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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 30439.3-2013

Safety requirements for industrial automation products-Part 3: Safety requirements for temperature transmitter

工业自动化产品安全要求 第3部分: 温度变送器的安全要求

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3.6.6.1 Pollution Level 1 polutiondegree

3.6.6.2 Pollution Level 2 polutiondegree

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4 Test

4.3.2.8 Output For providing an electrical output of the transmitter. Working condition

4.4 Test under single fault conditions

4.4.2 Fault conditions imposed Fault conditions 4.4.2.1 ~

4.4.2.1 Impedance protection

11 Anti-dangerous fluid 34 12 radiation (including laser source), acoustic and ultrasonic pressure 34 13 pairs of gas release, explosion and implosion protection 34

15 Figure 2 under single fault conditions can instantaneously reach maximum short duration voltage [see 6.3.2a)]

27 Temperature limit and thermal equipment 10

29 Regional structure of FIG. 6 to comply 9.3.1b) 1) the provisions of the housing bottom

41 Table E.1 given additional protection through the use of so reduce pollution levels inside

Foreword

All technical content of this part of GB 30439-2013 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. loop controller safety requirements;

--- 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. Radar level meter and ultrasonic level meter safety requirements;

--- Part 13. magnetostrictive level gauge safety requirements;

1 Scope

GB 30439.3-2013 is the Chinese national standard on safety requirements for industrial automation products-part 3: safety requirements for temperature transmitter, 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 31 December 2013 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 January 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 provisions of this part of the industrial processes used in temperature transmitters (hereinafter referred to as transmitter) protection against electric shock and electrical burns, anti-machine Mechanical dangerous, anti-flame spread outward from inside the transmitter, anti-over effect of heat secure content. This section does not include security features and device-independent, performance or other characteristics, the effectiveness of transport packaging, electromagnetic compatibility (EMC) to Requirements, functional safety, environmental protection measures for the explosion, maintenance (repair), maintenance (repair) personnel protection. This section applies to industrial process measurement and control transmitter.

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. Determination of

GB/T 1633-2000 thermoplastics Vicat softening temperature (VST) of

GB/T 3098.1-2000 Mechanical properties of fasteners Bolts, screws and studs

GB/T 3098.3-2000 Mechanical properties of fasteners Set screws

GB/T 4207-2003 solid insulating materials under moist conditions index tracking of the measuring method and the proof tracking index compared

GB 4208-2008 shell protection (IP code)

GB 4793.1-2007 measurement, control and laboratory safety requirements for electrical equipment - Part 1. General requirements

GB/T 5465.2-2008 Graphical symbols for electrical equipment - Part 2. Graphical symbols

GB/T 7354-2003 partial discharge measurement

GB 9364.1-1997 Miniature fuses - Part 1. Definitions and miniature fuses and general requirements for miniature fuse-links

GB 9364.2-1997 Miniature fuses - Part 2. Cartridge fuse

GB 9364.3-1997 Miniature fuses - Part 3. ultra-small fuse

GB 9364.4-2006 Miniature fuses - Part 4. Universal modular fuse Listing flammability test method

GB/T 11020-2005 solid non-metallic materials when exposed to flame sources

3 Terms and Definitions

GB 4793.1-2007 defined and the following terms and definitions apply to this document. For ease of use, repeat the following list The GB 4793.1-2007 certain terms and definitions. Unless otherwise specified, "voltage" value and "current" refers to the value of RMS AC, DC, or synthetic voltage or current. Category

3.1 Equipment and devices

3.1.1 Stationary equipment fixedequipment Fixed to the support member or an additional fixture at a specific location. [GB 4793.1-2007, the definition 3.1.1]

3.1.2 PERMANENTLY CONNECTED EQUIPMENT permanentlyconnectedequipment Scheduled to use screw terminals or other reliable methods and building installation wiring

connected device.

3.1.3 Portable device portableequipment A closed system, it can be moved in operation, along with the power supply or can it be easily moved from one location to another. example For example, programming and debugging tool (PADT) and test equipment (TE).

3.1.4 Handheld device hand-heldequipment One of the available single-handedly carrying the other hand operated device.

3.1.5 Tools tool To help people to perform some kind of mechanical function and use, including keys and coins, including an external device. [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.

3.2.2 Functional ground terminal functionalearthingterminal 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.

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.

3.2.4 Protective conductor protectiveconductor For security purposes (for example, protection against electric shock) to provide a conductor.

3.2.5 Housing enclosure Provide protection suitable for the intended application and the type of housing protection rating. [GB 4793.1-2007, the definition 3.2.4]

3.2.6 Baffle barrier Prevent parts from any direction normal close direct contact provided. [GB 4793.1-2007, the definition 3.2.5]

3.3 Electrical values

3.3.1 Rated (value) rated (value) Usually by the manufacturer for the components, apparatus, or device reaches a given magnitude of working status. [GB 4793.1-2007, the definition 3.3.1]

3.3.2 Rating rating A set of ratings and working conditions. [GB 4793.1-2007, the definition 3.3.2]