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

GB 30439.8-2014

**Safety requirements for industrial automation products-Part 8:
Safety requirements for electrical actuator**

工业自动化产品安全要求 第8部分：电动执行机构的安全要求

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Foreword

All technical content in this Part of GB 30439 is mandatory. GB 30439 "Industrial Automation product safety requirements" is divided into 18 sections as follows:

- Part 1. General;
- Part 2. pressure/differential pressure transmitter safety requirements;
- Part 3. Temperature Transmitter safety requirements;
- Part 4. Safety requirements for the control valve;
- Part 5. flowmeter safety requirements;
- Part 6. solenoid valve safety requirements;
- Part 7. Safety requirements for instrument control;
- Part 8. Safety requirements for electric actuators;
- Part 9. Digital display instrument safety requirements;
- Part 10. recording instrument safety requirements;
- Part 11. Programmable Controller safety requirements;
- Part 12. Echo Ranging (TOF) Level Meter safety requirements;
- Part 13. magnetostrictive level gauge safety requirements;

1 Scope

GB 30439.8-2014 is the Chinese national standard on safety requirements for industrial automation products-part 8: safety requirements for electrical actuator, in the field of manufacturing engineering. It carries no /T suffix, which in the Chinese system means

compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 24 July 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2015. Classification: ICS 25.040.01, CCS N10. 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.

GB 30439 of the provisions of this part of the anti-shock electric actuators, mechanical hazards, flame spread outward from inside the device, over temperature, flow Influence and fluid pressure, explosion and implosion safety requirements. This section does not include security-related electric actuator reliable function, performance or other characteristics, the effectiveness of transport packaging, electromagnetic Compatibility (EMC) requirements for an explosive environment protection measures, installation, commissioning and maintenance (repair), installation, commissioning and maintenance (repair) personnel Protection. This section applies to electric actuators.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 1633-2000 thermoplastics Vicat softening temperature (VST) Determination (idt ISO 306.1994)

GB/T 4207-2003 solid insulating materials under moist conditions index tracking of the measuring method and the proof tracking index compared (IEC 60112. 1979, IDT)

GB 4208-2008 housing protection (IP Code) (IEC 60529.2001, IDT)

GB 4793.1-2007 measurement, control and laboratory safety requirements for electrical equipment Part 1. General requirements (IEC 61010-1. 2001, IDT)

GB/T 5169.16-2008 Fire hazard testing for electric and electronic products - Part 16. Test flames - 50W horizontal and vertical flame Test methods (

IEC 60695-11-10.2003, IDT)

GB/T 5465.2-2008 Graphical symbols for electrical equipment - Part 2. Graphical symbols (IEC 60417DB.2007, IDT)

GB/T 7354-2003 partial discharge measurements (IEC 60270.2000, IDT)

GB/T 11021-2007 heat resistance, electrical insulation rating (IEC 60085.2004, IDT)

GB/T 11918-2001 industrial plug and socket couplers - Part 1. General requirements (idt IEC 60309-1.1999)

GB/T 11919-2001 industrial plug and socket coupling - Part 2. With pin and sleeve size interchangeable electrical accessories Requirements (idt IEC 60309-2.1999)

GB/T 12113-2003 touch current and protective conductor current measurement method (IEC 60990.1999, IDT)

GB/T 16842-2008 protective shell for inspection and test equipment used with (IEC 61032-1.1997, IDT)

3 Terms and Definitions

GB 4793.1 define the following terms and definitions apply to this document. For ease of use, repeat the following list of GB 4793.1 Some terms and definitions. Category

3.1 equipment and devices Tools tool , Including keys and coins, including an external device to help people to perform some kind of mechanical function and use. [GB 4793.1-2007, the definition 3.1.5]

3.2 Parts and Accessories

3.2.1 Terminal terminal A component of the apparatus (device) connected to the outer conductor provided.

Note. The terminal can contain one or more contacts, so that the term also includes sockets, connectors and the like. [GB 4793.1-2007, the definition 3.2.1]

3.2.2 Functional ground terminal functionalearthterminal To a point directly measuring or control circuit, or directly with a shield portion is electrically connected, but also reservations To be used for any function other than safety purposes purpose a ground terminal.

Note. The measuring equipment, the terminal is often referred to as measuring ground terminal. [GB 4793.1-2007, the definition 3.2.2]

3.2.3 Protective Conductor Terminal protectiveconductorterminal For security purposes and conductive parts of equipment are connected, but also with a predetermined external terminal connected to protective earthing system. [GB 4793.1-2007, the definition 3.2.3]

3.2.4 Housing enclosure Protect the unit against certain external influences and prevent parts from any direct contact with the direction provided. [GB 4793.1-2007, the definition 3.2.4]

3.2.5 Baffle barrier Prevent parts from any direction normal close direct contact provided.

Note. The housing and bezel provides flame spread protection [see 9.2.1b)]. [GB