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ICS 03.220.30  
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35.240.60

**RAILWAY APPLICATIONS -  
COMMUNICATION, SIGNALLING AND  
PROCESSING SYSTEMS - EUROPEAN RAIL  
TRAFFIC MANAGEMENT SYSTEM -  
DRIVER-MACHINE INTERFACE -- PART 1:  
ERGONOMIC PRINCIPLES FOR THE  
PRESENTATION OF ERTMS/ETCS/GSM-R  
INFORMATION**

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TECHNICAL SPECIFICATION

**CLC/TS 50459-1**

SPECIFICATION TECHNIQUE

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September 2005

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ICS 03.220.30; 13.180; 35.240.60

English version

**Railway applications –  
Communication, signalling and processing systems –  
European Rail Traffic Management System –  
Driver-Machine Interface  
Part 1: Ergonomic principles for the presentation  
of ERTMS/ETCS/GSM-R information**

Applications ferroviaires –  
Systèmes de signalisation, de  
télécommunications et de traitement –  
Système européen de gestion du trafic  
ferroviaire –  
Interface de conduite  
Partie 1: Principes ergonomiques  
pour la présentation des informations  
ERTMS/ETCS/GSM-R

Bahnanwendungen –  
Telekommunikationstechnik, Signal-  
technik und Datenverarbeitungssysteme –  
Europäisches Leitsystem für den  
Schienenverkehr –  
Mensch-Maschine Schnittstelle  
Teil 1: Ergonomische Prinzipien  
für die Darstellung von  
ERTMS/ETCS/GSM-R Informationen

This Technical Specification was approved by CENELEC on 2005-05-07.

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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

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## Foreword

This Technical Specification was prepared by SC 9XA, Communication, signalling and processing systems, of Technical Committee CENELEC TC 9X, Electrical and electronic applications for railways.

The text of the draft was submitted to the vote and was approved by CENELEC as CLC/TS 50459-1 on 2005-05-07.

The following date was fixed:

- latest date by which the existence of the CLC/TS  
has to be announced at national level (doa) 2005-11-07

This Technical Specification has been prepared under mandates M/024 and M/334 given to CENELEC by the European Commission and the European Free Trade Association.

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## **Introduction**

This Technical Specification forms Part 1 of a series, the other parts being:

- CLC/TS 50459-2 for ergonomic arrangements of ERTMS/ETCS information
- CLC/TS 50459-3 for ergonomic arrangements of ERTMS/GSM-R information
- CLC/TS 50459-4 for data entry procedure for ERTMS/ETCS/GSM-R
- CLC/TS 50459-5 for symbols for ERTMS/ETCS/GSM-R
- CLC/TS 50459-6 for audible information for ERTMS/ETCS/GSM-R

These Technical Specifications contain the ergonomic arrangements of information on the ERTMS DMI Display. Most items are illustrated with an example.

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