

ICS 13.310
CCS A 91

GA

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

GA/T 1563-2019

Technical requirements for shoes-on metal detectors

鞋内安全检查仪技术要求

(English Translation)

Issued on: January 1, 1970

Implemented on: May 5, 2019

Issued by: Ministry of Public Security

Table of Contents

Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Product classification

5 Technical requirements

6 Test methods

7 Inspection rules

8 Marking, packaging, transport and storage

Appendix A (informative) Radiation magnetic induction

Appendix B (informative) Schematic diagram of the distribution of detection locations in the detection area

Appendix C (informative) Test object code, material, dimensions

Foreword

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

This standard is proposed by the Science and Technology Information Bureau of the Ministry of Public Security.

This standard is under the jurisdiction of the National Technical Committee for Standardization of Security and Alarm Systems (SAC/TC100).

This standard was drafted. Ministry of Public Security Safety and Police Electronic Product Quality Inspection Center, Beijing Jingjinwu High-tech Co., Ltd., China Power Fifty Research Institute of Technology, Beijing Civil Aviation Security Equipment Company.

1 Scope

This standard specifies the product classification, technical requirements, test methods, inspection rules, and marking, packaging, transportation, Storage, etc.

This standard applies to the design, manufacture and inspection of safety inspection equipment in shoes.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB/T 191 Packaging, storage and transportation icon GB/T 2423.1-2008 Environmental testing for electric and electronic products Part 2. Test methods Test A. Low temperature GB/T 2423.2-2008 Environmental test for electric and electronic products Part 2. Test method Test B. High temperature GB/T 2423.3-2016 Environmental test Part 2. Test method Test Cab. Constant humidity test GB/T 2423.5-1995 Environmental test for electric and electronic products-Part 2. Test methods Test Ea and guidelines. Impact GB/T 2423.10-2008 Environmental testing for electric and electronic products. Part 2. Test methods Test Fc and guidelines. Vibration (sine) GB/T 2828.1-2012 Counting sampling inspection procedure Part 1. Sampling plan for batch inspection according to acceptance quality limit (AQL) GB/T 2829-2002 Sampling procedures and tables for periodic inspection and counting (applicable to inspection of process stability) GB/T 4208-2017 enclosure protection grade (IP code) GB 4793.1-2007 Safety requirements for electrical equipment for measurement, control and laboratory use-Part 1. General requirements GB 16796-2009 Safety requirements and test methods for safety alarm equipment GB/T 17626.2-2018 Electromagnetic compatibility test and measurement technology Electrostatic discharge immunity test GB/T 17626.3-2016 electromagnetic compatibility test and measurement technology radio frequency electromagnetic field radiation immunity test GB/T 17626.5-2008 Electromagnetic compatibility test and measurement technology Surge (impact) immunity test

3 Terms and definitions

The following terms and definitions apply to this document.

Shoes-on metal detector A detection device capable of determining whether there is more than a limited amount of metal hidden in two shoes, two shoes, and a certain detection height above ankle.

Detection platform

The platform on which the test subject stands in the shoe safety checker.

Detection area

In-shoe safety checkers can effectively detect metal areas.

Detecting position

Selected detection points in the detection area.

Height of detecting

The vertical distance between the detection platform and the detection position.

Test object

Special metal/non-metal objects used to check the performance of the safety checker in shoes.

Scanning time

The time from when the test object enters the detection area to when the safety checker in the shoe gives the detection result.

Alarm

When a metal or alloy object is detected or exceeded, the in-shoe safety checker will issue an alarm message with a designated display and sound number.

Missing alarm

In the detection position of the shoe safety checker, there is no alarm when there is a metal or alloy article that reaches or exceeds the limit amount.

3.10

False alarm

The shoes have not been detected or there is an item that should not be alarmed in the detection position of the safety checker in the shoe. The safety checker in the shoe alarms by mistake.

4 Product Categories

4.1

According to the detection height of the product, the safety checker (hereinafter referred to as the shoe checker) in shoes is divided into I, II, and III categories.

-The maximum detection height of Class I shoe inspection instrument is greater than 50mm and less than or equal to 200mm;

-The maximum detection height of the Class II shoe inspection instrument is greater than 200mm and less than or equal to 300mm;

-The maximum detection height of Class III shoe inspection instrument is greater than 300mm.

4.2

According to the product use environment, it is divided into indoor shoe inspection instrument and outdoor shoe inspection instrument.

4.3

According to different working methods of the product, it is divided into one-foot type shoe inspection instrument and two-foot type shoe inspection instrument.

5.1 Appearance

The surface coating should be uniform and should not be blistering, cracking, peeling and abrasion. There should be no obvious dents, scratches, cracks, Deformation and pollution. Metal parts should be free of rust and other mechanical damage. Parts should be fastened without loosening, buttons, switches and other activities the operation of components should be flexible and reliable. The wiring of the circuit board should be reasonable and there should be no temporary wiring. The detection platform should have a clear figure indicating the standing position and there should be a space of 50 yards or more (length 300mm).

5.2.1 Case strength

The mechanical strength of the operation panel should meet the requirements of 8.1 of GB 4793.1-2007, and should not appear to collapse, loosen, misplace, Cracks or distortions.

5.2.2 Enclosure protection level

The indoor type shoe inspection instrument should meet the IP31 level requirements in GB/T 4208-2017. Outdoor shoe inspection instrument should comply with GB/T 4208-2017 IP65 rating.

5.2.3 Battery Placement

Use a battery-powered shoe tester. The battery should be built-in and easy to replace or recharge. The circuit part should be effectively isolated from the battery compartment to avoid being Battery leakage and corrosion.

5.3 Identification

Identification meets the following requirements.

- a) The rated supply voltage of the power supply or the type and connection polarity of the battery should be marked near the power supply terminals;
- b) The switching of switches, the function of buttons, and the installation of various options should be clearly marked;