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**NATIONAL STANDARD OF THE
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**Control and communication network CC-Link Safety
specification -- Part 1: Overview/protocol
(English Translation)**

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Foreword

GB/Z 29496 "Control and Communication Network CC-LinkSafety Specification" is divided into the following three sections.

--- Part 1. Overview/Agreement;

--- Part 2. Routine;

--- Part 3. Achieve.

This section GB/Z 29496 Part 1.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This part of the revision adopted the CC-LINK Association standard BAP-C1603-001-C "CC-LinkSafety Specification Overview/Agreement" this part of the technical content with the original national technical documents did not differ, in order to facilitate the use of our users in the text structure of the layout Line the following adjustments.

--- Rewrite the foreword of this section;

--- According to the reference standard in the text, modify the original Chapter 3 normative references and as Chapter 2 of this section;

--- The original fourth chapter terms and abbreviations as Chapter 3 of this section;

--- Chapter 2 of the original text of the scope of application as the fourth chapter of this section.

This part is proposed by China Machinery Industry Federation.

This part of the National Industrial Process Measurement and Control Standardization Technical Committee (SAC/TC124) centralized.

This part of the drafting unit. Machinery Industry Instrumentation Comprehensive Technology and Economy Institute, Beijing and Belgium Systems Engineering Co., Ltd., Tsinghua University Dongfeng Design Institute Co., Ltd., Shanghai Automation Instrumentation Co., Ltd., Chongqing Chuan Yi Automation Co., Ltd., CNOOC Research Center, Tianhua Chemical Machinery and Automation Research and Design Institute, China CC-Link user organizations.

1 Scope

This part of GB/Z 29496 describes the safety protocol specifications for CC-LinkSafety. CC-LinkSafety's security protocol to machine Mechanical safety system safety data such as

emergency stop signal applied to the CC-Link system.

This section applies to the field of automation and control.

In this section, new features added to CC-Link, shaded in the figures and tables, are in accordance with the security protocol. Develop the connection to the safety equipment unit of the CC-LinkSafety system, ensure that functional safety standards (eg GB/T 20438) are met and passed through a third party Certification organization testing.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 15629.3 Information Processing Systems - Local Area Networks - Part 3. Carrier Sense Multiple Access with Collision Detection (CSMA/CD) access methods and physical layer specification (GB/T 15629.3-1995, ISO/IEC 8802-3:1990, IDT) GB/T 19760.1-2008 CC-Link control and communication network specification - Part 1. CC-Link protocol specification GB/T 20438 (all parts) Functional safety of electrical/electronic/programmable electronic safety-related systems [IEC 61508 section]] Electrical Performance Standards for Generators and Receivers Used in EIARS-485 Balanced Digital Multipoint Systems

3 Terms and definitions

The following terms and definitions apply to this document.

Safety station CC-LinkSafety Protocol Compatible Products. According to the type of station is divided into "safety master" and "safety from the station" (see 5.1).

Standard station A generic term for products that are incompatible with the CC-LinkSafety protocol and compatible with the CC-Link protocol. According to the type of station is divided into "standard Quasi-master "or" standard slave. " 3.3 Security protocol safetyprotocol CC-LinkSafety protocol. This agreement is for

- In the safety data and security protocol information to add security information;
- Execute error detection based on safety protection information.