



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN ISO 128-2:2020

Technical product documentation (TPD) - General principles of representation - Part 2: Basic conventions for lines (ISO 128-2:2020)

Technische Produktdokumentation
(TPD) - Allgemeine Grundlagen der
Darstellung - Teil 2: Linien, Grundregeln
(ISO 128-2:2020)

Documentation technique de produits
(TPD) - Principes généraux de
représentation - Partie 2 : Conventions de
base pour les traits (ISO 128-2:2020)

08/2020



National Foreword

This European Standard EN ISO 128-2:2020 was adopted as Luxembourgish Standard ILNAS-EN ISO 128-2:2020.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

EUROPEAN STANDARD ^{ILNAS-EN ISO 128-2:2020} **EN ISO 128-2**
 NORME EUROPÉENNE
 EUROPÄISCHE NORM

August 2020

ICS 01.100.01

Supersedes EN ISO 128-20:2001, EN ISO 128-21:2001

English Version

Technical product documentation - General principles of representation - Part 2: Basic conventions for lines (ISO 128-2:2020)

Documentation technique de produits - Principes généraux de représentation - Partie 2: Conventions de base pour les traits (ISO 128-2:2020)

Technische Produktdokumentation (TPD) - Allgemeine Grundlagen der Darstellung - Teil 2: Linien, Grundregeln (ISO 128-2:2020)

This European Standard was approved by CEN on 2 July 2020.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 128-2:2020) has been prepared by Technical Committee ISO/TC 10 "Technical product documentation" in collaboration with Technical Committee CEN/SS F01 "Technical drawings" the secretariat of which is held by CCMC.

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 February 2021, and conflicting national standards shall be withdrawn at the latest by February 2021.

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

This document supersedes EN ISO 128-20:2001 and EN ISO 128-21:2001.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 128-2:2020 has been approved by CEN as EN ISO 128-2:2020 without any modification.

Technical product documentation (TPD) — General principles of representation —

Part 2: Basic conventions for lines

*Documentation technique de produits (TPD) — Principes généraux de
représentation —*

Partie 2: Conventions de base pour les traits



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Types of lines	3
4.1 General.....	3
4.2 Basic types.....	3
4.3 Line sub types.....	4
4.4 Variations of the basic types of lines.....	4
4.5 Combinations of lines with the same length.....	4
4.5.1 Arrangement of two or more lines parallel to each other.....	4
4.5.2 Arrangement of two different types of lines.....	5
4.5.3 Arrangement of two continuous lines parallel to each other with regularly recurring connecting elements between them.....	5
4.5.4 Arrangement of regularly recurring geometric pictorial elements in association with continuous lines.....	5
5 Line dimensions	6
5.1 Line width.....	6
5.2 Deviation in line width.....	6
5.3 Configuration of lines.....	6
6 Draughting of lines	7
6.1 Spacing.....	7
6.2 Junctions.....	7
6.2.1 Types.....	7
6.2.2 Representation.....	9
6.3 Location of a second line.....	10
6.4 Hierarchy of overlapping lines.....	10
7 Colours	11
8 Designation	11
9 Basic conventions and applications for leader lines and reference lines	11
9.1 Presentation of leader lines.....	11
9.2 Representation of reference lines.....	14
9.3 Indication of instructions.....	15
Annex A (informative) Preparation of lines by CAD systems	17
Annex B (normative) Lines on construction technical drawings	30
Annex C (informative) Examples of application on construction technical drawings	33
Annex D (normative) Types of lines and their application on mechanical engineering technical drawings	39
Annex E (informative) Examples of application on mechanical engineering technical drawings	43
Annex F (normative) Types of lines and their application on shipbuilding technical drawings	56
Annex G (informative) Application examples of the different types of lines on shipbuilding technical drawings	58
Bibliography	69

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*.

This first edition cancels and replaces the following documents:

- ISO 128-20:1996
- ISO 128-21:1997
- ISO 128-22:1999
- ISO 128-23:1999
- ISO 128-24:2014
- ISO 128-25:1999

The main changes to these documents are as follows:

- harmonization of the former parts listed above;
- introduction of the hierarchy of overlapping lines.

A list of all parts in the ISO 128 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.