



NSAI
Standards

Irish Standard
I.S. EN 15220-1:2008+A1:2011

Railway applications - Brake indicators - Part 1: Pneumatically operated brake indicators

I.S. EN 15220-1:2008+A1:2011

Incorporating amendments/corrigenda/National Annexes issued since publication:
EN 15220-1:2008/A1:2011

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:
EN 15220-1:2008

<i>This document is based on:</i> EN 15220-1:2008+A1:2011 EN 15220-1:2008	<i>Published:</i> 23 May, 2011 29 October, 2008
---	---

This document was published under the authority of the NSAI and comes into effect on:
23 May, 2011

ICS number:
45.060.01

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

English Version

Railway applications - Brake indicators - Part 1: Pneumatically operated brake indicators

Applications ferroviaires - Indicateurs de frein - Partie 1:
Indicateurs de frein pneumatiques

Bahnwendungen - Bremsanzeigevorrichtungen - Teil 1:
Pneumatische Bremsanzeiger

This European Standard was approved by CEN on 13 September 2008 and includes Amendment 1 approved by CEN on 3 April 2011.

CEN 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 CEN-CENELEC Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
3.1 General.....	6
3.2 Components	7
3.3 Types of brake indicator	7
3.4 States	7
3.4.1 Service brake.....	7
3.4.2 Parking brake	7
3.8 Abbreviations	8
4 Requirements	8
4.1 Design and manufacturing	8
4.2 Operating conditions.....	9
4.3 Functional characteristics	9
4.3.1 General.....	9
4.3.2 Braking/release status	9
4.3.3 Lubrication	9
4.3.4 Leakage.....	9
4.4 Constructional characteristics	9
4.4.1 External appearance.....	9
4.4.2 Fire/smoke behaviour.....	10
4.4.3 Connections	10
4.4.4 Electric contacts	10
4.4.5 Space envelope.....	10
4.4.6 Indicator window.....	10
4.4.7 Brake indicator weight	11
4.4.8 Mechanical shock and vibration	11
4.4.9 Life expectancy	11
5 Type test methods	11
5.1 Sampling for type test.....	11
5.2 Test requirements.....	11
5.3 Test procedure	11
5.3.1 Principle.....	11
5.3.2 Check of physical and geometrical characteristics	12
5.3.3 Hydraulic test (water pressure) at given pressure	12
5.3.4 Protection against ingress of dust and water.....	13
5.3.5 Insulation test (brake indicators equipped with electrical contacts only).....	14
5.3.6 Dielectric strength (brake indicators equipped with electrical contacts only)	14
5.3.7 Tightness test.....	15
5.3.8 Braking/release status control	17
5.3.9 Vibration test.....	19
5.3.10 Resistance to shock test.....	19
5.3.11 Endurance at ambient temperature test.....	19
5.3.12 Corrosion test	20
5.3.13 Fire/smoke behaviour.....	20
5.3.14 Examination.....	21
5.4 Approval validity	21
5.5 Type test report.....	21

6	Homologation testing	21
6.1	General	21
6.2	Service trial	21
6.3	Sample	22
6.4	Previous tests	22
6.5	Tests responsibility	22
6.5.1	Procedure	22
6.5.2	Pass/fail criteria	22
6.6	Homologation test report	22
7	Routine tests	22
8	Designation	23
9	Marking and packaging	23
9.1	Marking	23
9.2	Packing and protection	23
Annex A	(informative) Brake indicator and parking brake indicator overall dimensions	24
Annex ZA	(informative) ^(A1) Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community (Recast) ^(A1)	29
Figures		
Figure 1	— Standard nozzle	14
Figure 2	— Air tightness equipment	15
Figure 3	— Tightness cycle test	16
Figure 4	— Tightness cycle test	16
Figure 5	— Braking/release status control equipment	18
Figure 6	— Braking/release cycle test	18
Figure 7	— Endurance cycle test	20
Figure A.1	— Single brake indicator and single parking brake indicator overall dimensions	24
Figure A.2	— Single brake indicator and single parking brake indicator with switch overall dimensions	25
Figure A.3	— Double brake indicator and double parking brake indicator overall dimensions	26
Figure A.4	— Single brake indicator and single parking brake indicator overall dimensions	27
Figure A.5	— Double brake indicator and double parking brake indicator overall dimensions with uncertain braking status indication	28
Tables		
Table 1	— Operations to be carried out for conformity assessment	12
Table 2	— Leakage permitted at test temperatures	16
Table 3	— Leakage permitted at test temperatures	17
Table 4	— Test programme	23
Table ZA.1	— Correspondence between this European Standard, the HS TSI RST published in the OJEU dated 26 March 2008 and Directive 2008/57/EC	30
Table ZA.2	— Correspondence between this European Standard, the CR TSI RST Freight Wagons dated July 2006, published in the OJEU on 8 December 2006 and its intermediate revision published in the OJEU on 14 February 2009 and Directive 2008/57/EC	31

**Table ZA.3 – Correspondence between this European Standard, the CR LOC and PASS RST TSI
(ST05EN05 dated 2010.06.10 accepted by RISC) and Directive 2008/57/EC..... 32**

Foreword

This document (EN 15220-1:2008+A1:2011) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2011, and conflicting national standards shall be withdrawn at the latest by November 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1, approved by CEN on 2011-04-03.

This document supersedes EN 15220-1:2008.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

A1 This document has been prepared under a mandate given to CEN/CENELEC/ETSI by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2008/57/EC.

For relationship with EU Directive 2008/57/EC, see informative Annex ZA, which is an integral part of this document. A1

This series of European Standards *Railway applications — Brake indicators* consists of:

- *Part 1: Pneumatically operated brake indicators*
- *Part 2: Electrically operated brake indicators*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-