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

LS/T 1810-2017

**Grain and oil storage. Monitoring and control system of
stored-grain condition technical requirements for slave
computer**

(English Translation)

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Table of Contents

Foreword	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 Model preparation	
4.1 Compilation principles	
4.2 Classification	
5 Technical requirements	
5.1 General requirements	
5.2 Operating environment	
5.3 Power supply	
5.4 Hardware Interface	
5.5 System signal transmission	
5.6 Basic functions	
5.7 Main technical indicators	
5.8 Power fluctuation adaptability	
5.9 Reliability	
5.10 Working stability	
5.11 Shell protection performance	
5.12 Electrical Safety	
5.13 Anti-interference performance	
5.14 Environmental adaptability	
5.15 Structure	
5.16 Appearance	
5.17 Transportation	
6 Test methods	
6.1 Environmental test	
6.2 Basic function test	
6.3 Main technical indicators test	
6.4 Power fluctuation adaptability test	
6.5 Reliability test	
6.6 Working stability test	

- 6.7 Shell protection performance test
- 6.8 Electrical safety test
- 6.9 Anti-interference test
- 6.10 High temperature operation, high temperature storage test
- 6.11 Low temperature operation, low temperature storage test
- 6.12 Damp heat test
- 6.13 Vibration test
- 6.14 Impact test
- 6.15 Structural inspection
- 6.16 Visual inspection
- 6.17 Transportation test
- 7 Inspection rules
 - 7.1 Inspection classification
 - 7.2 Factory inspection
 - 7.3 Type inspection
- 8 Marking, packaging, transportation and storage
 - 8.1 Mark
 - 8.2 Packaging
 - 8.3 Transportation
 - 8.4 Storage

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was proposed by the National Grain Administration.

This standard is under the jurisdiction of the National Grain and Oil Standardization Technical Committee (SAC/TC270).

1 Scope

This standard specifies the terms and definitions, model preparation, technical requirements, test methods, inspection rules, and signs and packages of the grain condition monitoring and control extension.

Technical requirements for loading, transportation and storage.

This standard applies to grain control and control extensions used in grain and oil storage.

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 191 packaging storage and transportation icon GB/T 2423.1 Environmental testing of electrical and electronic products - Part 2. Test methods Test A. Low temperature GB/T 2423.2 Environmental testing of electric and electronic products - Part 2. Test method Test B. High temperature GB/T 2423.3 Environmental testing of electric and electronic products - Part 2. Test method test Cab. constant damp heat test GB/T 2423.5 Environmental testing of electric and electronic products - Part 2. Test methods Test Ea and guide. Impact GB/T 2423.10 Environmental testing of electric and electronic products - Part 2. Test method test Fc. Vibration (sinusoidal) GB/T 2829-2002 Periodic inspection count sampling procedures and tables (applicable to the inspection of process stability) GB/T 3482 electronic equipment lightning test method GB 4208 enclosure protection grade (IP code) GB 4793.1 Safety requirements for electrical equipment for measurement, control and laboratory - Part 1. General requirements GB/T 4798.1 Environmental conditions for application of electric and electronic products - Part 1. Storage GB/T 4798.2 Environmental conditions for the application of electric and electronic products - Part 2. Transport GB/T 5080.1-2012 Reliability test Part 1. Test conditions and statistical test principle GB/T 5080.7 Equipment reliability test Verification efficiency test plan for failure rate and mean time between failures under the assumption of constant failure rate GB/T 6587-2012 General specification for electronic measuring instruments GB/T 10111 Generation of Random Numbers and Its Application in Product Quality Sampling Inspection GB/T 11463 Electronic Measuring Instrument Reliability Test GB/T 17626.2 Electromagnetic compatibility test and measurement technology Electrostatic discharge immunity test GB/T 17626.3 Electromagnetic compatibility test and measurement technology RF electromagnetic field radiation immunity test GB/T 17626.4 Electromagnetic compatibility test and measurement technology Electrical fast transient burst immunity test GB/T 17626.5 Electromagnetic compatibility test and measurement technology Surge (impact) immunity test LS/T 1809-2017 General technical requirements for grain and oil storage grain control LS/T 1812 grain and oil storage grain condition control information exchange interface protocol technical requirements

3 Terms and definitions

The following terms and definitions apply to this document.

Intermediate equipment Brancher Splitter the electronic device connected between the extension and the sensor and the actuator is used to implement functions such as signal

conversion, processing, and fault isolation.

Detection extension monitoring slave computer the extension of the food condition measurement and control system only has the detection function.

Control and control extension monitoring and control slave computer the extension of the food condition measurement and control system with both detection and control functions.

4.1.1 Composition of the product model

The product model consists of the extension feature code, enterprise logo, communication method, function features, and improved serial number (if any), as shown in Figure 1.

Figure 1 product model composition

4.1.2 Extension Feature Code

It is represented by the Chinese initials LQF of the food condition measuring and controlling extension.

4.1.3 Corporate logo

It consists of two or three Chinese Pinyin uppercase letters, which are determined by the manufacturer itself.

4.1.4 Communication method

It consists of an Arabic number, "1" for wired communication, "2" for wireless communication, and "9" for other communication methods.

4.1.5 Functional characteristics

It consists of an Arabic number and is represented by "0" or "1". "0" means only the detection function, and "1" means the detection and control function.

4.1.6 Upgrade Sequence Number

After the structure or performance of the device is improved, the model needs to be upgraded. The uppercase English letters A, B, and C can be used in the order of improvement.

Said.

4.2.1 Classification by communication method

According to different communication methods, it can be divided into wired and wireless. Wired communication methods can be divided into four categories. RS485, power carrier,