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**NATIONAL STANDARD OF THE
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Replacing GB/Z 37085-2018

**Industrial communication network - Profiles - Part 3-8:
Functional safety communication profile of CC-Link family
(English Translation)**

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Appendix A (Informative) Additional information for the functional safety communication profile CPF8

A.1 Hash function calculation of FSCP8/1

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A.3 Meaning of the FSCP8/2 response time calculation formula

Appendix B (Informative) Evaluation Information for CPF8 Functional Safety Communication Profile

Reference

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 308 of GB/T 37085 Industrial Communication Network Specifications. GB/T 37085 has been published in the following parts.

--- Part 3-8.CC-Link series functional safety communication profile.

This document replaces GB/Z 37085-2018 "Industrial Communication Network Specification Part 3-8.CC-LINK Series Functional Safety Communication Compared with GB/Z 37085-2018, in addition to structural adjustments and editorial changes, the main

technical changes are as follows.

- a) Deleted the description of availability in the Terms and Definitions (see 3.1.1.3 of the 2018 edition);
- b) Deleted the description of frames in the Terms and Definitions (see 3.1.1.19 of the 2018 edition);
- c) Deleted the description of nuisance tripping in the terms and definitions (see 3.1.1.27 of the 2018 edition);
- d) Deleted the description of protective extra-low voltage in the terms and definitions (see 3.1.1.29 of the 2018 edition);
- e) Deleted the description of reliability in the Terms and Definitions (see 3.1.1.32 of the 2018 edition);
- f) The description of safety extra-low voltage in the terms and definitions has been deleted (see 3.1.1.41 of the 2018 edition);
- g) Added the relevant content of cross-check redundancy of the secure communication layer protocol of FSCP8/1 (see 11.7.2.6.7);
- h) Changed the description of safety function response time in the system requirements of FSCP8/1. Functional safety response time was moved to 11.9.3.2 Time calculation (see 11.9.3.1, 11.9.3.1 of the 2018 edition);
- i) Deleted the description of the residual rate in the constraints of system characteristic calculation (see 11.9.5.2 of the 2018 edition);
- j) Changed the description of the FSCP8/1 Safety Manual (see 11.9.7, 2018 Edition);
- k) The description of corruption in FSCP8/2 was modified (see 12.5.3.2, 12.5.3.2 of the 2018 edition);
- l) Added the information about Applicationbit, SubCIDactivebit and Sub Description of the CID (see 12.7.1.3, 12.7.1.3 of the 2018 edition);
- m) Changed the description of the secure initialization in the Secure FAL Service Protocol Machine (SESPM) behavior (see 12.7.2.2.1, 2018 Version 12.7.2.2.1);
- n) Changed the description of FSCP8/2 clock offset correction (see 12.7.2.5, 12.7.2.5 of the 2018 edition);
- o) Changed the description of allowable_refresh_interval in FSCP8/2 (see 12.8.1.4, 2018 edition) 12.8.1.4);
- p) Changed the description of the constraints on system characteristic calculations in the system requirements of FSCP8/2 (see 12.9.5, 2018) Version 12.9.5).