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

GB/T 27992.3-2016

**Instruments for water-depth measurement -- Part 3: Echo
sounder**

水深测量仪器 第3部分：超声波测深仪

(English Translation)

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Foreword

GB/T 27992 "water depth measuring instrument" is divided into four parts.

- Part 1. Hydrological measuring rods;
- Part 2. sounding hammers;
- Part 3. Ultrasonic depth sounder;
- Part 4. Pressure sounder.

This part is part 3 of GB/T 27992.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part is made by the Ministry of Water Resources of the People's Republic of China.

This section is under the jurisdiction of the National Committee for the Standardization of Hydrological Instruments (SAC/TC199/SC1).

This part of the drafting unit. Ministry of Water Resources hydrological equipment and geotechnical equipment quality supervision and inspection test center, the Ministry of Water Resources Nanjing Water Resources Hydrology Institute of Hydraulics, Hohai University, Nanjing Yangtze Water Conservancy Automation Technology Development Corporation, Guangzhou City in the surveying and mapping equipment Limited.

1 Scope

This part of GB/T 27992 specifies the classification and composition of the ultrasonic sounder, requirements, test conditions and methods, inspection rules, Logo and instructions and packaging, transportation and storage.

This part applies to the measurement of rivers, lakes, reservoirs, channels, marine water depth of the single-frequency or dual-frequency ultrasonic depth sounder.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB 4208 enclosure protection class (IP code) Acoustics - Evaluation of acoustic underwater acoustic transducer GB/T Marine echo sounding equipment GB/T GB/T 9359 Basic environmental test conditions and methods for hydrological instruments General rules for the use of industrial products GB/T 9969 Technical requirements for reliability of hydrological instruments GB/T 18185 Safety requirements for hydrological instruments GB 18523 Glossary of terms and symbols for hydrological instruments GB/T Hydrological Instrument Signals and Interfaces

3 Terms and definitions

The following definitions and definitions as defined in GB/T 19677 apply to this document.

Ultrasonic depth sounder echosounder Echo sounder the use of ultrasonic waves in the water propagation characteristics and reflection characteristics to measure the depth of the instrument.

4.1 Product classification

Ultrasonic depth sounder according to the use of different occasions, can be divided into cable-type ultrasonic sounder, ship-based ultrasonic sounder, handheld ultrasound Wave depth sounder; according to the use of different frequencies, can be divided into single-frequency sounder and dual-frequency depth sounder.

4.2 Product composition

Ultrasonic depth sounder mainly by the ultrasonic transducer, ultrasonic transceiver control and data processing devices, communication cables and power supply and other components, through