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

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Control and communication network CIP Safety specification

控制与通信网络CIP Safety规范

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Foreword

This instructional document has been drafted in accordance with the rules given in GB/T 1.1-2009. This guidance document is proposed by China Machinery Industry Federation. This Guidance Document is governed by the National Technical Committee for Measurement, Control and Automation of Industrial Processes (SAC/TC124). The drafting of the guidance of technical documents. Machinery Industry Instrumentation Technology and Economy Institute, Beijing Machinery Industry Automation Research , Beijing Hollysys Systems Engineering Co., Ltd., Southwest Electric Power Research Institute, Shanghai Automation Instrumentation Co., Ltd., Rockwell Automation (China) Co., Ltd., Beijing Jiaotong University, Huazhong University of Science and Technology, Southwest University, Shenyang Institute of Automation, Chinese Academy of Sciences, Zhejiang University, Beijing East Turke Technology Co., Ltd., Yokogawa Electric (China) Co., Ltd. Beijing Research and Development Center, Schneider Electric (China) Investment Co., Ltd., Simon Zi (China) Co., Ltd., ODVA. The main drafters of this guidance document are Ding Lu, Gao Jingmei, Wang Shuo, Wang Chunxi, Li Baihuang, Luo An, Zhang Jinbin, Bao Weihua, Hua Rong, Sun Xin, Zhou Chunjie, Yang Zhijia, Wei Jianxuan, Peng Xiaobo, Liu Feng, Feng Dongqin, Xue Baihua, Yang Lei, Guan Qi, Du Jialin, Li Jia, Li Yun, Zeng Qi. Control and Communication Network CIPSafety Specification

1 Scope

GB/Z 34066-2017 is the Chinese national standard on control and communication network CIP safety specification, in the field of manufacturing engineering. The /Z suffix marks it as a guiding technical document: it does not prescribe requirements that can be certified against, but sets out the technique, the method or the state of the art that the standards bodies recommend following. It was issued on 31 July 2017 by the State Administration for Market Regulation; Standardization Administration of China. As a guiding technical document it carries no separate date of entry into force: it applies from publication.

Classification: ICS 25.040, 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.

This guidance document defines the service, protocol, management and system requirements for the CIP Safety safety communications layer. This instructive technical document uses the safety procedures recommended by the German Safety Bus Committee Coding for secure data transmission over standard networks. This approach relies on possible transmission errors as defined in EN50159-1.1996 Wrong provision of measures.

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. Programmable controllers - Part 3. Programming languages

GB/T 20438 (all parts) Functional safety of electrical/electronic/programmable electronic safety-related systems EN50159-1.1996 Railway applications, communications, signaling and processing systems - Part 1. Safety related to closed transmission systems (Railway applications, communication, signaling and processing systems-Part

1. Safety-related communication in closed transmission systems) CIP Network Library Volume

1. Common Industrial Protocol [The CIP Networks Library Volume

1. Common Industrial Protocol (CIPTM)] CIP Network Library Volume 2. EtherNet/IP in CIP (The CIP Networks Library Volume

2. EtherNet/IP Adaptation of CIP) CIP Network Library Volume 3. CIP DeviceNet (The CIP Networks Library Volume

3. DeviceNet Adaptation of CIP) CIP network library volume 5. CIP Security (The CIP Networks Library Volume 5. CIP Safety)

3 Terms, definitions and abbreviations

3.1 Terms and definitions The following terms and definitions apply to this document.

3.1.1 Adapter adapterdevice Server-side or target-side device for network connectivity. These devices can not make any requests.

3.1.2 Bridge At the data link layer, abstract devices that connect multiple network segments.

3.1.3 Connection Continuous communication path between two devices.