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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 46689-2025

Display specification for the man-machine interface of on-board signalling systems of urban rail transit

城市轨道交通信号系统车载设备人机界面显示规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Transport of the People's Republic of China. This document is under the jurisdiction of the National Technical Committee on Standardization of Urban Passenger Transport (SAC/TC529). This document was drafted by: Traffic Control Technology Co., Ltd., Beijing Subway Operation Co., Ltd., and Shanghai Shentong Metro Group Co., Ltd. China Academy of Transportation Sciences, Beijing Jiaotong University, Chongqing Rail Transit (Group) Co., Ltd., Chengdu Rail Transit Group Co., Ltd., China Beijing Urban Planning & Design Institute, Beijing MTR Corporation Limited, Beijing Rail Transit Operation Management Co., Ltd., China Railway Signal & Communication Corporation (CRSC) Urban Rail Transit Technology Co., Ltd., CASCO Signal Co., Ltd., Lanzhou Jiaotong University, CRRC Qingdao Sifang Locomotive & Rolling Stock Co., Ltd. The main drafters of this document are. Wang Wei, Qin Xuemei, Tao Yulong, Jin Jie, Hu Xuefei, Tang Tao, Huang Youneng, Zhu Shaowen, Wang Weijie, Wang Yang, and Feng Xujie. Li Qing, Zhao Yongshun, Wen Qian, Li Zhaoling, Wang Donghai, Zhang Ruixue, Zhu Junmin, Fan Ying, Ma Long, Ma Nengyi, Zhang Ping, Tang Lina, Dai Shoushuang, Wu Liang, Lü Xinjun, Zhang Xin, Zhang Lei, Chen Yao, Zhao Jianqiao, Wu Keqi, Sun Zhaolan. Human-machine interface of onboard equipment for urban rail transit signaling system Display Specifications

1 Scope

GB/T 46689-2025 is the Chinese national standard covering what the driver sees on the

cab display - the speed and the braking curve, the movement authority and the mode, the alarms and their priority, and the layout and colours, so that a driver moving between lines reads the same picture the same way. First edition, under the Ministry of Transport. In force from 1 February 2026. Issued on 31 October 2025, it has been in force since 1 February 2026.

This document specifies the general requirements, display elements, interface division, and content of the human-machine interface (HMI) of onboard equipment in urban rail transit signaling systems. The content displays and describes the verification method. This document applies to the display and application of human-machine interfaces (HMIs) for onboard equipment in urban rail transit signaling systems based on communication-based train operation control. maintain.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 18030 Information Technology Chinese Coded Character Set

GB/T 46690 Technical Specification for Alarm Information and Fault Classification of Urban Rail Transit Signaling Systems

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Recommended speed The permissible speed is calculated comprehensively by the signaling system under the automatic protection function of the train.

3.2 wet rail mode In cases where the track surface becomes slippery due to rain, snow, ice, or other reasons, adjust the train's speed, traction, braking force, and tracking distance. These are operational control modes that reduce the risk of train slippage.

4.Abbreviations The following abbreviations apply to this document. CAM. Creep Automatic Mode RGB. Primary Color Light Model (RGB Color Model)