BS EN 50125-3:2003

Incorporating corrigendum
May 2010

# Railway applications — Environmental conditions for equipment —

Part 3: Equipment for signalling and telecommunications

ICS 29.280



# National foreword

This British Standard is the UK implementation of EN 50125-3:2003, incorporating corrigendum May 2010.

The UK participation in its preparation was entrusted by Technical Committee GEL/9, Railway applications, to Subcommittee GEL/9/1, Signalling and communications.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 19 March 2003

© BSI 2010

#### Amendments/corrigenda issued since publication

Date	Comments
31 August 2010	Implementation of CENELEC corrigendum May 2010; Addition of Annex ZZ

ISBN 978 0 580 71759 8

## **EUROPEAN STANDARD**

### EN 50125-3

# NORME EUROPÉENNE

# **EUROPÄISCHE NORM**

January 2003

ICS 29.280

Incorporating corrigendum May 2010

English version

# Railway applications Environmental conditions for equipment Part 3: Equipment for signalling and telecommunications

Applications ferroviaires Conditions d'environnement
pour le matériel
Partie 3: Equipement pour la signalisation
et les télécommunications

Bahnanwendungen -Umweltbedingungen für Betriebsmittel Teil 3: Umweltbedingungen für Signalund Telekommunikationseinrichtungen

This European Standard was approved by CENELEC on 2002-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

# **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

© 2003 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 50125-3:2003 E

#### **Foreword**

This European Standard 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 formal vote and was approved by CENELEC as EN 50125-3 on 2002-12-01.

This European Standard was prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports the essential requirements of Directive 96/48/EC.

The following dates were fixed:

 latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement

(dop) 2003-12-01

 latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 2005-12-01

Annexes designated « normative » are part of the body of the standard.

Annexes designated « informative » are given for information only.

In this European Standard, Annexes A and C are normative and Annexes B and D are informative.

#### **Contents**

			Page
1	Scop	e	5
2	Normative references		
3	Definitions		
4	Environmental conditions		7
7	4.1	General	
	4.2	Pressure	
	4.3	Temperature	
	4.4	Humidity	
	4.5	Wind	
	4.6	Rain	11
	4.7	Snow and hail	11
	4.8	lce	11
	4.9	Solar radiation	12
	4.10	Lightning	12
	4.11	Pollution	12
	4.12	Fire protection	13
	4.13	Vibrations and shocks	13
	4.14	Electromagnetic compatibility	15
	4.15	Power supplies	15
Ann	ex A (	normative) Climatograms	16
Ann	ex B (	informative) Examples of $q$ and $c$ factors	22
Ann	ex C (	normative) Vibrations	23
Ann	ex D (	<b>informative)</b> Example of European regions and theirs appropriate climatic classes	27
Ann	ex ZZ	(informative) Coverage of Essential Requirements of EC Directives	28
Bibli	ograp	hy	29
Figu	ıre A.	1 - Temperature and humidity in external ambient	16
Figure A.2 - Temperature and humidity in cubicle		17	
Figu	ıre A.	3 - Temperature and humidity in shelter N.T.C	18
Figu	ıre A.	4 - Temperature and humidity in shelter T.C.	19
Figu	ıre A.	5 - Temperature and humidity in building N.C.C	20
•		6 - Temperature and humidity in building C.C	
•		1 - Power spectral density of vibrations on rail	
		2 - Power spectral density of vibrations on sleeper	
•		3 - Power spectral density of vibrations on ballast	