

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Industrial communication networks – Profiles –  
Part 3-3: Functional safety fieldbuses – Additional specifications for CPF 3**

**Réseaux de communication industriels – Profils –  
Partie 3-3: Bus de terrain de sécurité fonctionnelle – Spécifications  
supplémentaires pour CPF 3**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**INDUSTRIAL COMMUNICATION NETWORKS –  
PROFILES –**
**Part 3-3: Functional safety fieldbuses –  
Additional specifications for CPF 3**
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International Standard IEC 61784-3-3 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation.

This third edition cancels and replaces the second edition published in 2010. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- Legacy V1-mode removed from this protocol edition;
- Protocol extensions to protect against possible loopbacks (LP extensions);
- Protocol extensions to keep SIL3 for safety networks with large numbers of participants (XP extensions) and subsequent new F-Parameter "F\_CRC\_Seed";
- Introduction of random and disjoint Codename based MonitoringNumbers (MNR) besides to the previous Consecutive Numbers;

- Provisions for Channel Granular Passivation and subsequent new F-Parameter "F\_Passivation";
- GSD extensions due to new F-Parameters;
- Notations according to the CP3 family in IEC 61158 (e.g. IO Controller);
- Additional diagnosis message types;
- Diverse error corrections and fixes of typos;
- Updated documents in bibliography.

The text of this standard is based on the following documents:

FDIS	Report on voting
65C/851/FDIS	65C/854/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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