term measurement of structure displacement or degree of opening of the expansion joints (Deformation) sensors.

In a pair of differential changes in the wire joint meter measuring deformation as the sensing element.

Sensitive elements of the two differential change in wire resistance values R_1 and R_2 ratio.

$$Z = R_1 R_2$$

Differential resistance joint meter resistance ratio measured value when compared with the resistance change amount corresponding to the amount of input is zero.