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

GB/T 42125.19-2022

**Safety requirements for electrical equipment for measurement,
control and laboratory use - Part 19: Particular requirements for
electrically operated valve actuators**

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Standardization Administration**

Table of Contents

Preface

Introduction

foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document is Part 19 of GB/T 42125 "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use". GB/T 42125 has

The following parts have been published.

--- Part 10. Particular requirements for insulation resistance measurement and dielectric strength test equipment;

--- Part 19. Special requirements for electric control valve actuators.

This document is equivalent to IEC 61010-2-202.2020 "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use Part 2-202

Part. Special requirements for electric control valve actuators".

The following minimal editorial changes have been made to this document.

--- In order to coordinate with existing standards, change the name of the standard to "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use Part 19

Part. Special requirements for electric control valve actuators".

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

GB/T 42125 "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use" is proposed to be composed of 20 parts.

--- Part 1. General requirements. The purpose is to specify the general safety of electrical equipment and accessories for measurement, control and laboratory use

Require.

--- Part 2.Particular requirements for laboratory equipment for heating materials. The purpose is to specify the special requirements for heating equipment for laboratory materials

security requirements.

--- Part 3.Special requirements for refrigeration equipment. The purpose is to specify the special safety of measurement, control and laboratory refrigeration equipment

Require.

--- Part 4.Special requirements for climate and environmental test equipment and other temperature regulation equipment. The purpose is to regulate the climate and environmental

Special safety requirements for environmental testing equipment and other temperature regulating equipment.

--- Part 5.Special requirements for laboratory centrifuges. The purpose of this document is to specify specific safety requirements for laboratory centrifuges.

--- Part 6.Special requirements for test and measurement circuits. The purpose is to specify special safety requirements for test and measurement circuits.

--- Part 7.Safety requirements for hand-held and hand-operated probe assemblies for electrical measurements and tests. The purpose is to specify the hand-held and hand-operated probes

Safety requirements for head assemblies and related accessories.

--- Part 8.Particular requirements for hand-held and hand-operated current sensors for electrotechnical measurement and testing. The purpose is to stipulate the hand-held and hand-operated

Special safety requirements for current sensors.

--- Part 9.Particular requirements for household and professional hand-held multimeters capable of measuring grid power supply voltage. The purpose is to specify the measurable

Particular safety requirements for household and professional hand-held multimeters for measuring mains supply voltage.

--- Part 10.Particular requirements for insulation resistance measurement and dielectric strength test equipment. The purpose is to specify the output voltage AC

Safety requirements for equipment used for insulation resistance measurement and dielectric strength test at 50V or above DC 120V.

--- Part 11. Special requirements for sterilizers and washer-disinfectors for processing medical materials. The purpose is to regulate the processing of medical materials

Special safety requirements for sterilizers and washer-disinfectors.

--- Part 12. Special requirements for laboratory mixing and stirring equipment. The purpose is to specify electric

Particular safety requirements for laboratory equipment and its accessories.

--- Part 13. Special requirements for laboratory thermal atomization and ionization atomic spectrometers. The purpose is to specify laboratory heat

Particular safety requirements for atomic spectrometers for atomization and ionization.

--- Part 14. Particular requirements for automatic and semi-automatic equipment for laboratory analysis and other purposes. intended for laboratory use

Particular safety requirements for automatic and semi-automatic equipment for analytical and other purposes.

--- Part 15. Special requirements for cabinet X-ray systems. The purpose is to specify special safety requirements for cabinet-type X-ray systems.

--- Part 16. Particular requirements for in vitro diagnostic (IVD) medical devices. The purpose is to specify the intended use for in vitro diagnostic medical purposes

Special requirements for medical equipment.

--- Part 17. Special requirements for children using equipment in educational institutions. The purpose is to stipulate the use of student operators in educational institutions

Special safety requirements for equipment and accessories used.

--- Part 18. Special requirements for control equipment. The purpose is to specify the special requirements and related

identification test.

--- Part 19. Special requirements for electric control valve actuators. intended to be specified for installation in industrial process or discrete control

Safety requirements for electric control valve actuators and solenoid coils in the environment.

--- Part 20. Special requirements for interconnection of industrial communication circuits and communication ports. intended to specify installations in process or discrete control

Particular safety requirements for industrial communication circuits in the environment.

Note. All parts are equivalent to the IEC 61010 series standards, and the corresponding

relationship is as follows.

- Part 1 corresponds to IEC 61010-1;
- Part 2 corresponds to IEC 61010-2-010;
- Part 3 corresponds to IEC 61010-2-011;
- Part 4 corresponds to IEC 61010-2-012;
- Part 5 corresponds to IEC 61010-2-020;
- Part 6 corresponds to IEC 61010-2-030;
- Part 7 corresponds to IEC 61010-031;
- Part 8 corresponds to IEC 61010-2-032;
- Part 9 corresponds to IEC 61010-2-033;
- Part 10 corresponds to IEC 61010-2-034;
- Part 11 corresponds to IEC 61010-2-040;
- Part 12 corresponds to IEC 61010-2-051;
- Part 13 corresponds to IEC 61010-2-061;
- Part 14 corresponds to IEC 61010-2-081;
- Part 15 corresponds to IEC 61010-2-091;
- Part 16 corresponds to IEC 61010-2-101;
- Part 17 corresponds to IEC 61010-2-130;
- Part 18 corresponds to IEC 61010-2-201;
- Part 19 corresponds to IEC 61010-2-202;
- Part 20 corresponds to IEC 61010-2-203.

Common safety terms are defined in IEC 61010-1. More specialized terms are defined elsewhere. This document needs to be combined with

IEC 61010-1.2010 AMD1.2016 "Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use Part 1. General Requirements

The part of this document that states "applicable" means that the corresponding clauses of IEC 61010-1 apply to this document; this document states "replace" or "modify"

The part of "modification" indicates that the terms of this document shall prevail; the part of this document that states "increase" indicates that in addition to complying with the corresponding provisions of IEC 61010-1