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

GB/T 11826-2019

Replacing GB/T 11826-2002

Rotating-element current-meters

转子式流速仪

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 11826-2002 "Rotor-type flow meter", compared with GB/T 11826-2002, the main technical content changes as follows:

--- Added "terms and definitions" to the terms and definitions (see Chapter 3, Chapter 3 of the.2002 edition);

--- Modified the "working attitude" and "water flow rate relationship" of the rotor flow meter to "working principle" (see 4.1,.2002 edition) 4.1, 4.3);

--- Revised the calculation ratio between the speed of the flow meter and the lower limit of the speed range (see 6.3.1, 6.3.2,

6.3 of the.2002 version, 6.2);

--- Revised the "relative error of each speed grade" (see 6.3.5,

6.5.2 of the.2002 edition);

--- Added requirements for flow meters for laboratory hydraulic physical model measurements;

--- According to the actual application of the rotor flow meter product, the use and maintenance aspects have been added. This standard is proposed and managed by the Ministry of Water Resources of the People's Republic of China. This standard was drafted. Hydrological Instruments and Geotechnical Instruments Quality Supervision, Inspection and Testing Center of the Ministry of Water Resources, Nanjing Water Conservancy and Hydrology Institute of Dynamic Research, Jiangsu Nanshui Technology Co., Ltd., Chongqing Huazheng Hydrological Instrument Co., Ltd. The main drafters of this standard. He Shengrong, Zhou Dongsheng, Jin Fuyi, Jin Jie, Yu Ximing, Li Jinjian, Hu Jianwei, Zhang Zehong, Wang Xiangming. The previous versions of the standards replaced by this standard are.

---GB/T 11826-1989, GB/T 11826-2002;

---GB/T 11827-1989. Rotor type flow meter

1 Scope

GB/T 11826-2019 is the Chinese national standard on rotating-element current-meters, 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 4 June 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 January 2020. 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 structural composition, technical requirements, verification/calibration, use and maintenance, test methods, inspection rules, and Logo and instructions for use, packaging, transportation, storage, etc. This standard applies to rivers, lakes, reservoirs, channels, pipelines, hydraulic laboratories and other flow rate test rotor flow meter (hereinafter referred to as "Flow meter").

2 Normative references

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

GB/T 9359 basic environmental test conditions and methods for hydrological instruments
General technical conditions for

GB/T 13384 mechanical and electrical product packaging

GB/T 18522.6 General rules for hydrological instruments - Part 6. Rules for inspection and marking, packaging, transport, storage, instructions for use

GB/T 19677-2005 Hydrological instrument terminology and symbols

GB/T 21699 Rotary flow meter calibration/calibration method in straight line open slot

GB/T 27992.1 Water depth measuring instrument - Part 1. Hydrographic measuring rod

GB/T 50095-2014 Hydrological basic terms and symbol standards SH/T 0138-1994 No. 10 instrument oil SL06 hydrographic test lead fish General technical requirements for SL/T 244 hydrological cableway electromechanical equipment and test instruments

3 Terms and definitions

The following terms and definitions as defined in GB/T 19677-2005 and GB/T 50095-2014 apply to this document.

3.1 Cup-type current-meters A rotary flow cup is used as a flow meter for the rotor. [GB/T 19677-2005, definition 3.4.11.2.1]

Note. The rotating cup is evenly mounted on the circumference of the rotary disc to form a rotating cup part. When placed in the water stream, the cup component rotates. Usually install this turn with a vertical axis child. Therefore, it can also be called a vertical axis flow meter.

3.2 Propeller-type current-meters A flow meter with a propeller as the rotor. [GB/T 19677-2005, definition 3.4.11.2.1]

Note. Blades with several plane angles are evenly mounted on a wheel housing, or two or more helical blades surround the column. Rotary paddle. When placed in a stream of water, the propeller can rotate about a horizontal axis. Therefore, it can also be called a horizontal axis flow meter.