



SLOVENSKI STANDARD
SIST EN 15355:2019/oprA1:2021

01-november-2021

Železniške naprave - Zavore - Krmilni ventili in naprave za ločitev krmilnih ventilov od zavrnega voda - Dopolnilo A1

Railway applications - Braking - Distributor valves and distributor-isolating devices

Bahnanwendungen - Bremse - Steuerventile und Bremsabsperreinrichtungen

Applications ferroviaires - Freinage - Distributeurs de freinage et robinet d'isolement

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Ta slovenski standard je istoveten z: EN 15355:2019/prA1

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ICS:

45.040 Materiali in deli za železniško Materials and components
tehniko for railway engineering

SIST EN 15355:2019/oprA1:2021

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 15355:2019
prA1

September 2021

ICS 45.060.01

English Version

Railway applications - Braking - Distributor valves and distributor-isolating devices

Applications ferroviaires - Freinage - Distributeurs de freinage et robinet d'isolement

Bahnwendungen - Bremse - Steuerventile und Bremsabsperreinrichtungen

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 256.

This draft amendment A1, if approved, will modify the European Standard EN 15355:2019. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 15355:2019/prA1:2021) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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EN 15355:2019/prA1:2021 (E)**1 Modification to European foreword**

Change “EU Directive 2008/57/EC” to “Directive (EU) 2016/797”.

2 Modification to 6.3.1, General

Change 5th paragraph:

“For other distributor valves, designed for dual pipe application only, where the auxiliary reservoir volume is supplied by the main reservoir pipe (MRP) only, the tests shall be performed with supply from the main reservoir pipe.”

to

“For other distributor valves, designed for dual pipe application only, where the auxiliary reservoir volume is supplied by the main reservoir pipe (MRP) only, the tests shall be performed with supply from the main reservoir pipe at a pressure of $(10,00 \pm 0,50)$ bar.”

3 Modification to 6.3.5.3, Pass/fail criteria

Change sentence:

“The pass/fail criteria shall be in accordance with those of the referred tests except for the maximum output pressure and build-up and release times. The tolerance of $\pm 20\%$ of the nominal values of build-up and release time and output pressure is allowed when the input pressure is $(4,00 + 0,10/-0)$ bar and $(6,00 + 0/-0,10)$ bar.”

to the following text and new Table 2: (standards.iteh.ai)

“For distributor valves for which output pressure is limited in an absolute manner (i.e; independent from the input pressure and in consequence from the pressure level in the control chamber as long as the pressure in the auxiliary reservoir is sufficient to reach the maximum output pressure), the pass/fail criteria shall be in accordance with those of the referred tests.

For distributor valves for which output pressure is controlled by the control chamber pressure (i.e; proportional to the input pressure), the pass/fail criteria shall be in accordance with those of the referred tests except for the maximum output pressure and build-up and release times. A proportional rescaling related to the nominal working pressure shall be applied to the nominal values shown in 6.3.8.1 for build-up and release time and output pressure, as follows:

The maximum output pressure, build-up time and release time for nominal input pressures 4 bar and 6 bar for emergency braking shall be in accordance with Table 2.

Table 2 — Values for emergency braking

Input pressure		(4,00 + 0,10/-0,00) bar	(6,00 + 0,00/-0,10) bar
Maximum output pressure for emergency braking	Brake mode		
	G and P	(3,04 ± 0,10) bar	(4,56 ± 0,10) bar
Build-up time of the output pressure ^a	G	(19,2 ± 6,0) s	(28,8 ± 6,0) s
	P	(3,2 ± 1,0) s	(4,8 ± 1,0) s
Release time of the output pressure ^b	G	(42,0 ± 7,5) s	(63,0 ± 7,5) s
	P	(14,0 ± 2,5) s	(21,0 ± 2,5) s
^a The build-up time is defined for brake cylinder pressure.			
^b The release time is defined for pilot volume.			

4 Modification to 6.3.8.1 Requirements

Change text:

“Maximum output pressure for emergency braking shall be (3,80 ± 0,10) bar.

Build-up time of the output pressure depending on the brake mode shall be:

- G: 18 s to 30 s;
- P: 3 s to 5 s.

The build-up time is defined for brake cylinder pressure.

Release time of the output pressure depending on the brake mode shall be:

- G: 45 s to 60 s;
- P: 15 s to 20 s.”

to:

“Maximum output pressure for emergency braking shall be (3,80 ± 0,10) bar.

Build-up time of the output pressure depending on the brake mode shall be:

- G: (24,0 ± 6,0) s;
- P: (4,0 ± 1,0) s.

The build-up time is defined for brake cylinder pressure.

Release time of the output pressure depending on the brake mode shall be:

- G: (52,5 ± 7,5) s;
- P: (17,5 ± 2,5) s.”

EN 15355:2019/prA1:2021 (E)

5 Modification to 6.3.16.1, Requirements

After the third paragraph

“Brake supply pressure storage (auxiliary reservoir pressure) and input pressure (brake pipe pressure) should not be affected by operating the manual release function.”

add new paragraph:

“The release handle shapes shall be in accordance with Annex D.”

6 Modification to 6.3.21.2, Tests

Change Pass/fail criterion

“All specifications required for testing shall be met with no other source for supply pressure than charging via the distributor valve at ambient temperature.”

to

“All specifications required for testing shall be met at ambient temperature as if the supply pressure were charged via the distributor valve only.”

7 Creation of Annex D

Add a new Annex D as follows:

“

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Annex D

(normative)

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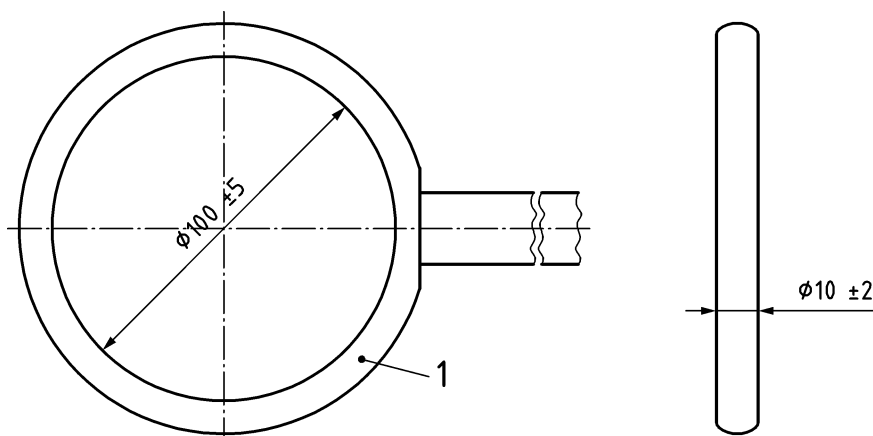
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Handles for the activation of manual release functions

If the activation of the non-automatic manual release function is via a pull handle, the handle shall be in accordance with Figure D.1 or Figure D.2.

Dimensions in millimetres

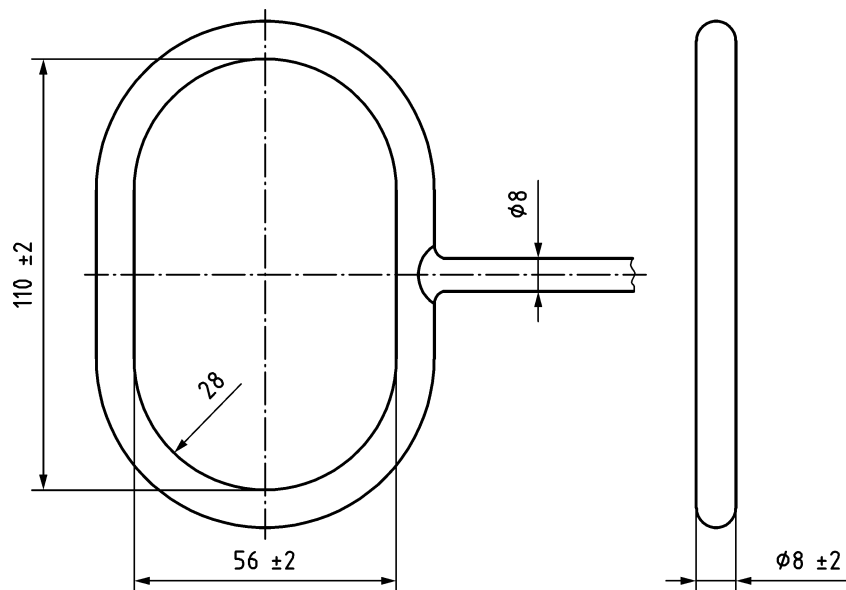


Key

1 handle

Figure D.1 — Handle with round shape for the activation of the non-automatic manual release

Dimensions in millimetres



Key

- 1 handle

Figure D.2 — Handle with oval shape for the activation of the non-automatic manual release

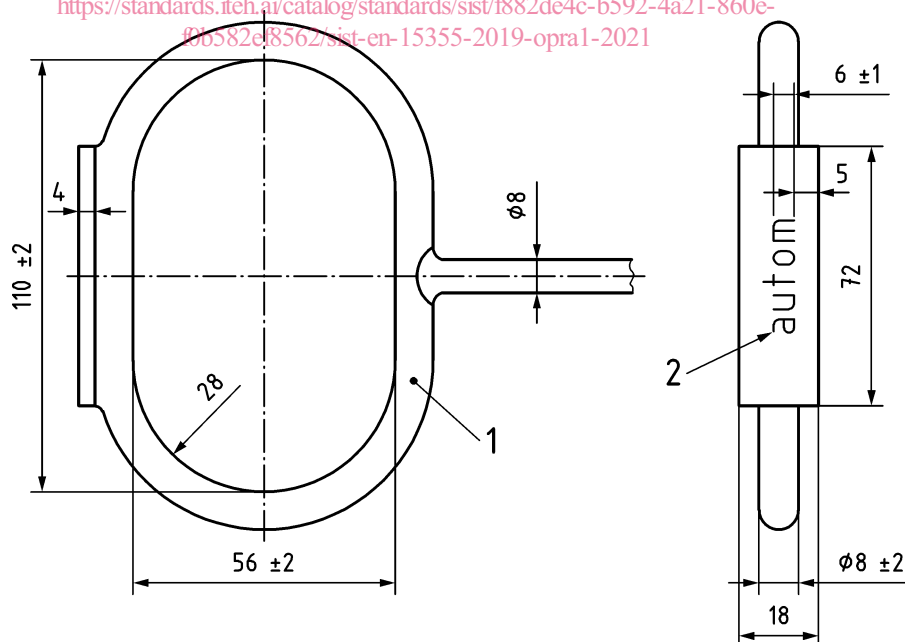
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Figure D.3 shows the handle for the activation of the automatic manual release function. The key mandatory feature is the operation interface as an oval and the attached plate bearing the text „autom“ as exalted or engraved letters.

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Dimensions in millimetres



Key

- 1 handle
2 embossed letters

Figure D.3 — Handle for the activation of the automatic manual release”

EN 15355:2019/prA1:2021 (E)

8 Modifications to Annex ZA

Replace Annex ZA by the following:

“

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of Directive (EU) 2016/797 aimed to be covered

This European Standard has been prepared under a Commission's standardization request "M/483 Mandate to CEN and CENELEC for Standardisation in the field of interoperability of the rail system" to provide one voluntary means of conforming to (parts of) Essential Requirements of Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on interoperability of the rail system (recast) as specified in the relevant technical specifications for interoperability (TSI).

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 for locomotives and passenger rolling stock confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive as specified in the technical specifications for interoperability (TSI), and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard, Commission regulation (EU) No 1302/2014 concerning the technical specification for interoperability relating to the 'rolling stock — locomotives and passenger rolling stock' subsystem of the rail system in the European Union* and Directive (EU) 2016/797

Essential Requirements of Directive (EU) 2016/797	Clauses of the Annex to the Technical Specification for Interoperability (TSI)	Clauses/subclauses of this European Standard	Comments
Section 3 of the Annex to the TSI indicates the correspondence between the TSI clauses and the Essential Requirements of Directive (EU) 2016/797	4.2.4.2.1 Functional requirements, (4)	6.3.5 Normal working pressure 6.3.6 Released and stand by position 6.3.7 Maximum output pressure in relation to input pressure reduction	
	4.2.4.2.1 Functional requirements, (10)	6.3.3 Inexhaustibility	
	4.2.4.3 Type of brake system, (1)	5 Requirements to function, design and manufacturing 6 Functional requirements and Type tests	
	4.2.6.1. Environmental conditions — General	5.8 Environmental conditions	