



NSAI
Standards

Irish Standard Recommendation
S.R. CLC/TS 50703-2:2020

Lightning Protection System Components (LPSC) - Part 2: Specific testing requirements for LPS components used in explosive atmospheres

S.R. CLC/TS 50703-2:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

CLC/TS 50703-2:2020

Published:

2020-12-04

*This document was published
under the authority of the NSAI
and comes into effect on:*

2020-12-21

ICS number:

91.120.40

NOTE: If blank see CEN/CENELEC cover page

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

National Foreword

S.R. CLC/TS 50703-2:2020 is the adopted Irish version of the European Document CLC/TS 50703-2:2020, Lightning Protection System Components (LPSC) - Part 2: Specific testing requirements for LPS components used in explosive atmospheres

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

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

TECHNICAL SPECIFICATION

CLC/TS 50703-2

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

December 2020

ICS 91.120.40

English Version

Lightning Protection System Components (LPSC) - Part 2: Specific testing requirements for LPS components used in explosive atmospheres

Composants des systèmes de protection contre la foudre
(CSPF) - Part 2: Exigences d'essais spécifiques relatives
aux composants des SPF utilisés dans les atmosphères
explosives

Blitzschutzsystembauteile (LPSC) - Teil 2: Besondere
Prüfanforderungen an Blitzschutzsystembauteile zur
Verwendung in explosionsgefährdeten Bereichen

This Technical Specification was approved by CENELEC on 2020-11-09.

CENELEC members are required to announce the existence of this TS in the same way as for an EN and to make the TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force.

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



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

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

CLC/TS 50703-2:2020 (E)**Contents**

European foreword	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Classification of (Ex-LPSC) used in ATEX	6
5 Requirements	7
5.1 General	7
5.2 Lightning current carrying capability	7
5.3 Installation instructions	7
5.4 Marking	7
6 Tests	8
6.1 General condition on tests	8
6.2 Test preparation	8
6.2.1 Arrangement of the specimen	8
6.2.2 Conditioning/ageing	9
6.2.3 Composition of the test gas mixture	10
6.3 Electrical test	10
6.3.1 Lightning current test	10
6.3.2 Acceptance criteria	10
6.4 Installation instructions	11
6.4.1 General conditions for tests	11
6.4.2 Acceptance criteria	12
6.5 Marking test	12
6.5.1 General	12
6.5.2 Acceptance criteria for marking completeness	12
6.5.3 Acceptance criteria for marking durability and legibility	12
7 Structure and content of the test report	12
7.1 General	12
7.2 Report identification	13
7.3 Specimen description	13
7.4 Conductor	13
7.5 Standards and references	13
7.6 Test procedure	14
7.7 Testing equipment description	14
7.8 Measuring instruments description	14
7.9 Results and parameters recorded	14
7.10 Statement of pass/fail	14
Annex A (normative) Conditioning/ageing Ex-LPSC	15
A.1 General	15
A.2 Salt mist test	15
A.3 Humid sulphurous atmosphere test	15
A.4 Ammonia atmosphere treatment	15
Annex B (informative)	16
B.1 Specimens according to EN 62561-1	16

CLC/TS 50703-2:2020 (E)

B.2 Typical arrangements for various connection components.....	17
B.3 Specimens according to EN 62561-2.....	18
B.4 Specimens according to EN 62561-3.....	19
B.5 Specimens according to EN 62561-4.....	20
B.6 Specimens according to EN 62561-6.....	21
Annex C (normative) Composition of potentially explosive mixtures	22
Annex D (normative) Summary of the requirements and corresponding tests	23
Annex E (normative) Flow chart of tests of connection components for explosive atmosphere (Ex-LPSC)	24
Bibliography	25

CLC/TS 50703-2:2020 (E)

European foreword

This document (CLC/TS 50703-2:2020) has been prepared by CLC/TC 81X “Lightning protection”.

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

1 Scope

This document defines the requirements and tests relevant to Lightning Protection System Components suitable for explosive atmospheres (Ex-LPSC).

NOTE This document does not consider EX-LPS Components certified according to EN 60079 series. If a product has already been tested according to ATEX, it does not have to be tested again according to CLC/TS 50703-2.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60068-2-52:1996, *Environmental testing - Part 2: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)* (IEC 60068-2-52:1996)

EN 62561-1:2017, *Lightning Protection System Components (LPSC) - Part 1: Requirements for connection components* (IEC 62561-1:2017)

EN 62561-2, *Lightning Protection System Components (LPSC) - Part 2: Requirements for conductors and earth electrodes* (IEC 62561-2)

EN 62561-3, *Lightning Protection System Components (LPSC) - Part 3: Requirements for isolating spark gaps (ISG)* (IEC 62561-3)

EN 62561-4, *Lightning protection system components (LPSC) - Part 4: Requirements for conductor fasteners* (IEC 62561-4)

EN 62561-6, *Lightning protection system components (LPSC) - Part 6: Requirements for lightning strike counters (LSC)* (IEC 62561-6)

EN IEC 60079-0:2018, *Explosive atmospheres - Part 0: Equipment - General requirements* (IEC 60079-0:2018)

EN ISO 6988:1994, *Metallic and other non-organic coatings - Sulfur dioxide test with general condensation of moisture* (ISO 6988:1985)

ISO 6957:1988, *Copper alloys — Ammonia test for stress corrosion resistance*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at <http://www.electropedia.org/>

— ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

Ex-LPSC

lightning protection system component suitable of being used in explosive atmosphere, such as connection components, conductors, isolating spark gaps, conductor's fasteners, lightning strike counters

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
-