



NSAI
Standards

Irish Standard
I.S. EN IEC 60974-5:2019

Arc welding equipment - Part 5: Wire feeders

I.S. EN IEC 60974-5:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN IEC 60974-5:2019 is the adopted Irish version of the European Document EN IEC 60974-5:2019, Arc welding equipment - Part 5: Wire feeders

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EUROPEAN STANDARD

EN IEC 60974-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2019

ICS 25.160.30

Supersedes EN 60974-5:2013

English Version

**Arc welding equipment - Part 5: Wire feeders
(IEC 60974-5:2019)**

Matériel de soudage à l'arc - Partie 5: Dévidoirs
(IEC 60974-5:2019)

Lichtbogenschweißrichtungen - Teil 5:
Drahtvorschubgeräte
(IEC 60974-5:2019)

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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

EN IEC 60974-5:2019 (E)

European foreword

The text of document 26/672/FDIS, future edition 4 of IEC 60974-5, prepared by IEC/TC 26 "Electric welding" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60974-5:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-12-06
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-03-06

This document supersedes EN 60974-5:2013.

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The text of the International Standard IEC 60974-5:2019 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-195	-	International Electrotechnical Vocabulary - Part 195: Earthing and protection against electric shock	-	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
			+ corrigendum May	1993
			+ A1	2000
			+ A2	2013
			+ AC	2016
IEC 60974-1	2017	Arc welding equipment - Part 1: Welding power sources	EN IEC 60974-1	2018
+ A1	2019		+ A1	2019
IEC 60974-7	-	Arc welding equipment - Part 7: Torches	-	2017
IEC 60974-10	-	Arc welding equipment - Part 10: Electromagnetic compatibility (EMC) requirements	EN 60974-10	2014
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	2016

EN IEC 60974-5:2019 (E)

Annex ZZ

(informative)

Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European Standard has been prepared under a Commission's standardization request relating to harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

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 ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

Table ZZ.1 – Correspondence between this European standard and Annex I of Directive 2014/35/EU [2014 OJ L96]

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
1(a)	Clauses 12, 14	
1(b)	Clause 14.1	
1(c)	Clauses 1, 3, 4 see also points 2 and 3 below	Testing during periodic maintenance or after repair is covered in separate standards
2(a)	Clauses 6.1, 6.2, 6.3, 6.4, 6.5, 6.7, 6.8, 6.9, 6.10, 14.1 d) and i), 14.2	
2(b)	Clauses 5.3, 6.1, 6.2, 6.3, 6.4, 6.5, 6.8, 6.10, 9	Hazards arising from electric, magnetic, and electromagnetic fields, other ionizing and non-ionizing radiation are covered in separate standards
2(c)	Clauses 6.2.1, 6.2.2, 7, 8, 10, 11, 14.1 h)	
2(d)	Clause 6.1	
3(a)	Clause 11.1, 11.4, 11.5, 11.6.1	
3(b)	Clauses 4, 5.1 i), 11.2, 14.1 p)	Functional safety is covered in separate standards Safety-related security is covered in separate standards
3(c)	Clause 10	

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WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.



IEC 60974-5

Edition 4.0 2019-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Arc welding equipment –
Part 5: Wire feeders**

**Matériel de soudage à l'arc –
Partie 5: Dévidoirs**





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La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

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IEC 60974-5

Edition 4.0 2019-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Arc welding equipment –
Part 5: Wire feeders**

**Matériel de soudage à l'arc –
Partie 5: Dévidoirs**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARC WELDING EQUIPMENT –

Part 5: Wire feeders

FOREWORD

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International Standard IEC 60974-5 has been prepared by IEC technical committee 26: Electric welding.

This fourth edition cancels and replaces the third edition published in 2013 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- changes induced by the publication of IEC 60974-1:2017;
- addition of requirements for welding circuit connections in 6.9;
- clarification of requirements and conformity in 6.3.1;
- clarification of thermal requirements in Clause 9;
- addition of requirements in relation to abnormal operation in Clause 10.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
26/672/FDIS	26/677/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this document, the following print types are used:

- conformity statements: in *italic* type.
- terms used throughout this document which have been defined in Clause 3: in SMALL CAPITALS.

This International Standard is to be used in conjunction with IEC 60974-1:2017.

A list of all parts in the IEC 60974 series, published under the general title *Arc welding equipment*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

ARC WELDING EQUIPMENT –

Part 5: Wire feeders

1 Scope

This part of IEC 60974 specifies safety and performance requirements for industrial and professional equipment used in arc welding and allied processes to feed filler wire.

This document is applicable to WIRE FEEDERS and to WIRE-FEED CONTROLS that are stand-alone (separate from the welding equipment), housed together in a single enclosure or housed in a single enclosure with other welding equipment. The WIRE FEEDER can be suitable for manually or mechanically guided torches.

This document is not applicable to spool-on torches, which are covered by IEC 60974-7.

NOTE 1 Typical allied processes are electric arc cutting and arc spraying.

NOTE 2 This document does not include electromagnetic compatibility (EMC) requirements, which are given in IEC 60974-10.

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.

IEC 60050-195, *International Electrotechnical Vocabulary (IEV) – Part 195: Earthing and protection against electric shock*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60974-1:2017, *Arc welding equipment – Part 1: Welding power sources*
IEC 60974-1:2017/AMD1:2019

IEC 60974-7, *Arc welding equipment – Part 7: Torches*

IEC 60974-10, *Arc welding equipment – Part 10: Electromagnetic compatibility (EMC) requirements*

IEC 61140, *Protection against electric shock – Common aspects for installation and equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-195, IEC 60974-1, IEC 60974-7, and the following apply.

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